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*2011-2012 UNDERGRADUATE CATALOG*

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# The University



## The University

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Welcome to Western Kentucky University (WKU), home of the Hilltoppers. Our hilltop campus is a place of beauty and friendliness. It embraces a proud heritage and a bold, ambition future. WKU is located in Bowling Green, Kentucky, a city with a population of more than 50,000 approximately 110 miles south of Louisville and 65 miles north of Nashville, TN. Located on a hill overlooking the city of Bowling Green, the WKU campus is acclaimed as one of the most beautiful in the nation. The portion of the campus known as College Heights commands an impressive view of the Barren River Valley and is a distinctive landmark of the city. Visit [www.wku.edu/tour.html](http://www.wku.edu/tour.html) for a virtual campus tour. In addition to the main campus, WKU also has facilities south of the main campus on 31-W that include; The South Campus, The Center for Research and Development, and The University Farm. Outside of Bowling Green, WKU has regional campuses in Glasgow KY, Owensboro KY and facilities that serve the Elizabethtown/Radcliff and Ft Knox KY area.

WKU's undergraduate division provides four-year programs leading to the Bachelor of Arts, the Bachelor of Fine Arts, the Bachelor of Interdisciplinary Studies, the Bachelor of Science, the Bachelor of Science in Nursing, the Bachelor of Music, and the Bachelor of Social Work degrees. Ninety-five (95) academic majors that lead to the baccalaureate degree and ninety-six (96) academic minors are available. A number of professional and pre-professional curricula provide additional options.

Sixteen (16) associate degree programs are offered leading to the Associate of Arts degree, Associate of Science degree, Associate of Applied Science and Associate of Interdisciplinary Studies degree. Twenty (23) undergraduate certificate programs are also offered.

Graduate Studies offers the Master of Arts, Master of Arts in Education, Master of Business Administration, Master of Health Administration, Master of Public Administration, Master of Public Health, Master of Science, Master of Science in Nursing and Master of Social Work. WKU also offers the specialist degree and Rank I and II programs and several certificate programs. Doctoral degree programs are offered in Educational Leadership, and Nursing Practice. Consult the Graduate Studies Catalog for further information.

## History

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On March 21, 1906 the Kentucky General Assembly approved legislation to establish two teacher training institutions, or "normal schools," in the state. A locating commission chose Bowling Green to be the site of one, and the Western Kentucky State Normal School was created. The new state-supported school took over the building and student body of the privately owned Southern Normal School. The owner of the Southern Normal School, Henry Hardin Cherry, had been actively involved in the campaign to establish teacher training schools and became the institution's first president. Classes began on January 22, 1907.

On February 4, 1911 the school moved to its present site on "the Hill," approximately 125 feet above downtown Bowling Green and formerly the site of the Pleasant J. Potter College. Over the next decade, the curriculum focused on teacher training and certification. In 1922, the state renamed the institution Western Kentucky State Normal School and Teachers College and authorized it to grant four-year degrees. The first such degrees were awarded in 1924.

The campus expanded in 1927, when it merged with Ogden College, a private school for young men located on the east side of the Hill. The name was shortened to Western Kentucky State Teachers College in 1930, and the following year the first graduate degree was offered.

In the 1950s and 1960s, both the curriculum and campus underwent major reorganization and expansion. In 1963, the institution merged with the Bowling Green College of Commerce. Along with the graduate school, the Bowling Green College of Commerce became a separate college within the academic structure. In 1965, the Board of Regents approved the formation of three more colleges: the Potter College of Liberal Arts, the College of Education, and the Ogden College of Science and Technology. On June 16, 1966, Western Kentucky State College became Western Kentucky University.

More colleges and reorganization followed throughout the years as WKU continued to expand. The Bowling Green Community College was established in 1986. The College of Health and Human Services was established in 2002, and the Division of Extended Learning and Outreach launched in 2003. An administrative unit since 1994, University College was reorganized in 2009 as an academic unit; it now houses those units and programs formerly part of the Bowling Green Community College, and serves as the administrative home of WKU's regional campus programs (see below). In 2008, the WKU Board of Regents approved creation and development of a fully-independent Honors

## The University

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College at WKU. In 2011 the first doctoral degrees were awarded through the College of Education and Behavioral Sciences.

WKU's current six academic colleges are:

- College of Education and Behavioral Sciences
- College of Health and Human Services
- Gordon Ford College of Business
- Ogden College of Science and Engineering
- Potter College of Arts and Letters
- University College

In addition, the Honors College offers high-achieving students the environment of a small, highly selective college within the framework of the larger university.

### The Vision, Mission, Statement of Purpose, and Core Values of Western Kentucky University

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#### Vision

WKU – A leading American university with international reach.

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#### Mission

Western Kentucky University prepares students to be productive, engaged, and socially responsible citizen-leaders of a global society. It provides research, service, and lifelong learning opportunities for its constituents. WKU is responsible for stewarding a high quality of life for those within its reach.

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#### Statement of Purpose

As a nationally prominent university, WKU is engaged internationally in acclaimed, technologically driven academic programs. An inspiring and talented faculty promotes a high level of scholarship and an entrepreneurial attitude leading to success for all within WKU's reach. The WKU experience occurs on a unique campus and through a spirit that attracts an intellectually exciting and diverse family of the nation's best students.

WKU provides students with rigorous academic programs in education, the liberal arts and sciences, business, and traditional and emerging professional programs, with emphasis at the baccalaureate level, complemented by relevant associate and graduate-level programs.

The University places a premium on teaching and student learning. Its faculty engage in creative activity and diverse scholarship, including basic and applied research, designed to expand knowledge, improve instruction, increase learning, and provide optimum service to the state and nation. The University directly supports its constituents in its designated service areas of Kentucky with professional and technical expertise, cultural enrichment, and educational assistance. The University encourages applied research and public service in support of economic development, quality of life, and improvement of education at all levels, especially elementary and secondary schools. In particular, WKU faculty and staff contribute to the identification and solution of key social, economic, scientific, health, and environmental problems within its reach, but particularly throughout its primary service area.

Maintaining a campus of distinctive history and character, WKU sustains a student population of increasing quality. It fulfills its responsibility for access through its extended campus programs and distance learning.

WKU's commitment is to ensure value in a holistic learning experience through high standards for student achievement and conduct, a strong faculty, technological innovation, personalized attention, broad access, and public accountability for actions and outcomes. Out-of-classroom experiences are intentionally created to enhance learning, to promote diversity, and to contribute to the success of students.

WKU recognizes that its mission continues to evolve in response to regional, national, and global changes, and the need for lifelong learning.

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#### Core Values

Shared purposes and beliefs drive the decisions and actions of any organization or institution. The core values that undergird the foundations of WKU are reflected in the University's vision, mission, and purpose statements, and in the goals of the strategic plan. The rich heritage that is WKU's has been built upon a foundation of shared values that have withstood the test of time and the challenges of many changes. These values are deeply embedded in the words of WKU's first President, Dr. Henry Hardin Cherry, as he set forth a vision for this University—

- to be a live school and to impart to its students a burning zeal to do and be something...
- to be progressive, to use modern methods and equipment, but reject all worthless educational fads...

- to let the reputation of the school be sustained by real merit...
- to “ring the rising bell in the human soul” by inspiring all students who come in touch with the work of the institution...

This vision is further reflected in Dr. Cherry’s oft-quoted reminder that “It’s what’s above the rim that counts” and in the two University ideals expressed in the University seal: “Life More Life” and the University motto: “The Spirit Makes the Master.”

Building upon these long-lasting values, the following core values represent a reaffirmation of the shared purposes and beliefs upon which this strategic plan is built:

- Emphasis on cooperation, teamwork, and mutual respect for individual differences in scholarship, diversity, and culture.
- Expectation for all conduct to be characterized by integrity, honesty, and commitment to high moral and ethical values and principles.
- Commitment to assuring quality of programs, competence of graduates, and opportunities for lifelong learning.
- A view of scholarly endeavors that includes teaching, research, and creative activities as mutually supportive.
- Encouragement of meaningful and active partnerships among students, faculty, staff, and constituents to strengthen the learning environment.
- Nurturing of innovative and creative activities of faculty, staff, and students that advance University mission and goals.
- Dedication to the importance of achieving excellence in all programs and for adding value to the degrees and credentials of our students.
- Commitment to providing a collegiate experience that prepares students to be informed, engaged, and dedicated citizens.
- Commitment to contributing to improved quality of life and economic well-being of Kentuckians, especially those in our primary service area, as well as other constituents and stakeholders.
- Commitment to developing empowered, informed, and responsible learners who recognize both the personal and shared responsibility to actively participate in university life by upholding the principles of the University Creed.

## Accreditations and Memberships

Western Kentucky University is accredited by Southern Association of Colleges & Schools, Commission on Colleges (SACS, COC) to award associate, baccalaureate, master, specialist, and doctoral degrees. For questions regarding accreditation individuals may contact the Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, or call (404) 679-4500.

WKU is a member of:

- American Association of Colleges and Universities (AAC&U)
- American Association of Colleges for Teacher Education (AACTE)
- American Association of State Colleges and Universities (AASCU)
- American Council on Education (ACE)
- Association for Continuing Higher Education (ACHE)
- Association of Collegiate Conference and Events Directors-International (ACCED-I)
- Association of Schools of Allied Health Professionals (ASAHP)
- Association of Schools of Journalism & Mass Communication (ASJMC)
- College and University Professional Association for Human Resources (CUPA-HR)
- Council on College and Military Educators (CCME)
- Institute of International Education (IIE)
- Kentucky Association for Continuing Higher Education (KY, ACHE)
- National Alliance for Concurrent Enrollment Partnerships (NACEP)
- National Association for School Psychologists (NASP)
- National Association of Schools, Public Affairs and Administration (NASPAA)
- National Collegiate Honors Council (NCHC)
- North American Association of Summer Sessions (NAASS)
- Southern Regional Education Board (SREB)
- The Renaissance Group (TRG)

### Programs' Accreditation:

**Business:** The Association to Advance Collegiate Schools of Business (AACB International)

**Chemistry:** American Chemical Society (ACS)

**Counseling and Student Affairs:** Council for Accreditation of Counseling and Related Educational Programs (CACREP)

**Dental Hygiene:** Commission on Dental Accreditation for American Dental Association (CODA-ADA)

**Dietetics:** American Dietetic Association Commission on Accreditation for Dietetics Education (CADE-ADA)

**Early Childhood:** National Association for the Education of Young Children (NAEYC)

**Education:** National Council for Accreditation of Teacher Education (NCATE), and Kentucky's Educational Professional Standards Board (EPSB)

**Engineering:** Engineering Accreditation Commission/Accreditation Board for Engineering and Technology (EAC/ABET)

**Health Informatics:** Commission on Accreditation for Health Informatics and Information Management Education (CAHIM)

**Journalism:** Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)

**Library:** American Association for School Librarians (AASL)

**Music:** National Association of Schools of Music (NASM) Commission on Accreditation

**Nursing:** Commission on Collegiate Nursing Education (CCNE), American Association of Colleges of Nursing (AACN), and National League for Nursing Accrediting Commission (NLNAC)

**Paralegal:** American Bar Association (ABA)

**Public Health:** Council on Education for Public Health (CEPH)

**Recreation and Parks:** Council on Accreditation of Parks, Recreation, Tourism and Related Professions (COAPRT)

**Social Work:** Council on Social Work Education (CSWE)

**Speech Pathology:** Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA)

**Technology, Management and Applied Engineering:** The Association of Technology, Management, and Applied Engineering (ATMAE)

**Theatre:** National Association of Schools of Theatre (NAST) Commission on Accreditation

**University Notices****Notification of Rights: Family Educational Rights and Privacy Act (FERPA)**

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records, including:

1. The right to inspect and review the student's education records within 45 days of the day the University receives a request for access. Students should submit to the registrar, dean, head of the academic department, or other appropriate official, a written request that identifies the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading. Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for an amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent, including:
  - a) Disclosure without the student's consent is permissible to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Regents; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.
  - b) FERPA allows the institution to routinely release information defined as "directory information." The following student information is included in the definition: the student's name, address, e-mail address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, enrollment status (including full-time, part-time, not enrolled, withdrawn and date of withdrawal), degree and awards received and the most recent previous education agency or institution attended by the student. When a student wants any part of the directory information to remain confidential, an official request form must be completed in the Office of the Registrar within the first five days of class of each school term.
4. The right to file a complaint with the U. S. Department of Education concerning alleged failures by Western Kentucky University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office  
U.S. Department of Education  
600 Independence Avenue, SW  
Washington, DC 20202-4605

Questions pertaining to the Family Educational Rights and Privacy Act may be directed to Freida K. Eggleton, Registrar, 238 Potter Hall, 745-5432.

### **Student Right-to-Know Act (DISCLOSURE STATEMENT)**

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In compliance with the federal Student Right-to-Know and Campus Security Act of 1990, the University's graduation rate is to be made available, upon request, to potential and currently enrolled students. The Act requires public disclosure beginning July 1, 1993, of this information by institutions of higher education receiving federal financial assistance.

Western Kentucky University's graduation rate was calculated using definitions established by the U. S. Department of Education. This rate is based upon the number of beginning freshmen who entered Western Kentucky University as full-time degree-seeking students during the 2004 fall semester and who completed an associate degree or a baccalaureate degree within six years (through August, 2010). For this cohort of beginning students, the graduation rate is 42.43%.

### **Statement of Compliance**

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Western Kentucky University is committed to equal opportunity in its educational programs and employment. It is an equal opportunity - affirmative action employer and does not discriminate on the basis of age, race, color, religion, sex, sexual orientation, national origin, or disability. On request, the University will provide reasonable accommodations, including auxiliary aids and services, necessary to afford an individual with a disability an equal opportunity to participate in all services, programs, activities and employment.

The University has published policies and procedures for investigating and/or addressing discrimination or harassment in its educational programs and/or employment. If you believe you have experienced discrimination or harassment in such programs, activities or employment, the University policies and procedures are published in *Hilltopics: A Handbook for University Life*; the *Western Kentucky University Personnel Policies and Procedures Manual*; and the *Catalog*. These publications, including information about University procedures, are available in the following locations:

Office of Equal Opportunity/ Affirmative Action/ University ADA Services  
Room 13, Wetherby Administration Bldg.  
1906 College Heights Blvd #11009  
Western Kentucky University  
(270) 745-5121

Office of Human Resources  
Room 42, Wetherby Administration Bldg.  
1906 College Heights Blvd #11993  
Western Kentucky University  
(270) 745-5360

Office of the President  
Room 135, Wetherby Administration Bldg.  
1906 College Heights Blvd #11001  
Western Kentucky University  
(270) 745-4346

Inquiries about alleged discrimination may also be made directly to the Office for Civil Rights, U.S. Department of Education, The Wanamaker Building, Suite 515, 100 Penn Square East, Philadelphia, PA 19107, (215) 656-8548; the Kentucky Commission on Human Rights, 832 Capital Plaza, 500 Metro Street, Frankfort, Kentucky, 60601, (502) 564-3550; or the Equal Employment Opportunity Commission, 600 Martin Luther King, Jr. Place, Suite 269, Louisville, Kentucky 40202, (502) 582-5851.



# Enrolling at WKU



## Admission

### Policies

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The admission policy is designed to provide educational opportunities for students who have a serious commitment to continuing their formal education and reasonable prospects for academic achievement.

In evaluating applications for admission, factors that may be considered are: complete and accurate information listed on the application for admission; high school curriculum and performance; scores achieved on the American College Test (ACT) or Scholastic Assessment Test (SAT) (Western Kentucky University does not require students to submit the optional written portion of either the SAT nor the ACT for consideration in admission to the University); post-secondary academic record, if any; educational objectives and motivation; recommendations from school officials or other interested persons; personal qualifications and conduct; interview with an admissions officer.

By recognizing differences in interests and levels of achievement, the admissions process is the initial step in providing students with personalized counseling. An application for admission should be submitted well in advance of the term for which the student plans to enroll. Beginning freshmen should complete the procedures early in their senior year in high school.

### Pre-College Curriculum

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To ensure a proper foundation for university study, the following college preparatory curriculum is required as a minimum for all students.

Effective with the 2002 freshman class, applicants must be high school graduates who have earned 22 or more high school credits, including the following: 4 years of English (English I, II, III, and IV); 3 years of mathematics (Algebra I, Algebra II and Geometry or Integrated Math I, II, and III); 3 years of social studies (chosen from U.S. History, Economics, Government, World Geography and World Civilization); and 3 years of science (credits to include life science, physical science, and earth/space science (at least one lab course); ½ year health; ½ year physical education; ½ year history and appreciation of visual, performing arts. Effective with the 2004 freshman class, applicants must have 2 years of the same foreign language in addition to the above listed requirements.

In addition to these requirements, it is recommended that students take additional high school courses in foreign languages, the arts, science, mathematics and computer literacy.

High school graduates from states other than Kentucky may follow pre-college curriculum requirements (college prep courses) from their state of residence.

### Categories of Admission

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There are three categories for admission to WKU: 1) Full, 2) Directed, and 3) Conditional.

Full Admission requires (1) successful completion of the Kentucky Council on Postsecondary Education (CPE) statewide pre-college curriculum, (2) a sufficiently high composite ACT score or High School GPA, and (3) a sufficiently high score on either the English section or Reading section of the ACT.

Directed Admission is for students who meet the first two criteria for Full Admission, but whose scores on both the English and Reading sections of the ACT are below the levels required for Full Admission. Students admitted in this category are required to participate in an appropriate transition program.

Conditional Admission may be granted to students who have not completed the pre-college curriculum, but have an acceptable composite ACT score or High School GPA. Students in this category are admitted into the University College.

WKU has separate policies for admission by exception and for students with GED certificates. Additional information is available at: <http://www.wku.edu/Info/Admissions/begfreshman2.html> or e-mail: [admissions@wku.edu](mailto:admissions@wku.edu)

**Scott Gordon, Director**

**Office of Admissions**  
**Potter Hall, Office 117**  
**Phone: (270) 745-2551**  
**Fax: (270) 745-6133**  
**[www.wku.edu/admissions](http://www.wku.edu/admissions)**  
**e-mail: [admission@wku.edu](mailto:admission@wku.edu)**

**Other Admission Considerations**  
**SPECIAL APPROVAL CATEGORIES**

**Graduates of non-accredited high schools.** Admission may be granted on the basis of completion of the pre-college curriculum and a satisfactory high school record that has been validated through satisfactory scores on the American College Test or the Scholastic Assessment Test.

**Early admission.** High school students who are within one unit of graduation and have a superior academic record may be admitted to the freshman class upon special approval from the Office of Admissions. Applicants should submit a recommendation from the high school principal, a high school transcript and ACT scores with the application.

**Concurrent high school-college enrollment.** Superior high school seniors may be admitted to enroll in one course each semester concurrent with high school enrollment.

**Dual Credit Program.** The Division of Extended Learning & Outreach (DELO) administers a Dual Credit program at participating high schools. The Dual Credit program allows students to earn college credit as part of their high-school curriculum. Courses are offered at a substantially reduced tuition rate and provide a means of preparing college-bound students for the challenge of university coursework.

**Summer admission.** (1) Superior high school students who have completed the junior year may be admitted for full-time enrollment for the summer term. (2) High school students who have not achieved senior standing may apply for admission to take non-academic courses during the summer. Permission of the department may be required.

**GED Applicants.** All Kentucky students who have earned a GED are also obligated to have completed the pre-college curriculum requirements for entry to Western Kentucky University. Students who do not meet the pre-college curriculum requirements may be eligible for admission to the University College.

**Non-degree applicants.** Students who do not expect to become applicants for any certificate or degree may enroll upon approval of the Office of Admissions. They will not be required to follow any regular curriculum, but they will be subject to all other rules and regulations of the University.

**Senior Citizens.** Kentucky residents who are 65 years of age or older, on or before the day the semester begins, are granted Senior Citizen Scholarships for any college class in which they enroll for credit or to audit.

**Admission of International Students**

Western Kentucky University is committed to promoting international understanding through intercultural exchange derived from the admission of qualified international students from countries throughout the world. The University's academic requirements for admission as described in the preceding sections must be met. All necessary documents including academic records and proof of English language proficiency must be received before an admissions decision. International students must also provide financial documents in order to obtain an I-20.

If your official transcript is not in English, you must have the document translated before the admissions office can determine if you meet our admission requirements. If you currently reside in the United States, you may contact the embassy/consulate of the document's issuing country or a certified translation service.

The following will apply:

Checklist for Applying to WKU*		
Entrance Level	Records Needed	When to Apply
<b>Beginning Freshman</b>	<ul style="list-style-type: none"> <li>Application Fee</li> <li>High school transcript</li> <li>ACT scores (or SAT)</li> </ul>	Early in senior year
<b>Transfer</b>	<ul style="list-style-type: none"> <li>Application Fee</li> <li>One official transcript from each postsecondary institution attended</li> <li>(High school transcript also required if less than 24 semester hours earned)</li> </ul>	At least one semester prior to entrance
<b>Readmission</b>	<ul style="list-style-type: none"> <li>One official transcript from each institution attended since leaving WKU</li> </ul>	At least one semester prior to entrance
<b>Visitor</b>	<ul style="list-style-type: none"> <li>Application Fee</li> <li>Letter of good standing from home institution</li> </ul>	30 days before term begins
<b>International Students</b>	<ul style="list-style-type: none"> <li>Contact the Office of Admissions</li> </ul>	As early as possible
*These requirements were current at the time of printing, but can be revised at any time by the university.		

- All translations must be prepared using the same format as the original document.
- All information must be translated.
- Translation must be exactly the same as the original document.
- No interpretation or evaluation of information should be included.
- Translation must be typed, signed, and dated by the translator. Contact information for the translator must be listed including address, phone number(s), fax number, and e-mail address (if available).
- Each applicant is responsible for any altered documents submitted; the applicant will be denied admission and the issuing board or institution will be notified.
- Western Kentucky University reserves the right to request professional credential evaluation by a third, independent party.

**English Proficiency Requirements**

All applicants from non-English speaking countries are required to take the Test of English as a Foreign Language (TOEFL), or the International English Language Testing System (IELTS) offered by the Educational Testing Service. It is the applicant’s responsibility to obtain the necessary information and application forms, and to arrange to take the test by a date that assures the results are reported to the University by the required deadlines.

Students must have a secondary school education, demonstrated financial resources, and proficiency in English as determined by a written TOEFL score of 525, or a 71 on the TOEFL internet-based test, an IELTS of 6.0 or an SAT verbal score of 410. WKU also allows international students to be admitted contingent upon completion of the English as a Second Language (ESL) program, or any other qualified program.

Admission Requirements* (International applicants should consult the section on international student admission. Other applicants not meeting one of the entrance levels should consult the special approval categories that follow.)	
Entrance Level	Minimum Requirements
Beginning Freshman	Pre-college curriculum and 2.5 GPA on 4.0 scale or 20 composite ACT or 930 total (math + verbal) SAT
Graduates of Accredited High Schools**	Students meeting this requirement BUT having an ACT below 18 in BOTH English and Reading will be placed in a special cohort for one semester to ensure student success
High School Equivalency Certificate	Pre-college curriculum and at least 17 years old and 54 GED test average and 20 composite ACT or 930 total (math + verbal) SAT
Transfer and Readmission++ With less than 24 college hours earned	Previous college work may not be ignored  Pre-college curriculum and "C" cumulative GPA from all colleges and "C" average in last full-time term and in good standing from last college attended
With 24 hours or more college hours earned	"C" cumulative GPA from all colleges and "C" average in last full-time term and in good standing from last college attended
Visiting student for one term	In good standing from "home" college and have permission from "home" college
++After three consecutive terms out of school, students who have previously attended WKU must seek readmission. Readmission students with grades below those listed above will be considered individually. *These requirements were current at the time of printing, but can be revised at any time by the university. **High school graduates from states other than Kentucky should follow pre-college curriculum requirements (college prep courses) from their state of residence.	

**Navitas at WKU**

Navitas at WKU offers pathway programs to prepare international students for university studies in the United States. A detailed description of the program and the minimum academic levels required for entry to the University Pathways Program (UPP) Stage I and UPP State II and Pre-Masters programs offered by WKU are outlined at [www.navitas.com/study\\_university\\_usa\\_kentucky.html](http://www.navitas.com/study_university_usa_kentucky.html).

**Joint Admission**

WKU partners with other institutions to promote successful undergraduate educational experiences for students who wish to attend both institutions. Students are jointly admitted to both institutions which results in expanded student options and services, improved academic program articulation, and utilizes resources at both institutions more efficiently and effectively.

WKU currently has joint admission agreements with Bowling Green Technical College, Madisonville Community College, Hopkinsville Community College, Henderson Community College, and Owensboro Community and Technical College.

### Project Finish

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WKU Finish is a program in conjunction with the Council on Post Secondary Educations' Project Graduate initiative. Its mission is to assist students who previously attended college and amassed 80 credit hours or more, but left before obtaining their degree. The program, located on the second floor of Tate Page Hall, assists such students in coordinating the resources, degree programs and departmental support to achieve degree attainment. Further information is available at <http://www.wku.edu/finish>, or call 1-877-WKU-GRAD (1-877-958-4723).

### Official Transcripts

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Students who have attended an educational institution located outside of the United States will need to request all schools attended to send the official transcript(s) directly to Western Kentucky University (WKU). Some educational institutions do not issue transcripts to other schools; instead they issue transcripts or the original certificate/mark sheet to students. In this case, you will need to make a photocopy of your original transcript/certificate/mark sheet and have the school you attended (or a certified translation service firm) certify/attest that the photocopy is a true copy of the original document. Consulates and embassies often serve as a resource for the attestation of educational documents. If you are on WKU's campus, you may bring the original transcript(s) or document(s) to the Admissions office for review and verification.

### Residency Determinations

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The determination of residency for admission and tuition assessment is governed by state regulation 13 KAR 2:045. The regulation can be viewed on the Kentucky Council on Postsecondary Education web site at: <http://cpe.ky.gov/policies/academicpolicies/residency.htm>. Students may contact the Office of Admissions for additional information.

### Transfer Evaluations

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As a service to students who transfer to WKU from another institution, the Office of Admissions provides transfer evaluations of previously earned credits upon admission to Western Kentucky University. Transfers within the state of Kentucky are guided by the state-wide general education transfer policy, which can be viewed on the Kentucky Council on Postsecondary Education website: <http://cpe.ky.gov/policies/academicinit/Transfer>. The evaluations serve as official assignment of credits to General Education Requirements. Acceptance of transfer credits for a particular major or minor is subject to approval by the appropriate academic department. Students transferring to WKU are required, as a part of the admission process, to provide the Office of Admissions with official transcripts from all previously attended institutions. Students may view transfer credit equivalencies online at [topnet.wku.edu](http://topnet.wku.edu). Academic advisors review a student's iCAP report prior to the student's participation in the Academic Transitions Program.

WKU students occasionally enroll (usually during summer terms) in courses at other institutions. Transfer credit equivalency is available on-line at <http://www.wku.edu/Info/Admissions/newtransfer1.html>. Approval for courses to be applied to a major, minor, or certification program should be obtained from the appropriate academic department head. Credit for a course in which a failing grade has been received can be earned only by repeating the course in residence unless prior written approval is granted by the head of the department in which the course is offered.

### Departments Requiring Additional Admission

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Students who wish to pursue a major in one of the following departments should be aware that admission to the program is required in addition to admission to Western Kentucky University: Allied Health; Journalism and Broadcasting; Nursing; Public Health; Teacher Education and all departments in the College of Business (please note: this list is subject to change; please contact the specific department to determine any additional admission requirements). Baccalaureate degree programs generally accept applications for admission by the third year of study, while associate degree programs generally accept applications by the second semester of the first year. Students interested in associate degree programs are encouraged to contact the department well in advance of initial enrollment. Contact the respective department for information about requirements of that department.

University admission is required before departmental admission can be considered.

### Appeal Procedures

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When further consideration of an admission decision is desired, the University Admission Review Committee shall have the responsibility for reviewing the situation to determine if the decision was in keeping with existing policy.

The University Committee on Admissions shall be responsible for considering an appeal of an admission decision. This shall be done after the University Admission Review Committee has reviewed the initial decision. An appeal will only be considered by this committee after a letter of appeal written and signed by the applicant has been submitted to the Director of Admissions clearly explaining the reasons the student feels an exception should be made. The letter of appeal should include details which the applicant considers appropriate. The University Committee on Admissions

will convene using the letter of appeal as the basis for decision. The applicant will be informed in writing of the decision of the committee.

Detailed procedural guidelines for requesting further consideration or for submitting an appeal to the University Committee on Admissions may be obtained from the Director of Admissions.

For additional information concerning admission, contact the Office of Admissions at [admissions@wku.edu](mailto:admissions@wku.edu).

## Graduate Studies Admission

Information regarding admission to Graduate Studies is published in the Graduate Studies Catalog or at [www.wku.edu/graduate](http://www.wku.edu/graduate). Address inquiries to the Office of Graduate Studies at [graduate.studies@wku.edu](mailto:graduate.studies@wku.edu).

### Academic Transitions Program

The Academic Transitions Program (ATP) is a required orientation for all degree-seeking undergraduate students entering WKU for the first time. The purpose of this program is to help new students become familiar with WKU, take placement exams, learn about campus programs and activities, meet with an academic advisor, and register for classes. An optional parent program runs simultaneously on most ATP dates for parents of students who attend the program. **Students must be officially admitted to the university to be eligible to register for ATP.** Once admitted, students will receive information from ATP on how to schedule a date. *There is a \$45.00 non-refundable fee for students / \$6.00 per guest.*

**Greg Purpus, Assistant Director of Admissions and Coordinator of Orientation**

(270) 745-4242  
<http://www.wku.edu/atp>

**Freshman ATP** is a **one-day** orientation that takes place primarily on the main campus in Bowling Green. All first-year students are **required** to participate throughout the entire day to be registered for classes. Students who arrive late or leave early must reschedule for another date. A variety of fall semester ATP dates are available in March, April, June, July and August. Students planning to begin course work in the spring semester may attend the program in late January. ATP dates are available on a first come, first served basis. Reservations must be made online at least four business days before the program date.

**Transfer ATP** is an **online program** required for transfer students with at least 24 earned hours from another accredited post-secondary institution. The online orientation provides information regarding what to expect as a transfer student. This includes policies, procedures, academic departments, student services, and more. All transfer students are **required** to complete the online ATP in order to register for classes. Once students have successfully completed the ATP process, they are able to contact an advisor and receive assistance with choosing and registering for classes via phone, e-mail, or in person.

Students planning to attend a **regional campus location** (Elizabethtown, Ft. Knox, Glasgow, or Owensboro) are not required to participate in the programs above. Please contact your regional campus location for registration details.

An additional required orientation for newly enrolled **international students** is conducted by International Student and Scholar Services. This program is held prior to the first week of each of the two regular semesters (spring & fall). The program allows new international students to become more familiar with their student visa requirements, the services provided by the Office of International Programs, the American cultural environment, and the Bowling Green community. Contact International Student and Scholar Services at [jsss@wku.edu](mailto:jsss@wku.edu) for additional information.

Please visit [www.wku.edu/atp](http://www.wku.edu/atp) or [www.wku.edu/transferatp](http://www.wku.edu/transferatp) for more information on these programs. You may also contact us on Facebook at <http://on.fb.me/wkuatp> or Twitter at @WKUatp.

### Academic Advising and Retention Center

#### Advising

The Academic Advising and Retention Center (AARC) provides a wide range of academic services to undergraduate students. The Center coordinates academic advising activities among undergraduate colleges and academic departments for undergraduate students. All baccalaureate degree-seeking undergraduate students must meet with an academic advisor prior to registering for classes until they have 90 hours and an Application for

**Kevin P. Thomas, Director**

**Academic Advising and Retention Center  
Student Success Center, DUC A-330  
Phone: (270) 745-5065, Fax: (270) 745-5421  
[www.wku.edu/advising](http://www.wku.edu/advising)  
[academic.advising@wku.edu](mailto:academic.advising@wku.edu)**

## Enrolling at WKU

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Graduation is on file in the Office of the Registrar. The academic advisor assists the student in the selection of courses that will provide appropriate preparation for his/her career objectives and assures timely completion of degree program requirements. Academic advisors at WKU will also provide guidance regarding academic resources, internship possibilities, and key information for student success while working toward graduation.

### Advising System

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The advising system is structured to provide assistance for students who are Exploratory/Undeclared as well as those who have clearly defined academic career objectives. Students with a declared major work closely with an advisor from the academic department that administers their particular program of study. Beginning freshmen and transfer students who enter the University with tentatively selected programs of study (pre-major students) are also assigned academic advisors in their chosen disciplines. A beginning freshman who has not selected a major (an Exploratory student) is advised by the staff of the Academic Advising and Retention Center.

### Attendance Notification

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AARC provides class attendance notification services as requested by students and faculty. When requested by students, notifications of absences resulting from personal emergencies are relayed to faculty. In addition to this official notification, it is the student's responsibility to contact each professor to make arrangements to complete missed assignments and tests. AARC also notifies students of excessive absences reported by faculty.

### Change of Major, Minor, Concentration, and/or Advisor

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Changes in majors, minors, concentrations, and advisors are made upon request by students. Students must submit a *Major, Minor, Concentration, Advisor Change Form* to the academic department that administers the student's chosen program. This form is available online for students in TopNet. Once in TopNet, click on Student Services, Student Records, and finally Change of Major, Minor, Concentration, Advisor. This form will walk students through the process and will allow an opportunity to correct any errors prior to printing the form. After printing the form, students are required to bring the form to the new major department listed to obtain requested signatures. Regional Campus students should bring the form to their Regional Campus advisor for processing.

### Fulfillment of Conditional Admission Requirements

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Students who were admitted to WKU on a conditional basis who have fulfilled their conditions of admission may change their major via the Major/Minor/Advisor Change Form. The student should meet the following requirements by the term in which the move is to be effective: (a) have successfully completed a minimum of 24 degree hours at WKU; (b) earned 2.0 or higher cumulative GPA, and (c) have no Pre-College Curriculum deficiencies.

### Academic Probation

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The academic probation and dismissal processes for Western Kentucky University are administered by the Academic Advising and Retention Center. AARC utilizes two of its programs to provide students with resources to reach academic good standing: The Best Expectation Programs (BEP) and The Learning Center (TLC). Participation in BEP is required of any student whose admissions category was "Directed Admission" or those who are not in good academic standing; however, any student may choose to voluntarily participate in BEP.

The mission of BEP is to equip our diverse undergraduate student population with the necessary resources to improve his/her academic performance. We work with each student individually to identify realistic academic goals, as well as addressing other academic and non-academic concerns. BEP provides students with intrusive advising, workshop opportunities, study hall, and tutoring services through The Learning Center. Ultimately, the efforts of BEP will help retain at-risk students, encourage persistence, and assist in successful degree completion from WKU.

### The Learning Center (TLC)

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The Learning Center is a service division within the Academic Advising and Retention Center (AARC). The mission of TLC is to promote student success, enhance student performance, and increase student retention at Western Kentucky University. TLC helps students become better learners by providing tutoring, workshops, and outreach services. All services of TLC are free to WKU students.

Students may utilize the study space for individual study needs, use the computer lab to complete academic coursework, or request a tutoring appointment for assistance with difficult course concepts. Each semester TLC facilitates the *Academic Advantage Series: Workshops for Success*. This workshop series includes topics such as time management, study skills, test taking strategies, and other academic areas of interest. TLC also facilitates Peer Assisted Study Sessions (PASS) to assist professors with challenging courses with high enrollment. The Academic

**The Learning Center (TLC)**  
**Student Success Center, DUC A-330**  
**(270)745-6254 (TLC front desk)**  
[www.wku.edu/tlc](http://www.wku.edu/tlc)

Advising and Retention Center encourages students to utilize these services as a source of academic support. TLC helps students enhance their academic performance and sharpen their skills to be successful Western Kentucky University graduates. TLC...Come grow with us!

### Registration and Student Records

The Office of the Registrar provides a variety of academic services to the University community, including students, faculty, staff and alumni.

*Freida K. Eggleton, Registrar*

*Potter Hall, 2nd Floor*

*Phone (270) 745-3351*

*Fax: (270) 745-4830*

[www.wku.edu/registrar](http://www.wku.edu/registrar)

#### Registration

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Registration services are available through TopNet, WKU's student information system available through the web. All continuing students use this system for initial registration each term and to perform drop/add activities. TopNet, which is accessed using a personal identification number, can also be used to access the student's class schedule and to obtain grades at the end of each term.

Details regarding registration policies and procedures are published in the Registration Guide each term. This information can also be accessed on the Office of the Registrar website at [www.wku.edu/registrar](http://www.wku.edu/registrar).

#### Transcripts

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The Office of the Registrar is the permanent repository for the official academic record of each student. Official transcripts of the academic record are made available to students in accordance with the Family Educational Rights and Privacy Act. Transcripts are released only upon written request from the student. Information about transcript requests is available on the Office of the Registrar website at [www.wku.edu/registrar](http://www.wku.edu/registrar).

#### Degree Certification and Commencement

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The Office of the Registrar is responsible for determining that all degree requirements have been met. Two commencement ceremonies are held annually. A May ceremony recognizes those students who complete all degree requirements at the end of the spring semester or who demonstrate that all requirements can be fulfilled during the summer term. A ceremony is held in December for those students who complete all degree requirements at the end of the fall semester.

#### Enrollment Verification

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The Office of the Registrar provides enrollment verification services to students and external agencies.

#### Name and Address Changes

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Biographical/demographical information about each student is collected and updated through this office. It is the responsibility of each student to keep the Office of the Registrar informed of the correct local, permanent and billing address; changes may also be made on-line through TopNet. A name change will be processed only upon presentation of a social security card that verifies the correct name, and changes must be submitted in writing to this office.

**Expenses and Fees**

Tuition and Fee Schedule		
UNDERGRADUATE	Full-Time	Summer Term, Winter Term and Part-time Per Credit Hour
Resident	\$4,042.00	\$337.00
Non-Resident	\$10,008.00	\$834.00
<b>GRADUATE (Note A)</b>		
Resident		\$445.00
Non-Resident		\$489.00
International		\$962.00
<b>DOCTOR OF NURSING PRACTICE</b>		
Resident		\$535.00
Non-Resident		\$802.00
<b>TUITION INCENTIVE PROGRAM</b>		
Undergraduate	\$5,172.00	\$431.00
<b>DISTANCE LEARNING COURSE (Note B)</b>		
Undergraduate		\$397.00
Graduate		\$526.00
<b>PROFESSIONAL MBA</b>		
Continuing Students – Prior to Fall 2011	\$4,350.00	
New Students – Beginning Fall 2011	\$4,566.00	

Full-time students are undergraduates who enroll in 12 hours or more of coursework during Fall and Spring terms. The full-time tuition rate applies to undergraduate students taking 12-18 credit hours (either exclusively on-campus or a combination of on-campus and distance learning). Full-time undergraduate students will be assessed an additional per credit hour fee equivalent to the per hour tuition rate for course loads exceeding 18 hours a semester.

**Note A:** Graduate tuition and fees are assessed per credit hour based upon the course (i.e. on-campus or distance learning.) There is no full-time graduate rate.

**Note B:** The Distance Learning course rate is for all part-time students, regardless of residency, enrolling in on-line, web-based courses. Students enrolled exclusively in distance learning courses will be assessed the distance learning per hour rate regardless of the number of hours enrolled. There is no full-time distance learning rate.

Included within the above rates are a \$207 Student Athletic Fee, \$59 Student Centers Fee and \$70 Downing University Center renovation fee. The fees are prorated to part-time undergraduate and graduate students on a per hour basis. These fees do not apply to the Distance Learning rates.

\*Quoted tuition and fees are based on the projected Fall 2011 semester rates and are subject to change by the Kentucky Council on Postsecondary Education or Western Kentucky University. Refer to the Tuition and Fees website at [www.wku.edu/bursar](http://www.wku.edu/bursar) for current rate information.

**Belinda Higginbotham, Bursar**

Potter Hall, Room 208  
 Phone: (270) 745-6381  
 Fax: (270) 745-6584  
<http://www.wku.edu/bursar>  
 email: [billings.receivables@wku.edu](mailto:billings.receivables@wku.edu)

**Ms. K. Ann Mead,**  
 Vice President for Finance  
 and Administration

Finance and Administration  
 Wetherby Administration Building  
 Office G-13  
 Phone: (270) 745-2434

**Other Expenses (Per Semester)**

**Meals**

(Approximately) \$1,071 - 1,575

WKU has numerous eating facilities available. See the section on food service facilities for more information on food services and meal plans.

**Textbooks/Course Materials**

Although the prices of course materials vary depending on the professor or the major a student selects, an average of \$400 per semester is a recommended minimum budget. Textbooks also range in price based on the availability of new versus used books. Visit [www.wkustore.com](http://www.wkustore.com) to determine current and future course requirements. Course materials can be purchased in-store and online from The WKU Store, a full service operation specializing in used textbooks. Their Textbook Reservation Program is also available to both new and returning students for Fall and Spring semesters.

**Personal**

Students should also make budget allowances for miscellaneous personal expenses and travel that will vary greatly depending upon individual habits and needs but are estimated to range from \$300 to \$600 per semester.

**Rooms Per Semester**

Throughout our 15 residence halls, we have a variety of living options including community bath, suite-style rooms and rooms with private baths. The majority of rooms in the residence halls are designed for double occupancy. The cost for these rooms for the 2011-2012 academic year ranges from \$1,890 to \$2,060 per semester. Rates are per



student, double occupancy. On-campus housing is also available for summer term at a double occupancy rate of approximately \$100 per person for each week in residence. Please contact the Department of Housing and Residence Life for additional information or visit our website at [www.wku.edu/housing](http://www.wku.edu/housing).

**Program Expenses in College of Health & Human Services**

Students enrolled in the College of Health and Human Services programs should consult with the appropriate department about potential expenses required for program completion; for example, some students may be required to undergo criminal background checks and drug testing and to provide proof of health insurance, liability insurance and/or immunization records prior to participating in any required experiences at selected off-campus facilities/agencies. Additionally, there may be certifications, training seminars or other requirements specified by the facility/agency that a student must meet in order to be eligible for field or practical experiences at the facility. It is the responsibility of the student to ensure that all institutional and/or facility requirements are met as a condition of participating in the on- or off-campus experiences; students may be responsible in part or in full for any costs incurred to meet such requirements. Students are also responsible for transportation to and from off-campus experiences. In some CHHS programs, the students are responsible for rental fees for clinical instruments and supplies, purchasing uniforms, equipment and possible course and program fees above the regular tuition. (For example, a per semester program fee will be assessed to students enrolled in the BSN pre-licensure program.) At the completion of the program, students may also be responsible for fees related to national and regional licensing exams. These requirements vary across programs within the college.

**Course Fees**

Occasionally there is an additional fee charged in relation to a specific course. Refer to the Course Fees chart on the Tuition and Fees Website at [www.wku.edu/bursar](http://www.wku.edu/bursar) for specific courses and related fees.

**Schedule Change Fee**

A \$50 schedule change fee will be assessed per course for student-initiated schedule changes. Effective dates for the fee are printed in each term's Registration Guide, available from the Office of the Registrar or online.

**Late Registration Fee**

Students who register for classes beginning the first day of a term will be assessed a \$50 late registration fee.

**Fees for Auditing Courses**

All students who audit a course are charged the same fee they would pay if they took it for credit.

**Application for Graduation Fee**

Candidates for the associate and baccalaureate degree will be charged a fee of \$50. Candidates for master's and specialist degrees will be charged a fee of \$55. This fee will cover the cost of cap and gown, diploma and other necessary expenses. The graduation fee must be paid and the Application for Graduation must be filed after 90 hours

Tuition Incentive Program (TIP) for Out-Of State Students				
Western Kentucky University offers a Tuition Incentive Program (TIP) to qualified undergraduate students who are residents of the following counties in Tennessee, Indiana, Missouri, Illinois, Ohio, Georgia, and Florida.				
Tier 1 (Based on County of Residence)				
Tennessee	Indiana	Illinois	Ohio	Missouri
Clay Cheatham Davidson Dickson Houston Humphreys Jackson Maury Montgomery Pickett Rutherford Shelby Smith Stewart Trousdale Williamson Wilson	Clark Crawford Dearborn Dubois Floyd Gibson Harrison Jefferson Marion Ohio Perry Pike Posey Ripley Scott Spencer Switzerland Vanderburgh Warrick	Alexander Edwards Gallatin Hardin Madison Massac Pope Pulaski St. Clair Wabash White	Butler Clermont Hamilton Montgomery Warren	St. Charles St. Louis
Tier 2* (Based on County of Residence)				
Georgia		Florida	Illinois	
Clayton Cobb DeKalb Fulton Gwinnett		Hillsborough Manatee Pinellas Polk	Cook DuPage Kane Lake McHenry	
*Students in Tier 2 are not eligible for the TIP Scholarship (TIPS). Note: TIP and TIPS are different. TIP is a tuition rate, TIPS is a scholarship.				
National/International Academic Scholarship (NIAS)				
Any nonresident beginning freshmen with a 3.4 unweighted GPA and a 24 ACT/1090 SAT (or transfer with 24 earned hours and 3.4 GPA) is eligible for an academic scholarship that will pay the difference between the out-of-state rate and the TIP rate. Eligibility determined by the Student Financial Aid office.				
Out-of-State Tuition Waiver				
Residents of Macon, Robertson, and Sumner Counties, Tennessee are eligible to pay in-state registration fees by virtue of a reciprocity agreement between Kentucky and Tennessee.				

## Enrolling at WKU

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are earned for baccalaureate degree students and after 48 hours are earned for students pursuing associate degrees. Contact the Office of the Registrar for additional information.

### Transcript Fee

A \$7.00 fee is charged for an official transcript. Official transcripts may be ordered through the Office of the Registrar.

### Motor Vehicle and Motorcycle Registration

The Parking and Transportation Services Department manages parking and transit operations on campus. The department encourages students to leave their vehicles at home when feasible, as parking is limited on campus. On the Bowling Green campus, students can utilize transit services to get from park and ride locations to class, or between main campus and the South Campus. The Parking and Transportation Fee supports this program. If students find it necessary to bring vehicles to campus, a parking permit is required. These may be purchased at the Parking and Transportation Services Department or ordered on-line. For further information on transit schedules and permit fees, or to order a permit on-line, visit [www.wku.edu/transportation](http://www.wku.edu/transportation).

### Fee Payment

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All tuition, housing fees, course or laboratory fees, meal charges, student health service charges, and other assessments, fees and charges are due and payable in accordance with the statements rendered by the appropriate university office.

Tuition, housing fees, meal plans and other student charges must be paid on the date a student registers or on other dates as specified by the Office of Billings and Receivables. Students who do not make payment of required fees are not registered students. Payment of fees will not be deferred.

The University expects the students to be financially responsible and not be delinquent in financial obligations to the University or to any department or division of the University. A student who fails to meet a financial obligation within 10 days after the date of notice from the appropriate university official will be subject to regulations promulgated by the University. If the student does not settle the obligation by the date designated on the notice, the appropriate business office shall notify the Registrar. After the Registrar has been notified that a student is delinquent, the Registrar shall not allow the student to register or to obtain an official transcript until the Registrar has been notified that the obligation has been settled.

The University expects all students to register for classes and pay tuition prior to the first day of class. Class schedules may be canceled for students who fail to pay or make arrangements to pay by the due date on the statement rendered by the University. A late payment charge of \$100 may be assessed for failure to pay by the designated due date. Failure to receive a bill does not relieve the student of the obligation to pay tuition and fees by the due date. The university no longer creates and mails printed billing statements. All billing is electronic with students receiving notifications through their university-assigned e-mail addresses. As an added service, students can also select a billing e-mail address so they can have their account statements sent to an additional e-mail address.

**In the event that any tuition, fees and/or expenses are not paid when due, and the University undertakes collection of any unpaid portion, the student shall also be assessed and be responsible for any collection costs incurred by the University. Delinquent accounts receivable are placed with a collection agency and collection costs will be added, increasing the amount owed. Accounts will also be reported to the National Credit Bureaus.**

### Payment Options

Payments must be made in US dollars drawn on a US bank. WKU will accept cash, check, or money order in the Billings and Receivables Office, Room 208, Potter Hall.

All checks should be made payable to: Western Kentucky University.

*Mailing Instructions.* Always return the bottom portion of the invoice. The University uses a bank-processing center in Charlotte, North Carolina for faster processing.

Mail check payments to:  
Western Kentucky University  
P.O. Box 890784  
Charlotte, NC 28289-0784

Payments being sent by overnight/express (such as Fed-Ex, etc.) should be sent directly to:

Billings and Receivables Office  
Western Kentucky University  
1906 College Heights Blvd #11022  
Bowling Green, KY 42101-1022

Mail the bottom portion of your invoice with your check or money order. Please make sure your student identification number is written on the check or money order. Always allow at least seven to ten business days when paying by mail. Please do not mail cash!

### **Credit Cards**

Because of high service and processing costs, the Billings and Receivables Office at WKU does not accept credit cards as a method to pay student account charges such as tuition, fees, room and board. We believe the savings realized by the University can be better utilized for academic endeavors. Credit cards will continue to be accepted at campus locations other than the Billings and Receivables Office.

We have contracted with Tuition Management Systems (TMS) to allow students to pay their bill with a Master Card, Discover or American Express credit card for a convenience fee of 2.99 percent of the amount of the payment. VISA IS NOT ACCEPTED.

To make a credit card payment with a convenience fee online, visit Tuition Management Systems at [www.afford.com/WKU](http://www.afford.com/WKU) and select Pay In Full. Note: You will be prompted to enter your social security number, not your WKU ID.

You can make a credit card payment with a convenience fee via telephone by contacting TMS at 800-722-4867. (Note: At the menu, please press 2, then press 3 to be transferred to a payment specialist.)

### **Electronic Payments**

Make an electronic payment from your checking or savings account without a convenience fee. Visit Tuition Management Systems at [www.afford.com/wku](http://www.afford.com/wku), select Pay In Full and then select Pay In Full Online Using a Checking or Statement Savings Account.

Note: You will be prompted to enter your social security number, not your WKU ID.

### **Depository**

Your payment may be placed in the depository located outside of the second floor entrance of Potter Hall. Always include the bottom portion of your invoice statement with your check or money order when using the depository. It is important that your student identification number is written on the check or money order. Please allow two to three business days for depository payments to post to your account. Please do not place cash in the depository.

### **Payment Plans**

Western Kentucky University offers payment plans through our partnership with #1 rated Tuition Management Systems (TMS). For the Fall 2011 semester, we will offer the following interest-free payment plans.

5-pay - Payments due June 1, July 1, August 1, September 1, and October 1

4-pay - Payments due July 1, August 1, September 1 and October 1.

The payment plan is available for a \$40 enrollment fee and includes personal account service, automated account information 24 hours a day, access to your account through their web site, [www.afford.com](http://www.afford.com), and even gives you a chance to win a \$5,000 Tuition Management Systems Scholarship. Visit Tuition Management Systems online or call 800-722-4867 for more information on payment options, free education payment counseling and the many ways they can help you afford education. If you need additional assistance or wish to contact the University about these matters, please contact the WKU Billings and Receivables Office at (270) 745-6381.

### **The WKU Debit Card – The “ONLY” Way to Select How You Will Receive University Refunds**

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Western Kentucky University has partnered with Higher One, a financial services company that specializes in student refund services. All refunds are disbursed through the WKU Debit Card. Upon registration, students will be mailed a WKU Debit Card with the MasterCard logo. Students will use the card to activate their refund preference.

Refunds are delivered to students by the option that they choose when activating the WKU Debit Card:

1. Easy Refund to the OneAccount
2. ACH Transfer (Direct Deposit) to their current bank account

## Enrolling at WKU

The university will not issue refund checks, so students must use the WKU Debit Card to access the Higher One website and choose an option for receiving any refunds.

For questions about the WKU Debit Card, please contact the Card/Collections Office at (270) 745-5551 or e-mail [wkudebitcard.questions@wku.edu](mailto:wkudebitcard.questions@wku.edu).

### Tuition and Fee Refund Policy

A refund of tuition shall be made if a student officially withdraws or is dismissed from the University during the first three weeks of a regular semester. Tuition refunds or reductions in outstanding fee liabilities for students who officially withdraw through TopNet or the Office of the Registrar, or who change their status from full-time to part-time or further reduce their part-time status through drop/add, will be made according to the following schedules:

Fall and Spring Semesters	
Official Withdrawal Period	Tuition Refund Percentage
Through first 6 days of class	100%
From the 7 <sup>th</sup> day of class through the end of the second week	50%
Through the end of the third week	25%
No refund after the third week of classes	
Fall and Spring Bi-Term Classes	
Official Withdrawal Period	Tuition Refund Percentage
Through first 3 days of class	100%
4 <sup>th</sup> and 5 <sup>th</sup> days of classes	50%
6 <sup>th</sup> and 7 <sup>th</sup> days of classes	25%
No refund after the 7 <sup>th</sup> day of classes	
Winter Term 3-Week Session	
Official Withdrawal Period	Tuition Refund Percentage
Through first 2 days of classes	100%
3 <sup>rd</sup> day of classes	50%
No refund after the 3 <sup>rd</sup> day of classes	
Summer 13-Week Session	
Official Withdrawal Period	Tuition Refund Percentage
Through first 5 days of classes	100%
6 <sup>th</sup> through 8 <sup>th</sup> days of classes	50%
9 <sup>th</sup> through 12 <sup>th</sup> days of classes	25%
No refund after the 12 <sup>th</sup> day of classes	
Summer 8-Week Session	
Official Withdrawal Period	Tuition Refund Percentage
Through the first 3 days of classes	100%
4 <sup>th</sup> and 5 <sup>th</sup> days of classes	50%
6 <sup>th</sup> and 7 <sup>th</sup> days of classes	25%
No refund after the 7 <sup>th</sup> day of classes	

Summer 7-Week Session	
Official Withdrawal Period	Tuition Refund Percentage
Through first 3 days of classes	100%
4 <sup>th</sup> and 5 <sup>th</sup> days of classes	50%
6 <sup>th</sup> and 7 <sup>th</sup> days of classes	25%
No refund after the 7 <sup>th</sup> day of classes	
Summer 6-Week Session	
Official Withdrawal Period	Tuition Refund Percentage
Through first 3 days of classes	100%
4 <sup>th</sup> day of classes	50%
5 <sup>th</sup> day of classes	25%
No refund after the 5 <sup>th</sup> day of classes	
Summer 5-Week Session	
Official Withdrawal Period	Tuition Refund Percentage
Through first 3 days of classes	100%
4 <sup>th</sup> day of classes	50%
5 <sup>th</sup> day of classes	25%
No refund after the 5 <sup>th</sup> day of classes	
Summer 4-Week Session	
Official Withdrawal Period	Tuition Refund Percentage
Through first 3 days of classes	100%
4 <sup>th</sup> day of classes	50%
No refund after the 4 <sup>th</sup> day of classes	
Summer 3-Week Session	
Official Withdrawal Period	Tuition Refund Percentage
Through first 2 days of classes	100%
3 <sup>rd</sup> day of classes	50%
No refund after the 3 <sup>rd</sup> day of classes	

\*The refund percentage is applied to the number of credit hours dropped, not the dollar amount of tuition and fees assessed.

\*Course fees are non-refundable after the 100% refund period.

\*The refund policy is subject to change based upon federal regulations or by Western Kentucky University without prior notice.

## Financial Assistance

The Department of Student Financial Assistance is dedicated to assisting academically capable students with sufficient resources to enable them to meet their educational costs. The major purpose of financial aid is to supplement, rather than to replace, family and student resources.

The Financial Aid Programs listed below require the student to make satisfactory academic progress toward a degree.

**Cindy Burnette, Director**

**Department of Student  
Financial Assistance**  
**Potter Hall, Office 317**  
**Phone: (270) 745-2755**  
[www.wku.edu/finaid](http://www.wku.edu/finaid)

TYPE OF AID	QUALIFICATIONS	REQUIRED FORMS
<b>GRANTS</b>		
Federal Pell Grant	U.S. Citizen, Financial Need, 1st Undergraduate Degree	Free Application for Federal Student Aid (FAFSA)
College Access Program (CAP)	U.S. Citizen, Kentucky Resident, Minimum of 6 Hrs., 1st Undergraduate Degree	Free Application for Federal Student Aid (FAFSA)
Federal Supplement Educational Opportunity Grant (SEOG)	U.S. Citizen, Pell Grant, High Need, Minimum of 6 Hrs., Priority given to F/T students	Free Application for Federal Student Aid (FAFSA)
Federal Teacher Assistance for College and Higher Education Grant (TEACH)	U.S. Citizen, eligible for admission to WKU Teacher Education Program, minimum GPA of 3.25, sophomore, minimum of 1 hour	Free Application for Federal Student Aid (FAFSA)
<b>LOANS</b>		
Federal Perkins Loan	U.S. Citizen, Minimum of 6 Hrs., Priority given to most needy F/T Undergraduate	Free Application for Federal Student Aid (FAFSA)
Federal Direct Stafford Loan (subsidized)	U.S. Citizen, Minimum of 6 Hrs., Need based	Free Application for Federal Student Aid (FAFSA)
Federal Direct Stafford Loan (unsubsidized)	U.S. Citizen, Minimum of 6 Hrs., Non-need based	Free Application for Federal Student Aid (FAFSA)
Federal Direct Parent Loan for Undergraduate Students (PLUS)	U.S. Citizen, Non-need based	Free Application for Federal Student Aid (FAFSA) Separate Application
<b>STUDENT EMPLOYMENT</b>		
Federal College Work-Study Program (CWSP)	U.S. Citizen, Need based, Minimum of 6 Hrs.	Free Application for Federal Student Aid (FAFSA)
America Reads Program (FWSP)	America Reads Eligibility, U.S. Citizen Need based, Minimum of 6 Hrs.	Free Application for Federal Student Aid (FAFSA)
Community Service Program (FWSP)	U.S. Citizen, Need based, Minimum of 6 Hrs.	Free Application for Federal Student Aid (FAFSA)
Institutional Work Program (INST)	Non-need based	Free Application for Federal Student Aid (FAFSA)
Full-time Summer Employment	Need and Non-need based	Free Application for Federal Student Aid (FAFSA) Summer Application
Referral Service for Off-Campus	None	Job Placement
All applications are available in the Department of Student Financial Assistance, phone (270) 745-2755.		

### Application Priority Filing Dates

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Fall Semester – As soon after January 1 as possible  
Winter Session - October 1  
Spring Semester - October 25  
Summer Session - March 20

### Winter and Summer Financial Aid

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Limited funds are available for winter and summer session(s) in the areas of grants, loans and student employment. Students will be awarded by SFA Office after registering for their classes and will be notified via e-mail of their award.

### Payments of Awards

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Awards are normally made on an academic year basis conditional with fulfilling academic and registration requirements. Financial aid is disbursed at the beginning of each semester and is applied directly to tuition and fees, housing, meal plans and any other applicable charges. Awarded amounts in excess of institutional charges are made payable to the WKU Debit Card. Student employment wages are distributed every two weeks via the WKU Debit Card.

All first-time Stafford Loan recipients are required to complete an entrance counseling session prior to their loan funds being disbursed and an exit counseling session prior to graduation or withdrawing from the University. This can be done online at [studentloans.gov](http://studentloans.gov).

### Renewal Procedures

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Financial aid awards are calculated on current financial information. Therefore, a new financial aid form must be filed each year. Students may apply online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). Students will need a PIN in order to sign their FAFSA electronically; apply for a PIN at [www.pin.ed.gov](http://www.pin.ed.gov).

### Academic Eligibility and Financial Aid

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In the event that satisfactory progress is not maintained, financial aid funds must be withheld. If satisfactory progress has been re-established after successful completion of a semester or summer term, the student may be considered for re-evaluation for financial aid. A student on academic probation is not making satisfactory academic progress.

### Other Assistance Programs

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#### Kentucky Educational Excellence Scholarship (KEES)

KEES is a program administered by the Kentucky Higher Education Assistance Authority. Kentucky high school students who earn 2.5 or better while in high school can qualify for KEES scholarship while enrolled in an institution of higher education. Students can retain this scholarship for 8 semesters while in college by maintaining the required GPA. Students entering for the first time during the 2009-10 academic year or later will be subject to the new “on track to graduate” guidelines.

#### Dependents of War Veterans

Dependents and spouses of Kentucky Disabled War Veterans may be eligible for a Waiver of Tuition through the provisions of KRS 164:505-515 in any state-supported institution of higher education. Eligibility for the Waiver of Tuition may be determined by making application to the Department of Military Affairs, Kentucky Center for Veteran Affairs, 545 South Third St., Louisville, KY 40202. Application forms may be obtained from the Department of Student Financial Assistance.

#### Veterans Educational Benefits

Some of the programs offered by Western Kentucky University have been approved by the Kentucky Approving Agency for Veterans Education for persons eligible to receive VA educational benefits. There are several categories of educational benefits for eligible students including Montgomery GI Bill, Chapter 30 (active duty), Chapter 33 (Post 9/11), Chapter 1606 and 1607 (reserve/national guard), Chapter 35 (Dependents Educational Assistance Program), Chapter 32 (Veteran's Educational Assistance Program) and Chapter 31 (Vocational Rehabilitation). Questions regarding eligibility for Chapters 30, 32, 33, 35, 1606 and 1607 educational benefits should be directed in writing to the VA Regional Office, PO Box 66830, St Louis, MO 63166-6830 or by calling toll free (888) 442-4551. Chapter 31 questions should be directed to VA Regional Office, 545 South Third St, Louisville, KY 40202-1838, or you may telephone (502) 582-5836. Contact the Veterans' Coordinator at (270) 745-3732, for assistance in using/applying for these benefits at Western Kentucky University.

### Vocational Rehabilitation

Students with a physical disability may qualify for grants-in-aid providing a considerable part of college-related costs. Students should apply for this aid through the Vocational Rehabilitation Office nearest the student's hometown.

### Academic Scholarships

#### Beginning Freshmen

Academic scholarships are awarded based on academic achievement (GPA, rank in class and ACT/SAT scores), participation in extracurricular activities and leadership. Scholarships also are available through a few academic departments. Leadership scholarships are awarded based on demonstrated leadership activities in high school and leadership potential. Applications may be obtained from a high school counselor or from the Department of Student Financial Assistance. To receive full consideration by the scholarship committee, applications must be postmarked by January 15.

The University's most prestigious award is the Presidential Scholarship. This scholarship is based on academic achievement (3.95 GPA, 31 ACT/1360 SAT), supplemental essays, letters of recommendation and a formal interview process. The Presidential Scholarship is renewable for up to four years. For more information on this scholarship visit: <http://www.wku.edu/Info/FinAid/scholar.htm>.

#### Community College/KCTCS Transfers

Transfer students who have completed two years at a community or junior college may apply for a Community/Junior College scholarship awarded on the basis of college academic achievement. In addition, transfer students from KCTCS with an Associates Degree may apply for a transfer scholarship. Applications may be obtained from a community college counselor or from the Department of Student Financial Assistance. To receive full consideration by the scholarship committee, applications must be postmarked by April 1. Students transferring from another four-year institution are not eligible for this award.

#### Returning Students

Students enrolled full-time at WKU may apply for an academic scholarship for the next academic year by completing the application between February 1 and April 15. The primary criterion is college academic achievement. Scholarships also are available through a few academic departments.

For additional information or application, write or call the Department of Student Financial Assistance.

#### College Heights Foundation Scholarships

The College Heights Foundation exists for the purpose of aiding qualified needy and/or especially outstanding students at Western Kentucky University. A major area of such help consists of emergency loans and scholarship awards. College Heights Foundation scholarships are awarded through the Scholarship Committee of the University.

The College Heights Foundation was chartered in 1923. It is governed by a Board of Directors made up of 12 prominent business and professional leaders. Mr. Alex Downing is President of the College Heights Foundation. All gifts specified for the Memorial Fund of the College Heights Foundation are held in perpetuity, with all earnings being used in the student assistance program.

Gifts to the College Heights Foundation are tax deductible under prevailing IRS regulations.

#### ROTC Scholarships

Students who are considering careers in the Army may be eligible to compete for two- and three-year scholarships offered through the Department of Military Science and Leadership. These scholarships may pay for the following:

- Tuition and fees
- Books - \$1200 a year
- Monthly stipend - \$300 to \$500 (increases as academic level increases)
- Room and board scholarship for those who maintain a 3.0 GPA or higher

For further information contact CPT Joseph Huggins ([Joseph.huggins@wku.edu](mailto:Joseph.huggins@wku.edu)) or call 270-745-6054.

Those considering the Army National Guard or Army Reserves may be eligible for our Simultaneous Membership Program (SMP), which consists of:

- Tuition (75%-100%)
- Montgomery GI Bill (\$333)
- SMP Kicker (\$350)
- Drill Pay (E5)
- ROTC Stipend (\$350-\$500 monthly)

## Enrolling at WKU

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For more information contact SFC Chris Bradley ([Christopher.bradley@wku.edu](mailto:Christopher.bradley@wku.edu)) or SSG Eric Vincent ([eric.vincent@wku.edu](mailto:eric.vincent@wku.edu)).

### Senior Citizen Scholarships

Kentucky residents who are 65 years of age or older on or before the day the semester begins are granted Senior Citizen Scholarships for any college class in which they enroll for credit or to audit in accordance with KRS 164.284.

### Out-of-State Tuition Waiver

Residents of Macon, Robertson and Sumner counties in Tennessee are eligible for a scholarship that pays the difference between the Tuition Incentive Program (TIP) rate and the in-state rate by virtue of a reciprocity agreement between Kentucky and Tennessee. This agreement is through the states' legislatures and is subject to change or cancellation by those bodies. For additional information, students may contact the Office of Admissions.

### National/International Academic Scholarship

All nonresident beginning freshmen with at least a 3.4 unweighted GPA and a 24 ACT/1090 SAT (or transfer with 24 earned hours and 3.4 GPA) are eligible for an academic scholarship that will pay the difference between the out-of-state rate and approximately 1.27 times the in-state rate.

### Tuition Incentive Program (TIP)

Western Kentucky University offers a Tuition Incentive Program (TIP) to qualified students who are residents of specific counties in Illinois, Indiana, Missouri, Ohio, and Tennessee. This program is open to students from the following counties: in Illinois – Alexander, Edwards, Gallatin, Hardin, Madison, Massac, Pope, Pulaski, St. Clair, Wabash and White; in Indiana - Clark, Crawford, Dearborn, Dubois, Floyd, Gibson, Harrison, Jefferson, Marion, Ohio, Perry, Pike, Posey, Ripley, Scott, Spencer, Switzerland, Vanderburgh and Warrick; in Missouri – St. Charles and St. Louis (including the city of St. Louis); in Ohio – Butler, Clermont, Hamilton, Montgomery and Warren; in Tennessee – Clay, Cheatham, Davidson, Dickson, Houston, Humphreys, Jackson, Maury, Montgomery, Pickett, Rutherford, Shelby, Smith, Stewart, Trousdale, Williamson and Wilson.

Tuition and fees will be assessed at the resident undergraduate rate plus an additional amount (approximately 25%) per semester. TIP values can vary in amount for undergraduate students, depending on the number of credit hours enrolled.

There is no application for the Tuition Incentive Program. Eligibility for all undergraduates is determined by the Office of Admissions.

### Tuition Incentive Program Scholarship (TIPS)

Students with superior achievement will receive a "Tuition Incentive Program Scholarship" (TIPS) to pay the difference between resident undergraduate tuition and the Tuition Incentive Program.

1. The scholarship will automatically be awarded to beginning freshmen with an unweighted cumulative grade point average of 3.5 AND 25 composite ACT score (or 1130 [math + verbal] SAT total).
2. Transfer students from an accredited college or university must have a cumulative grade point average of 3.0 or higher on a 4.0 scale with at least 24 semester hours attempted.
3. Students enrolled with a "Tuition Incentive Program Scholarship" may qualify for each subsequent academic year with a cumulative GPA of 3.0 or higher.
4. Students not receiving a "Tuition Incentive Program Scholarship" as a new student cannot receive the scholarship at a later date.
5. If the "Tuition Incentive Program Scholarship" is cancelled because a 3.0 cumulative GPA is not maintained, it will not be re-instated later.

Note: The Tuition incentive Program (TIP) and the Tuition Incentive Program Scholarship (TIPS) are different. TIP is a tuition rate based on county of residence; TIPS is a scholarship based on academic qualifications. Students from TIP counties in Tennessee, Illinois, Indiana, Missouri and Ohio are eligible for consideration for the TIP Scholarship.

### Alumni Grant Program

An Alumni Grant is available to any qualified nonresident student whose parent, stepparent or grandparent holds an associate, baccalaureate, masters, specialist, or doctoral degree or has completed a certificate program from Western Kentucky University. Tuition for qualified students will be Tuition Incentive Program (TIP) rate.

Alumni Grant recipients are required to live on campus according to current University Housing policy, or get an approved exemption from the Office of Housing and Residence Life.

For qualifications, requirements and procedures, students should contact the Office of Admissions.



## Housing and Residence Life

The Department of Housing and Residence Life, in partnership with the student and the university community, will provide a premier living/learning experience that ensures student success. We offer 15 residence halls with a variety of living options to accommodate the needs and preferences of our student population. Several of the amenities include the following: cable television, Internet connections in each bedroom, and laundry facilities in each hall.

**Brian W. Kuster**, Director, Housing and Residence Life  
**Kit T. Tolbert**, Director of Housing Operations  
**Pamela West**, Associate Director for Facilities  
**Steve Briggs**, Assistant Director for Housing & Residence Life  
**Peggy Crowe**, Assistant Director for Academic Initiatives

**18 Southwest Hall**  
**Phone: (270) 745-4359**  
<http://www.wku.edu/housing>; e-mail: [hrl@wku.edu](mailto:hrl@wku.edu)

Leadership is provided in each hall by professional staff members. Additionally, community advisors, desk assistants, resident assistants, desk clerks and night clerks work to provide services in the halls that include a 24-hour information/security desk operation.

### Required Housing Policy

All full-time freshmen and sophomores are required to live on campus. Exceptions to this policy include students who are married, have dependent children, 21 years old or older, military veterans of 181 continuous days or more, commuting from their parents permanent address (50 mile limit), sophomore fraternity or sorority members who are officers and are required to live in the chapter house, and special circumstances.

### Housing Deposit and Fee Payment

The Residence Hall Housing Agreement requires an accompanying \$150 deposit. This deposit will remain on file throughout the resident's term of occupancy and serves as a combination room reservation, damage, cancellation and room checkout deposit. It does not apply to the semester housing fee, and may be carried over to subsequent academic years.

Students who submit a Residence Hall Housing Agreement prior to the first day of classes for either fall or spring semester will be billed their appropriate housing fee by the business office. Payment must be made in full by the date specified on the bill.

Students who submit a Residence Hall Housing Agreement on or after the first day of classes for either the fall or spring semester agree to submit the \$150 housing deposit to the Department of Housing and Residence Life. The full semester, prorated semester, or full bi-term housing fee is also payable at the business office at the time the Housing Agreement is submitted and accepted.

HALL NAME	NUMBER OF FLOORS	MAXIMUM OCCUPANCY	ELIGIBILITY REQUIREMENTS
<b>Men's Halls</b>			
Douglas-Keen	7/4	392	None
Barnes-Campbell	9	382	None
McCormack	6	374	None
<b>Women's Halls</b>			
Bemis-Lawrence	9	382	None
Gilbert	4	202	None
Hugh Poland	9	406	None
Meredith	3	188s	Sorority
Minton	10	406	Honors
Rodes Harlin	9	368	None
<b>Co-Ed Halls</b>			
Bates-Runner	3	148#	Upperclassmen-Honors
McLean	3	126#	Upperclassmen-Honors
Northeast	3	300#	Upperclassmen
Pearce-Ford	27	894	Extended Living
Southwest	3	300#	Upperclassmen
Zacharias	3	212s	Upperclassmen
12'X16' Approximate Room Size All halls are air-conditioned.			
s = Suites # = rooms with private bathrooms			

### **Cancellations and Refund Policy**

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The Residence Hall Housing Agreement is for the full academic year.

Students who submit written notice of cancellation to the Department of Housing and Residence Life prior to the beginning of the academic year may receive a partial refund of the advance deposit based upon the following dates: cancellations received by July 1 for an agreement beginning fall semester or November 15 for spring semester only, students will receive 2/3 refund of deposit or \$100.00.

Cancellations received between July 2 and August 1 for an agreement beginning fall semester or between November 16 and December 15 for spring semester only, will result in a 1/3 refund of deposit or \$50.

For cancellations received after August 1 for fall semester or December 15 for spring semester only, students do not receive a refund of the advance \$150 deposit. Exceptions to this policy include only those students who are denied admission to the University or not assigned due to lack of residence hall space.

Residents who cancel their Residence Hall Housing Agreement at any time during the academic year, and subsequently continue full-time enrollment, will be assessed a \$750 contract termination fee, will not receive any refund of their housing deposit and may be assessed housing fees for all applicable semesters. Requests for Exemption from the Cancellation Policy are available in the Department of Housing and Residence Life.

### **Extended Living**

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Extended living is offered at Pearce-Ford Tower and allows students to remain in their rooms during the Thanksgiving, semester and spring break periods. All other halls close for these periods which makes this a good option for those who cannot travel during the breaks, need to work in town during breaks or need to be here for University-related activities.

### **Room Assignments**

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Room assignments are made based upon the date of receipt of the Housing Agreement. Returning residents who submit an Agreement before the priority deadline are re-assigned in the spring semester before they leave for summer break. Incoming freshmen and transfer students are then assigned based upon their date of receipt.

Although there are no guarantees, special consideration is given to the indicated preferences. Roommate preferences are made based on availability and mutual requests. It is recommended that residents wishing to room together should submit their Agreements together when possible.

### **Residence Hall Rooms**

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Residence hall rooms are equipped to accommodate two students, and each room is furnished with beds, chests of drawers, closet space, mirrors, desks and chairs. Many are equipped with one active telephone line. Long distance telephone service can be handled a number of ways, but Hilltopper Long Distance has proven to be the most economical choice. Each student receives his/her own personal access code and will receive monthly itemized bills. Students pay only for calls they make - no surcharges or monthly fees.

### **Reservations**

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Students should forward the completed Residence Hall Housing Agreement with their \$150.00 deposit immediately upon applying for admission to the University.

Completed Residence Hall Agreement forms should be sent to the Department of Housing and Residence Life, 1906 College Heights Blvd. #11093, WKU, Bowling Green, Kentucky 42101-1093. Make checks or money orders payable to Western Kentucky University.

## Academic Requirements and Regulations

**Curriculum Requirements**—All candidates for a degree must complete one of the academic programs offered by the University. A candidate for an associate degree must complete a minimum of 60 unduplicated undergraduate semester hours. Some associate degree programs may require more than the minimum 60 semester hours. A candidate for the baccalaureate degree must complete a minimum of 120 unduplicated undergraduate semester hours. Some baccalaureate degree programs may require more than the minimum 120 semester hours. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the appropriate department head.

**Academic Standing**—A candidate for an undergraduate degree must have a scholastic standing of at least 2.0 (1) in all credits presented for graduation whether earned at WKU or elsewhere, (2) in all credits completed at WKU, (3) overall in the major subjects and in the minor subjects, and (4) in the major subjects and in the minor subjects completed at WKU. Students desiring teacher certification must fulfill all academic requirements for teacher certification in the major and minor, in addition to meeting the requirements for graduation. Students should be aware that some academic programs require a minimum grade of “C” in each course applicable toward a major or minor. Refer to the departmental descriptions in this catalog or contact the department head to determine the specific requirements for each major.

**Course Requirements**—At least one-third of the course requirements in each major and minor must be earned at WKU.

At least one-half of the semester hours required for each major and minor must be earned in undergraduate courses numbered 300 and above (except minors in business administration and computer information systems, and majors in dental hygiene, social studies, art education, middle grades education, and middle grades science; refer to the specific program description for details.)

A minimum of 42 undergraduate semester hours must be completed in upper division courses (courses numbered 300 and above) by students earning a baccalaureate degree (except for majors in computer information technology, dental hygiene, health sciences, nursing, systems management, and technology management; refer to each specific major description for more details.)

**Residence Requirements**—The minimum residence requirement for the bachelor’s degree is 25% of the minimum number of semester hours required in the student’s degree program. At least 16 of the hours counted in meeting the residence requirement must be completed after the semester in which the student has earned a cumulative total of at least 90 semester hours. Exceptions to these regulations may be made for WKU students who have been given permission to transfer credits earned at accredited professional schools to apply as electives toward the degree. The minimum residence requirement for an associate degree is 25% of the minimum number of semester hours required in the student’s degree program. One-third of the hours in the specialty must be earned at WKU. With the exception of military personnel pursuing the Associate of Interdisciplinary Studies degree, twelve semester hours used toward the associate degree must be taken at WKU during the last half of the student’s program. A student is permitted to transfer a maximum of six semester hours toward a certificate program.

**Culminating Assessment**—Students are required to show evidence of knowledge in their major field(s) prior to degree completion. Each program will require students to provide evidence that standards have been met through portfolio, examination, capstone course, juried performance, or other culminating experiences.

**Transfer of Credits**—Credits earned at other accredited American institutions of higher education may be transferred to WKU and applied toward a degree. The “Transfer Credit Practices” report published by the American Association of Collegiate Registrars and Admissions Officers will be the reference used for the evaluation of such credits.

Students who previously earned course credit from a non-regionally accredited institution may petition for recognition of that credit. Consideration will be given to courses whose content suggests competencies at least equivalent to courses offered by WKU. For more information see: <http://www.wku.edu/Info/Admissions/transnoncred.html>

Students should be aware that some academic departments require a minimum grade of “C” in each course applicable toward a major. Refer to the departmental descriptions in this catalog or contact the department head to determine the specific requirements for each major.

## Academic Information

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As a service to students who transfer to WKU from another institution, the Office of Admissions provides transfer evaluations of previously earned credits. The evaluations serve as official assignment of credits to General Education Requirements. Acceptance of transfer credits for a particular major, minor or certificate is subject to approval by the appropriate academic department. Students may petition WKU departments to determine if a course should be equivalent to a WKU course. The petition form may be obtained online at <http://www.wku.edu/Info/Admissions/newtransfer1.html>. Students transferring to WKU are required, as a part of the admission process, to provide the Office of Admissions with official transcripts from all previously attended institutions. Upon admission and receipt of all transcripts, updated information will be available online at [www.topnet.wku.edu](http://www.topnet.wku.edu) and iCAP. Students and academic advisors may view course articulation (or equivalency) on iCAP prior to the student's participation in the Academic Transitions Program (orientation).

WKU students occasionally enroll (usually during summer terms) in courses at other institutions. Prior to such enrollment, students should access the on-line transfer equivalency guide available through the Office of Admissions website (see How will my Credits Transfer on: <http://www.wku.edu/Info/Admissions/newtransfer1.html>). This site provides the exact equivalency by course between institutions, if the course has been articulated. Approval for credits to be applied to General Education Requirements is provided by the Coordinator of Transfer Admissions, Office of Admissions and will appear on TopNet and the iCAP reports online. Approval for courses to be applied to a major, minor, or certification program should be obtained from the appropriate academic department.

Credit for a course in which a failing grade has been received can be earned only by repeating the course in residence unless prior written approval is granted by the head of the department in which the course is offered.

Courses completed at a baccalaureate degree granting institution will be accepted for transfer credit at the level of the equivalent WKU course. Courses completed at a community or junior college will transfer to WKU as lower division credit only.

**Kentucky Transfer Agreements**—Western Kentucky University supports, in principle and in practice, agreements that facilitate transfer of credit. The General Education Transfer Agreement, developed by the Kentucky Council on Postsecondary Education and the public institutions in the state, applies to students who transfer from one Kentucky public higher education institution to another. The foundation of the agreement is a core of five broad areas or categories that are common to the general education programs of the public colleges and universities in Kentucky (Communications, Arts & Humanities, Social & Behavioral Sciences, Natural Sciences, Quantitative Reasoning).

Questions or requests for additional information pertaining to the General Education Transfer Agreement should be directed to the Office of Admissions, 117 Potter Hall, 270-745-2551.

**Application for Graduation**—All candidates for a baccalaureate degree are expected to apply for graduation immediately after attaining senior status (90 hours earned). Associate degree candidates are expected to apply for graduation after earning 48 hours. The Application for Graduation is available on TopNet under Student Records.

**Degree Conferral**—Degrees are conferred in May, August and December. All forms must be completed, all incompletes must be removed, all transfers of credit received, and all independent learning courses completed by the last day of the month in which the degree is to be awarded. Failure to comply could result in postponement of the graduation date. Students completing degree requirements during any of the summer sessions (i.e. May, June, July) will receive an August degree conferral. Students completing degree requirements during the winter term will receive a May degree conferral.

Students with outstanding obligations to the University will not be awarded a diploma until the Registrar has been notified by the appropriate office that the obligation has been settled. The student must, in all cases, be primarily responsible for meeting the requirements for graduation.

**Exceptions to Degree Requirements**—No substitution for requirements prescribed by the Council on Postsecondary Education may be made. Substitutions for departmental requirements may be made under certain conditions when recommended by the department head concerned and approved by the dean's office.

Appeals regarding degree requirements may be submitted to the Office of the Registrar for consideration by the Committee on Credits and Graduation. This committee is the body responsible for hearing undergraduate students' appeals of university academic requirements and regulations. Appeals must be submitted by the student in typed form to the Office of the Registrar. The request should include the statement of the problem, statement of request, and justification of circumstances supporting the request. Statements of support or clarification from the student's academic advisor are encouraged if the problem resulted from the advisement process. When a request pertains to an exception in a major or minor, the student should consult with the appropriate department head for a written recommendation to the committee. Decisions of the committee shall be made by a simple majority of the voting members in attendance. Detailed information regarding the submission of an appeal is available from the Office of the Registrar and on the Office of the Registrar website at [www.wku.edu/registrar](http://www.wku.edu/registrar).

**Posthumous Degrees**—As a general practice, WKU awards degrees posthumously only to those students who have met all degree requirements. Under extraordinary circumstances, the University may make an exception to this policy

if the student at the time of death was in good standing, on a clear path toward degree completion, and had completed a minimum of 110 semester credit hours.

**Academic Freedom**—The University desires that every student experiences freedom in academic pursuits. Academic freedom, however, is not irresponsibility—it is the opportunity to pursue truth.

**Academic Offenses**—The maintenance of academic integrity is of fundamental importance to the University. Thus, it should be clearly understood that acts of plagiarism or any other form of cheating will not be tolerated and that anyone committing such acts risks punishment of a serious nature.

A student who believes a faculty member has dealt unfairly with him/her in a course involving academic offenses; such as plagiarism, cheating, or academic dishonesty, may seek relief through the Student Complaint Procedure. Questions about the complaint procedure should be directed to the Student Ombuds Officer at (270) 745-6169.

- **Academic Dishonesty**—Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the coursework in which the act is detected or a failing grade in the course without possibility of withdrawal. The faculty member may also present the case to the Office of Judicial Affairs for disciplinary sanctions.
- **Plagiarism**—To represent written work taken from another source as one's own is plagiarism. Plagiarism is a serious offense. The academic work of a student must be his/her own. One must give any author credit for source material borrowed from him/her. To lift content directly from a source without giving credit is a flagrant act. To present a borrowed passage without reference to the source after having changed a few words is also plagiarism.
- **Cheating**—No student shall receive or give assistance not authorized by the instructor in taking an examination or in the preparation of an essay, laboratory report, problem assignment, or other project that is submitted for purposes of grade determination.
- **Other Type of Academic Dishonesty**—Other types of academic offenses, such as the theft or sale of tests, should be reported to the Office of Judicial Affairs at (270) 745-5429 for judicial sanction.

**Grading and the Quality Point System**—Within one week of the start of the pertinent semester/term/summer session, the instructor will provide students a written statement of the factors to be considered in determining grades and the specific weight to be assigned to each of these factors. The letters A, B, C, D, F, P and X are used by the University to indicate the student's academic proficiency. These letters have the following significance:

- A**—Excellent, valued at four quality points per semester hour.
- B**—Good, valued at three quality points per semester hour.
- C**—Average, valued at two quality points per semester hour.
- D**—Below average, unsatisfactory, valued at one quality point per semester hour. (A "D" gives credit toward a degree. The student's overall grade point average, however, must be a 2.0 or better to meet the requirements for graduation.)
- F**—Failure, valued at no semester hours earned and no quality points.
- FN**—Failure due to non-attendance (no semester hours earned and no quality points).
- P**—Pass, credit is awarded toward a degree, but no quality points are assigned. The "P" designation is restricted to specific courses approved for its use.
- X**—Incomplete. (See below for additional information.)

The designations AU, W, NR, ER and NG are not included in the determination of grade point average and are used in the following cases:

- AU**—Auditor of a course (See below for additional information.)
- W**—Officially Withdrew.
- NR**—No report. Grades for an entire class were not received by the Office of the Registrar in time for processing. The designation "NR" is not to be used as a grade for individual students.
- ER**—Error in reporting. This designation is used by the Office of the Registrar when a grade is not reported for an individual student.
- NG**—No grade. A grade is not appropriate to the course. The "NG" designation is restricted to specific courses approved for its use.
- IP**—In Progress. The IP designation is restricted to specific courses designed to span more than one term. Unless approved otherwise, an IP designation unresolved at the end of one year after its assignment will be converted to an F.

Credit for a course in which a grade of "F" has been received can only be earned by repeating the course in residence unless prior approval is given by the head of the department in which the course was taken. A course in which a grade of "D" has been received may be repeated at another accredited institution.

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A grade of "X" (incomplete) is given only when a relatively small amount of work is not completed because of illness or other reason satisfactory to the instructor. A grade of "X" received by an undergraduate student will automatically become an "F" unless removed within twelve (12) weeks of the next full term (summer term excluded.) An incomplete must be removed within this twelve-week period regardless of whether the student is registered for additional work in the next term. A grade of "X" received by a graduate student, with the exception of thesis courses or similar projects, will automatically become an "F" unless removed within twelve (12) weeks of the next full term (summer term excluded). A student should work with the instructor who assigned the incomplete on an independent basis in order to complete the necessary assignments. A grade of incomplete is not used under any circumstances as a substitute for "F" or "W."

**Developmental Course Grading** – Courses numbered 050-099 are developmental courses; grades earned in these courses will not count toward the student's GPA, but shall be considered in determining eligibility for financial aid and academic probation status. Credit hours earned in these courses are not degree applicable.

**Grade Reports**—It is recommended that some graded evaluation be accomplished by the end of the first six weeks equal to at least 20% of the student's final grade. Final grades are accessible through TopNet, WKU's on-line student information system.

**Auditing of Courses**—An auditor enrolls and participates in a course without expecting to receive academic credit. The same registration procedure is followed and the same fees charged as for courses taken for credit. An audited course is not applicable to any degree or certificate program.

Regular class attendance is expected of an auditor. Other course requirements, which may be obtained in writing from the instructor, will vary depending on the nature of the course. Students interested in auditing a course should secure permission from the instructor and discuss course requirements prior to enrolling. Failure to meet course requirements may result in the auditor being withdrawn from the course at the request of the instructor. A successful audit will be recorded on the transcript with the designation AU.

Any change from audit to credit must be done by the last day to add a class. Changes from credit to audit must be done by the last day to drop a class with a grade of "W." Refunds for withdrawals from audited courses will be prorated on the same basis as refunds for withdrawals from courses taken for credit.

**Recording of Grades**—Grades are recorded in the Office of the Registrar as reported by the faculty at the end of each term. No grade filed in that office may be changed except via a written statement from the instructor certifying that an error has been made. All conditions must be removed before the student will be recommended for any certificate or degree.

**Computation of Point Standing**—The overall grade point average is defined as the ratio of the total number (including transfer work) of quality points to the total number of quality hours attempted. The WKU grade point average is defined as the ratio of the total number of quality points to the total number of quality hours attempted for courses taken only through Western Kentucky University.

**Repeating Courses**—An undergraduate student is permitted to repeat a maximum of six courses. Only two courses in which a grade of "C" or above has been earned may be repeated.

Credit for a course in which a grade of "F" has been received can be earned only by repeating the course in residence unless prior approval is given by the head of the department in which the course was taken. A course in which a grade of "D" has been received may be repeated at another accredited institution.

A course that has been failed cannot be repeated by independent learning without special permission from the department head. A student may not repeat by proficiency testing a course that has been previously taken or failed at WKU or another accredited institution.

If a course is repeated, only the second grade will be counted in computing the grade point average; if the course is repeated a second time both the second and the third grades will be used in computing the grade point average. The grade received for each attempt will continue to appear on the student's academic record. A student may attempt a single course no more than three times.

The Committee on Credits and Graduation has the responsibility for hearing appeals from students regarding the application of these regulations.

An appeal for special permission to repeat a course in the major or minor beyond the third attempt will be considered only upon the recommendation of the head of the department involved and then only if special consideration is needed to raise the average in that subject to the minimum required.

Students seeking special consideration to repeat a course beyond the third attempt in the general education requirements and in free electives must first consult with the Registrar of the University. If after this conference an appeal is deemed appropriate, the Committee on Credits and Graduation will consider the student's request.

**Academic Renewal**—An academic renewal program is available to qualified undergraduate students. Academic renewal prevents the voided coursework from counting toward graduation and the computation of the grade point average; however, the voided coursework will remain a part of the transcript. Qualified undergraduate students must not have attended any accredited college or university for at least two previous years and must have a cumulative grade point average, since readmission, of at least 2.0 (with no grade below “D”), computed at the end of the term in which the student completes a minimum of 12 semester hours of courses numbered 100 or above.

WKU accepts transfer credit retained through academic renewal at other institutions, but will use grades from those courses for the computation of the overall GPA.

The student must petition the Registrar in writing to request academic renewal, indicating whether one semester or all previous coursework is to be voided. No student may declare academic renewal more than once.

The petition to apply for academic renewal is available on the Office of the Registrar website at [www.wku.edu/registrar](http://www.wku.edu/registrar).

**Change of Major, Minor, Concentration, and/or Advisor** – Changes in majors, minors, concentrations, and advisors are made upon request by students. Students must submit a *Major, Minor, Concentration, Advisor Change Form* to the academic department that administers the student’s chosen program. This form is available online for students in TopNet. Once in TopNet, click on Student Services, Student Records, and finally Change of Major, Minor, Concentration, Advisor. This form will walk students through the process and allow an opportunity to correct any errors prior to printing the form. After printing the form, students are required to bring the form to the department listed to obtain requested signatures. Regional Campus students should bring the form to their Regional Campus advisor for processing.

**University Attendance Policy**—Registration in a course obligates the student to be regular and punctual in class attendance.

Students should make certain that their names are on the class roll. If an error has been made in registration, it is the student’s responsibility to see that the error is corrected in the Office of the Registrar. It is the individual instructor’s responsibility to inform students of the guidelines for implementing the instructor’s attendance policy, in writing within one week of the start of the pertinent semester/term/summer session. Students who cease attending class are expected to report to the Office of the Registrar to initiate withdrawal procedures. Withdrawal deadlines are published each semester in the Registration Guide.

Excessive absenteeism frequently contributes to poor academic achievement. An instructor who determines that a student’s absenteeism is inconsistent with the instructor’s stated policy should either counsel with the student or request that the Academic Advising and Retention Center arrange a counseling session with the student. Excessive absenteeism may result in the instructor’s dismissing the student from the class and recording a failing grade, unless the student officially withdraws from the class before the withdrawal deadline. If the student withdraws from the University after the end of the official withdrawal period, excessive absenteeism may be one of the considerations in the instructor’s deciding whether circumstances justify a “W” or an “F” in the course. The normal appeal process is available to the student who wants to appeal the decision of the instructor.

When a student is absent from class because of illness, death in the family, or other justifiable reasons, it is the student’s responsibility to consult the instructor at the earliest possible time.

Students who, without previous arrangement with the instructor or department, fail to attend the first two class meetings of a course meeting multiple times per week or the first meeting of a class that meets one time per week MAY be dropped from the course. Nonattendance for a web-based course shall be defined as failure to log onto Blackboard or other instructor-designed website within one week of the course start date without previous arrangements with the instructor or department. Instructors may drop a student for nonattendance only during the regular drop/add period of the term. Nonattendance does NOT release students from the responsibility to officially drop any course for which they have enrolled and choose not to complete.

**Academic Probation**—To be eligible for continuous enrollment without being placed on academic probation, a student must maintain the following scholastic standards in both the overall grade point average and the total institution grade point average (courses taken at WKU):

- A. A 1.7 overall and total institution grade point average if the student has 17 or fewer semester hours attempted.
- B. A 1.8 overall and total institution grade point average if the student has more than 17 but fewer than 34 hours attempted.
- C. A 1.9 overall and total institution grade point average if the student has 34 or more but fewer than 51 semester hours attempted.
- D. A 2.0 overall and total institution grade point average if the student has 51 or more semester hours attempted.

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At the end of each academic term, students may access their grade report via TopNet that reflects grades for the term, the overall, and the total institution grade point average. Students failing to meet the scholastic standards listed above are placed on academic probation. Students enrolled on academic probation are subject to academic dismissal if they fail to attain the minimum standards listed above and earn less than a 2.0 grade point average for the academic term. A student on academic probation is allowed continued enrollment on a semester-by-semester probationary status as long as a 2.0 grade point average is maintained each term.

Once placed on academic probation, the student who fails to earn a current (term) grade point average of 2.0 or higher is not eligible to enroll in the next regular semester. Depending upon the student's overall grade point average and total institution grade point average, the student may be invited to fill out an appeal with the University Academic Probation Committee. The Committee may dismiss the student from the University or allow the student continued enrollment with stated restrictions for one additional term. One restriction may be to participate in the Best Expectation Programs (BEP) through the Academic Advising and Retention Center (AARC). Academic status for all students who complete a term is shown on TopNet. It is the student's responsibility to stay informed of his/her academic status and to improve academic performance until he/she is returned to good standing status.

**NOTE:** Students with an overall or total institution grade point average below 2.0, but above the academic probation scale, should be aware that their performance does not meet the minimum requirements for graduation and that their performance is considered marginal by the university. These students are encouraged to attain a minimum 2.0 grade point average as soon as possible, including seeking advice and counseling from the AARC.

**Appeal Procedure**—A student dismissed from the University by the University Academic Probation Committee may appeal the decision to the Executive Appeals Committee. If the Executive Committee approves an appeal, the student will be permitted to register for an additional semester on academic probation with conditions determined by the Executive Committee at the time of approval. Detailed operational procedures followed by the University Academic Probation Committee may be obtained from the Academic Advising and Retention Center located in the Student Success Center of Downing University Center.

Students who fail to satisfy criteria for continuous enrollment due to academic deficiencies, and are either dismissed or voluntarily withdraw, are eligible to apply for readmission to the University after one year of non-enrollment at any college or university. Enrollment at that time is not automatic; readmission will be determined by admission standards. Applications for readmission should be filed with the Office of Admissions prior to published deadlines.

**Withdrawal from the University**—For various reasons it is occasionally necessary for a student to withdraw from the University. Prior to the midpoint of the semester, students may use TopNet to withdraw. After the midpoint of the semester, the student should report to the Office of the Registrar to initiate withdrawal procedures. Students leaving the institution without an official withdrawal will receive failing grades in all courses in which they are enrolled and endanger their future status in the institution. Students withdrawing after the midpoint of the semester, a bi-term or comparable period during the summer session must consult with their instructors as to the withdrawal grade. The official date of the withdrawal is the date the withdrawal is processed on TopNet or the written notice is received in the Office of the Registrar. Students wishing to return to WKU at a later date must submit an application for readmission prior to the deadline for submitting applications.

In special circumstances, as described below, a complete withdrawal from the university after the mid-point of a term will be considered. Request forms are available on the Office of the Registrar website at [www.wku.edu/registrar](http://www.wku.edu/registrar).

**Administrative Withdrawal** – A request for an administrative withdrawal is initiated by the University because of a disciplinary situation or when, in the professional judgment of a health care provider, psychologist and/or university administrator, there is reason to believe a student is a substantial threat to him/herself or interferes with the welfare of other members of the university, the education process, or the orderly operation of the university. The Vice President for Student Affairs or the Associate Vice President for Academic Affairs, or their respective designees, will notify the student of the involuntary withdrawal, and the Registrar will be directed to withdraw the student from all classes in which the student is currently enrolled and cancel registration that has occurred for any future terms. The Office of the Registrar will notify the student's instructors of the withdrawal, and "W" grades will be recorded for the term in progress. A student who is administratively withdrawn will have a registration hold placed by the Vice President for Student Affairs or the Associate Vice President for Academic Affairs to prevent the student from being readmitted or re-enrolled unless cleared by the appropriate administrator or the respective designee. A student may file a written appeal of an involuntary withdrawal through the office that administered the withdrawal. Tuition refund appeals for administrative withdrawals are handled in a separate procedure, and instructions may be obtained from the Bursar's Office.

**Medical Withdrawal** – A student may request and be considered for a medical withdrawal from all courses in a term when extraordinary circumstances, such as a serious physical or mental illness or injury, prevent the student from continuing his or her classes after the mid-point of a term, and incompletes or other arrangements with the instructors are not feasible or possible. A medical withdrawal must be substantiated with appropriate documentation from the attending health care provider. Once the rationale for a medical withdrawal has been validated by the Office of the



Registrar, the student's instructors will be sent notification of the withdrawal, and "W" grades will be recorded for each course. A student who requests a medical withdrawal, or an individual requesting a withdrawal on behalf of the student who is physically or mentally unable to request the withdrawal, should contact the Office of the Registrar to obtain medical withdrawal procedures. Tuition refund appeals for medical withdrawals are handled in a separate procedure, and instructions may be obtained from the Bursar's Office.

**Military Withdrawal** – Students who are members of any branch of the United States Armed Services, including the National Guard, who are called to active duty while enrolled at WKU are entitled to the following options.

1. Students may work with each individual instructor to determine if an incomplete grade is appropriate, or
2. If an incomplete grade is not a viable option, the student will be permitted to withdraw either from individual courses or from the entire schedule of classes. A full refund of tuition and fees will be issued for those courses from which the student has withdrawn.

Students who are called to active duty while enrolled should contact the Office of the Registrar to initiate the withdrawal process. An official copy of the military orders must be presented to invoke this special withdrawal and refund process.

**Retroactive Withdrawal** – A student who leaves the university for extenuating circumstances without an official withdrawal during the term of departure may apply for a retroactive withdrawal. The student must present supporting documentation that demonstrates serious and compelling reasons justifying the withdrawal and extenuating circumstances justifying its retroactive nature; poor academic performance that is not attributed to non-academic extenuating circumstances is not a consideration for retroactive withdrawal. A student may appeal for a retroactive withdrawal within two calendar years following the end of the term for which withdrawal is requested. A student need not be enrolled at WKU at the time the application for retroactive withdrawal is submitted.

An appellate board will review the request for a retroactive withdrawal. The board will consider the following factors, including, but not limited to:

1. Documentation of extenuating circumstances
2. Written letter of support from an academic administrator, faculty member, advisor or other university professional who is familiar with the student's situation.

If a retroactive withdrawal is approved, the Registrar will notify the student's instructors and department heads of the request for a retroactive withdrawal, and they will be given 14 calendar days to raise objections if the student's classroom performance was such that a withdrawal (W) would not be appropriate. If objections are raised by the instructor or department head, the Registrar will be informed of the objection, and the student will not receive a W in the class. Instructions for filing an appeal for a retroactive withdrawal may be obtained from the Office of the Registrar. A tuition refund is not granted for a retroactive withdrawal.

**Division of the School Year**—The academic year of Western Kentucky University is divided into two semesters consisting of sixteen weeks, a 13-week summer term, and a three-week winter term. The opening and closing dates are given in the university calendar, which is published yearly. Specific information about the summer and winter terms are available at [www.wku.edu/delo](http://www.wku.edu/delo).

**Unit of University Credit**—The unit of credit is a semester hour.

**Classification of Students**—Beginning students are classified as freshmen; students with a minimum of 30 semester hours earned, as sophomores; 60 hours earned, as juniors; and 90 hours earned, as seniors.

**Student Course Load**—To be considered a full-time undergraduate student, one must carry a minimum of 12 hours each semester. Students who wish to enroll for 20-21 semester hours must have a cumulative grade point average of 3.3 or above.

**Enrollment in Graduate Courses**—Undergraduate students at Western Kentucky University may enroll in graduate level courses. Several conditions must be met to facilitate such enrollment:

1. Students must file all appropriate paper work through the Office of Graduate Studies and Research.
  - a. Undergraduate Application for Graduate Enrollment Form
  - b. Letter of recommendation from director of graduate program (or department head) that speaks to the student's ability to perform at graduate level and justification of appropriateness of enrollment in such courses.
2. Undergraduate students must have declared a major or minor in the subject area or a closely related area for which the graduate course is offered.
3. Students must have a minimum cumulative GPA of 3.0 in the major or minor area to which the graduate coursework is closely related.
4. Students may enroll in no more than 15 hours of coursework (graduate and undergraduate combined) in any semester in which enrollment in graduate-level courses occurs.

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5. With the concurrence of the student's undergraduate advisor, department head and dean, graduate coursework may be used to satisfy undergraduate degree requirements; however, graduate credit hours used to meet the requirements for a baccalaureate degree may not be used toward a graduate degree.

**University Schedule Changes**—The institution reserves the privilege at all times of canceling any course for which the enrollment is not sufficient to justify its continuation and to make any other adjustments in the schedule that seem necessary.

**Registration and Student Schedule Changes**— After classes begin, registration for a full-time course load and/or changes in schedules may be made only within the first six class days of a semester or the first three days of a bi-term. Courses that do not meet at least twice during the first six class days may be added through, but not past, the day of the second class meeting.

During a semester, a student may withdraw from a course with a grade of "W" or "F" under the following conditions. It is recommended that faculty members inform students of this "W" period deadline.

- A student is permitted to withdraw from any course with a grade of "W" through the midpoint of the semester.
- After the midpoint of the semester, any student dropping a course receives an automatic "F." However, when there are extenuating circumstances, and at the discretion of the faculty member and the department head, the student may be permitted to withdraw with a "W" instead of "F."

During a bi-term a student may drop a course with a grade of "W" or "F" under the following conditions:

- A student is permitted to withdraw from any course with a grade of "W" through the midpoint of the bi-term.
- After the midpoint of the bi-term, any student dropping a course receives an automatic "F." However, when there are extenuating circumstances, and at the discretion of the faculty member and the department head, the student may be permitted to withdraw with a "W" instead of "F."

Students should check the Registration Guide each term for specific dates that affect schedule changes.

**Transcripts**—Transcripts will be released at the written request of the student and in conformity with existing state and federal statutes pertaining to the release of student academic records. The official academic record is the property of the University. Consequently, the University reserves the right to withhold the release of a transcript of that record if the student has an obligation to the University. Transcript request information is available on the Office of the Registrar website at [www.wku.edu/registrar](http://www.wku.edu/registrar).

### Recognition of Academic Achievement

The University provides a system through which students with outstanding academic records are appropriately recognized. Students are recognized according to the following categories each semester:

**Dean's Scholars**—Undergraduate students enrolled full-time whose grade point average for the preceding semester ranged between 3.40 - 3.79.

**President's Scholars**—Undergraduate students enrolled full-time whose grade point average for the preceding semester ranged between 3.80 - 4.00.

Students who maintain superior cumulative grade point averages are recognized at graduation according to the following designations:

**With Distinction**—The graduation honor given to students who have completed their associate degree with both cumulative overall and cumulative WKU grade point averages of 3.4 - 3.69 and a minimum of 27 semester hours earned in residence at WKU.

**With High Distinction**—The graduation honor given to students who have completed their associate degree with both cumulative overall and cumulative WKU grade point averages of 3.7 - 4.0 and a minimum of 27 semester hours earned in residence at WKU.

**Cum Laude**—The graduation honor given to students who have completed their baccalaureate study with both cumulative overall and cumulative WKU grade point averages of 3.40 - 3.59 and a minimum of 54 semester hours earned in residence at WKU.

**Magna Cum Laude**—The graduation honor given to students who have completed their baccalaureate study with both cumulative overall and cumulative WKU grade point averages of 3.60 - 3.79 and a minimum of 54 semester hours earned in residence at WKU.

**Summa Cum Laude**—The graduation honor given to students who have completed their baccalaureate study with both cumulative overall and cumulative WKU grade point averages of 3.80 - 4.00 and a minimum of 54 semester hours earned in residence at WKU.

**Scholar of the College**—This award is presented at commencement to the baccalaureate degree recipient in each college with the highest overall cumulative grade point average who has earned a minimum of 60 semester hours in residence. The Scholar of the College award is presented to recipients of first baccalaureate degrees only.

**Ogden Foundation Scholar**—The Ogden Foundation Scholar Award is presented to one graduating baccalaureate degree senior who has demonstrated exceptional academic achievement and outstanding university and civic engagement. Student(s) with the highest GPA in each college (based upon the GPA at the beginning of the term in which degree requirements will be completed) who have earned at least 60 hours in residence will be invited to apply for the award. The application will consist of an application form, an essay and two letters of recommendation. A committee comprised of a representative of each baccalaureate college and a member of the Ogden Foundation Board of Trustees will select the top three candidates to be interviewed and will select the award recipient. The recipient will receive a plaque and a monetary award.

### Global Studies Designation

As part of its commitment to be "a leading American university with international reach," WKU offers all students the opportunity to earn a Global Studies Designation as part of their undergraduate education. This program may be combined with any major.

Students who complete the requirements outlined below will receive the "Emphasis in Global Studies" designation on their official transcript. Global Studies designees are also honored at a special graduation reception and are distinguished by a special sash worn with their robes at graduation ceremonies. Requirements include:

1. Completion of a minimum of twenty-four (24) credit hours of course work with substantial international content. There is a list of more than 300 approved courses from which a student may select. To meet this requirement, no more than nine hours may be counted from any one program and at least three different departments must be represented. Any of the courses can also be used to meet major, minor, or general education requirements, as appropriate. Students must achieve an overall minimum GPA of 2.5 in the international content courses in order to receive the "Emphasis in Global Studies" designation.
2. A minimum of six (6) credit hours of modern foreign language, either six hours in one language or three hours each from two languages. This requirement must be met in addition to the twenty-four hours of international content course work above.
3. Completion of an approved international learning experience that could include study abroad, internship abroad, or student teaching abroad.

Interested students should contact WKU's Office of International Programs at (270) 745-7002, or visit online at [www.wku.edu/oip/globalstudiesdesignationrev200.pdf](http://www.wku.edu/oip/globalstudiesdesignationrev200.pdf) for further information.

### Academic Programs

The university reserves the right to make changes as required in course offerings, academic policies and other rules and regulations affecting students to be effective whenever determined by the University.

### Student Catalog Rights

The student's initial term of entry is identified as the student's "catalog term." Catalog term rights include the following:

- A student shall be entitled to follow general education and major/minor degree requirements contained in the catalog current when first enrolled at WKU as a degree-seeking student. This does not preclude the addition of requirements arising from action of the Commonwealth of Kentucky.
- A student will be allowed seven consecutive years from his/her catalog term to complete degree requirements. The college dean may grant an extension to this deadline.
- A student who drops out and re-enrolls after an absence of seven consecutive years or more will be assigned the catalog term of the readmission term.
- A student's catalog term will be changed to a more recent term if the student, in consultation with the advisor and with approval by the department head, agrees to follow more recent degree requirements.

Academic departments reserve the right to authorize appropriate course substitutions for earlier versions of major/minor requirements in which required courses have been discontinued.

### Baccalaureate Degrees

Western Kentucky University confers seven baccalaureate degrees: Bachelor of Arts, Bachelor of Science, Bachelor of Interdisciplinary Studies, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science in Nursing, and Bachelor of Social Work. To obtain the degree awarded upon the completion of a specific program of study, consult the chart found under "Major Programs of Study" on the following pages.

**AB (Artium Baccalaureus/Bachelor of Arts)** degrees typically emphasize the social sciences, arts, humanities, and foreign languages. The degree is intended to advance student understanding of human culture through examination of historical, social, religious and political contexts; analysis of ideas; appreciation of art and creative endeavors; knowledge of philosophical theories; and achievement of language competency. AB requirements typically promote broad preparation within a discipline.

**BS (Bachelor of Science)** degrees typically emphasize the natural sciences, mathematics and technology. The degree is intended to advance student preparation in reasoning, analysis, experimentation and the application of scientific principles in problem-solving consistent with professional or technical preparation. BS requirements typically promote depth of preparation within a discipline.

**BIS (Bachelor of Interdisciplinary Studies)** provides an alternative baccalaureate degree program for students who do not need or desire the academic specialization involved in traditional major or major/minor programs. This degree program allows considerable latitude and flexibility to satisfy individual interests and needs.

**BFA (Bachelor of Fine Arts)** is the initial professional degree in fine arts. It prepares students for a professional studio practice through an intensive artistic and academic experience. Students develop strong personal concepts along with technical proficiency creating a cohesive body of work on which to base an individual, sustainable studio practice.

**BM (Bachelor of Music)** provides intensive study in music leading to three distinct P-12 teaching certifications (vocal, instrumental, integrated) or a performance degree that supports private studio teaching or graduate study.

**BSN (Bachelor of Science in Nursing)** is an entry-level degree for professional nursing. It prepares the graduate to be a professional nurse who can practice in a variety of settings and who has the knowledge base to pursue graduate study in nursing.

**BSW (Bachelor of Social Work)** is the only undergraduate major that educates students to be professional social workers. BSW graduates are prepared for immediate entry into direct human service professional positions. They possess the intellectual, practical and professional skills needed to promote beneficial change in the lives of their clients.

A baccalaureate degree requires a minimum of 120 unduplicated semester hours. Students must arrange their degree program by choosing one of the following options:

**Option I** (minimum of 54 hours, 48 of which must be unduplicated)

- A. Major
- B. Minor

**Option II** (minimum of 48 hours)

Major

**Option III** (minimum of 54 hours)

- A. First Major
- B. Second Major

**Option IV** (minimum of 54 hours)

- A. Major
- B. First Minor
- C. Second Minor

**Option V** (minimum of 37 hours)

Completion of at least 37 hours in an area of emphasis within the Bachelor of Interdisciplinary Studies degree, with no more than 24 semester hours in a single academic discipline.

A baccalaureate degree candidate with a double major will receive one degree; the degree will be associated with the student's declared first major.

Approved majors and minors are listed on the following pages. Any specific admission or course requirements may be found in the college or departmental section of this catalog.

In addition to one of the above options, each student must complete 44 semester hours of general education courses and electives to total the minimum of 120 unduplicated semester hours. For details refer to the section of this chapter on "General Education Requirements." Since some programs are non-certifiable, students seeking teacher certification should consult the Teacher Education Programs portion of this catalog for a list of certifiable programs and the required professional education courses.

## Associate Degrees

Western Kentucky University confers four associate degrees: Associate of Arts, Associate of Science, Associate of Applied Science and Associate of Interdisciplinary Studies. Program requirements may be obtained from the appropriate department head or advisor. For the degree awarded upon the completion of a specific program of study, consult the chart found under "Major Programs of Study" on the following pages.

## Certificate Programs

The University offers certificate programs listed on the following pages under "Programs of Study." Program requirements may be obtained from the appropriate department head or advisor. Only undergraduate courses may be used to fulfill undergraduate certificate program requirements.

## Graduate Degrees

The University offers ten masters degrees: Master of Arts, Master of Arts in Education, Master of Business Administration, Master of Health Administration, Master of Public Health, Master of Public Administration, Master of Science, Master of Science in Nursing, and Master of Social Work.

The University also offers the Specialist in Education degree and a Doctoral of Education degree in educational leadership and a Doctor of Nursing Practice degree. For details on graduate degrees and programs, see the Graduate Studies Catalog.

## Concurrent Degrees

### A. Concurrent Associate Degrees

Associate degree programs are generally designed to prepare students for immediate technical or semi-professional employment. Therefore, students may earn two associate degrees concurrently at WKU. Courses taken toward fulfilling one associate degree may also count toward fulfilling requirements in the other, provided that a minimum of 15 semester hours of coursework in the additional area of specialization—not including general education—applies exclusively to the additional concurrently earned associate degree.

### B. Concurrent Baccalaureate Degrees

Although students may pursue multiple majors and minors, two baccalaureate degrees may not be earned concurrently at WKU.

## Second Degree Requirements

Students who have successfully earned a degree from WKU or another accredited college or university may earn a second degree at the equivalent level upon completion of the curriculum as approved by the major department and the following minimum requirements. This procedure may not be used to earn degrees concurrently at the same level.

### A. Second Associate Degree

- An acceptable associate or higher degree from a fully accredited college or university.
- An approved program including a minimum of fifteen (15) semester hours in a new area of specialization earned after completion of the first degree.
- Twelve (12) semester hours contained in the approved program must be earned at WKU.
- A 2.00 grade average must be earned for all course work presented in completion of the program; in all coursework completed at WKU; and in all coursework in any field of specialization.

### B. Second Baccalaureate Degree

- An acceptable baccalaureate degree from a fully accredited college or university.
- An approved program including a minimum of thirty (30) semester hours earned after completion of the first degree.
- Twenty-four (24) semester hours contained in the approved program must be earned at WKU.
- Fifteen (15) semester hours must be earned in completion of a new major.
- One-half of the new semester hours presented in completion of each major and minor must be earned at the upper division level.
- A 2.00 grade average must be earned for all coursework presented in completion of the program; in all coursework completed at WKU; and in all coursework in each major and minor.

## Baccalaureate Programs of Study

M = Minor or Second Major required

Department Major	Concentrations	Reference Number	Minimum Hours	Degree	Advisor Name	Office	Phone Number	Page #
<b>POTTER COLLEGE OF ARTS AND LETTERS</b>								
<b>Department of Art</b>								
<i>Art History</i> <sup>M</sup>		613	33	A.B.	Jordan	FAC 413	58865	61
<i>Visual Arts</i>		514		B.F.A.				60
	ARST – Studio		82		Oglesbee	FAC 441	56566	60
	ARGD – Graphic Design		82		Sung	FAC 414	52154	60
					Tullis	FAC 401	55930	
					Jensen	FAC 421	55926	
<i>Visual Studies</i>		509		A.B.				61
	ARED – Art Education		66		Choe	FAC 439	57052	61
	ARSO – Studio Art		49		Oglesbee	FAC 441	56566	61
<b>Department of Communication</b>								
<i>Communication Studies (seeking admission)</i> <sup>M</sup>		792P						63
<i>Communication Studies (officially admitted)</i> <sup>M</sup>		792	34	A.B.	Crawley	FAC 130	53296	63
<i>Corporate and Organizational Communication (seeking admission)</i>		522P						62
<i>Corporate and Organizational Communication (officially admitted)</i>		522	55	A.B.	Crawley	FAC 130	53296	62
<b>Department of English</b>								
<i>English</i> <sup>M</sup>		662		A.B.				64
	ENLT – Literature		40		Green	CH 135C	53045	64
	ENCW – Creative Writing		39		McCaffrey	CH 111	55709	64
	ENPW – Professional Writing		39		McCaffrey	CH 111	55709	65
<i>English for Secondary Teachers</i>		561	55	A.B.	Lenior	CH 107	55712	65
<b>Department of Folk Studies and Anthropology</b>								
<i>Anthropology</i> <sup>M</sup>		608	30	A.B.	Hudepohl	FAC 235	55842	67
	ANAR – Archaeology							67
	ANBA – Biological Anthropology							67
	ANCA – Cultural Anthropology							67
	ANCR – Cultural Resource Management							67
<b>Department of History</b>								
<i>History</i> <sup>M</sup>		695	33	A.B.	Weigel	CH 201A	55724	68
<i>Social Studies</i>		592	60	A.B.	Weigel	CH 201A	55724	68
<b>School of Journalism and Broadcasting</b>								
<i>Advertising (seeking admission)</i> <sup>M</sup>		727P			Martin	MMTH 224	56988	72
					Shaluta	MMTH 312	55833	
<i>Advertising (officially admitted)</i> <sup>M</sup>		727	36	A.B.	Shaluta	MMTH 312	55833	72
	ADBR – Branding							73
	ADCP – Creative Print							73
	ADCI – Creative Interactive							73
<i>Broadcasting (seeking admission)</i> <sup>M</sup>		726P			Martin	MMTH 224	56988	73
					S. White	MMTH 342	55891	
<i>Broadcasting (officially admitted)</i> <sup>M</sup>		726	39	A.B.	S. White	MMTH 342	55891	73
	BRTV – Television/Film Production							73
	BRNS – Broadcast News							73
	BRRT – Radio & Television Production							73
<i>Film</i> <sup>M</sup>		667	35	A.B.	S. White	MMTH 342	55891	74
<i>Mass Communication (seeking admission)</i> <sup>M</sup>		725P			Martin	MMTH 224	56988	74
					N. Ralston	MMTH 225	55841	
<i>Mass Communication (officially admitted)</i> <sup>M</sup>		725	36	A.B.	N. Ralston	MMTH 225	55841	74
<i>News/Editorial Journalism (seeking admission)</i> <sup>M</sup>		716P			Martin	MMTH 224	56988	75
					Mckerral	MMTH 222	55882	
<i>News/Editorial Journalism (officially admitted)</i> <sup>M</sup>		716	42	A.B.	Mckerral	MMTH 222	55882	75
<i>Photojournalism (seeking admission)</i> <sup>M</sup>		750P			Martin	MMTH 224	56988	75
					Kenney	MMTH 116	56307	
<i>Photojournalism (officially admitted)</i> <sup>M</sup>		750	42	A.B.	Kenney	MMTH 116	56307	75
<i>Public Relations (seeking admission)</i> <sup>M</sup>		763P			Martin	MMTH 224	56988	76
					Shaluta	MMTH 312	55833	
<i>Public Relations (officially admitted)</i> <sup>M</sup>		763	39	A.B.	Shaluta	MMTH 312	55833	76

## Academic Information

Department Major	Concentrations	Reference Number	Minimum Hours	Degree	Advisor Name	Office	Phone Number	Page #
<b>Department of Modern Languages</b>								
<i>French<sup>M</sup></i>		665	36	A.B.	Davis	FAC 260	56478	78
<i>German<sup>M</sup></i>		683	36	A.B.	Davis	FAC 260	56478	78
<i>Spanish<sup>M</sup></i>		778	36	A.B.	Davis	FAC 260	56478	79
<b>Department of Music</b>								
<i>Music</i>		593		B.M.				82
	MUED – Music Ed – Instrumental P-12		72		Stites	FAC 335	54388	83
					Bright	FAC 182	54024	
	MUEV – Music Ed – Vocal P-12		72		Pope	FAC 339	55920	83
					Adam	FAC 334	52307	
	MUIN – Music Ed – Instrumental/Integrated P-12		77		Stites	FAC 335	54388	83
	MUP2 – Instrumental Performance		73		Kelly	FAC 322	52682	83
	MUP1 – Vocal Performance		75		Kelly	FAC 322	52682	83
<i>Music (Liberal Arts)</i>		583	51	A.B.	Martin	FAC 325	56890	84
					Cipolla	FAC 347	57093	
<b>Department of Philosophy and Religion</b>								
<i>Asian Religions and Cultures<sup>M</sup></i>		615	33	A.B.	Samuels	CH 311	55748	88
<i>Philosophy<sup>M</sup></i>		745	32	A.B.	Bain-Selbo	CH 300	53136	87
<i>Religious Studies<sup>M</sup></i>		769	30	A.B.	Trafton	CH 308	55750	87
<b>Department of Political Science</b>								
<i>International Affairs<sup>M</sup></i>		702	45	A.B.	Murphy	GH 308	52890	90
<i>Political Science<sup>M</sup></i>		686	34	A.B.	Ardrey	GH 300	54558	91
<b>Department of Sociology</b>								
<i>Sociology<sup>M</sup></i>		775	31	A.B.	Smith	GH 101	53759	92
<b>Department of Theatre and Dance</b>								
<i>Dance<sup>M</sup> (seeking admission)</i>		630P			Young	GW 300A	55845	94
<i>Dance<sup>M</sup> (officially admitted)</i>		630	44	A.B.	Young	GW 300A	55845	94
<i>Performing Arts (seeking admission)</i>		588P			Young	GW 300A	55845	94
<i>Performing Arts (officially admitted)</i>		588	74	B.F.A.	Young	GW 300A	55845	95
	PACT – Acting							95
	PDIR – Directing							95
	PAMT – Music Theatre							95
	PDES – Theatre Design and Technology							95
<i>Theatre<sup>M</sup></i>		798	45	A.B.	Young	GW 300A	55845	94
<b>Interdisciplinary Programs</b>								
<i>Popular Culture Studies<sup>M</sup></i>		758	34	A.B.	Harkins	CH 218	53149	97
<b>GORDON FORD COLLEGE OF BUSINESS</b>								
<b>Department of Accounting</b>								
<i>Accounting (seeking admission)</i>		602P			Jordan	GH 453	53290	105
<i>Accounting (officially admitted)</i>		602	77	B.S.	Wells	GH 501	53895	105
<b>Department of Computer Information Systems</b>								
<i>Business Informatics (seeking admission)</i>		507P			Jordan	GH 453	53290	107
<i>Business Informatics (officially admitted)</i>		507	72	B.S.	Crews	GH 219	54643	107
<b>Department of Economics</b>								
<i>Business Economics (seeking admission)</i>		724P			Jordan	GH 453	53290	109
<i>Business Economics (officially admitted)</i>		724	73	B.S.	Trawick	GH 431	52249	109
<i>Economics (seeking admission)<sup>M</sup></i>		638P			Jordan	GH 453	53290	109
<i>Economics (officially admitted)<sup>M</sup></i>		638	31	A.B.	Trawick	GH 431	52249	109
<i>Mathematical Economics<sup>M</sup> (seeking admission)</i>		731P			Jordan	GH 453	53290	110
<i>Mathematical Economics<sup>M</sup> (officially admitted)</i>		731	49	B.S.	Trawick	GH 431	52249	110
<b>Department of Finance</b>								
<i>Finance (seeking admission)</i>		664P			Jordan	GH 453	53290	112
<i>Finance (officially admitted)</i>		664		B.S.	Brown	Gh 334	52018	112
	FNFM – Financial Management		73					112
	FNFP – Financial Planning		76					113



Department Major	Concentrations	Reference Number	Minimum Hours	Degree	Advisor Name	Office	Phone Number	Page #
<b>Department of Management</b>								
<i>Entrepreneurship (seeking admission)</i>		542P			Jordan	GH 453	53290	116
<i>Entrepreneurship (officially admitted)</i>		542	70	B.S.	Mohamed	GH 200	55408	116
<i>International Business (seeking admission)</i>		569P			Jordan	GH 453	53290	116
<i>International Business (officially admitted)</i>		569	70	B.S.	Mohamed	GH 200	55408	116
<i>Management (seeking admission)</i>		723P			Jordan	GH 453	53290	114
<i>Management (officially admitted)</i>		723	73	B.S.	Mohamed	GH 200	55408	114
	MBUS – Business Administration							115
	MGHP – Human Resources/Personnel Management							115

**Department of Marketing and Sales**

<i>Marketing (seeking admission)</i>		720P			Jordan	GH 453	53290	118
<i>Marketing (officially admitted)</i>		720	73	B.S.	Shannon	GH 402	52483	118
	MKSA – Marketing Sales							119
	MKSM – Social Media Marketing							120
	MKGM – Strategic Marketing							118

**COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCES**

**School of Teacher Education**

<i>Business and Marketing Education</i>		621	82	B.S.	Kahler	GRH 2051	56249	129
<i>Elementary Education</i>		527	82	B.S.	Sloss	GRH 1093	56572	127
					Garner	GRH 1094	53928	
<i>Exceptional Education – LBD and MSD</i>		553	58	B.S.	Sloss	GRH 1093	56572	130
					Garner	GRH 1094	53928	
<i>Interdisciplinary Early Childhood Education</i>		526		B.S.	Dietrich	GRH 1086	52317	131
	TCHR – Teacher Certification		75					131
	IECE – Non-Teacher Certification		68					131
<i>Middle Level Education in Social Studies and Language Arts</i>	5001			B.S.	Sloss	GRH 1093	56572	127
					Garner	GRH 1094	53928	
	MESS – Middle Level Education Social Studies single area certification		73-76					128
	MELA – Middle Level Education Language Arts/Communication single area certification		70					128
	MESD – Middle Level Education Social Studies/Language Arts dual certification		91-94					128
<i>Science and Mathematics Education<sup>M</sup></i>		774	34	B.S.	Long	TCCW 105	53900	129

**Department of Military Science**

<i>Military Leadership<sup>M</sup></i>		733	36-42	B.S.	Hutcheson	DA 1512	54293	133
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**Department of Psychology**

<i>Psychology – General Major<sup>M</sup></i>		760	37	A.B.	Haggbloom	GRH 3016	54427	134
<i>Psychology – Extended Major</i>		591	52	A.B.	Haggbloom	GRH 3016	54427	135

**COLLEGE OF HEALTH AND HUMAN SERVICES**

**Department of Allied Health**

<i>Dental Hygiene (seeking admission)</i>		524P			Austin	AC 231	52427	185
<i>Dental Hygiene (officially admitted)</i>		524	71-76	B.S.	Austin	AC 231	52427	185
<i>Health Sciences</i>		564	65-67	B.S.	Whitley	AC 230	53834	186
	AHEH – Environmental Health Science							186
	AHGW – General Wellness Studies							186
	AHGR – Gerontology							186
	AHHP – Health Promotions							186
	AHHS – Health Services							186
	AHSS – Social Services							186
	AHAH – Allied Health (associate degree in health area)							187

**Department of Communication Disorders**

<i>Communication Disorders (seeking admission)</i>		595P			Etienne	TPH 111	58998	189
<i>Communication Disorders (officially admitted)</i>		595	67	B.S.	Etienne	TPH 111	58998	189

## Academic Information

Department Major	Concentrations	Reference Number	Minimum Hours	Degree	Advisor Name	Office	Phone Number	Page #
<b>Department of Family and Consumer Sciences</b>								
<i>Design, Merchandising, and Textiles</i>		536		B.S.				192
	CINT – Interior Design		81		Flener	AC 403A	54105	192
	CTAM – Textiles and Apparel Merchandising		76		Jones	AC 403C	54111	192
<i>Family and Consumer Sciences</i>		563		B.S.	Sikora	AC 302B	53993	191
	CHST – Child Studies		51		Haynes-Lawrence	AC 420C	52525	191
	CFED – Family and Consumer Sciences Education		82		Croxall	AC 302F	54352	191
	CFFS – Family Studies		51		West	AC 410D	55138	191
<i>Hospitality Management and Dietetics (seeking admission)</i>		707P						191
<i>Hospitality Management and Dietetics (officially admitted)</i>		707		B.S.				191
	CFHR – Hotel, Restaurant, and Tourism Management		68		Patterson/Silfies	AC 209C	54031	191
	CFND – Nutrition and Dietetics		67		Mason	AC 209A	53462	191
	CFNW – Food, Nutrition, and Wellness		67		Mason	AC 209A	53462	191
<b>School of Nursing</b>								
<i>Nursing (Pre-Nursing)</i>		586P			Garrett	AC 112B	53800	198
<i>Nursing (officially admitted)</i>		586	62	B.S.N.	Garrett	AC 112B	53800	198
<i>Nursing (RN-BSN program)</i>		596	67	B.S.N.	Abell	AC 113D	53499	199
<b>Department of Kinesiology, Recreation &amp; Sport</b>								
<i>Exercise Science</i>		554	55	B.S.	Lyons	SS 1056	56035	194
<i>Physical Education</i>		587			Whitlock	SS 1022	53347	194
	TCHR – Teacher Education		73	B.S.	Whitlock	SS 1022	53347	194
	PEMS – Movement Studies		73	B.S.	Whitlock	SS 1022	53347	194
<i>Recreation Administration</i>		589	48	B.S.	Stenger-Ramsey	DA 2034	56063	194
<i>Sport Management (seeking admission)</i>		572P			ACE	AC 411	52338	195
<i>Sport Management (officially admitted)</i>		572	51	B.S.	Larson	SS 1013	52211	195
<b>Department of Public Health</b>								
<i>Environmental Health Science (seeking admission)</i>		548P			Taylor	AC 128F	58675	201
<i>Environmental Health Science (officially admitted)</i>		548	70	B.S.	Taylor	AC 128F	58675	201
<i>Health Care Administration (seeking admission)</i>		559P			Ellis-Griffith	AC 137	53076	202
<i>Health Care Administration (officially admitted)</i>		559	73	B.S.	Ellis-Griffith	AC 137	53076	202
<i>Public Health (seeking admission)</i>		521P			Lartey	AC 129D	53941	203
<i>Public Health (officially admitted)</i>		521		B.S.				203
	PHED – Environmental Health		66		Taylor	AC 128F	58975	203
	PHED – Public Health Education		70		Lartey	AC 129D	53941	203
<b>Department of Social Work</b>								
<i>Social Work (seeking admission)</i>		594P			Wesley	AC 211	55312	206
<i>Social Work (officially admitted)</i>		594	54	B.S.W.	Wesley	AC 211	55312	206
<b>OGDEN COLLEGE OF SCIENCE AND ENGINEERING</b>								
<b>Department of Agriculture</b>								
<i>Agriculture</i>		508		B.S.				138
	AGBU – Agribusiness		50		King	EST 269	53151	138
	AGED – Agricultural Education		50		Kessell	EST 269	53151	138
	AGMC – Agricultural Mechanization		50		Rudolph	EST 269	53151	138
	AGTG – Turf and Golf Course Mgt.		50		Woosley	EST 269	53151	138
	AGPS – Agronomy (Plant)		50		Willian	EST 269	53151	138
	AGSS – Agronomy (Soil)		50		Giffilen	EST 269	53151	138
	AGAS – Animal Science (Swine)		50		Jones	EST 269	53151	138
	AGAS – Animal Science (Beef)		50		Speer	EST 269	53151	138
	AGHS – Horse Science		50		Anderson	EST 269	53151	138
	AGDS – Dairy Science		50		Stiles	EST 269	53151	138
	AGGA – General Agriculture		50		Woosley	EST 269	53151	138
	AGHO – Horticulture		50		Stone	EST 269	53151	138
<i>Agriculture<sup>M</sup></i>		605	30-36	B.S.	Woosley	EST 269	53151	139

Department Major	Concentrations	Reference Number	Minimum Hours	Degree	Advisor Name	Office	Phone Number	Page #
<b>Department of Architectural and Manufacturing Sciences</b>								
<i>Advanced Manufacturing</i>		506		B.S.				140
	AMFM – Food Processing and Technology		74		Khouryieh	Owensboro 109B	684-9797	140
	AMID – Manufacturing and Industrial Distribution		74		Reaka	EST 221	57032	140
	AMQS – Quality Systems		74		Arbuckle	EST 139	56592	141
<i>Architectural Science</i>		518	83	B.S.	Aly	EST 225	55849	141
					Leach	EST 209	57083	
					Downing	EST 222	56302	
<i>Construction Management</i>		533	71	B.S.	Khalafallah	EST 217	55949	141
					Mills	EST 226	55850	
<i>Industrial (Vocational, Career and Technical) Education</i>		599		B.S.	Askins	EST 210	54433	142
	IETE – Technology Education		79					142
	IEVE – Vocational Education		71					142
<i>Technology Management</i>		575	63	B.S.	Arbuckle	EST 217	56592	142
<b>Department of Biology</b>								
<i>Biology</i>		525		B.S.	Schulte	TCNW 201	53696	145
	BIBO – Botany		48		Alice	TCNW 201	57029	145
	BIEC – Ecology/Behavioral		48		Meier	TCNW 201	56525	145
	BIMC – Molecular/Cell		48		King	TCNW 201	56910	145
	BIZO – Zoology		48		Grubbs	TCNW 201	55048	145
<i>Biology<sup>M</sup></i>		617	36	B.S.	Schulte	TCNW 201	53696	145
<i>Investigative Biotechnology</i>		714	48	B.S.	Rice/Rinehart	TCNW 201	55997	146
<b>Department of Chemistry</b>								
<i>Chemistry<sup>M</sup></i>		623		B.S.	Webb	TCCW 444	53457	148
	CHCR – ACS Certified		48		Pesterfield	TCCW 422	56246	148
	CHGC – General		30		Williams	TCCW 329	58899	149
	TCHR – Teacher Certification		30		Pesterfield	TCCW 422	56246	149
<b>Department of Engineering</b>								
<i>Civil Engineering (seeking admission)</i>		534P			Palmquist	EBS 2126	52919	151
<i>Civil Engineering (officially admitted)</i>		534	65	B.S.	Palmquist	EBS 2126	52919	151
<i>Electrical Engineering (seeking admission)</i>		537P			Cambron	EBS 2104	58868	154
<i>Electrical Engineering (officially admitted)</i>		537	62	B.S.	Cambron	EBS 2104	58868	154
<i>Mechanical Engineering (seeking admission)</i>		543P			Lenior	EBS 2118	56858	156
<i>Mechanical Engineering (officially admitted)</i>		543	67	B.S.	Lenior	EBS 2118	56858	156
<b>Department of Geography and Geology</b>								
<i>Geology (A.B.)<sup>M</sup></i>		676		A.B.	Keeling	EST 304	54555	161
	GESS – Earth and Space Science		32					161
	GGEO – General Geoscience		32					161
<i>Geography<sup>M</sup></i>		674		B.S.	Keeling	EST 304	54555	159
	GRCU – Cultural Geography		36					160
	GREP – Environmental Planning & Resource Management		36					159
	GRHN – Honors Geography		36					160
	GRKG – Karst Geosciences		36					160
	GRLC – Land, Weather and Climate		36					160
	GRPG – Planning and GIS		36					159
<i>Geographic Information Science</i>		576	58	B.S.	Keeling	EST 304	54555	159
<i>Geology (B.S.)<sup>M</sup></i>		677	40	B.S.	Keeling	EST 304	54555	160
<i>Geology (B.S.)</i>		577	52	B.S.	Keeling	EST 304	54555	161
<i>Meteorology</i>		578	49.5	B.S.	Keeling	EST 304	54555	159
<b>Department of Mathematics and Computer Science</b>								
<i>Computer Science<sup>M</sup></i>		629	44	B.S.	Gary	COHH 4101	56373	168
	CSSS – Systems/Scientific Applications <sup>M</sup>		47					168
	CSSO – Specialty Option		50					169

## Academic Information

Department Major	Concentrations	Reference Number	Minimum Hours	Degree	Advisor Name	Office	Phone Number	Page #
<b>Department of Mathematics and Computer Science (continued)</b>								
<i>Mathematical Economics<sup>M</sup> (seeking admission)</i>		731P			Autin	COHH 4103	56171	167
<i>Mathematical Economics<sup>M</sup> (officially admitted)</i>		731	49	B.S.	Autin	COHH 4103	56171	167
<i>Mathematics (seeking admission)<sup>M</sup></i>		728P			Robinson	COHH 4132	56223	165
<i>Mathematics (officially admitted)<sup>M</sup></i>		728		A.B.	Robinson	COHH 4132	56223	165
	MATN – Non-teacher certifiable		39					165
	TCHR – Teacher Education		36					166
<i>Mathematics (seeking admission)</i>		528P			Robinson	COHH 4132	56223	165
<i>Mathematics (officially admitted)</i>		528	51	A.B.	Robinson	COHH 4132	56223	165
	MAAD – Fundamentals of Analysis and Discrete Mathematics							166
	MAAM – Fundamentals of Applied Math							166
	MAMS – Fundamentals of Math Studies							166
<i>Middle Grades Mathematics<sup>M</sup> (seeking admission)</i>		730P			Marchionda	COHH 3103	52961	166
<i>Middle Grades Mathematics<sup>M</sup> (officially admitted)</i>		730	32	B.S.	Marchionda	COHH 3103	52961	166
<b>Department of Physics and Astronomy</b>								
<i>Middle School Science Education<sup>M</sup></i>		734	32-33	B.S.	Bonham	TCCW 217	56196	170
<i>Physics<sup>M</sup></i>		754	35	B.S.				171
	PHEU – Physics Education		35		Gelderman	TCCW 230	56203	171
<b>Interdisciplinary Programs</b>								
<i>Biochemistry</i>		519	60	B.S.	Jacobshagen Williams	TCNW 111 TCNW 329	55994 58899	149, 177
<i>Medical Technology</i>		582	88	B.S.	McDaniel	TCNW 228C	56845	179
<b>UNIVERSITY COLLEGE</b>								
<b>Honors College</b>								
<i>Honors Self-Designed Studies<sup>M</sup></i>		633/634	36/30	A.B./B.S.	Carter	HC	52081	313
<i>Honors Self-Designed Studies</i>		539/566	48	A.B./B.S.	Carter	HC	52081	313
<b>Department of Interdisciplinary Studies</b>								
<i>Interdisciplinary Studies</i>		558	36	B.I.S.	Carr/White	TPH 201	53576/53572	
	GSAR – Arts							207
	GSBU – Business							207
	GSED – Education							207
	GSHE – Health							207
	GSHU – Humanities							207
	GSCO – Organization & Communication of Ideas							207
	GSSC – Science							207
	GSSB – Social & Behavioral Science							207
	GSSJ – Social Justice & Equity Studies							207
	GSTE – Technology							207
<b>Center for Leadership Excellence</b>								
<i>Organizational Leadership (seeking admission)</i>		545P			Garmon	TPH 220	58973	213
<i>Organizational Leadership (officially admitted)</i>		545	48	B.S.	Garmon	TPH 220	58973	213
<b>Other Programs</b>								
<i>Computer Information Technology (seeking admission)</i>		555P			Butterfield	GH 200	55408	212
<i>Computer Information Technology (officially admitted)</i>		555	60	B.S.	Butterfield	GH 200	55408	212
<i>Systems Management (seeking admission)</i>		729P			Butterfield	GH 200	55408	212
<i>Systems Management (officially admitted)</i>		729		B.S.	Butterfield	GH 200	55408	212
	SMAS – Administrative Systems		48					213
	SMCS – Criminology Systems		48					213
	SMDM – Digital Media Technologies		48					213
	SMFR – Fire/Rescue Administration		48					213
	SMGI – Geographic Information Systems		48					213
	SMHI – Healthcare Informatics		48					213
	SMHR – Human Resource Development		48					213
	SMIM – Industrial/Manufacturing Systems		48					213
	SMIS – Information Systems		48					213
	SMLE – Law Enforcement Administration		48					213
	SMLD – Leadership		48					213
	SMMS – Military Systems		48					213
	SMOS – Occupational Safety and Health		48					213
	SMTS – Technical Sales		48					213
	SMTT – Technical Training		48					213
	SMTW – Technical Writing		48					213

## Minor Programs of Study

Department Minor	Reference Number	Minimum Hours	Advisor Name	Office	Phone Number	Page #
<b>POTTER COLLEGE OF ARTS AND LETTERS</b>						
<b>Department of Art</b>						
<i>Art History</i>	316	21	Oglesbee	FAC 441	56566	62
<i>Graphic Design (for advertising majors)</i>	385	30	Jensen	FAC 421	56926	61
<i>Studio Art</i>	312	30	Oglesbee	FAC 441	56566	61
<b>Department of Communication</b>						
<i>Communication Studies</i>	480	24	Crawley	FAC 130	53296	63
<b>Department of English</b>						
<i>Creative Writing</i>	348	21	McCaffrey	CH 111	55709	65
<i>English</i>	359	21	Green	CH 135C	53045	65
<i>Professional Writing</i>	437	21	McCaffrey	CH 111	55709	65
<i>Teaching English as a Second Language</i>	478	19	Poole	CH 6B	55780	65
<b>Department of Folk Studies and Anthropology</b>						
<i>Anthropology</i>	311	21	Hudepohl	FAC 235	55842	67
<i>Folklore</i>	362	21	Evans	FAC 245	55897	67
<b>Department of History</b>						
<i>History</i>	392	24	Weigel	CH 201A	55724	69
<i>Southern Studies</i>	462	21	Minter	CH 2 06	55098	69
<b>School of Journalism and Broadcasting</b>						
<i>Broadcasting</i>	330	18	S. White	MMTH 342	55891	76
<i>Digital Advertising</i>	351	24	Shaluta	MMTH 312	55833	76
<i>Mass Communication</i>	414	21	N. Ralston	MMTH 225	55841	77
<b>Department of Modern Languages</b>						
<i>French</i>	365	30	Davis	FAC 260	56478	80
<i>German</i>	380	30	Davis	FAC 260	56478	81
<i>Spanish</i>	464	30	Davis	FAC 260	56478	81
<b>Department of Music</b>						
<i>Music</i>	423	24	Groom	FAC 351	53751	84
<b>Department of Philosophy and Religion</b>						
<i>Philosophy</i>	429	25	Bain-Selbo	CH 300	53136	88
<i>Religious Studies</i>	447	21	Trafton	CH 308	55750	88
<b>Department of Political Science</b>						
<i>Political Science</i>	383	21	Ardrey	GH 300	54558	91
<b>Department of Sociology</b>						
<i>Criminology</i>	342	21	Faine	GH 118	52291	93
<i>Sexuality Studies</i>	454	18	Pruitt	GH 127	52376	92
<i>Sociology</i>	461	21	Smith	GH 101	53759	93
<b>Department of Theatre and Dance</b>						
<i>Dance</i>	344	27	Young	GW 300A	55845	95
<i>Musical Theatre</i>	424	28	Young	GW 300A	55845	96
<i>Performing Arts Administration</i>	428	24	Young	GW 300A	55845	96
<i>Theatre</i>	490	26	Young	GW 300A	55845	96
<b>Interdisciplinary Programs</b>						
<i>African American Studies</i>	305	21	Ardrey	GH 300	54558	97
<i>Asian Studies</i>	317	21	Samuels	CH 311	55748	99
<i>Film Studies</i>	358	21	Hovet	CH 110B	55782	98
<i>Latin American Studies</i>	408	21	Keeling	EST 304	54555	99
			Eagle	CH 214B	57026	
<i>Legal Studies</i>	409	24	Minter	CH 206	55098	98
<i>Russian &amp; East European Studies</i>	451	21	Phillips	CH 230A	55738	99

## Academic Information

Department Minor	Reference Number	Minimum Hours	Advisor Name	Office	Phone Number	Page #
<b>GORDON FORD COLLEGE OF BUSINESS</b>						
<b>Office of the Dean</b>						
<i>Business Administration</i>	332	30	Jordan	GH 453	53290	103
<i>International Business</i>	333	33	Jordan	GH 453	53290	103
<b>Department of Computer Information Systems</b>						
<i>Computer Information Systems</i>	347	18	Butterfield	GH 200	55408	107
<b>Department of Economics</b>						
<i>Economics</i>	356	21	Trawick	GH 431	52249	110
<b>Department of Finance</b>						
<i>Finance</i>	357	27	Brown	GH 334	52018	113
<b>Department of Management</b>						
<i>Entrepreneurship</i>	355	21	Mohamed	GH 200	55408	117
<b>Department of Marketing and Sales</b>						
<i>Marketing</i>	413	24	Shannon	GH 402	52483	119
<i>Sales</i>	452	18	Forbes	GH 412	52993	120
<b>COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCES</b>						
<b>Department of Military Science</b>						
<i>Military Science</i>	420	26-30	Caldwell	DA 1512	54293	134
<b>Department of Psychology</b>						
<i>Psychology</i>	438	21	Haggbloom	GRH 3016	54427	135
<b>School of Teacher Education</b>						
<i>Library Media Education</i>	411	18	Smith	GRH 1009	53446	131
<b>COLLEGE OF HEALTH AND HUMAN SERVICES</b>						
<b>Department of Family and Consumer Sciences</b>						
<i>Child Life</i>	345	21	Haynes-Lawrence	AC 410A	52525	192
<i>Child Studies</i>	336	21	Haynes-Lawrence	AC 410A	52525	192
<i>Consumer and Family Sciences</i>	371	21	Sikora	AC 302B	53993	192
<i>Family Studies</i>	338	21	Sikora	AC 302B	53993	192
<i>Food Service Management</i>	364	24	Patterson	AC 209C	54031	192
<i>Interior Design</i>	398	22	Flener	AC 403A	54105	192
<i>Lodging Management</i>	412	24	Patterson	AC 209C	54031	192
<i>Meeting, Convention, and Exposition Planning</i>	418	21	Patterson	AC 209C	54031	193
<i>Nutrition</i>	425	22-23	Mason	AC 209C	53462	192
<i>Textiles and Apparel Merchandising</i>	485	24	Jones	AC 403C	54111	193
<i>Tourism</i>	445	21	Patterson	AC 209C	54031	193
<b>Department of Kinesiology, Recreation &amp; Sport</b>						
<i>Athletic Coaching</i>	320	21-24	Ramos	SS 1028	56042	195
<i>Community Recreation</i>	346	24	Gibson	DA 2039	56021	195
<i>Facility and Event Management</i>	367	21	Gibson	DA 2039	56021	195
<i>Nonprofit Administration</i>	422	21-24	Poff	DA 2042	52498	195
<i>Outdoor Leadership</i>	426	24	Spencer	DA 2023	56073	195
<i>Physical Education</i>	432	25	Ramos	SS 1028	56042	195
<i>Tourism</i>	445	21	Gibson	DA 2039	56021	196
<b>Department of Public Health</b>						
<i>Health Care Administration</i>	386	23	Mkanta	AC 127C	55260	204
<i>Health Education</i>	389	23	Lartey	AC 129D	53941	204
<i>Occupational Safety and Health</i>	427	24	Taylor	AC 128F	58975	204
<i>Worksite Health Promotion</i>	495	18	Watkins	AC 129F	54796	204
<b>Department of Social Work</b>						
<i>Social Work</i>	459	21	Wesley	AC 211	55312	206

Department Minor	Reference Number	Minimum Hours	Advisor Name	Office	Phone Number	Page #
<b>OGDEN COLLEGE OF SCIENCE AND ENGINEERING</b>						
<b>Department of Agriculture</b>						
<i>Agriculture</i>	308	18	Woosley	EST 269	53151	139
<b>Department of Architectural and Manufacturing Sciences</b>						
<i>Construction Management</i>	343	21	Leach	EST 209	57083	143
<i>Industrial Sciences</i>	395	18-21	Leeper	EST 204	53251	143
<b>Department of Biology</b>						
<i>Biology</i>	326	24	Schulte	TCNW 201	53693	146
<i>Investigative Biotechnology</i>	399	24	Rinehart	TCNW 201	55997	146
<b>Department of Chemistry</b>						
<i>Chemistry</i>	335	18-21	Williams	TCNW 329	58899	150
<i>Coal Chemistry</i>	340	20-22	Webb	TCCW	53457	150
<i>Nutritional and Food Chemistry</i>	421	18				150
<b>Department of Engineering</b>						
<i>Electrical Engineering</i>	354	21	Cambron	EBS 2104	58868	156
<i>Floodplain Management</i>	361	21	Campbell	EBS 2124	58988	153
<i>Land Surveying</i>	405	26	Gallagher	EBS 2122	52005	154
<b>Department of Geography and Geology</b>						
<i>City and Regional Planning</i>	339	21	Keeling	EST 304	54555	161
<i>Earth Science</i>	353	21	Keeling	EST 304	54555	161
<i>Environmental Studies</i>	363	25	Keeling	EST 304	54555	162
<i>Geographic Information Systems</i>	366	23	Keeling	EST 304	54555	162
<i>Geography</i>	374	21	Keeling	EST 304	54555	161
<i>Geology</i>	377	21	Keeling	EST 304	54555	161
<i>Sustainability</i>	475	21	Keeling	EST 304	54555	163
<i>Water Resources</i>	491	22	Keeling	EST 304	54555	162
<b>Department of Mathematics and Computer Science</b>						
<i>Applied Statistics</i>	313	19	Quiton	COHH 4104	52441	167
<i>Computer Science</i>	341	23	Gary	COHH 4101	56373	169
<i>Mathematics</i>	417	24	Robinson	COHH 4132	56223	167
<b>Department of Physics and Astronomy</b>						
<i>Astronomy</i>	318	20	Gelderman	TCCW 230	56203	172
<i>Physics</i>	435	23-26	Harper	TCCW 226	56194	173
<b>Interdisciplinary Programs</b>						
<i>Aerospace Studies</i>	304	20-23	Ernest	COHH 2109	56181	180
<i>Biochemistry</i>	324	18	Jacobshagen	TCNW 111	55994	178
<i>Biophysics</i>	329	18-21	Williams VanDerMeer	TCNW 329 TCCW 227	58899 56205	172, 178
<b>UNIVERSITY COLLEGE</b>						
<b>Center for Gerontology</b>						
<i>Gerontology</i>	381	19	Bradley	AC 201B	52356	215
<b>Gender &amp; Women's Studies Program</b>						
<i>Gender and Women's Studies</i>	378	21	Olmsted	WSC 1532 State St.	56477	214
<b>Honors College</b>						
<i>Honors Self-Designed Studies</i>	393	24	Carter	HC	52081	314

## Academic Information

### Pre-Professional Programs

Program	Pre-Professional Code	Advisor Name	Office	Phone Number	Page #
<b>POTTER COLLEGE OF ARTS AND LETTERS</b>					
<i>Pre-Law</i>	PLAW	Minter	CH 206	55098	69
<i>Pre-Theology</i>	PTHE	Bain-Selbo	CH 300C	55136	89
<b>OGDEN COLLEGE OF SCIENCE AND ENGINEERING</b>					
<i>Pre-Chiropractic</i>	PCHI	Mason	TCNW 225	56013	173
<i>Pre-Dentistry</i>	PDEN	Crawford	TCNW 211	56005	174
<i>Pre-Forestry</i>	PFOR	Stone	EST 258	55971	174
<i>Pre-Medicine</i>	PMED	Crawford	TCNW 211	56005	174
<i>Pre-Optometry</i>	POPT	Crawford	TCNW 211	56005	174
<i>Pre-Pharmacy</i>	PPHA	Dahl	TCNW 309	55074	175
<i>Pre-Physical Therapy</i>	PPHY	Huskey	TCNW 205G	52062	176
<i>Pre-Podiatric Medicine</i>	PPOD	Crawford	TCNW 211	56005	175
<i>Pre-Veterinary Medicine</i>	PVET	Jones	EST 269	55960	177
		Huskey/Stokes	TCNW 205G	53696	

### Certificate Programs

Program	Reference Number	Minimum Hours	Advisor Name	Office	Phone Number	Page #
<i>Advanced Accounting Studies</i>	215	12	Wells	GH 502	53895	106
<i>American Sign Language</i>	1706	12	Etienne	TPH 111	54541	190
<i>Canadian Studies</i>	198	12	Dietle	CH 200	53841	100
<i>Citizenship and Social Responsibility</i>	1710	18	Markham	GCC 109	53221	216
<i>Computer Literacy</i>	1713	12	Peters	SC C188	780-2545	211
<i>Cross Cultural Communication in Health Care</i>	1709	15	Green	TPH 119	54303	190
<i>Data Analysis Using SAS®</i>	1716	15	Quiton	COHH 4104	52441	167
<i>Drinking Water Operations</i>	1715	24	Fattic	COHH 2110	58706	144
<i>Family Home Visiting</i>	1701	12	Haynes-Lawrence	AC 410A	52525	193
<i>Financial Planning</i>	200	21	Chhachhi	GH 334	52018	113
<i>Geographic Information Systems</i>	174	14	Keeling	EST 304	54555	163
<i>Human Resources Management</i>	1703	22	Mitchell	SC C181	780-2535	211
<i>iMedia</i>	1702	21	Northrup	MMTH 216	55140	77
<i>Information Systems</i>	1714	18	Kontos	SC C182	780-2588	211
<i>Kentucky Studies</i>	169	12	Crowe-Carraco	CH 214A	55728	98
<i>Land Surveying</i>	1700	15	Gallagher	EBS 2122	52005	154
<i>Leadership Studies</i>	173	15	Garmon	TPH 220	58973	215
<i>Long-Term Care Administration</i>	1717	15	Abrahamson	AC 127A	56973	205
<i>Middle East Studies</i>	179	12	Samuels	CH 311	55748	100
<i>Occupational Safety &amp; Health</i>	1705	15	Taylor	AC 134	58975	205
<i>Political Communication</i>	192	15	Ardrey	GH 300	54558	63, 91
<i>Real Estate</i>	195	27	Hinton		780-2550	211
<i>Worksite Health Promotion</i>	1707	18	Watkins	AC 129F	54796	205



## Associate Degree Programs

Department Major	Reference Number	Minimum Hours	Degree	Advisor Name	Office	Phone Number	Page #
<b>COLLEGE OF HEALTH AND HUMAN SERVICES</b>							
<b>Department of Allied Health</b>							
<i>Dental Hygiene (seeking admission)</i>	226P			Austin	AC 231	52427	187
<i>Dental Hygiene (officially admitted)</i>	226	78	A.S.	Austin	AC 231	52427	187
<i>Health Information Management (seeking admission)</i>	243P			Sansom	SC C141	780-2567	187
<i>Health Information Management (officially admitted)</i>	243	62	A.S.	Sansom	SC C141	780-2567	187
<i>Paramedicine</i>	265	65	A.A.S.	Brown	AC 405	53891	188
<b>Department of Family and Consumer Sciences</b>							
<i>Early Childhood Education</i>	249	67	A.A.	Sikora	AC 302B	53993	193
<i>Hospitality Management</i>	245	61	A.S.	Patterson	AC 209C	54031	193
<b>School of Nursing</b>							
<i>Nursing (seeking admission)</i>	273P			Harris	SC 109	780-2510	197
<i>Nursing (admitted)</i>	273	69	A.S.	Harris	SC 109	780-2510	197
<b>OGDEN COLLEGE OF SCIENCE AND ENGINEERING</b>							
<b>Department of Agriculture</b>							
<i>Agricultural Technology and Management</i>	205	64-67	A.S.	Rudolph	EST 269	53151	139
<b>Department of Architectural and Manufacturing Sciences</b>							
<i>Architectural Drafting Technology</i>	207	64-67	A.S.	McDaniel	EST 139	55949	143
<i>Manufacturing Technology</i>	257	64-67	A.S.	Reaka	EST 221	57032	143
<i>Vocational – Industrial and Technical Teacher Education</i>	296	66	A.S.	Askins	EST 210	54433	143
<i>Water Resource Management</i>	298	60	A.S.	Fattic	COHH 2110	58706	143
WRTE – Water Technology							144
WRWT – Wastewater Technology							144
WRUM – Water Utilities Management							144
<b>UNIVERSITY COLLEGE</b>							
<b>Department of Liberal Arts and Sciences</b>							
<i>Interdisciplinary Studies</i>	246	60	A.I.S.	Weisberger	SC C17	780-2540	211
<b>Department of Professional Studies</b>							
<i>Business</i>	288	60	A.A.				208
BCSB – Business Management				Mitchell	SC 319	780-2535	209
BMGP – Business Management Preparation				Mitchell	SC 319	780-2535	209
BCMI – Management Information Systems				Peters	SC C188	780-2545	209
BCMM – Manufacturing Management				Kontos	SC C182	780-2588	209
				Mitchell	SC 319	780-2535	
BCOM – Office Management				Mays	SC C187	780-2541	209
BCRE – Real Estate				Hinton		780-2550	209
BWUM – Water Utilities Management				Mitchell	SC 319	780-2535	209
<i>Information Systems</i>	223	60	A.A.	Peters	SC C188	780-2545	209
				Kontos	SC C182	780-2588	
<i>Office System Technologies</i>	291	60	A.A.	Mays/Todd	SC C187/186	780-2547	209
<i>Paralegal Studies (seeking admission)</i>	276P			Shadoan	SC C179	780-2539	210
<i>Paralegal Studies (officially admitted)</i>	276	64	A.A.	Shadoan	SC C179	780-2539	210

**General Education Requirements**

The General Education Program is a set of requirements for all students seeking the baccalaureate degree at Western Kentucky University. It is an integral part of the undergraduate curriculum that both complements and supports the students' preparation in their major field or specialization.

The General Education Program helps students maximize their individual potential. Students develop understanding, appreciation, and acceptance of multiple "ways of knowing" (i.e., artistic, literary, philosophical, historical, scientific) through the acquisition, organization, and analysis of specific bodies of knowledge. They are encouraged to acquire aesthetic and appreciative faculties, to explore and test their own values and ethical frameworks, and to demonstrate sensitivity to diverse perspectives and cultures.

The General Education Program provides a foundation for professional success. Students learn to think critically, make rational decisions, and communicate effectively. These skills support their ability to acquire, evaluate, and use the specific knowledge in their major field or specialization and also ensure that they will be adaptable and flexible in the face of changing career plans and requirements. Students' explorations of their own values and perspectives and those of other social groups and cultures prepare them to live in a culturally diverse, globally competitive, and technologically complex world.

The General Education Program prepares students for active membership in society. It is a broadening experience that helps them acquire the shared skills, knowledge, and values that promote the well-being of society. This experience nurtures their capacity for leadership and service and helps them learn to adapt their skills and knowledge to changing societal needs.

In sum, the General Education Program gives meaning to the motto of "Life, More Life" by promoting intellectual growth, lifelong learning, and informed citizenship for all WKU graduates.

A student completing the general education program at Western Kentucky University will have:

**Academic Skills**

- the capacity for critical and logical thinking;
- proficiency in reading, writing, and speaking;
- competence in a language other than the native language;
- the ability to understand and apply mathematical skills and concepts;
- an informed acquaintance with major achievements in the arts and the humanities;
- a historical perspective and an understanding of connections between past and present;
- an appreciation of the complexity and variety in the world's cultures
- an understanding of the scientific method and a knowledge of natural science and its relevance in our lives;
- an understanding of society and human behavior
- an understanding of factors that enhance health, well-being, and quality of life.

All students following a four-year undergraduate degree program must fulfill certain general education requirements. Students are cautioned to note any special requirements governing the particular program they choose to follow. Students should refer to course descriptions or consult the department head for possible prerequisites for general

education courses. The general education requirements and the courses that will fulfill these requirements are as follows:  
[h] Course section regularly offered for honors credit.

[NOTE: The list of examples under each objective is intended to illustrate possible ways to reach the general objective.]

**A. Organization and Communication of Ideas.....12 hours**

**I. English Composition.....6 hours**

- English (ENG) 100, Introduction to College Writing [h]
- English (ENG) 300, Writing in the Disciplines [h]

- CLEP Exam—College Composition or College Composition Modular (3 hours)

**II. Foreign Language.....3 hours**

Students who begin their college career as degree-seeking students during the 2004 summer term and thereafter will be required to take the second semester level or higher foreign language course.

The general education foreign language requirement will be waived for international students whose first language is not English, contingent upon successful completion of ENG 100 and 300 and either COMM 145 or 161 (i.e., 9 hours instead of 12 in Category A) and an additional 3 hours of course work in General Education courses selected from any category *as long as the course selected is not a foreign language class in the student's native language*. A letter from the Office of International Programs verifying the student is a non-native speaker of English must be attached to the iCAP undergraduate degree exception form and submitted to the Office of the Registrar.

- American Sign Language (CD) 101, 102
- Arabic (ARBC) 101, 102, 201, 202
- Chinese (CHIN) 101, 102, 201, 202
- Chinese (CHNF) 102, 201, 202
- French (FREN) 101, 102, 201, 202
- German (GERM) 101, 102, 201, 202
- Greek (BLNG) (also RELS) 384, 385
- Hebrew (BLNG) (also RELS) 382, 383
- Italian (ITAL) 101, 102
- Japanese (JAPN) 101, 102, 201
- Religious Studies (RELS) (LATIN) 150, 151
- Russian (RUSS) 101, 102
- Spanish (SPAN) 101, 102, 102[h], 201, 202
- Swahili (SWAH) 102
- Latin (credit by departmental examination—3-6 hours)

**III. Public Speaking.....3 hours**

- Communication (COMM) 145, Fund of Public Speaking and Communication [h]
- Communication (COMM) 161, Business/Prof Speaking [h]

**B. Humanities.....9 hours**

At least three fields must be represented across Category B.

**I. Literature.....3 hours**

- English (ENG) 200, Introduction to Literature [h]
- English (ENG) 398, Hemingway and Faulkner (Honors participation or 3.2 GPA required)
- French (FREN) 314, Introduction to French Literature
- German (GERM) 314, Introduction to German Literature
- Humanities (HUM) 172, Literature/Medieval/Renaissance Europe
- Humanities (HUM) 182, Literature/Modern Western World
- Humanities (HUM) 192, Lit and Drama/Ancient Greece and Rome

Spanish (SPAN) 374, Literature and Culture of Spain  
 Spanish (SPAN) 376, Literature and Culture of Latin America

- CLEP Exam—Humanities (6 hours: 3 hours applied to B-I; 3; hours applied to B-II).

**II. Electives.....6 hours**

Architectural & Manufacturing Sciences (AMS) 180, Prin. of Architectural Practice  
 Art (ART) 100, Art Appreciation [h]  
 Art (ART) 105, History of Art to 1300  
 Art (ART) 106, History of Art since 1300  
 Dance (DANC) 110, Dance Appreciation  
 French (FREN) 323, French Civilization and Culture  
 German (GERM) 333, German Civilization and Culture  
 German (GERM) 335, Contemporary Culture and Civilization  
 History (HIST) 305, Ancient Greece  
 History (HIST) 306, Ancient Rome  
 History (HIST) 307, The Middle Ages  
 History (HIST) 317, Renaissance Europe  
 History (HIST) 318, Age of Reformation  
 Humanities (HUM) 171, Fine Arts/Medieval/Renaissance Europe  
 Humanities (HUM) 173, Phil/Religion Medieval/Ren. Europe  
 Humanities (HUM) 181, Fine Arts/Modern Western World  
 Humanities (HUM) 183, Phil/Religion/Modern Western World  
 Humanities (HUM) 191, Fine Arts of Ancient Greece and Rome  
 Humanities (HUM) 193, Religion/Phil/Ancient Greece and Rome  
 Music (MUS) 120, Music Appreciation [h]  
 Music (MUS) 326, Music History I  
 Music (MUS) 327, Music History II  
 Philosophy (PHIL) 101, Truth and Relativism  
 Philosophy (PHIL) 102, The Good and the Beautiful  
 Philosophy (PHIL) 103, The Committed Life  
 Philosophy (PHIL) 201, Love and Friendship  
 Philosophy (PHIL) 215, Elementary Logic  
 Philosophy (PHIL) 320, Ethics [h]  
 Philosophy (PHIL) 321, Morality and Business  
 Philosophy (PHIL) 322, Biomedical Ethics  
 Philosophy (PHIL) 323, Social Ethics  
 Religious Studies (RELS) 100, The New Testament  
 Religious Studies (RELS) 101, The Old Testament/Hebrew Scriptures  
 Religious Studies (RELS) 102, Introduction to Religious Studies [h]  
 Religious Studies (RELS) 305, Christian Religious Traditions  
 Religious Studies (RELS) 323, Social Ethics  
 Spanish (SPAN) 373, Spanish Civilization and Culture  
 Theatre (THEA) 151, Theatre Appreciation

- CLEP Exam—Humanities (6 hours: 3 hours applied to B-I; 3 hours applied to B-II).
- When CLEP examination credit is used in Category B-II, additional credit may be earned in any course in Category B-II.

**C. Social and Behavioral Sciences.....9 hours**

At least three fields must be represented; History 119 or History 120 is required.

Agriculture (AGRI) 108, Rural Sociology  
 Anthropology (ANTH) 125, Intro to Biological Anthropology  
 Anthropology (ANTH) 130, Intro to Archaeology

Consumer and Family Sciences (CFS) 311, Family Relations [h]  
 Economics (ECON) 150, Introduction to Economics [h]  
 Economics (ECON) 202, Principles of Economics (micro)  
 Economics (ECON) 203, Principles of Economic (macro)  
 Finance (FIN) 161, Personal Finance  
 Folk Studies (FLK) 371, Urban Folklore  
 Geography (GEOG) 216, Geographic Information Science and Society  
 Geography (GEOG) 350, Economic Geography  
 Geography (GEOG) 360, Geography of North America  
 Geography (GEOG) 471, Natural Resource Management  
 Geography (GEOG) 480, Urban Geography  
 Gerontology (GERO) 100, Intro to the Aging Experience  
 History (HIST) 119, Western Civilization to 1648 [h]  
 History (HIST) 120, Western Civilization since 1648 [h]  
 Leadership Studies (LEAD) 200, Introduction to Leadership Studies  
 Philosophy (PHIL) 202, Racial Justice  
 Political Science (PS) 110, American National Government [h]  
 Political Science (PS) 250, International Politics [h]  
 Political Science (PS) 260, Intro to Comparative Politics  
 Political Science (PS) 267, Introduction to East European Studies  
 Psychology (PSY) 100, Introduction to Psychology [h]  
 Psychology (PSY) 199, Intro to Developmental Psychology [h]  
 Psychology (PSY) 350, Social Psychology  
 Recreation (REC) 200, Introduction to Recreation  
 Religious Studies (RELS) 202, Racial Justice  
 Religious Studies (RELS) 325, Religion in Contemporary America  
 Social Work (SWRK) 101, Foundations of Human Services [h]  
 Sociology (SOCL) 100, Introductory Sociology [h]  
 Sociology (SOCL) 210, Interaction: Self in Society  
 Sociology (SOCL) 220, Marriage and Family  
 Women's Studies (WOMN) 200, Introduction to Women's Studies [h]

- CLEP Exam—Social Science-History (6 hours: 3 hours applied in Category C and 3 hours applied as elective)
- When 3 hours of CLEP examination credit are used in Category C, additional credit may be earned by taking courses from two different fields in Category C, including History 119 or 120.

**D. Natural Sciences—Mathematics.....9 hours**

At least two fields must be represented in Science (D-I) including at least one course designated as a lab course. At least three hours in this category must be in Mathematics (D-II).

**I. Science..... Minimum 6 hours**

Agriculture (AGRI) 101, The Science of Agriculture [h]  
 Agriculture (AGRI) 280, Intro/Environmental Science  
 Architectural and Manufacturing Sciences (AMS) 210, Introduction to Technology  
 Astronomy (ASTR) 104, Astronomy of the Solar System (DL)  
 Astronomy (ASTR) 106, Astronomy of Stellar Systems (DL)  
 Astronomy (ASTR) 108, Descriptive Astronomy  
 Astronomy (ASTR) 214, General Astronomy (DL)  
 Biology (BIOL) 113, General Biology  
 Biology (BIOL) 114, General Biology Laboratory (DL)

Biology (BIOL) 120, Biological Concepts; Cells, Metabolism and Genetics [h]  
 Biology (BIOL) 121, Biological Concepts; Cells, Metabolism and Genetics Lab (DL)  
 Biology (BIOL) 122, Biological Concepts; Evolution, Diversity and Ecology  
 Biology (BIOL) 123, Biological Concepts; Evolution, Diversity and Ecology Lab (DL)  
 Biology (BIOL) 131, Human Anatomy and Physiology (DL)  
 Biology (BIOL) 207, General Microbiology  
 Biology (BIOL) 208, General Microbiology Lab (DL)  
 Biology (BIOL) 302, Human Biology  
 Chemistry (CHEM) 101, Introduction to Chemistry (DL)  
 Chemistry (CHEM) 102, Introduction to Chemistry Lab (DL)  
 Chemistry (CHEM) 105, Fundamentals of General Chemistry  
 Chemistry (CHEM) 106, Fundamentals of General Chemistry Lab (DL)  
 Chemistry (CHEM) 109, Chemistry for the Health Sciences  
 Chemistry (CHEM) 111, Introduction to Forensic Chemistry (DL)  
 Chemistry (CHEM) 116, Introduction to College Chemistry  
 Chemistry (CHEM) 120, College Chemistry I [h]  
 Chemistry (CHEM) 121, College Chemistry I Lab (DL) [h]  
 Chemistry (CHEM) 280, Intro/Environmental Science  
 Environmental Science (ENV) 280, Intro/Environmental Science  
 Geography (GEOG) 100, Intro to the Physical Environment [h]  
 Geography (GEOG) 121, Meteorology (DL)  
 Geography (GEOG) 280, Intro/Environmental Science  
 Geology (GEOL) 102, Introduction to Geology  
 Geology (GEOL) 111, The Earth  
 Geology (GEOL) 113, The Earth Lab (DL)  
 Geology (GEOL) 112, Earth History  
 Geology (GEOL) 114, Earth History Lab (DL)  
 Physics (PHYS) 100, Energy  
 Physics (PHYS) 101, Concepts of Motion (DL)  
 Physics (PHYS) 103, Light, Color and Vision (DL)  
 Physics (PHYS) 105, Concepts of the Physical World (DL)  
 Physics (PHYS) 130, Acoustics of Music and Speech (DL)  
 Physics (PHYS) 180, Introduction to Modern Physics  
 Physics (PHYS) 181, Lab-Introduction to Modern Physics (DL)  
 Physics (PHYS) 201, College Physics I (DL)  
 Physics (PHYS) 231, Introduction to Physics and Biophysics I  
 Physics (PHYS) 232, Physics Lab for 231 (DL)  
 Physics (PHYS) 255, University Physics  
 Physics (PHYS) 256, University Physics Lab (DL)  
 Public Health (PH) 280, Intro/Environmental Science

- CLEP Exam—Natural Science 6 hours: 3 hours applied as Biological Sciences and 3 hours applied as Physical Sciences)
- When 6 hours of CLEP examination credit are used in Category D-I, an additional lab must be taken to fulfill Category D-I. (DL) Designated Lab course.

**II. Mathematics.....Minimum 3 hours**

Math (MATH) 109, General Mathematics  
 Math (MATH) 116, Fundamentals of College Algebra [h]  
 Math (MATH) 117, Trigonometry  
 Math (MATH) 118, College Algebra and Trigonometry  
 Math (MATH) 119, Fundamentals of Calculus  
 Math (MATH) 122, Calculus of a Single Variable I  
 Math (MATH) 136, Calculus I [h]

Math (MATH 142, Calculus with Applications for Life Sciences  
 Math (MATH) 183, Statistics

- CLEP Exam - Mathematics (6 hours)
- When 6 hours of CLEP examination credit are earned in mathematics, 3 hours may be used in fulfilling the requirement in Category D-II and the additional 3 hours credit may be used as elective credit.

**E. World Cultures and American Cultural Diversity...3 hours**

African American Studies (AFAM) 190, African American Experience [h]  
 African American Studies (AFAM) 350, Peoples and Cultures of Africa  
 African American Studies (AFAM) 358, Blacks/Amer Hist To 1877  
 African American Studies (AFAM) 359, Blacks/Amer Hist Since 1877  
 African American Studies (AFAM) 360, History of Africa  
 African American Studies (AFAM) 368, African Governments and Politics  
 African American Studies (AFAM) 377, African American Folklife  
 African American Studies (AFAM) 393, African American Lit  
 African American Studies (AFAM) 410, African American Music  
 Anthropology (ANTH) 120, Introduction to Cultural Anthropology [h]  
 Anthropology (ANTH) 277, Introduction to World Music  
 Anthropology (ANTH) 335, Old World Prehistory  
 Anthropology (ANTH) 336, New World Prehistory  
 Anthropology (ANTH) 343, Anthropology of Gender  
 Anthropology (ANTH) 350, Peoples and Cultures of Africa  
 Anthropology (ANTH) 410, African-American Music  
 Communication (COMM) 263, Fundamentals of Communication and Culture  
 Consumer and Family Sciences (CFS) 170, Introduction to International Food and Culture  
 Dance (DANC) 360, Dance in Culture  
 Design, Merchandising, and Textiles (DMT) 346, Architecture/Culture (Honors participation or 3.2 GPA Required.)  
 Design, Merchandising, and Textiles (DMT) 431, Clothing and Human Behavior  
 English (ENG) 370, Multicultural Literature in America  
 English (ENG) 387, Studies in Autobiography  
 English (ENG) 393, African American Literature  
 Folk Studies (FLK) 277, Introduction to World Music  
 Folk Studies (FLK) 280, Cultural Diversity in U.S. [h]  
 Folk Studies (FLK) 350, Peoples and Cultures of Africa  
 Folk Studies (FLK) 377, African American Folklife  
 Folk Studies (FLK) 410, African American Music  
 Geography (GEOG) 110, World Regional Geography [h]  
 Geography (GEOG) 200, Introduction to Latin America  
 Health Care Administration (HCA) 347, International Comparisons of Health Care System  
 History (HIST) 110, Introduction to Asian Civilizations  
 History (HIST) 200, Introduction to Latin America  
 History (HIST) 353, Indian Peoples of North America  
 History (HIST) 358, Blacks in American History to 1877  
 History (HIST) 359, Blacks in American History since 1877  
 History (HIST) 360, History of Africa  
 History (HIST) 364, Latin America: Colonial Period  
 History (HIST) 365, Latin America: The Republics  
 History (HIST) 370, Modern South Asia  
 History (HIST) 461, Modern East Asia  
 History (HIST) 463, 1492 and the Atlantic World: The Intersection of Cultures

Music (MUS) 119, Jazz Appreciation  
 Music (MUS) 277, Introduction to World Music  
 Political Science (PS) 200, Introduction to Latin America  
 Political Science (PS) 365, Government and Politics of the Middle East  
 Political Science (PS) 366, Government and Politics of East Asia  
 Political Science (PS) 368, African Government and Politics  
 Religious Studies (RELS) 103, Religions of Asia  
 Religious Studies (RELS) 302, Buddhist Religious Traditions  
 Religious Studies (RELS) 303, Hindu Religious Traditions  
 Religious Studies (RELS) 304, Judaic Religious Traditions  
 Religious Studies (RELS) 306, Islamic Religious Traditions  
 Religious Studies (RELS) 307, Native American Religious Traditions  
 Religious Studies (RELS) 308, East Asian Religious Traditions  
 Religious Studies (RELS) 320, Religions of the Middle East  
 Religious Studies (RELS) 324, Christianity in Africa  
 Sociology (SOCL) 353, Sociology of Modern Japan  
 Sociology (SOCL) 362, Race, Class and Gender  
 Sociology (SOCL) 375, Diversity in American Society  
 Spanish (SPAN) 200, Introduction to Latin America  
 Spanish (SPAN) 372, Latin American Civilization and Culture

International Baccalaureate (IB) Exam in History of Africa, History of West South Asia, and History of East Southeast Asia accepted

**F. Health and Wellness.....2 hours**

Animal Science (ANSC) 232, Basic Equitation  
 Consumer and Family Sciences (CFS) 111, Human Nutrition  
 Dance (DANC) 108, Beginning Men's Ballet Technique  
 Dance (DANC) 111, Ballet I  
 Dance (DANC) 113, Jazz I  
 Dance (DANC) 117, Modern I  
 Dance (DANC) 211, Ballet II  
 Dance (DANC) 213, Jazz II  
 Dance (DANC) 217, Modern II  
 Dance (DANC) 311, Ballet III  
 Dance (DANC) 313, Jazz III  
 Dance (DANC) 317, Modern III  
 Military Science (MIL) 101, Military Mountaineering and Leadership  
 Music (MUS) 347, Marching Band  
 Performance (PERF) 105, Taiji  
 Performance (PERF) 110 Mat Pilates  
 Physical Education (PE) 100, Concepts of Lifetime Fitness and Wellness  
 Physical Education (PE) 101, 102, Activity Course  
 Psychology (PSY) 250, Adjustment and Personal Growth  
 Public Health (PH) 100, Personal Health  
 Public Health (PH) 111, Human Nutrition  
 Public Health (PH) 165, Drug Abuse  
 Safety (SFTY) 171, Safety and First Aid

**Total Minimum General Education Requirements.....44 hours**

**General Education Requirements for Associate Degrees**

Students in Associate Degree programs must take a minimum of 15 hours of General Education courses as outlined below:

- **Category A1: Organization and Communication of Ideas.....3 hours**  
 ENG 100/ENGL 100C Freshman English
- **Category B: Humanities.....3 hours**  
 Any class from section I or section II (Electives)
- **Category C: Social and Behavioral Sciences.....6 hours**  
 Any two classes
- **Category D: Natural Sciences-Mathematics.....3 hours**  
 Any class from section I (Science) or section II (Mathematics)

**Credit by Examination**

Credit may be earned at WKU through the following examination programs: the Advanced Placement Program (AP), the American College Testing Program (ACT), the Scholastic Assessment Test (SAT), the College Level Examination Program (CLEP), and departmental examinations developed by WKU departmental faculty committees. The credit hours earned through these examinations will count toward graduation, but will not be used to compute grade point averages since a letter grade will not be given.

Although students may receive credit hours through any of these five programs, duplicate credit may not be earned. For example, a student who earns credit hours for English 100 through the AP program may not receive additional credit for English 100 on the ACT exam, on a departmental exam, or on the CLEP exams.

High school seniors should take CLEP and ACT or SAT examinations by February at the latest so that the results may be available for use in selecting courses during the March or June Academic Transition Program (ATP).

The Office of Admissions notifies students of their eligibility for credit upon receiving an application for admission and the official test score report. Students will receive the credit during the first semester of enrollment

## Academic Information

### Advanced Placement Program (AP)

Students may earn college credit through the Advanced Placement Program of the College Board upon attaining the minimum score on the AP examination.

The Office of Admissions notifies students of their eligibility for credit upon receiving an application for admission and the official AP score report. Official scores may be obtained on-line at [www.collegeboard.com](http://www.collegeboard.com) or by contacting AP Exams, PO Box 6671, Princeton, New Jersey 08541-6671, telephone (888)225-5427. The following code number should be used to have scores sent to WKU: AP-1901. Students will receive the credit during the first semester of enrollment.

AP Course	Minimum Score	Credit Hours	WKU Course
<b>Art</b>			
Studio Art	3	3	Art 130 or 140
	4	6	Art 130 and 140
Art History	3	3	Art 105 or 106
	4	6	Art 105 and 106
<b>Biology</b>			
Biology	3	3	Biology 120
<b>Chemistry</b>			
Chemistry	4	5	Chemistry 120 (3) and Chemistry 121 (2)
	5	10	Chemistry 120 (3), 121, (2), 222 (3), and 223 (2)
<b>Computer Science</b>			
Computer Science A	3	4	Computer Science 180
<b>Economics</b>			
Macroeconomics	3	3	Economics 203
Microeconomics	3	3	Economics 202
<b>English</b>			
Language and Composition	3	3	English 100
	4	6	English 100 and 3 hrs. general elective
Literature and Composition	3	3	English 100
	4	6	English 100 and 200
<b>Environmental Science</b>			
Environmental Science	3	3	Environmental Science 280, Public Health 280, Geography 280, or Chemistry 280
<b>French</b>			
Language	3	9	French 101, 102 and 201
	4	9	French 102, 201, and 202
	5	9	French 201, 202, and 320
Literature	3	9	French 101, 102, and 201
	4	9	French 102, 201, and 202
	5	9	French 201, 202, and 314
<b>Geography</b>			
Human Geography	3	3	Geography 216

AP Course	Minimum Score	Credit Hours	WKU Course
<b>German</b>			
Language	3	9	German 101, 102, and 201
	4	9	German 102, 201, and 202
	5	9	German 201, 202, and 330
<b>Government</b>			
Government and Politics—United States	3	3	Political Science 110
Government and Politics-Comparative	3	3	Political Science 260
<b>History</b>			
European	3	3	History 120
	4	6	History 120 and 3 hours elective
United States--History	3	3	Elective
	4	6	Elective
World History	3	3	History 120
	4	6	History 120 and 3 hours of lower level elective
<b>Latin</b>			
Latin Literature or Vergil Latin Literature	4	6	Religious Studies 150 and 151
<b>Math</b>			
Calculus (AB)	3	4	Math 136
Calculus (BC)	3	4	Math 136
	5	8	Math 136 and 137
Statistics	3	3	Math 183
<b>Music</b>			
Theory	3	3	Music 100
	4	6	Music 100 and 101
<b>Physics</b>			
Physics (B)	3	6	Physics 201 and 202
Physics (C)	4	4	Physics 255
<b>Psychology</b>			
Psychology	3	3	Psychology 100
<b>Spanish</b>			
Language	3	9	Spanish 101, 102, and 201
	4	9	Spanish 102, 201, and 202
	5	9	Spanish 201, 202, and 371
Literature	3	9	Spanish 101, 102, and 201
	4	9	Spanish 102, 201, and 202
	5	9	Spanish 201, 202, and 374

### **ACT or SAT English Proficiency Credit**

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A student scoring 29 or above on the English section of the Enhanced ACT or 650 or above on the verbal section of the re-centered SAT may be awarded three credit hours for English 100. WKU does not require the written component on either exam. A student who earns credit for English 100 on the ACT or SAT may not receive additional credit for English 100. Official ACT or SAT scores should be sent by the testing company to the Office of Admissions as part of the admissions process. ACT scores may be obtained by contacting ACT Records, P.O. Box 451, Iowa City, Iowa 52243, phone (319) 337-1313, or accessing on-line information at [www.act.org](http://www.act.org). The following code number should be used to have scores sent to WKU: ACT-1562. SAT score information can be obtained by calling 1-800-SAT-SCORE or on-line at [www.collegeboard.com](http://www.collegeboard.com). The following code number should be used to have scores sent to WKU: SAT-1901.

The Office of Admissions will notify applicants who qualify for academic credit on the basis of the ACT/SAT scores.

### **College Level Examination Program (CLEP)**

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The CLEP examinations may be taken each month at any national testing center, including the testing center at WKU. Information about CLEP may be obtained by writing CLEP, CN 6600, Princeton, New Jersey 08540-6600, or accessing on-line information at [www.collegeboard.com](http://www.collegeboard.com), or by contacting the Counseling and Testing Center, Western Kentucky University, Bowling Green, Kentucky 42101, (270) 745-3159. The following code number should be used to have scores sent to WKU: CLEP-1901.

Students may register for CLEP examinations at WKU by contacting the Counseling and Testing Center or by going online to [www.registerblast.com/wku](http://www.registerblast.com/wku).

Students applying to WKU should have their scores sent to the Office of Admissions. Students currently enrolled at WKU should request that their scores be sent to the Office of the Registrar. The appropriate office will then notify applicants who qualify for academic credit.

#### **Policies**

1. A student who has completed a course or has received credit by examination at WKU or at another accredited college or university may not receive credit for a CLEP examination of similar content.
2. A student may not take a CLEP examination for credit after having taken a college course at a higher level in the same department (subject matter area).
3. A student may establish credit in all courses or areas in which he/she is able to demonstrate a proficiency, provided he/she meets the University's residence requirements for graduation.
4. A student who fails to earn credit on a CLEP examination may not repeat the same examination within six months of the initial testing date.
5. A student may not repeat by proficiency testing a course which has been previously taken or failed at WKU or another accredited institution.

## Academic Information

### CLEP Subject Examinations

WKU does not require completion of the essay section of the CLEP subject examinations.

Subject Examination	Minimum Score	Credit Hours	Equivalent WKU Course
<b>Composition and Literature</b>			
American Literature	50	6	English 391 and 392
Analyzing and Interpreting Literature	50	3	English 200
College Composition	50	3	English 100
College Composition Modular (no essay required)	50	3	English 100
English Literature	50	6	English 381 and 382
Humanities	50	6	3 hrs. in BI, 3 hrs. in BII
<b>Foreign Languages</b>			
College French	50	6	French 101 and 102
	56	9	French 101, 102, and 201
	59	12	French 101, 102, 201, and 202
College German	50	6	German 101 and 102
	56	9	German 101, 102, and 201
	60	12	German 101, 102, 201, and 202
College Spanish	50	6	Spanish 101 and 102
	58	9	Spanish 101, 102 and 201
	63	12	Spanish 101, 102, 201, and 202
<b>History and Social Sciences</b>			
American Government	50	3	Political Science 110
History of the United States I: Early Colonizations to 1877	50	3	History 240
History of the United States II: 1865 to the Present	50	3	History 241
Human Growth and Development	50	3	Psychology 199
Introduction to Educational Psychology	50	3	Psychology 310
Introductory Psychology	50	3	Psychology 100
Introductory Sociology	50	3	Sociology 100
Principles of Macroeconomics	50	3	Economics 203
Principles of Microeconomics	50	3	Economics 202
Social Sciences and History	50	6	General Education Category C*
Western Civilization I: Ancient Near East to 1648	50	3	History 119
Western Civilization II: 1648 to the Present	50	3	History 120
<b>Science and Mathematics</b>			
Biology	50	3	Biology 120
Calculus	55	4	Math 136
Chemistry	50	5	Chemistry 120 and 121
College Algebra	52	3	Math 116
College Mathematics	50	6	General Education Category D-II
Natural Sciences**	50	6	General Education Category D-I
Precalculus	50	3	Math 118
<b>Business</b>			
Financial Accounting	50	3	Accounting 200
Information Systems and Computer Applications	58	3	CIS 141
Introductory Business Law	60	3	Management 301
Principles of Management	50	3	Management 210

\* Social Sciences and History CLEP credit cannot be used in lieu of History 119 or 120. Three hours are applicable to General Education Category C and 3 hours as elective credit.

\*\*When 6 hours of CLEP examination credit are used in Category D-I, an additional lab must be taken to fulfill Category D-I. (DL) Designated Lab course. When 6 hours of Natural Sciences is earned, 3 hours apply as Biological Sciences and 3 hours apply as Physical Sciences.



### **International Baccalaureate**

Western Kentucky University recognizes the International Baccalaureate (IB) program completed in high school. Credit will be awarded by earning the required score in a specific subject. To receive credit the student must furnish an official IB transcript to the Office of Admissions issued directly from the New York office of the International Baccalaureate Organization. Specific information about required scores and credit may be obtained from the Office of Admissions.

### **Departmental Credit By Examination**

Students enrolled at WKU may also receive credit on the basis of departmental examinations. A student may take a departmental examination in any course listed as satisfying a requirement in any of the categories of general education. Departments may offer departmental exams in other courses at their discretion.

A department may adopt either a standardized examination available from outside the University or develop an appropriate proficiency examination within the department by means of a faculty committee. Departmental proficiency examinations may be written, oral or both.

To be eligible to take a departmental proficiency examination, a student must be fully matriculated, in good standing, and regularly enrolled at WKU. Credits earned in this manner will be recorded on the student's official transcript but will not be considered as a part of the normal semester load in the term in which the examination is taken. A student may not register for a departmental examination for a course while he or she is enrolled in that course. A student may not take a departmental proficiency examination in a course which has been previously taken at WKU or at another accredited institution.

A student desiring to take a departmental examination must complete an appropriate request form in the Office of the Registrar. A fee of \$25 per credit hour must be paid at the time the form is submitted. The form must be submitted to the Registrar prior to the end of the third week of classes in either the fall or spring semesters. The Registrar will notify the appropriate department of the student's request. The department will administer the proficiency examination during the seventh week of classes. The student must obtain the specific time and place for testing from the department head.

After testing has been completed, the department head will notify the Registrar in writing as to whether or not the student demonstrated acceptable proficiency. If the department recommends that credit be granted, the semester hours earned will be recorded on the official transcript. However, the credit will not be used in computing the grade point average since letter grades will not be assigned.

### **Military Service Credit**

Military service experience will be recognized as outlined below:

Individuals who have served on active duty in a branch of the military for 181 days or more and earned an honorable discharge may receive three semester hours of credit applicable to category F of the general education requirements. In order to receive such credit, students should submit a copy of their DD214 to the Office of Admissions.

Individuals who have attended military schools, and who are currently enrolled at WKU, may receive academic credit applicable toward a degree providing the training is recommended for academic credit by the American Council on Education.

For more information, contact Military Student Services at (270) 745-3570 or visit them in 201 Tate Page Hall.

WKU Libraries supports the informational, research and curricular needs of WKU students, faculty and staff by selecting, acquiring, organizing and providing access to all print, non-print, and electronic library resources. Reference services in person, by phone or virtually, research instruction and orientation classes on demand or as part of the University Experience courses, and a wireless environment provide an attractive environment for research, collaboration or quiet study.

**Connie Foster, Interim Dean**

**WKU Libraries**  
**Cravens Building**  
**Office 101, 745-2905**  
[www.wku.edu/library](http://www.wku.edu/library)

WKU Libraries offers services through the main complex Helm-Cravens Library, the Kentucky Library & Museum, the Educational Resources Center, the Visual & Performing Arts Library, and the regional campus libraries. The Library collection includes more than 800,000 books, 100,000 volumes of periodicals, 1.2 million microforms, and one-quarter million government documents. Each year approximately 12,000 books are added to the collection and over 3,500 subscriptions with online access to nearly 30,000 journals. Primary access to the collections is provided by TOPCAT, the Libraries' online catalog. TOPCAT terminals are located near library service desks and on each floor of Cravens stacks. Remote access is also available.

The main entrance to the Helm-Cravens Library is on the fourth floor of the Cravens building near the Fine Arts Building. Circulation Services occupies this floor, where patrons may charge out library materials or request the use of laptop computers. The Leisure Reading Collection, new books display, photocopiers, and a faculty photocopying service are also located here. The Department of Library Public Services office is located on the fifth floor of the Cravens building. The remainder of the fifth floor, and floors 6 through 9 house the main portion of the circulating book collection, offices, conference rooms, and graduate student study carrels. The Visual & Performing Arts Library (VPAL) is located on the second floor of Cravens and houses collections in music, theatre, dance, art, photography, and costume, including 7,000 films in DVD and VHS; 3,800 CDs and 15,000 vinyl records. It provides a special listening and viewing area, soundproof rooms, a large-scale digital scanner, and the Libraries' main reserve collection. The Department of Library Technical Services, which handles the acquisition, processing of and access to all library resources and student personnel, is located on the third floor of Cravens. The Dean of Libraries office and staff are on the first floor.

The Helm building adjoins the Cravens building through walkways connecting the fourth and fifth floors of Cravens to the first and second floors of Helm, respectively. New in 2011 is the Chinese Learning Center, which is on Helm first floor as one leaves Java City Café and passes through to the Reference Service Desk. The Reference collection is located on the first floor of Helm along with Interlibrary Loan. The Periodicals and Microforms collections are located on the second floor of Helm. Current periodicals and bound volumes of periodicals published since 1980 are located here. The second largest computer lab on campus, the Student Technology Center operated by Academic Technology, is also on the second floor. The ground floor of Helm houses the federal depository documents collection, selected Kentucky state documents, and the law collection. Bound periodicals prior to 1980 are housed in compact shelving on this floor.

The Educational Resources Center (ERC) is located on main floor of Gary Ransdell Hall. The ERC provides information required for academic and enrichment activities and serves as a repository for curriculum and professional materials and resources in support of the College of Education and Behavioral Sciences.

The regional campus libraries (Glasgow, Owensboro, and Elizabethtown) provide reference assistance to students at those campuses and assist them in requesting extended campus library services.

The Department of Library Special Collections and the Kentucky Museum are located in the Kentucky Building. The special collections provide access to Manuscripts & Folklife Archives, University Archives, rare books, manuscripts, microforms, pamphlets, newspapers, magazines, scrapbooks, diaries, sheet music, hymnals, maps, photographs, broadsides, and reel-to-reel and cassette tapes. Most of these study and research collections relate to Kentucky history and life. These library collections are non-circulating and must be used in the building. The museum contains thousands of Kentucky and non-Kentucky artifacts, decorative arts, textiles and clothing, an extensive art and quilt collection, silver, Native American tools and textiles, toys, and a wide assortment of everyday artifacts, which are displayed in the exhibits. The museum also offers a year-round program of field trips, workshops, lectures, receptions, and exhibit openings designed for the University community, as well as the general public.

Each service area or branch has printed library guides or check the online site at [www.wku.edu/library](http://www.wku.edu/library) for additional news and updates.

The library blog announces new programs, acquisitions, and services at <http://blog.wku.edu/library>. Annually, WKU Libraries hosts the Southern Kentucky Book Fest, the Kentucky Writers Conference, and two lecture series, Far Away Places and Kentucky Live.

# Potter College of Arts and Letters



Potter College of Arts & Letters takes as its primary area of scholarly concern the study of men and women--their past, present, and future, as well as their aesthetic expression, metaphysical concerns, and social interaction. The College prepares students to enter a wide range of careers as well as programs of advanced study. More than 200 faculty members provide instruction in some twenty disciplines. Each department offers majors and minors, and in cooperation with Graduate Studies, the College offers graduate degrees in most departments. In addition, the College plays an important role in the university's General Education program.

## Department of Art

The Department of Art offers three undergraduate degree programs: the Bachelor of Fine Arts in Visual Arts with concentrations in Studio or Graphic Design, the Bachelor of Arts in Visual Studies with either a concentration in Art Education or a studio concentration, and a Bachelor of Arts in Art History. In addition, the department offers undergraduate minors in Art History, Graphic Design for Advertising majors, and Studio Art, as well as a graduate major and minor under the Master of Arts in Education program. A broad outline of purpose and suggested program of study is listed below for each major and minor.

The Department of Art at WKU is accredited by the National Association of Schools of Arts & Design. Individuals or groups interested in touring the department's facilities may make an appointment through the Office of Admissions (270) 745-2551, or the Department of Art (270) 745-3944. Please visit the department's website, listed to the right, for further details.

Through the University Gallery, the department presents exhibitions, lectures, and workshops by nationally recognized artists designed to enhance the education of art students while serving the entire university and larger community. Faculty exhibitions, juried student shows, and graduating senior exhibitions are scheduled annually. The department reserves the right to retain and publish selected examples of student work.

### Outline of purpose for the Bachelor of Fine Arts in Visual Arts, with Concentrations in Studio or Graphic Design

The Bachelor of Fine Arts degree is the initial professional degree sought for careers in the visual arts field. The department of art offers two concentrations. The B.F.A. in Studio concentration prepares students for a professional studio practice through rigorous artistic and academic experience. It is also the standard requirement for entrance into Masters of Fine Arts degree programs, the most common route to teaching studio art at the college level. The B.F.A. Graphic Design concentration prepares students for careers in the visual communication field, including web design, print design, illustration and new media. Both concentrations begin with a foundation of drawing, 2-D design, 3-D design and art history surveys. Students then focus on a specific curricular sequence of interest to them: ceramics, graphic design, printmaking, painting, sculpture, or weaving. A portfolio and seminar class serves as the capstone experiences for B.F.A. students in each concentration, where personal concepts and technical proficiency typically yield a cohesive body of work or competitive professional portfolio. In either concentration, the goal for the B.F.A. student is to forge a professional art practice.

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**Associate Professors:** K. Arnold,  
M. Choe, J. Jensen, M. Nichols,  
Y. Petkus, J. Sung, M. Tullis  
**Assistant Professors:** I. Cartwright,  
B. Dedas, G. Jordan, L. Oesterritter  
**Instructor:** D. Marquez  
**Transitional Retiree:** J. Oakes

### Outline of purpose for the Bachelor of Arts in Visual Studies

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The Bachelor of Arts (A.B.) in Visual Studies (reference number 514) is a liberal arts degree intended to provide students with a wide range of art experience and knowledge rather than professional studio specialization. Students begin with a foundation in drawing, 2-D design, 3-D design and art history surveys. Students may either follow a concentration in art education or a studio concentration of their choice.

The A.B. in Visual Studies-studio concentration, allows students to pursue an area of studio interest, yet engage in a breadth of liberal arts experiences as well. Visual Studies-studio concentration majors may pursue graduate coursework in art conservation, art therapy, arts administration, journalism or related fields.

The Art Education concentration equips knowledgeable and creative art teachers to meet state and national standards on elementary and secondary levels. Students begin with a foundation in drawing, 2-D design, 3-D design, and art history surveys. Art Education students combine their study of teaching methods with studio exploration, art historical knowledge, and practical field experience. This degree prepares students for P-12 certification and is a common requirement for entry into a Master of Arts in Education degree program.

### Outline of purpose for the Bachelor of Arts in Art History

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The Bachelor of Arts in Art History (reference number 613) provides WKU students with a broad and thorough understanding of the history and function of the visual arts from ancient times to the present day. Majors will critically analyze paintings, prints, sculpture, architecture, and other visual media to investigate a range of historical and philosophical issues with which the arts have been deeply involved. As such, majors will gain an understanding of how visual practices proactively articulate and motivate rather than simply illustrate, record, or reiterate history.

With an emphasis on reading, writing, research, and critical analysis the AB in art history prepares students for a broad range of career possibilities. Visual arts-related career paths for art history majors include careers in museums, galleries, and auction-houses as curators, art appraisers, conservators, registrars, art educators, archivists, researchers, website designers, art administrators, marketing specialists, and grant writers.

### Outline of purpose for the Master of Arts in Education Graduate Program

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The Master of Arts in Education (M.A.E.) degree requires 30-33 semester hours. The program includes components in studio, art history, and art education. The remaining credits are taken in professional education courses. The minor program includes a 12-hour art component, and another 18 hours in professional education courses. See the Graduate Studies Catalog for requirements.

### B.F.A. in Visual Arts with concentrations in Studio or Graphic Design

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The Bachelor of Fine Arts in Visual Arts major (reference number 514) requires 82 semester hours of study. The major offers two concentrations, Studio and Graphic Design. **Both concentrations require the following courses:** ART 105 (History of Art to 1300), ART 106 (History of Art Since 1300), ART 130 (2-D Design), ART 131 (3-D Design), ART 140, 240, 340, 341 (all drawing courses). Students may have no more than one "D" for a final grade in the following foundation courses: ART 105, 106, 130, 131, or 140. Additionally, both concentrations require students to take two upper-level elective studio courses, ART 432 (Portfolio) and ART 434 (Capstone Seminar). Each concentration has additional requirements listed below. The four-year plan for timely completion of the B.F.A. major appears on the departmental web site at [http://www.wku.edu/art/degrees/degrees\\_offered.php](http://www.wku.edu/art/degrees/degrees_offered.php).

B.F.A. Studio concentration majors must also take four of the following seven basic studio courses listed: ART 220 (Ceramics), ART 231 (Graphic Design), ART 243 (Digital Media), ART 250 (Printmaking), ART 260 (Painting), ART 270 (Sculpture), ART 280 (Weaving), as well as ART 440 (Drawing). BFA studio concentration majors focus in one studio concentration for 9 additional upper-level courses. In addition, students must take two upper-level art history electives selected from the following list: ART 305, 312, 313, 314, 315, 316, 325, 334, 390, 401, 403, 405, 407, 408, 409, 410, 445, 494, PHIL 305.

B.F.A. Graphic Design concentration majors must take three of the following five basic studio courses listed: ART 220 (Ceramics), ART 250 (Printmaking), ART 260 (Painting), ART 270 (Sculpture), ART 280 (Weaving), as well as ART 440 (Drawing), or ART 431 (Illustration). Finally, B.F.A. graphic design concentration majors focus on a track of required courses that are specific to their field. They include: ART 231 (Graphic Design), ART 243 (Digital Media), ART 330 (Graphic Design), ART 334 (Survey of Graphic Design), ART 343 (Digital Media, Time-based), ART 430 (Graphic Design), ART 433 (Package Design), ART 438 (Advanced Computer Graphics), ART 331 (Visual Thinking) or JOUR 343 (Print Design), ART 436 (Electronic Illustration) or AMS 308 (Graphic Communication). In addition, students must take two upper-level art history electives selected from the following list: ART 305, 312, 313, 314, 315, 316, 325, 390, 401, 403, 405, 407, 408, 409, 410, 445, 494, PHIL 305.

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### **A.B. in Visual Studies with a concentration in Art Education or Studio**

The Bachelor of Arts, Visual Studies-Art Education concentration (reference number 509) requires 66 hours of study in the art program. Foundational art courses include: art history surveys: ART 105 (History of Art to 1300), ART 106 (History of Art Since 1300), ART 130 (2-D Design), ART 131 (3-Design), ART 140, 240, and 340 (all drawing courses). Students may have no more than one "D" for a final grade in the foundation courses. Basic studio requirements include taking six of the following seven courses: ART 220 (Ceramics), ART 231 (Graphic Design), ART 243 (Digital Media), ART 250 (Printmaking), ART 260 (Painting), ART 270 (Sculpture), and ART 280 (Weaving). Advanced studio requirements include nine hours of upper-level elective studio course work as well as ART 490 (Special Problems in Art). Upper-level art history requirements include: ART 325 (Art of Asia, Africa and the Americas) or ART 405 (Theory & Criticism) and one elective art history course. Art Education majors are also required to take the following Foundations of Art Education Methods classes: ART 311 (Foundations of Art Education and Methods I), 411 (Foundations of Art Education and Methods II), and 413 (Foundations of Art Education and Methods III).

Students with a major in visual studies and a concentration in art education receive a 6-hour waiver of the upper-division hour requirement in the major. Additional course work in the education program is needed to complete certification requirements. See the department's website ([www.wku.edu/art](http://www.wku.edu/art)) for a listing of education courses required for teaching certification. See course descriptions for further details. The four-year plan for timely completion of the A.B. in Visual Studies, Art Education concentration appears on the departmental web site at [http://www.wku.edu/art/degrees/degrees\\_offered.php](http://www.wku.edu/art/degrees/degrees_offered.php).

The Bachelor of Arts, Visual Studies-Studio concentration (reference number 509) requires 49 semester hours of study. Foundational courses include: ART 105 (History of Art to 1300), ART 106 (History of Art Since 1300), ART 130 (2-D Design), ART 131 (3-D Design), ART 140 (Drawing). Students may have no more than one "D" for a final grade in foundation courses. Basic studio requirements include taking three of the following eight courses: ART 220 (Ceramics), ART 231 (Graphic Design), ART 240 (Drawing), ART 243 (Digital Media), ART 250 (Printmaking), ART 260 (Painting), ART 270 (Sculpture), ART 280 (Weaving). Additionally, students take three upper-level studio courses in one area, two upper-level elective studio courses and two upper-level art history courses, ART 432 (Portfolio) and ART 434 (Capstone Seminar). See course descriptions for further details. The four-year plan for timely completion of the A.B. in Visual Studies, Studio concentration appears on the departmental web site at [http://www.wku.edu/art/degrees/degrees\\_offered.php](http://www.wku.edu/art/degrees/degrees_offered.php).

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### **A.B. in Art History**

The Bachelor of Arts in Art History major (reference number 613) requires 33 semester hours and a minor. Students are required to take the following 15 hours: ART 105 (History of Art Since 1300), ART 106 (History of Art Since 1300), ART 130 (2-D Design) or ART 131 (3-D Design) or ART 140 (Drawing), ART 405 (Theory and Criticism) and ART 494 (Seminar in Art History). In addition, students must take 18 hours of elective courses with at least one course from each of the following four categories: Ancient, Medieval, and Non-Western Art (ART 305, 316, 325, 407); Renaissance and Baroque Art (ART 314, 315, 401, 403); Eighteenth Century and Nineteenth Century Art (ART 312, 408, 409); Modern and Contemporary Art (ART 313, 390, 410). Students may choose the remaining 6 hours of electives from the category electives or from the following list: ANTH 130, 432, 434, 448, ANTH/FLK 470, ART 334, ART/FLK 445, DMT 151, 152, 322, 424, 434, ENG 465, 466, FLK 434, 445, 446, 447, 464, FREN 450, GERM 437, PHIL 102, PHIL 305, SPAN 490. See course descriptions for further details. The four-year plan for timely completion of the A.B. in Art History appears on the departmental web site at [http://www.wku.edu/art/degrees/degrees\\_offered.php](http://www.wku.edu/art/degrees/degrees_offered.php).

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### **Minor in Studio Art**

The minor in Studio Art (reference number 312) requires a total of 30 semester hours. Foundation courses include ART 130 (2-D Design), ART 131 (3-D Design), ART 140 (Drawing) and two of the following eight basic studio courses: ART 220 (Ceramics), ART 231 (Graphic Design), ART 240 (Drawing), ART 243 (Digital Media), ART 250 (Printmaking), ART 260 (Painting), ART 270 (Sculpture), ART 280 (Weaving). Five courses in upper-level studio elective courses are required to complete this minor. See course descriptions for further details.

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### **Graphic Design Minor for Advertising Majors**

The Graphic Design minor for Advertising Majors (reference number 385) requires a total of 30 semester hours. Foundation courses include ART 130 (2-D Design), ART 140 (Drawing), ART 240 (Drawing), either ART 105 (History of Art to 1300) or ART 106 (History of Art Since 1300), and two graphic design courses, ART 231 (Graphic Design) and ART 330 (Graphic Design). Upper-level course requirements include completing four of the following eight graphic design elective courses: ART 331, ART 334, ART 430, ART 431, ART 432, ART 433, ART 436, ART 438. See course descriptions for further details.

## Minor in Art History

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The Minor in Art History (reference number 316) requires a total of 21 semester hours. Course requirements include ART 105 (History of Art to 1300), ART 106 (History of Art Since 1300) three upper-level elective art history courses selected from the following list: ART 303, ART 305, ART 312, ART 313, ART 314, ART 315, ART 316, ART 325, ART 334, ART 390, ART 401, ART 403, ART 407, ART 408, ART 409, ART 410 and ART 445. Final required courses include ART 405 (Theory and Criticism) and ART 494 (Seminar in Art History). See course descriptions for further details.

### Department of Communication

The Department of Communication offers two undergraduate majors that prepare students for understanding the complexities of communication in the modern world. As communication majors, students graduate with the understanding of how communication serves as the central organizing feature of relationships (interpersonal, family, work, and societal), but also with the tools for diagnosing and changing communication in these contexts. The department supports the concept that a broad-based liberal arts curriculum is essential for a well-rounded education.

The Corporate and Organizational Communication curriculum prepares students to understand and apply communication theories and concepts that explain human interaction in the workplace and guide the formulation of messages for the organization and its constituencies in a wide range of situations. Majors investigate how individuals influence and are influenced by organizations and their members as well as how stakeholder's personal communication competencies affect participation in and quality of organizational life and society. Majors develop competencies in critically analyzing communication within organizations, assessing internal and external communication needs, understanding audience differences and developing strategic communication plans accordingly.

As a pre-professional program, students are exposed to courses in areas such as communication, business management, marketing, economics, English, accounting, and public relations. Elective courses in the major are carefully chosen with an advisor to ensure the student receives the necessary background to succeed in an organizational setting.

The Communication Studies curriculum provides students a platform for understanding the diverse ways communication creates, maintains, and transforms relationships, organizations, institutions, and society. Majors develop competencies in analyzing communication situations, constructing and presenting messages, and adapting to specific contexts. A minor or second major outside the department is required.

### Student Activities

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Membership is available and encouraged in the professional student organizations associated with the department, including a chapter of the International Association of Business Communicators and Lambda Pi Eta Honor Society. In addition to providing fellowship for students with common interests in the communication field, these groups sponsor field trips, lectures, professional workshops, and career days. The department also sponsors the Communication Ambassadors, a group of communication students who are chosen to assist with departmental activities.

### Major in Corporate and Organizational Communication

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The major in corporate and organizational communication (reference number 522) requires a minimum of 55 semester hours and leads to a Bachelor of Arts degree. To be admitted to the program, students must have a minimum GPA of 2.3 and have completed COMM 145 or 161, ENG 100, and MATH 116 with a grade of "C" or better. *NOTE: Students can take no more than 15 hours in the Department of Communication before being admitted to the major.*

All courses within the major must be completed with a grade of "C" or better. Half of the hours must be at the 300- or 400-level. Students must take the following 19 hours of communication core courses: COMM 200, 300, 345, 348, 362, 463, 494. In addition, students must take 12 hours of organizational communication core courses selected from

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**Website:**

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**Professor:** C. Garmon

**Associate Professors:** E. Bonaguro, K. Ishii,  
A. Jerome, H. Payne, S. Ray

**Assistant Professors:** J. Smith, B. Thompson

**Instructors:** G. Allison, S. Chai, B. Crawley,

C. Elder, S. Gish, G. Hughes,

J. McClanahan, D. Renaud, P. Witcher

**Transitional Retirees:** L. Caillouet, C. Kell

**Professors Emeriti:** R. Capps, J. Hoover,

R. O'Connor, K. Payne, D. Wicklander,

L. Winn

COMM 346, 349, 462, 489; 12 hours of outside courses selected from ACCT 200, MKT 220, ENG 306, MGT 311; six hours of communication electives (with only three hours at the 200-level) selected from COMM 240, 247, 330, 343, 374, 440, 451, 460, 470 (students may take COMM 400 or 495 with advisor approval); six hours of outside electives selected from MGT 200, 333, MKT 325, ACCT 201, ECON 202 or 203, 206, BCOM 325, 385, JOUR 202, 341, 355, LEAD 330, PSY 370, 371, PS 440, 441.

### **Major in Communication Studies**

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The major in communication studies (reference number 792) requires a minimum of 34 hours and leads to a Bachelor of Arts degree. A minor or second major outside of the department is required.

The major requires the following admission requirements: A minimum GPA of 2.3, and the completion of COMM 145 or 161, ENG 100, and MATH 109 or 116 with a grade of "C" or higher. *Note: Students can take no more than 15 hours in the Department of Communication before being admitted to the major.*

All courses within the major must be completed with a grade of "C" or better. The following 19 hours of communication core courses are required: COMM 200, 300\*, 345, 348, 362, 463, 494. In addition, students must take 15 hours of electives from the following areas, with at least one course from each area (12 hours must be at the 300- or 400-level): *Organizational Communication*: COMM 330, 349, 462; *Interpersonal Communication*: COMM 240, 374, 448, 450; *Communication in Specialized Contexts*: COMM 388, 440, 451; *Public Communication*: COMM 245, 247, 343, 346. With departmental approval, students may opt to substitute one of the following courses in fulfillment of a communication studies elective: COMM 400, COMM 489 (only 3 hours can count in major), or COMM 495.

*\*COMM 300 may be waived if the student has a second major that requires an equivalent research methods course. Students would then take three additional hours from the electives list.*

### **Minor in Communication Studies**

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Minors in Communication Studies (reference number 480) develop competencies in analyzing communication situations, constructing and presenting messages, and adapting to specific contexts. The minor requires a minimum of 24 semester hours. At least 12 hours must be taken in courses numbered 300 or above.

All courses in the minor require a grade of "C" or higher. The following 15 hours of communication core courses are required: COMM 200, 345, 348, 362, and 463. In addition, students must take 9 hours of electives with at least one course from each of the following areas (six elective hours must be at the 300- or 400-level): *Organizational Communication*: COMM 330, 349, 462; *Interpersonal Communication*: COMM 240, 374, 448, 450; *Public Communication*: COMM 245, 247, 343, 346, 388. Students may opt to substitute COMM 300 in fulfillment of a communication elective.

### **Certificate in Political Communication**

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The certificate in political communication (reference number 192) allows for exploration of the role that communication plays in political systems by combining studies in the fields of communication and political science. The certificate is designed for students preparing for careers as legislative aides, political consultants, campaign managers, speechwriters, or lobbyists. Students who complete the certificate will have a foundation of communication skills and theory with a working knowledge of the political system.

Housed in the Potter College Dean's Office, the certificate program consists of 15 hours of required and elective courses that complement both a student's major/minor and career aspirations.

Students are required to take PS 375, Fundamentals of Political Campaign Management and COMM 388/PS 488, Senior Seminar in Political Communication. Students will select one course from a list of political science courses and two courses from a list of communication studies courses in consultation with an advisor.

### **Graduate Degree Program**

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The Department of Communication offers courses leading to the Master of Arts degree in communication with emphasis in applied organizational communication or communication theory/rhetoric. The program comprises a carefully chosen blend of courses including organizational, intercultural, interpersonal and group communication. Assistantships are available to qualified students. In addition, the certificate in organizational communication is designed for managers and supervisors who wish to enhance their skills in the areas of organizational communication without seeking an advanced degree. A weekend program is offered, along with evening classes. See the Graduate Studies Catalog for more detailed information. Contact this department for specific information about the program.

## Department of English

The Department of English offers four programs of study: a major in English with specialized options in literature, creative writing, and professional writing; a major in English for Secondary Teachers; and minors in English, creative writing, professional writing, and teaching English as a second language (TESL). In addition, the department sponsors an honors program for qualified students.

The English department also makes a significant contribution to the general education of all students through English 100, 200, and 300. The department serves other departments through its offerings in intermediate composition, technical writing, business writing, linguistics, film, women's literature/gender theory, teaching English as a second language (TESL), and teaching English in the schools.

English majors and minors find that their training in close reading, analyzing, researching, and writing is valuable preparation for a broad range of business, governmental, and professional careers. Students desiring to teach in high school may be certified in English for Secondary Teachers.

When planning a program of study in English, each student should be aware of the academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should also be aware that academic programs may have additional requirements not specified in the catalog. To obtain a copy of these requirements, students should contact the department head or the appropriate advisor.

For more information about our department, visit [www.wku.edu/english](http://www.wku.edu/english).

### Major in English: Literature Concentration

The literature concentration in English (reference number 662) requires a minimum of 40 semester hours and leads to a Bachelor of Arts degree. A minor or second major is required. Requirements for the major are as follows: ENG 299, 304, 381, 382, 385, 391, 392, 401, 492 (senior seminar, which should be taken in the last semester of coursework, four additional three-credit, upper-level literature courses and one additional elective from departmental offerings.\* A grade of "C" or higher is required in all courses applying to the major. At least one of the restricted electives must be at the 400-level.

**\*With the approval of the English department head, courses from another department may be taken as electives to a maximum of 3 hours in the English: Literature major.**

### Major in English: Creative Writing Concentration

The creative writing concentration (reference number 662) requires a minimum of 39 hours and leads to the Bachelor of Arts degree. A minor or second major is required. Requirements include ENG 299, 304, 381, 382, 385, 391, 392, and 413 (capstone, which should be taken in the final semester of coursework); any four of the following courses: ENG 303, 305, 311, 358, 403, 411, 474, 475, and 467; and one elective from department offerings. A grade of "C" or higher is required in all courses applying to this major. *Note: ENG 203 is a required prerequisite to the upper-level creative writing courses.*

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Fax: (270) 745-2533  
Website: <http://www.wku.edu/english>

**Kelly Reames, Graduate Advisor**  
**Christopher Ervin, Director of Composition**  
**Katherine Green, Undergraduate Advisor, Literature**  
**David LeNoir, Undergraduate Advisor, English for Secondary Teachers**  
**Molly McCaffrey, Undergraduate Advisor, Creative and Professional Writing**  
**Walker Rutledge, Honors Advisor**

**Professors:** L. Davies, K. Green, T. Hovet, D. Logan, M. Miller, J. Olmsted, K. Schneider

**Associate Professors:** W. Berry, L. Crouther, L. Dill, N. Endres, J. Fife, S. Hughes, T. Hunley, A. Jones, D. LeNoir, L. Murrey, A. Poole, K. Reames, D. Rigby, L. Spears, J. Szerdahelyi, E. Winkler

**Assistant Professors:** D. Bell, C. Ervin, A. Ganze, P. Otto, J. Rice, W. Rutledge, E. Weixel, E. Weston

**Instructors:** F. Alvarez, T. Elliott, K. Epley, J. Hatchett, D. Hays, M. McCaffrey, D. Rogers, M. Waters

**Transitional Retirees:** J. Flynn, J. Hagaman, R. Moore



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### Major in English: Professional Writing Concentration

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The professional writing concentration (reference number 662) requires a minimum of 39 hours and leads to the Bachelor of Arts degree. A minor or second major is required. Requirements include ENG 299, 304, 381, 382, 385, 391, 392, and 414 (capstone, which should be taken the final semester of coursework); any four of the following courses: ENG 301, 306, 307, 401, 402, 412, and 415; and one elective from department offerings. A grade of "C" or higher is required in all courses applying to the major. *It is strongly recommended that students in the professional writing concentration also complete an internship (ENG 369).*

### Major in English for Secondary Teachers

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The major in English for secondary teachers (reference number 561) is intended for those seeking certification to teach in secondary schools in Kentucky. It requires a minimum of 55 semester hours and leads to a Bachelor of Arts degree. No minor or second major is required. (Certification requires an additional 34 hours of education courses specified by the College of Education and Behavioral Sciences.) Requirements for the major are as follows: ENG 104, 299, 304, 385, 391, 401, 410, 492; COMM 145 or 161\*; THEA 151\*; ENG 476. In addition students must complete the following:

- Cluster #1 Literature Surveys (6 hours): ENG 381, 382, 392
- Cluster #2 Allied Language Arts (6 hours): COMM 245, JOUR 202, JOUR 427, THEA 425
- Cluster #3 Writing Electives (3 hours): ENG 301, 303, 305, 311, 358, 402, 415
- Cluster #4 Literature Elective \*\* (3 hours): ENG 333, 340, 354, 355, 365, 387, 394, 395, 396, 398, 430, 455, 457, 459, 468, 481, 482, 484, 486, 487, 488, 489, 490, 493, 495.
- Cluster #5 Literature of Diversity \*\*\* (3 hours): ENG 360, 370, 393, 497.
- Elective: Choose one additional course from cluster 1, 2, 3, 4, or 5 or another allied language arts course.

\*COMM 145/161 and THEA 151 also count as General Education courses.

\*\*The one literature elective must be from a period not chosen from cluster #1.

\*\*\*ENG 370 and 393 also count as General Education, category E.

NOTE: A former requirement—one course from CS 145, CIS 141, or LME 448—is now recommended for students who perceive a weakness in technology skills.

### Minor in Creative Writing

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The minor in creative writing (reference number 348) requires a minimum of 21 semester hours. Requirements include ENG 203 (prerequisite to the upper-level creative writing courses); any four of the following creative writing courses: ENG 303, 305, 311, 358, 402, 403, 411, and 413; and any two of the following upper-level literature courses: ENG 340, 360, 365, 370, 387, 393, 394, 395, 396, 455, 457, 459, 489, 490, 493, 495, and 497. (English majors with a literature concentration or a professional writing concentration may apply 6 hours of the above upper-level literature courses in both their major and the minor in creative writing as long as the combined major and minor include at least 48 unduplicated hours.)

### Minor in English

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The minor in English (reference number 359) requires a minimum of 21 semester hours as follows: ENG 304, 381, 382, 391, 392, plus 3 hours of upper-level literature and 3 hours of writing beyond the composition requirements.

### Minor in Professional Writing

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The minor in professional writing (reference number 437) requires a minimum of 21 semester hours. Requirements include either ENG 306 or ENG 307; ENG 401, 402, 412, 414, and 415; and one of the following courses: ENG 301, 369, 410, or 411. ENG 414 Professional Writing Capstone should not be taken before completion of at least 12 hours toward the minor. No more than 6 hours taken from the English major (either the literature or the creative writing concentration) may apply toward the professional writing minor.

### Minor in Teaching English as a Second Language (TESL)

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The minor in teaching English as a second language (TESL) (reference number 478) will prepare students interested in linguistics and language teaching to pursue teaching opportunities in private corporations or overseas in both corporations and public schools. The minor in teaching English as a second language requires a minimum of 19 credit hours, including either ENG 104, 302 or 304 (or the equivalent), and ENG 407, 408, 469, 470, and 471. In addition, all students will be required to complete two semesters of the same international language at the college level. ENG 104, 302 or 304 (or equivalent) is a prerequisite for ENG 407. ENG 407 is the prerequisite for 408. ENG

471 must be completed at the end of coursework. *Students who complete the TESL minor and also qualify for teacher certification may also qualify for the TESL endorsement.*

### Honors

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In cooperation with the University Honors College, the Department of English offers a number of courses designed to challenge and reward honors-eligible students studying English. Participants enjoy opportunities for discussion and instruction in small classes, as well as for independent study and writing. Fostering a sense of community among outstanding students, the English honors courses also facilitate graduate school admission and job placement. For information, contact Walker Rutledge, English Honors Advisor ([walker.rutledge@wku.edu](mailto:walker.rutledge@wku.edu)).

### Endorsement to Teach English as a Second Language (ESL)

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Persons who have certification to teach in the elementary, middle, or secondary grades can add on to that certification an endorsement in teaching English as a Second Language by completing the following courses: ENG 104, 302 or 304, 407, 408, 469, 470, 471 and six hours of a foreign language. The student must also complete the ESL Praxis test with a minimum score of 157.

### Graduate Degree Programs

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The Department of English also offers courses leading to the following graduate degrees: Master of Arts in English (with emphases in literature, rhetoric and composition, creative writing, English as a second language, or teaching), and Master of Arts in Education with a minor in English. All variations of the MA may lead to Rank II/I. Requirements for these degrees are described in the Graduate Studies Catalog.

A Graduate Endorsement in Teaching English to Speakers of Other Languages (TESOL) is available for certified public school teachers. Requirements:

- ENG 407G Linguistic Analysis (3)
- ENG 408G Psycholinguistics and Sociolinguistics (3)
- ENG 565 Integrated TESL (3)
- ENG 566 Teaching and Testing ESL Grammar (3)
- ENG 471G Teaching English as a Second Language Practicum (4)

The student must also complete six hours of a foreign language and the ESL Praxis test with a minimum score of 157.

A Graduate Certificate in Teaching English to Speakers of Other Languages (TESOL) is also available for persons who are not certified to teach in public schools and who wish to teach English abroad or in the private sector. The requirements are the same as for the Endorsement, except the student need not take the ESL Praxis exam.

### Department of Folk Studies and Anthropology

The programs and coursework of the Department of Folk Studies and Anthropology have in common the goal of providing WKU students and the University constituency with the training, intellectual tools, and resources to understand the cultural and biological dimensions of humankind in terms of the myriad shaping factors addressed in our respective disciplines. Although the disciplines of anthropology and folk studies are distinct, they share the University's commitment to excellence in teaching, research, and public service, recognizing that this mission continues to evolve in response to regional, national, and global change.

Both undergraduate and graduate programs in folk studies stress the examination of traditional expressive culture as a key to understanding human experience. The discipline of folklore has close affinities with literature, anthropology, sociology, history, geography, linguistics, philosophy, ethnomusicology, and psychology. The folk studies program integrates humanistic and social scientific perspectives on culture with pragmatic skills needed for professional involvement in research or for a variety of fields of employment such as public and applied folklore, historic preservation, cultural resource management and museum work.

**Dr. Michael Ann Williams, Head**  
**E-mail:** [Michael.Williams@wku.edu](mailto:Michael.Williams@wku.edu)

**Office:** 237 Ivan Wilson Center  
**for Fine Arts**  
**Phone:** (270) 745-6549  
**Fax:** (270) 745-6889  
**Website:** [www.wku.edu/fsa](http://www.wku.edu/fsa)

**Professors:** E. Brady, M. A. Williams  
**Associate Professors:** D. Applegate,  
T. Evans, K. Hudepohl,  
J.A.K. Njoku  
**Assistant Professors:** A. Ferrell,  
J. Houle, L. Powell  
**Instructor:** B. Kaufkins

In response to the growing importance of cross-cultural studies, the department offers an undergraduate minor in folklore in order to provide students with opportunities to enrich their general knowledge of the folk traditions and customs of specific societies and culture areas and to develop greater understanding of related forms of human thought and expression.

The anthropology program at Western Kentucky University offers students a coherent program of study that enriches their knowledge of human culture, develops their cross-disciplinary perspectives, and prepares them for a variety of careers. In particular, the program provides opportunities for students to study the interaction of culture and biology, both in contemporary societies as well as in the archaeological and evolutionary past. The curriculum prepares students for graduate studies and employment in cultural anthropology, biological anthropology, archaeology, linguistic anthropology, or cultural resource management. Anthropology enriches the study of history, religion, languages, biological and physical sciences, and other social sciences. The anthropology program maintains extensive archaeological, biological, and cultural collections at the Anthropology Laboratory in the Rock House. The anthropology program also houses a state-of-the-art Ethnographic Video Production lab with digital cameras and editing stations.

When planning programs of study in this department, students should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

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### Minor in Folklore

The minor in folklore (reference number 362) requires a minimum of 21 semester hours. Required courses are FLK 276, 399, and fifteen hours of restricted electives, at least one of which must be at the 400-level (excluding 479 and 489), selected in consultation with the program advisor. Students must earn a grade of "C" or better in all courses applied to the folklore minor.

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### Major in Anthropology

Students interested in this program should check the department web site for information on the recommended four-year course of study ([www.wku.edu/anthropology](http://www.wku.edu/anthropology)).

A major in anthropology (reference number 608) requires a minimum of 30 semester hours and leads to a Bachelor of Arts degree. At least half of the total semester hours must be in upper-division (300, 400) courses. Requirements of the major include core courses, concentration courses, and electives. All students complete the five-course (15-hour) core curriculum consisting of ANTH 120, 125, 130, 135, and 399. Each student completes at least one of four three-course (9-hour) concentrations in Cultural Anthropology, Biological Anthropology, Archaeology, and/or Cultural Resource Management, each concentration having its own required courses. Students choosing to complete only one concentration must complete 6 hours of electives to be selected from anthropology offerings in consultation with the advisor. Students must earn a grade of "C" or better in all core courses of the anthropology major. Students must complete a second major or a minor.

**Core Requirements completed by all majors (15 hours):** ANTH 120, 125, 130, 135, and 399

**Concentration Requirements (9 hours):** Select at least one concentration.

**Cultural Anthropology:** One area course selected from: ANTH 340, 342, 345, 350 and 378; one topics course selected from ANTH 343, 382, 400, 410, 442, 446, 448 and 449; one additional area or topics course.

**Biological Anthropology:** ANTH 300, 305, 450

**Archaeology:** One course selected from ANTH 335 and 336; at least three hours in ANTH 432; ANTH 438

**Cultural Resource Management:** ANTH 436; two courses selected from ANTH 434, 470, and 493, FLK 434, 445, 446, and 464.

**Electives: 6 hours:** (For students completing one concentration) to be selected from anthropology offerings in consultation with advisor.

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### Minor in Anthropology

A minor in anthropology (reference number 311) requires a minimum of 21 semester hours. At least 12 hours must be in upper-division (300, 400) courses. Each student must complete four required core courses: ANTH 399 and three courses selected from ANTH 120, 125, 130 and 135. In addition, each student must complete 9 hours of upper-division elective courses (with approval of advisor). Students must earn a grade of "C" or better in all core courses of the anthropology minor.

**Core Requirements completed by all minors (12 hours):** Three courses selected from ANTH 120, 125, 130, 135; and 399

**Electives (9 hours):** To be selected from anthropology offerings in consultation with advisor

### Graduate Degree Programs

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The Department of Folk Studies and Anthropology offers a Master of Arts in folk studies. See the Graduate Studies Catalog for details. Several graduate assistantships are available each year. Inquiries about courses and degree programs in folk studies should be addressed to Dr. Michael Ann Williams, Department Head of Folk Studies and Anthropology (270) 745-5898, [Michael.Williams@wku.edu](mailto:Michael.Williams@wku.edu).

### Department of History

History is the record of the collective experience of mankind. It provides perspective and knowledge which helps us understand the present and it presents a hope that we may avoid in the future some of the mistakes which humanity has made in the past. As the broadest of all academic disciplines, history helps satisfy the curious mind which is not content with the present, but must query the past and attempt to peer into the future. History teaches us how to collect, analyze, and use data which produce a trained mind, the most practical tool available to the human race.

Because of its breadth, the study of history prepares a person for a considerable number of occupations and professions. One of the most frequently mentioned is teaching from elementary through the college level. There is, however, a wide variety of other areas open to the student of history: local, state, and federal governments, the diplomatic corps, law, professional library work, the national park service, banking, journalism, politics and a host of others. In addition, the business world often looks for those who have a strong background in the liberal arts. In fact, the career possibilities are virtually limitless.

The department offers a variety of courses to students who major or minor in the liberal arts or secondary education, as well as courses meeting general education requirements for all students.

Students who complete a major in social studies and who complete the professional education requirements may be certified in the teacher education program.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter, "Academic Information." Specific attention should be given to the chapter subsections entitled "Academic Requirements and Regulations," "Academic Programs," and "General Education Requirements." Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

### Major in History

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The major in history (reference number 695) requires a minimum of 33 semester hours and leads to a Bachelor of Arts degree. A minor or second major is required. Courses required are HIST 119, 120, 240, 241 and 498. Of the remaining 18 hours, a minimum of 15 hours in upper-division courses is required with at least one upper-division course coming from each of the following areas: United States History, European History to 1648, European History since 1648, and Areas Other than Europe or the United States. For information on the 4-Year Plan for a degree in History, go to <http://www.wku.edu/history/undergrad/requirements.php>.

### Major in Social Studies

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The major in social studies (reference number 592) requires a minimum of 60 semester hours and leads to a Bachelor of Arts degree. Students completing this major may be certified in social studies. Students with a major in social studies receive a 12-hour waiver in the upper-division hour requirement in the major field. The courses required are distributed as follows:

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e-mail: [Robert.Dietle@wku.edu](mailto:Robert.Dietle@wku.edu)

**Cherry Hall**  
Office 200, Phone: (270) 745-3841  
Fax: (270) 745-2950  
Website: [www.wku.edu/history](http://www.wku.edu/history)

**History Professors:** C. Crowe-Carraco,  
J. Hardin, G. LaFantasie, D. Lee,  
H. Phillips, J. Thacker, R. Weigel  
**Associate Professors:** R. Dietle, A. Harkins,  
R. Keyser, A. McMichael, P. Minter,  
M. Plummer, E. Reed  
**Assistant Professors:** D. Browder, C. Du,  
M. Eagle, J. Hanley, J. Romero,  
S. Sanderfer, T. Van Dyken  
**Professors Emeriti:** J. Baker, C. Bussey,  
J. Calloway, P. Cook, H. Crocker,  
G. Dillingham, D. Harrington, R. Haynes,  
L. Harrison, C. Jackson, M. Lucas,  
F. Murphy, R. Stone, R. Troutman

**History:** 27 hours, including HIST 119, 120, 240, 241, and 498. The remaining 12 hours must be upper-division hours and must include a course from each of the following areas: United States History, European History to 1648, European History since 1648, and Areas Other than Europe or the United States.

**Political Science:** 9 hours, including PS 110, PS 250 or 260, and an upper-division elective chosen from the following: PS 310, PS 316, PS 326, PS 327, PS 328, and PS 370.

**Economics:** 6 hours, including ECON 202 and 203

**Geography:** 9 hours including GEOG 110; any two of the following GEOG 350, GEOG 360, GEOG 425, GEOG 430.

**Anthropology, Psychology and Sociology:** 9 hours including ANTH 120, PSY 100 and SOCL 100.

In choosing elective courses, students should keep in mind the number of upper-division courses required for graduation. Students who complete this program will not be required to offer an additional major or minor for their degree and teacher certification.

Students who pursue the social studies major should also bear in mind that at least a minor in a particular discipline is required by many universities for graduate study in that discipline. The equivalent of a history minor is included in the social studies major. The number of additional hours required to meet minor requirements in PS, ECON, GEOG and SOCL is as follows: PS: 15 hours; ECON: 15 hours; GEOG: 12 hours; and SOCL: 18 hours. Students seeking to minor in any of these disciplines should consult the appropriate department head for specific requirements. For information on the 4-Year Plan for a degree in Social Studies, go to <http://www.wku.edu/history/undergrad/requirements.php>.

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### Minor in History

The minor in history (reference number 392) requires a minimum of 24 semester hours. Courses required are HIST 119, 120, 240, and 241. The remaining 12 hours must be taken in upper-division courses with no more than two upper-division courses coming from any one of the following areas: United States History, European History to 1648, European History since 1648, and Areas Other than Europe or the United States.

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### Minor in Southern Studies

The minor in southern studies (reference number 462) allows students to focus on an exploration of topics related to the U.S. South and has the following goals: to introduce students to the history and culture of the U.S. South; to provide a framework for understanding the region in a local, national, and world context; to understand the U.S. South as a region both separate from and integrated within the United States. No more than six hours of the history major may be used for completion of the minor.

The minor in southern studies requires a minimum of 21 hours, including five required courses: FLK 281, HIST 457, 458, 443, and ENG 495. Students also complete 6 hours out of the following electives: ANTH 432, ENG 398 or 394, FLK/ANTH 378, GEOG 451, HIST 430, 481, RELS 330, or a three-credit service-learning component. Students should consult with the program director for the suggested sequence of studies.

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### Departmental Honors Program

The Department of History offers an honors program for superior students that provides opportunities for a challenging and intensive investigation of historical topics in informal, small-group settings. Students with grade point averages of 3.4 or above are eligible to enroll in history honors courses. Those who fulfill designated requirements may earn a transcript notation indicating that they have graduated with honors in history. Full details of the program may be obtained by contacting Professor Patricia Minter, Office 206 in Cherry Hall.

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### Graduate Degree Programs

The Department of History offers courses leading to the Master of Arts degree. For more detailed information, consult the Graduate Studies Catalog and contact Professor Eric Reed, the Graduate Advisor, Office 219 in Cherry Hall.

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### Pre-Law

Pre-law preparation is not a curriculum as in the case of pre-medicine or other programs which follow a specific pattern of undergraduate courses. Both the American Bar Association and the American Association of Law Schools recommend a broad liberal arts program of courses for potential law students. Pre-law students will best prepare for law school by pursuing a rigorous course of study during their undergraduate years. No specific major is required for admission to law school,

**Pre-Law Advisor:** Patricia Minter (History)

**Cherry Hall**

**Office 206, Phone: (270) 745-5098**

**website:** <http://www.wku.edu/history/careers/pre-law.php>

**Coordinator: Patricia Minter, Ph.D**

**e-mail:** [patricia.minter@wku.edu](mailto:patricia.minter@wku.edu)

but students should select major and minor fields which they find both interesting and promising for superior academic performance.

Admission to law school is on a competitive basis, and the number of openings at each school is limited. The main criteria for admission to most recognized schools are a high grade point average (GPA) in undergraduate work and a high score on the Law School Admission Test (LSAT). A Bachelor of Arts or Bachelor of Science degree from an accredited four-year college or university is required for admission to law schools accredited by the American Bar Association.

Law school admission directors and independent studies of the factors which contribute to success in the study of law conclude that undergraduates should develop a core group of skills during their programs of study. It is important that students select courses that develop strong vocabulary and reading comprehension skills, effective writing ability, analytical/logical reasoning, and an understanding of societal institutions and values.

Students should pursue a challenging course of study that emphasizes reading, writing, and analytical ability. Courses which can develop the requisite skills and abilities for legal study include: ENG 100, 200, 300, 301 and English electives; PS 110, 220, 326, 327, and 328; HIST 119, 120, 445, 446 and history electives; PHIL 215, 350, 415 and philosophy electives. Based on individual interests, students may also pursue elective courses in accounting, economics, sociology/criminal justice, foreign language, and speech communication. The following courses, while not mandatory for pre-legal study, offer undergraduate students a useful introduction to various aspects of public law and legal history: PS 326, 327, and 328; HIST 445 and 446; BCOM 301 or JOUR 301; MGT 200; ECON 390.

Each student who intends to study law after graduation should make initial contact with the Pre-Law Advising program. Afterwards, students are encouraged to meet with a pre-law advisor in addition to his/her major advisor during their tenure at WKU. Pre-law advisors will provide assistance in obtaining information about law schools, the Law School Admission Test and other pertinent information. Aspiring pre-law students should plan to take the LSAT in June following their junior year. During the senior year, the pre-law advisor will also be available to assist students in the preparation and submission of applications to law schools of their choice. Applications are usually accompanied by letters of recommendation from faculty members who can comment on the student's ability and promise for the study of law. Aspiring candidates should so conduct their undergraduate studies that they can with confidence ask at least three faculty members to serve as references.

## School of Journalism & Broadcasting

### Mission Statement

The mission of the School of Journalism & Broadcasting at Western Kentucky University is to be a professional undergraduate program that prepares its students for success in a changing media environment by focusing on content, ethics and technology. Our aim is to produce graduates with analytical and communication skills who will demonstrate a commitment to excellence in their professional and personal lives. We promote the balancing of foundational mass communication skills with the development of intellect and character in students, preparing them to serve the public, their communities and the global society in which they will live and work.

### Undergraduate Programs

The School of Journalism & Broadcasting offers majors in advertising, broadcasting, film, mass communication, news/editorial journalism, photojournalism and public relations. The School also offers minors in broadcasting, digital advertising and mass communication as well as graduate courses for journalism teachers; see the Graduate Studies Catalog for details.

Journalism has been offered at WKU for nearly 66 years. In 1979, when it was only two years old, the Department of Journalism was nationally accredited by the Accrediting Council on Education for Journalism and Mass Communication. In 1999 the department merged with the broadcasting and mass communication programs and the University created the School of Journalism & Broadcasting. The Commonwealth designated the School as a Program of Distinction in 2000. In 2003, the School moved into a new \$18 million building with state-of-the-art classrooms and labs.

### **Dr. Loup Langton, Director**

**Mass Media & Technology Hall**  
**Office 216, Phone: (270) 745-4144**  
**Fax: (270) 745-5835**  
**Website: [www.wku.edu/journalism](http://www.wku.edu/journalism)**

**Professors:** P. Johnson, J. Kenney, C. Shaluta, S. White

**Associate Professors:** R. Adams, J. Adams-Smith, H. Allen, T. Broekema, L. Langton, G. McKerral, K. Payne, P. Quinn, J. Ryan

**Assistant Professors:** V. Bagwell, R. DeMarse, J. LeTourneau, B. Pfranger, N. Ralston, W.M. Simpson, C. Stein, D. Taylor

**Instructor & General Manager WWHR-FM:** M. Yambor

**Instructor:** J. Cherry

**Cal Turner Professorship in Multimedia Journalism:** K. Northrup

**Professional-in-Residence:** K. Coppinger  
**Transitional Retiree:** B. White

The School in its new configuration was re-accredited in 2004 and again in 2010. Being accredited means the School adheres to high standards, including emphasis on liberal arts and science education in the attainment of a professional communication degree. The majors in advertising, broadcasting, news/editorial journalism, public relations and photojournalism are scrutinized by the council, which is made up of educators and representatives of 20 professional and six educational communication organizations in the United States. WKU has ranked among the top eight nationally for 18 consecutive years in the Hearst Journalism Awards overall intercollegiate competition.

The School's ultimate aim is to encourage students to be active participants in today's society, with the hope and expectation that some will assume leadership roles in advertising, broadcasting, film and television production, graphic design, photojournalism, journalism, public relations and other communication areas.

The School embraces the concept that broad-based liberal arts and science curriculum is essential for a well-rounded understanding of society. It upholds the ideal that the American press system should be free, independent and responsible. Through its course work and extracurricular activities, the School and its faculty encourage students to be critical thinkers and competent communicators, to be aware of ethical values and historical perspectives, and to gain insight into the functions and responsibilities of contemporary communications institutions. A high priority is the encouragement of students to be able to adapt, both intellectually and creatively, to the realities and challenges of an increasingly diverse and complex information society.

Students are encouraged to seek practical experience through work on student publications and broadcasting outlets, other campus publications, local media, and internships at newspapers, magazines, advertising firms, radio and television stations, businesses, public relations agencies and other institutions. Students may gain experience by working on the *College Heights Herald*, the campus newspaper; the *Talisman*, the yearbook; WWHR, a licensed non-commercial FM station managed and staffed by students; the student advertising and public relations agency Imagewest; and the Newschannel12 newscast. Qualified students may gain additional experience on campus through staff work at the National Public Radio station, WKYU-FM, or crew employment at the Public Broadcasting System associate member station, WKYU-TV24.

In addition, membership is available in campus chapters of the American Advertising Federation, Society of Professional Journalists, the National Press Photographers Association, the Public Relations Student Society of America, Radio-Television Digital News Association, Kappa Tau Alpha national society honoring scholarship in journalism, Western Kentucky Minority Communicators, which is affiliated with the National Association of Black Journalists, Mass Communication Club, the SJ&B Student Diplomats and the WKU Storm Team. Students may become involved in School committees and the policy and operating board of student publications. Those experiences help students develop a competency that better enables them to perform in the journalism/mass communication professions.

Each student in the School of Journalism & Broadcasting must compile a portfolio or electronic form of original work that will be reviewed in the capstone course of each program in the School. All majors are designed to be completed within eight consecutive semesters. Four-year plans for completing degrees are accessible on the departmental website [www.wku.edu/journalism](http://www.wku.edu/journalism).

Each major must have a minor or second major outside the School of Journalism & Broadcasting.

When planning a program of study in the School, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter, "Academic Information." Specific attention should be given to the subsections entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should check with the School of J&B for curriculum updates, which may occur after the publication date of this catalog.

## Admission Requirements

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Students wishing to enter one of the following majors in the School of Journalism & Broadcasting initially are admitted as majors seeking admission (advertising reference number, 727P; broadcasting reference number, 726P; mass communication reference number, 725P; news/editorial journalism, 716P; photojournalism, 750P; and public relations, 763P)\*. Prospective majors may take no more than 18 hours in the School of Journalism & Broadcasting before admission to one of these six majors. No course with a grade of "D" or below may be counted toward the major or fulfill prerequisite requirements for any major in the School. (\*The major in film does not have admission requirements.)

Students must meet these requirements before they can be admitted to the following majors:

1. **Majors in Advertising, News/Editorial Journalism, Public Relations and Mass Communication:** Completion of 48 hours of course work applicable to the baccalaureate degree with a minimum overall grade-point average of 2.5. Required courses include COMM 145 or 161\*, ENG 100, HIST 119 or 120 and the University math requirement. A minimum grade of "C" is required in ENG 100.

(\*Note: Major in Public Relations requires COMM 161)

No more than 18 hours may be taken in the major before admission to the major.

**Major in Broadcasting:** Completion of 30 hours of course work applicable to the baccalaureate degree with a minimum overall grade point average of 2.7. Required courses include COMM 145 or COMM 161 (preferably COMM 161), HIST 119 or 120, the University math requirement, and at least a grade of “C” in ENG 100. No more than 18 hours may be taken in the major before admission to the major.

**Major in Photojournalism:** Completion of 30 hours of course work applicable to the baccalaureate degree with a minimum overall grade point average of 2.5. Required courses include COMM 145 or COMM 161 (preferably COMM 161), HIST 119 or 120, the University math requirement, and at least a grade of “C” in ENG 100. No more than 18 hours may be taken in the major before admission to the major.

2. **Completion of these courses with at least a grade of “C,” according to the intended major and concentration:**

- Advertising: JOUR 201, 202, 232
- Broadcasting: BCOM 185 plus:
  - Broadcast News: either BCOM 201 or 265
  - Radio and TV Operations & Management: either BCOM 201 or 261
  - TV/Film Production: either BCOM 201 or 266
- Mass Communication: BCOM 185, BCOM 201 or JOUR 201, BCOM 300
- News/Editorial Journalism: JOUR 201, 202, 232
- Photojournalism: JOUR 201, 202, 231, 261
- Public Relations: JOUR 201, 202, 232

## Major in Advertising

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The major in advertising (reference number 727) requires 36 semester hours and leads to a Bachelor of Arts degree. Students must have a minor or second major outside the School of Journalism & Broadcasting. Generally, students may select any minor except communication studies, film studies or those offered within the School, as long as the minor is approved by the major advisor, 80 hours are taken outside the area of journalism and mass communication, with no fewer than 65 hours of liberal arts and natural science courses.

The advertising major in the School of Journalism & Broadcasting is designed to prepare students for corporate and agency advertising careers. The business of advertising is being transformed as consumers are choosing new communication technologies to network and to access news and entertainment.

The major in advertising offers concentrations in Branding or Creative Design. In the Creative Design concentration, majors can emphasize print advertising design or interactive advertising design.

Students also choose a second major or minor that will complement their interests and abilities. A minor in marketing is recommended for Advertising Branding majors. A special minor in graphic design has been created by the Department of Art for advertising students who choose the print advertising or interactive advertising emphasis. Students who have indicated a Print Advertising Design emphasis will be required to minor in Graphic Design. Computer Science or Graphic Design minors are recommended for students in the interactive advertising emphasis.

The advertising major offers students many ways to build impressive resumes and portfolios, including class projects, internships and working with the School’s advertising and public relations agency. Imagewest is a student-run agency that provides real-world experience to help students hone their creative skills, develop confidence and build a portfolio of their work.

The four-year plan for timely completion of the major appears on the departmental website <http://www.wku.edu/journalism>.

Specific objectives of the advertising major:

1. To acquaint the student with important concepts, methods, theories and knowledge of advertising and related disciplines.
2. To provide the student with training in procedures for sound analysis of advertising opportunities and problems.
3. To develop the student’s ability to present well-reasoned conclusions and recommendations.
4. To provide opportunities to apply understanding of concepts, methods and implementation to specific advertising situations.
5. To develop in students the foundation for continued self-education and development.



**Required core courses for a major in advertising:** JOUR 201, 202, 232, 300, 341, and 344, 18 hours; and six courses in one of three concentrations, 18 hours. All advertising majors must take a statistics course, MKT 220 and either GEOG 110 or 360. The statistics course and MKT 220 must be completed by the fall of a student's junior year in order to complete the advertising program in four years.

**Additional requirements by concentration are:**

**Branding:** JOUR 346, 349, 446 and 9 hours of restricted electives to be selected from BCOM 266 and 385; JOUR 131, 340, 343, 348, 355, 443, 448, 481, 495; MKT 328; and either JOUR 301 or BCOM 301. 18 hours.

**Creative - Print Advertising Design :** JOUR 340, 343, 345, 445 and 6 hours of restricted electives to be selected from BCOM 266, 385; JOUR 131, 346, 348, 355, 443, 448, 481, and 495; MKT 328; and either JOUR 301 or BCOM 301. 18 hours. Students who have indicated a Creative Print Advertising Design Concentration will be required to minor in Graphic Design, reference number 385, which is offered in the Department of Art.

**Creative - Interactive Advertising Design:** JOUR 340, 343, 348, 443, 444 and BCOM 264. 18 hours.

### **Major in Broadcasting**

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The broadcasting curriculum offers classroom and practical experience in radio, television and film production, broadcast news, weather and sports, station management, sales and on-air performance. The major prepares students for direct entry into the television, cable, radio, commercial and noncommercial production industry.

The major in broadcasting (reference number 726) requires a minimum of 39 semester hours and leads to a Bachelor of Arts degree. Students must take a minimum of 80 semester hours in courses outside the major area of journalism and mass communication, with no fewer than 65 semester hours in the liberal arts and natural sciences. A minor or second major outside of the School of Journalism & Broadcasting and the field of mass communication, the department of communication, and film studies is required. Communication studies or film studies may be taken as a second minor.

The following core courses are required for a major: BCOM 185, 201, 301 and 325. Additional specified courses are required, depending upon the selected area of study. The remaining courses will be chosen in consultation with the broadcast faculty advisor. Concentrations are available in radio and television operations, television/film production and broadcast news. No course with a grade of "D" or below may be counted toward this major. One-half of the hours in the Broadcasting major must be at the 300- or 400-level. Only 3 hours of internship or co-op may be counted within the major. One-hour workshops may be repeated in different topics up to 4 hours. Only 3 hours of workshop credit may be counted within the 39-hour major.

The four-year plan for timely completion of a major in broadcasting appears on the departmental website [www.wku.edu/journalism](http://www.wku.edu/journalism)

#### **Broadcast News**

**Required courses:** BCOM 185, 201, 265, 266, 301, 325, 335, 365, 368 and 465; BCOM 385 or 326 or 485; and six additional hours chosen in consultation with departmental faculty advisor.

**Suggested electives:** BCOM 261, 360, 328, 329, 361, 385, 429, 485, 461 (1 hr.), 467 (1 hr.), 491, JOUR 495 or COMM 247. **General education requirements:\*** ECON 150 or 202 or 203, PS 110, GEOG 121; and either GEOG 110 or COMM 263.

**Required elective outside major:** PS 250.

**Suggested courses outside of major and general education:** PS 304 and HIST 349.

#### **Radio and Television Operations**

**Required courses:** BCOM 185, 201, 261, 265, 266, 301, 325, 360; 361 or 366; 385, 485, and 6 hours of upper-division electives within the School of J&B or the university approved by departmental faculty advisor. BCOM 491, Internship, strongly recommended.

**General Education requirements:\*** ECON 150 or 202 or 203, PS 110; and either GEOG 110 or COMM 263.

**Suggested courses outside of the major and general education:** ACCT 200, HIST 349, MGT 210, MKT 220, PHIL 215 and PSY 371 or PHIL 320.

#### **Television/Film Production**

**Required courses:** BCOM 185, 201, 266, 301, 325, 366, 367, 379, 380, 466, 482 and six additional hours chosen in consultation with departmental faculty advisor.

**Suggested electives:** FILM 201, BCOM 350, 376, 378, 480, 485, 491; ENG 309, 365, 366, 465 or 466 and JOUR 232, 261, 341, 495

**General education requirements:**\* ECON 150 or 202 or 203; PS 110; and either GEOG 110 or COMM 263.

**Suggested general education courses:** PHYS 103 and 130.

**Suggested course outside of major and general education:** HIST 349

\* *Broadcasting students transferring to WKU with 60 or more hours of credit will be exempt from department required courses in general education and general electives, but must meet general education requirements of the University and the liberal arts/sciences requirements of the School of Journalism and Broadcasting.*

### Major in Film

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The major in film (reference number 667) requires 35 semester hours and leads to a Bachelor of Arts degree. This major provides undergraduates a strong fundamental appreciation for cinema theory and criticism, as well as the practical skills to produce their own films. With the opportunity to complete coursework in a variety of disciplines, including English, broadcasting, theatre and anthropology, the major features a strong interdisciplinary approach to the subject of cinema.

The major is composed of required courses in both film production and film theory & appreciation, culminating in a 1-credit senior seminar and a pair of required 2-credit workshops/seminars. Students must earn a grade of "C" or better in all required courses applied to the film major. One-half of the hours (18 hours) in the film major must be at the 300 or 400 level. Students are encouraged to participate in relevant study abroad opportunities. A minor or a second major in another discipline outside the area of mass communication is required. No more than 6 hours in the film major may count towards a student's minor.

The major requires the following courses: FILM 201, BCOM 350, 366, 367, 376, THEA 101, and FILM 485. In addition, students must take four of the following courses, including at least two in the world cinema category and one in the genres and theory category. Courses in the world cinema category include: ENG 366, 368, PS 303, GERM 437, FREN 450, SPAN 490, BCOM 481 (special topic: world cinema/study abroad), FILM 369; courses in the genres and theory category include: ENG 309, 365, 465, 466, ANTH 488, BCOM 378, FILM 399. Students may substitute one of these courses with another course related to film studies with prior approval from the major advisor. Finally, students must take four credit hours from the following repeatable workshop/seminar courses: FILM 482 and/or 483.

The four-year plan for timely completion of a major in film appears on the departmental website [www.wku.edu/journalism](http://www.wku.edu/journalism).

### Major in Mass Communication

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The major in mass communication (reference number 725) requires 36 semester hours and leads to a Bachelor of Arts degree. A minor or second major from outside the School of Journalism & Broadcasting is required. The major offers students the opportunity to acquire a broad, flexible, interdisciplinary liberal arts education, which is aimed at a comprehensive understanding of the dynamics of mass communication in society.

The major is unique in the School because it is not a specialized professional program. Many graduates intend to pursue their media studies in graduate school or law school.

The major is comprised of 18 hours of required courses and 18 hours of elective courses chosen in consultation with the student's faculty advisor, within designated areas. No course with a grade of "D" or below may be counted toward the major. One-half of the hours in a mass communication major must be at the 300- or 400-level. In addition to meeting institutional requirements for graduation, the mass communication major must have a minor or second major that is approved by the major advisor.

The four-year plan for timely completion of the major appears on the departmental website – [www.wku.edu/journalism](http://www.wku.edu/journalism).

**Required core courses for a major in mass communication:** BCOM 185, BCOM 201 or JOUR 201, BCOM 300, BCOM 301 or JOUR 301, BCOM 401 or JOUR 421, and JOUR 422. 18 hours.

**Elective Areas:** 18 hours — Students will choose six courses representing at least four areas.

1. *Aesthetic:* FILM 201 Introduction to Cinema, ENG 365 Literature and Film, ENG 366 History of Narrative Film, ANTH 448 Visual Anthropology, FREN 450 Topics in Francophone Cinema.
2. *Cultural:* ENG 465 Film Genres, FLK 280 Cultural Diversity in the United States, FLK 373 Folklore and the Media, FLK 379 Topics in Folklore — restricted to Women and the Media topic, GERM 437 German Literature and Film, HIST 447 History of American Popular Culture, COMM 463 Intercultural Communication, COMM 474 Gender Communication, SPAN 490 Hispanic Cinema, GWS 321 Women and Journalism.

3. *Commerce*: BCOM 360 Electronic Media Programming and Research, BCOM 485 Broadcast Operations and Management, JOUR 428 Newspaper Management, JOUR 341 Principles of Advertising, JOUR 355 Fundamentals of Public Relations, MKT 220 Basic Marketing Concepts, PSY 371 Psychology of Sales Behavior, PHIL 321 Morality and Business.
4. *Government*: PS 303 Politics and Film, PS 327 Civil Liberties, PS 338 Government and Ethics, PS 371 Public Opinion and Electoral Behavior, PS 372 Politics and the Mass Media, PS 375 Fundamentals of Political Campaign Management, PS 450 Seminar in International Relations (restricted to media topics).
5. *Media and Society*: BCOM 481 Problems in Mass Communication, ENG 466 Film Theory, JOUR 300 Research in Advertising and Public Relations, HIST 347 Social History of the United States since 1800, HIST 480 A Social History of Science, PSY 350 Social Psychology, COMM 346 Persuasion, COMM 451 Computer Mediated Communication, SOCL 345 Sociology of Popular Music.

**General education requirements:** ECON 150 or 202 or 203, and PS 110.

### Major in News/Editorial Journalism

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The major in news/editorial journalism (reference number 716) requires 42 semester hours and leads to the Bachelor of Arts degree. Of the 42 hours, 39 semester hours are specifically required, and 3 hours are chosen from upper-division restricted electives. Students must take a minimum of 80 semester hours in courses outside the major area of journalism and mass communication, with no fewer than 65 semester hours in the liberal arts and natural sciences.

In addition to meeting institutional requirements for graduation, the news/editorial journalism major must have a minor or second major that is approved by the major advisor.

Specific objectives of the news/editorial journalism program:

1. To prepare students for professional careers in journalism.
2. To instill in students a high degree of professionalism, which consists principally of practical competence and ethical understanding.
3. To enhance the student's understanding of the role of the press in a democratic society.

Required courses for a major in news/editorial journalism are JOUR 201, 202, 131, 232, 261, BCOM 264, 265, JOUR 301, 302, 323, 325, 348 and 426. In addition, the news/editorial journalism major must select three upper-division hours from the following courses: JOUR 336, 341, 343, 355, 421, 422, 481, 491, 495, or BCOM 368. Also, students must complete PS 110, PS 304, ECON 203, HIST 349 and either GEOG 110 or 360. A grade of "D" in any course will not be accepted toward the major.

The four-year plan for timely completion of the major appears on the departmental website at [www.wku.edu/journalism](http://www.wku.edu/journalism)

### Major in Photojournalism

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The major in photojournalism (reference number 750) requires 42 semester hours and leads to the Bachelor of Arts degree. Students must take a minimum of 80 semester hours in courses outside the major area of journalism and mass communication, with no fewer than 65 hours in the liberal arts and natural sciences. In addition to meeting institutional requirements for graduation, the photojournalism major must have a minor or second major that is approved by the major faculty advisor.

With a tradition of highly successful graduates, state-of-the-art facilities and award-winning faculty, WKU's photojournalism program is regarded as one of the nation's finest. The program is an integral component of the journalism program, and it has contributed greatly to the high quality of the University student publication, *The College Heights Herald*. In spring 2011, WKU won the Hearst Journalism Awards Intercollegiate Photojournalism Championship for the third consecutive year and 19th time in the past 22 years.

Photojournalism emphasizes documentary photography, with a curriculum designed to prepare students to produce content-driven images for paper and electronic publications.

Specific objectives of the photojournalism program:

1. To develop the artistic, technical and personal qualities of those who pursue a professional career in photojournalism and multimedia.
2. To develop a background for understanding the role of photojournalism in shaping and reflecting contemporary society.
3. To provide instruction in photographic theory, principles, ethics and practice for the student in any area of scholarly pursuit where such knowledge is essential or desirable in improving his or her understanding and abilities.

4. To provide a conceptual grounding in journalistic principles that will encourage advancement of the photojournalist in the profession.

Required courses are JOUR 201, 202, 231, 261, 301, (or BCOM 301), 302, 333, 334, 336, 362, 432, 436. In addition, the photojournalism student must select 6 hours from these courses: JOUR 323, 325, 439, 443 or BCOM 368. Requirements outside the major: PS 110, 304, MGT 312 and either GEOG 110 or GEOG 360. A grade of "D" in any course will not be accepted toward the major.

The four-year plan for timely completion of the Photojournalism major appears on the departmental website [www.wku.edu/journalism](http://www.wku.edu/journalism).

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### **Major in Public Relations**

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The major in public relations (reference number 763) requires 39 semester hours and leads to a Bachelor of Arts degree. The Association of Public Relations Society of America certifies the major.

Public relations is a planned process to influence public opinion using strategic communications. The public relations program at WKU emphasizes research and measurement; strategic planning; professionally designed, written, and targeted communication tactics; and ethical practice. We prepare students for an exciting career in public relations with skills in critical thinking, writing, technology, research, program planning and management, creative problem solving, and relationship building with key publics. Those publics include media, consumers, employees, government and other regulatory bodies, opinion leaders, and communities.

Virtually all segments of the public and private sectors throughout the world draw employees from public relations graduates. Our graduates work as communications tacticians, strategic planners, and management counselors. They may specialize in employee relations, community relations, crisis communication, public affairs, media relations, or several other disciplines within the professional arena

Specific objectives of the public relations major are:

1. To promote a broad understanding and appreciation of the expanding and important role of public relations in modern society.
2. To increase knowledge and develop skills required for entry-level positions in the public relations field.
3. To instill high standards of ethical conduct.
4. To build a foundation for lifelong learning and advanced education in communications, journalism, social sciences and public relations.

The major requires a broad program of study. In addition to general education requirements of the University and 39 hours in public relations coursework, students must select an appropriate minor or second major. Generally, students may select any minor outside the School of J&B as long as the PR faculty advisor approves it and 80 hours are taken outside the major area of journalism and mass communication with no fewer than 65 semester hours in traditional liberal arts and natural science. Students selecting a minor in communication studies or a minor in film studies will need to select a second minor. Popular minors or second majors include International Business, Entrepreneurship, Psychology, Sociology, Foreign Language, Marketing, Economics, Political Science, Health Care Administration, Business Administration, American Humanics, and Tourism.

Required courses for a major in public relations: JOUR 201, 202, 232, 300, 301 (or BCOM 301), 323, 354, 355, 358, 454, 456 and BCOM 325. In addition, the public relations major must select one course from the following restricted electives: JOUR 131, 325, 341, 343, 443 458, 481, 495, BCOM 264, ENG 306, PSY 371, MKT 322 or COMM 346. Also, students must complete required courses outside the major. ECON 203, GEOG 110, MKT 220, PS 110 and COMM 161, and one course in statistics from the following: MATH 183, ECON 206, PSY 201, SOCL 300 or AMS 271. A grade of "D" in any course will not be accepted toward the major.

The four-year plan for timely completion of the PR major appears on the departmental website [www.wku.edu/journalism](http://www.wku.edu/journalism).

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### **Minor in Broadcasting**

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The minor in broadcasting (reference number 330) requires a minimum of 18 semester hours. The following courses are required: BCOM 201, 261 or 266, 301 and 325. The remaining courses must be chosen in consultation with an assigned faculty advisor. One-half the hours in the minor must be at the 300- or 400-level.

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### **Minor in Digital Advertising**

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The minor in digital advertising (reference number 351) requires 24 semester hours of course work and is appropriate for students interested in developing a better understanding of advertising utilizing emerging digital communication technologies. Students pursuing the minor will complete a core group of six classes and then select one track from the areas of branding, interactive advertising design, or print advertising design.

Core courses include: BCOM 201, JOUR 202, MKT 220, JOUR 232, 341, 340. Advertising minors selecting the branding track are required to take JOUR 346 and 349. Minors who select the interactive advertising design track are required to take JOUR 344 and 348. Minors who choose the print advertising design track are required to take JOUR 345 and either JOUR 343 or ART 331.

### Minor in Mass Communication

The minor in mass communication (reference number 414) offers a flexible, interdisciplinary education aimed at a comprehensive understanding of the dynamics of mass communication in society. The minor in mass communication requires a minimum of 21 semester hours, comprised of 12 hours of required courses and 9 hours of restricted elective courses chosen in consultation with faculty advisor. One-half of the hours in the minor must be at the 300- or 400-level. The following courses are required: BCOM 201 or JOUR 201, BCOM 301 or JOUR 301, BCOM 401 or JOUR 421, and JOUR 422 (12 hours). Elective areas (9 hours): Choose three courses representing at least two areas from the restricted elective offerings listed in the mass communication major. *Aesthetic*: FILM 201, ENG 365, 366, ANTH 448, FREN 450; *Cultural*: ENG 465, FLK 280, 373, 379\*, GERM 437, HIST 447, COMM 463, 474, SPAN 390, GWS 321; *Commerce*: BCOM 360, 485, JOUR 341, 355, 428, MKT 220, PSY 371, PHIL 321; *Government*: PS 303, 327, 338, 371, 372, 375, 450\*\*; *Media and Society*: BCOM 481, ENG 466, JOUR 300, HIST 347, 480, PSY 350, COMM 346, 451, SOCL 345. \*FLK 379 restricted to women in the media topic. \*\* PS 450 restricted to media topics.

### Certificate in iMedia

The iMedia certificate (reference number 1702) requires 21 semester hours and prepares School of Journalism & Broadcasting students for the future of news reporting, digital/multimedia story creation, and web distribution. The certificate responds to current and projected trends in newsgathering and distribution techniques where news organization are working collaboratively to deliver news and/or information when, where and how the consumer dictates.

Certification participants will be chosen based on SJ&B minimum 3.0 G.P.A. in the major, overall WKU G.P.A. of 2.5, an interview and presentation of a portfolio, and a written letter of intent to complete the program. Students must be admitted to one of seven majors within the School of Journalism & Broadcasting to apply for participation.

The certificate requires two core courses: JOUR 232 or equivalent and JOUR 495; and at least one course from each restricted elective category, plus one additional course outside the participant's major from the list below.

#### Restricted elective categories

*Advertising/Public Relations (3-6 hours)*: JOUR 341, 355, 348, 358

*Broadcasting (3-6 hours)*: BCOM 264, 261, 366, 368

*News-Editorial (3-6 hours)*: JOUR 202, 302, 323

*Photojournalism (3-6 hours)*: JOUR 131, JOUR 261

### Department of Modern Languages

Through coursework, experience abroad, community outreach activities, and other cultural encounters, the department of Modern Languages cultivates communicative skills and cultural awareness that prepare students at Western Kentucky University to be more knowledgeable and sensitive citizens of the global community. The Department's goals are to deliver high-quality language instruction based on nationally-recognized standards, to contribute actively to cross-disciplinary international initiatives on campus, and to graduate majors and minors who are prepared for advanced study in language and literature and whose language skills provide enhanced opportunities for careers at the regional, national, and international levels.

Language students may join French, German, or Spanish language clubs and may also be elected for membership in chapters of national language honor societies. They may attend international films, interact with exchange students, take part in community or regional outreach activities, and enjoy the benefits of multi-media enhanced instruction. The department also strongly encourages students to take advantage of study abroad opportunities. With advance approval of the department, students can earn credit toward majors and minors through participation in WKU's own direct exchanges, the programs of the Kentucky Institute for International Studies or other accredited programs.

**Dr. Laura McGee, Head**

**Ivan Wilson Center for Fine Arts**  
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Website: [www.wku.edu/modernlanguages](http://www.wku.edu/modernlanguages)  
e-mail: [modern.languages@wku.edu](mailto:modern.languages@wku.edu)

**Professors**: K. Egloff, M. Stewart  
**Associate Professors**: N. Love, L. McGee,  
I. Pertusa  
**Assistant Professors**: S. Lenk, K. Peng  
**Instructors**: E. Cuisinier, S. Davis,  
R. Jimenez-Arroyo, E. Maestre,  
G. Obeso, B. Phelps, T. Straubel,  
M. Zapata

When planning programs of study in this department, students should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

**Policy Statements on Foreign Language placement and credit for advanced placement** (Contact department by phone [270-745-2401] or by e-mail [[modern.languages@wku.edu](mailto:modern.languages@wku.edu)] for further information.)

1. **Placement Policy for purposes of general education:** Students enrolling as first-time, degree-seeking college students in summer 2004 or after must fulfill the foreign language general education requirement of "proficiency at the second-semester level." They can do this by successfully taking a 102 (second-semester of first year) course, by taking a department exam for 102, by gaining appropriate CLEP or AP credit, or by placing into and successfully passing a course at the intermediate (201 or 202) level or higher. Students who wish to continue a language that they studied for 2 or more years in high school must begin that language at the 102 level or higher. Students who want to begin the study of a new language in order to fulfill the general education requirements should enroll in the first-semester course of that language.

Students who enrolled as first-time, degree-seeking college students prior to the summer of 2004 may fulfill the foreign language general education requirement of proficiency at the first-semester level. They can do this by successfully taking a 101 or first-semester course.

2. **Credit for students intending to major or minor in the language:** The Modern Languages program strongly recommends that students with good language skills in French, German, or Spanish and those who plan to major or minor in one of these languages after having studied it previously, take measures to gain credit for their previous knowledge. For current information on verified credit, AP credit, or CLEP credit, go to the Modern Languages website at this address: [www.wku.edu/modernlanguages](http://www.wku.edu/modernlanguages) and click on Placement.

### **Modern Languages**

For timely completion of the majors in French, German, or Spanish, students should consult the four-year degree plans for each major, posted at the Modern Languages web site at this address: [www.wku.edu/modernlanguages](http://www.wku.edu/modernlanguages).

### **Major in French**

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Thirty-six semester hours are required in this major (reference number 665). Some of the required course work may be accomplished through CLEP or AP credit. Study abroad is strongly recommended. A minor or second major is required. No course with a grade of "D" or below may be counted toward the major.

#### **Required core courses: (21 hours)**

- FREN 102, 201, 202
- FREN 320 French Grammar & Composition –or– FREN 420 Advanced French Composition & Stylistics
- FREN 321 French Conversation –or– FREN 421 Advanced French Conversation
- FREN 323 French Civilization & Culture
- Upper-division literature course
- Elective courses: Electives: At least five courses at the 300- or 400-level for a total (including the core courses) of 36 or more credit hours. May include among the five courses up to three credit hours of 200-level credit beyond 201/202 (only if taught in French and taken in sequence).

### **Major in German**

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Thirty-six semester hours are required in this major (reference number 683). Some of the required course work may be accomplished through CLEP or AP credit. Study abroad is strongly recommended. A minor or second major is required. No course with a grade of "D" or below may be counted toward the major.

#### **Required core courses: (15 hours)**

- GERM 102, 201, 202
- GERM 330 German Composition & Conversation
- GERM 335 Contemporary Culture & Civilization
- Elective courses: At least seven courses at the 300- or 400-level for a total (including the core courses) of 36 or more credit hours. May include among the seven courses up to three credit hours of 200-level credit beyond 201/202 (only if taught in German and taken in sequence).

## Major in Spanish

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Thirty-six semester hours are required in this major (reference number 778). Some of the required course work may be accomplished through CLEP or AP credit. Study abroad is strongly recommended. A minor or second major is required. No course with a grade of "D" or below may be counted toward this major.

### Required core courses: (21 hours)

- SPAN 102, 201, 202
- SPAN 370 Spanish Conversation
- SPAN 371 Spanish Composition & Grammar
- SPAN 372 Latin American Civ & Culture –or–SPAN 373 Spanish Civ & Culture
- SPAN 374 Literature & Culture of Spain –or–SPAN 376 Lit & Culture of Latin America
- Elective courses: At least five courses at the 300- or 400-level for a total (including the core courses) of 36 or more credit hours. May include among the five courses up to three credit hours of 200- level credit beyond 201/202 (only if taught in Spanish and taken in sequence).

## Teacher Certification

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Students interested in teacher certification in French, German, or Spanish should meet with the Modern Languages Academic Advisor as early in their academic career as possible for information on current program requirements. World Language teachers in Kentucky may be eligible for interest forgiveness on student loans.

**Professional Education Coursework:** Required for Certification in French, German, & Spanish

- EDU 250            3
- EXED 330        3
- PSY 310          3
- SEC 351          3
- SEC 453          3
- MLNG 410        3
- MLNG 474        3
- EDU 489          3
- SEC 490          10

**Total Hours in Professional Education:** 34

All students seeking teacher certification must take the official Oral Proficiency Interview (OPI) given by the American Council on the Teaching of Foreign Languages (ACTFL)

## Major in French with Teacher Certification

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### Required core courses:

- FREN 102 (or equivalent)
- FREN 201, 202
- FREN 320 French Grammar and Composition or FREN 420 Advanced French Composition and Stylistics
- FREN 323 French Civilization and Culture
- FREN 421 Advanced French Conversation
- Upper-division literature course

**Total credit hours in required core courses:** 21

**Elective courses:** Five French courses at the 300-or 400- level for a total (including the required courses) of 36 or more credit hours. 15

**Total required hours in French:** 36

### Major in German with Teacher Certification

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**Required core courses:**

- GERM 102 (or equivalent)
- GERM 201, 202
- GERM 314
- GERM 330 German Composition and Conversation
- GERM 335 Contemporary Culture and Civilization
- GERM 430

**Total credit hours in required core courses:** 21

**Elective courses:** Five German courses at the 300- or 400-level for a total (including the core courses) of 36 or more credit hours. 15

**Total required hours in German:** 36

### Major in Spanish with Teacher Certification

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**Required core courses:**

- SPAN 102 (or equivalent)
- SPAN 201 and 202
- SPAN 370 Spanish Conversation
- SPAN 371 Spanish Composition and Grammar
- SPAN 372 Latin American Civilization and Culture or SPAN 373 Spanish Civilization and Culture
- SPAN 374 Literature and Culture of Spain or SPAN 376 Literature and Culture of Latin America
- SPAN 470 Advanced Oral Spanish

**Total credit hours in required core courses:** 24

**Elective courses:** Four Spanish courses at the 300- or 400-level for a total (including the required courses) of 36 or more credit hours. 12

**Total required hours in Spanish:** 36

### Minor in French

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The minor in French (reference number 365) requires a minimum of 30 semester hours. The following courses must be completed (or equivalent CLEP or AP credit earned) in order to complete requirements for the undergraduate minor in French. No course with a grade of "D" or below may be counted toward this minor.

**Required core courses:**

- FREN 102
- FREN 201, 202
- FREN 320 French Grammar and Composition or FREN 420 Advanced French Composition and Stylistics
- FREN 321 French Conversation or FREN 421 Advanced French Conversation
- FREN 323 French Civilization and Culture

**Total credit hours in required core courses:** 18

**Elective courses:** At least four courses at the 300- or 400-level for a total (including the core courses) of 30 or more credit hours. May include among the four courses up to three credit hours of 200- level credit beyond 201/202 (only if taught in French and taken in sequence).

**Total required hours:** 30



### Minor in German

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The minor in German (reference number 380) requires a minimum of 30 semester courses. The following courses must be completed (or equivalent CLEP or AP credit earned) in order to complete requirements for the undergraduate minor in German. No course with a grade of "D" or below may be counted toward this minor.

**Required core courses:**

- GERM 102
- GERM 201, 202
- GERM 330 German Composition and Conversation
- GERM 335 Contemporary Culture and Civilization

**Total credit hours in required core courses:** 15

**Elective courses:** At least five courses at the 300- or 400-level for a total (including the core courses) of 30 or more credit hours. May include among the seven courses up to three credit hours of 200- level credit beyond 201/202 (only if taught in German and taken in sequence).

**Total required hours:** 30

### Minor in Spanish

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The minor in Spanish (reference number 464) requires a minimum of 30 semester courses. The following courses must be completed (or equivalent CLEP or AP credit earned) in order to complete requirements for the undergraduate minor in Spanish. No course with a grade of "D" or below may be counted toward this minor.

**Required core courses:**

- SPAN 102 (or equivalent)
- SPAN 201 and 202
- SPAN 370 Spanish Conversation
- SPAN 371 Spanish Composition and Grammar
- SPAN 372 Latin American Civilization and Culture or SPAN 373 Spanish Civilization and Culture
- SPAN 374 Literature and Culture of Spain or SPAN 376 Literature and Culture of Latin America

**Total credit hours in required core courses:** 21

**Elective courses:** At least three courses at the 300- or 400-level for a total (including the core courses) of 30 or more credit hours. May include among the three courses up to three credit hours of 200- level credit beyond 201/202 (only if taught in Spanish and taken in sequence.)

**Total required hours:** 30

### Graduate Degree Programs

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Inquiries about the master's degrees in teaching foreign languages should be addressed to the Head of the Department of Modern Languages (270-745-2401, [modern.languages@wku.edu](mailto:modern.languages@wku.edu)).

### International Study Opportunities

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WKU students may enroll for short-term, summer, quarter, semester or year abroad programs at study centers abroad and have that coursework transferred back to WKU and credited to their Modern Language major. See the international programs section of this publication or [www.wku.edu/studyabroad](http://www.wku.edu/studyabroad) for more information. The Department offers several scholarships and awards annually intended primarily to assist students who study abroad.

## Department of Music

The Department of Music at Western Kentucky University is a fully accredited member of the National Association of Schools of Music. It emphasizes music education in its broadest sense: all people must have opportunities to increase their awareness of musical sound as aesthetic experience and to indulge selectively in that experience for richer, more meaningful lives. The music curriculum fosters aesthetic awareness, informed choice, and preparation for life-long learning, while allowing for diversity among students' backgrounds. It focuses on the holistic approach, nurturing critical thinking and creative skills and progressing from the obvious and concrete to the subtle and abstract. Through interaction with other arts disciplines and the university curricula, it integrates student, faculty, and curricular resources of the department into the cultural milieu of the University, community, and region.

A large part of the department's mission is the preparation of music teachers and professional musicians. Students with broader musical interests may select a music major or minor within a diversified liberal arts program. Music degree programs provide for development of basic musicianship through conceptual understanding of musical properties and their interrelationships, repeated opportunities for listening, performing, composing, and scholarship, and acquisition of a repertory representative of various cultures and historical periods. Competencies in various areas and at varying levels appropriate to each program of music concentration are developed through a sequence of studies and assessments.

General University students may elect certain music courses under the Humanities (B-II), World Cultures and American Cultural Diversity (E), and Health and Wellness (F) components in General Education Requirements. All students may participate in various instrumental and choral ensembles and engage in private music study (depending on availability).

Students wishing to pursue a music degree (including double majors) should have pre-college training in their principal or major performing instrument or voice and be able to read music fluently. Basic keyboard ability is helpful but not mandatory. Entering freshmen must take placement examinations in rudiments (scales, keys, intervals, triads, general notation), music reading, performance (principal or major instrument or voice) and piano. Deficiencies are removed through remedial placement except in the case of auditions for the Bachelor of Music in performance.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Pay particular attention to the subsections entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Some academic programs require additional scholastic regulations and standards not specified in the catalog. Students should contact their advisor for any recent requirement changes not reflected in this catalog. Updated information and advisement forms are available at the Department of Music website at [www.wku.edu/music](http://www.wku.edu/music). The four-year plans for timely degree completion for music majors appears at [www.wku.edu/music/progstudy.php](http://www.wku.edu/music/progstudy.php). The Department of Music offers majors and a minor as shown in the following sections.

### Bachelor of Music Degree

The Bachelor of Music degree (reference number 593) has two concentrations: music education and performance.

The Bachelor of Music concentration in music education offers sequences leading to three distinct teaching certifications: Integrated sequence which leads to certification for Teaching Music P-12 and requires 77 hours in music; Instrumental sequence which leads to certification for Teaching Instrumental Music P-12 and requires 72 hours in music; Vocal sequence that leads to certification for Teaching Vocal Music P-12 and requires 72 hours in music. All sequences require 22 hours in professional education and certain additional classes prescribed within the general education component. No minor or second major is required.

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**Professors:** M. Groom, M. Kallstrom,  
B. Scott, M. Scott, D. Speer, R. Swanson,  
M. Wolinski

**Associate Professors:** H. Alvarez, M. Berry,  
J. Cipolla, P. Hondorp, W. Pope,  
G. Schallert

**Assistant Professors:** J. Adam, J. Bright,  
L. Kelly, C. Lin, K. Polk, J. Stites

**Professional-in-Residence:** S. Berry

**Instructor:** J. Martin

**Transitional Retiree:** E. Volkman

**Requirements for the Music Education Concentration ALL Sequences (Integrated, Vocal & Instrumental):****Note: each sequence has additional requirements (see listings below)**

- *Music Theory and Literature:* MUS 100, 101, 200, 201, 203, 326, 327, 328
- *Applied Music:* 4 semesters (8 hours) of MUS 153, 3 semesters (6 hours) of MUS 353, MUS 160, 161, 260, 261; Students whose major/principal instrument is piano may substitute MUS 349 Accompanying in place of group piano (MUS 160, 161, 260, 261).
- *Performance Attendance:* 7 semesters of MUS 155
- *Conducting:* MUS 317, MUS 318
- *Ensembles:* 7 semesters of appropriate major ensembles
- *Music Education:* MUS 214, 312, 412
- *Professional Education:* EDU 250, EXED 330, PSY 310, EDU 489, ELED/MGE/SEC 490
- *General Education:* Must include PHYS 130 (Acoustics) and Additional requirements from Teacher Certification (see Teacher Education for current requirements)

**Additional Requirements specific to the Music Education Concentration INTEGRATED Sequence:**

- *Music Theory:* MUS 407
- *Applied Music:* MUS 152 or 162
- *Music Education:* MUS 215, 315, 316, 319, 415, 416, and 414 or 417
- *Ensembles:* 2 “opposite area” ensembles (see Additional Baccalaureate Degree Requirements)

**Additional Requirements specific to the Music Education Concentration VOCAL Sequence:**

- *Music Theory:* MUS 405
- *Applied Music:* MUS 152, 252, 166 and 349 (Accompanying)
- *Music Education:* MUS 414, 415 and one guided elective techniques course chosen from MUS 215, 315, 316, 319

**Additional Requirements specific to the Music Education Concentration INSTRUMENTAL Sequence:**

- *Music Theory:* MUS 407
- *Voice:* MUS 162
- *Music Education:* MUS 215, 315, 316, 319, 416, 417

The performance concentration has both an instrumental and a vocal track and leads to the Bachelor of Music degree. The instrumental track requires 73 hours in music. The vocal track requires two additional courses in Diction—MUS 152 and 252—for 75 hours in music. No minor or second major is required. This program provides preparation for graduate study for performance and studio teaching careers. The performance concentration is available in voice, piano, organ, classical guitar and many standard band and orchestral instruments. No music course with a grade below “C” may be counted toward this major.

**Requirements for Bachelor of Music – Performance Concentration:**

- *Music Theory and Literature:* MUS 100, 101, 200, 201, 203, 326, 327, 328, 430, 6 hours of electives in Theory/Composition (chosen from: MUS 203, 206, 405, 407, or Private Composition)
- *Applied Music:* 4 semesters (8 hours) of MUS 153; 2 semesters (6 hours) of MUS 357 (one to include junior recital and MUS 338) and 2 semesters (6 hours) of MUS 457 (one to include senior recital and MUS 338); MUS 160, 161, 260, 261. Students whose major/principal instrument is piano may substitute MUS 349 Accompanying in place of group piano (MUS 160, 161, 260, 261).
- *Performance Attendance:* 8 semesters of MUS 155
- *Pedagogy:* MUS 310
- *Vocal Track Only:* MUS 152, 252
- *Conducting:* MUS 317
- *Ensembles:* 8 semesters of appropriate major ensembles and 2 semesters of elective ensembles
- *General Electives:* 12 hours (Chosen from university offerings not included in the major)
- *General Education:* Must include PHYS 130 (Acoustics), Must fulfill the university’s General Education foreign language requirement in one of the following languages: French, German, or Italian.

### Bachelor of Arts Major in Music (Liberal Arts)

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The major in music (liberal arts) (reference number 583) requires 51 hours of music (at least 26 of these must be at the upper-division 300- & 400-level) and leads to the Bachelor of Arts degree. This program allows for a strong liberal arts education, a second major or a minor along with non-professional emphasis in music. No minor or second major is required. No music course with a grade below a "C" may be counted toward this major.

#### Requirements:

- *Music Theory and Literature*: MUS 100, 101, 200, 201, 326, 327, 328
- *Applied Music*: 4 semesters (8 hours) in MUS 153; 2 semesters (4 hours) in MUS 353; MUS 160, 161, 260, 261. Students whose major/principal instrument is piano may substitute MUS 349 Accompanying in place of group piano (MUS 160, 161, 260, 261).
- *Conducting*: MUS 317
- *Ensembles*: 6 semesters (6 hours) required
- *Performance Attendance*: 6 semesters of MUS 155
- *Music Electives*: 6 hours selected from Theory/Composition, History/Literature (MUS 203, 206, 405, 407, Private Composition, or MUS 430)
- *General Education*: Must include PHYS 130 (Acoustics) and fulfill the university's foreign language requirement in one of the following languages: French, German, Italian, or Spanish

### Minor in Music

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The minor in music (reference number 423) requires a minimum of 24 semester hours (at least 12 of these must be at the upper-division 300- & 400-level).

#### Requirements:

- *Music Theory/History*: MUS 100, 101, 120
- *Applied Music*: 3 hours (3 semesters)
- *Ensembles*: 3 hours
- *Music Electives*: 9 hours selected from other music courses chosen in conjunction with the music minor advisor.

### Additional Baccalaureate Degree Requirements

1. **Applied Study**: Students pursuing the Bachelor of Music or Bachelor of Arts degree are required to enroll for private instruction in their principal or major instrument or voice during each semester until requirements have been fulfilled.
2. **Recital Performance**: Students matriculating for the Bachelor of Music (music education concentration) must perform on Friday recital labs at least one time in each of their last four semesters of applied study. Music education majors may perform a portion of a junior and/or senior recital in lieu of the recital lab performance requirement if approved by the appropriate applied music jury in the semester prior to the anticipated performance date.
3. **Piano Proficiency**: All students pursuing a major in the Department of Music are required to pass a piano proficiency examination or complete the fourth semester of group piano.
4. **Ensemble Requirements**:

**Bachelor of Music**—Performance Concentration students are required to be in an appropriate major ensemble each semester for a total of 8 semesters.

**Bachelor of Arts**—Major in Music students are required to participate in one major ensemble appropriate to their applied principal area for a total of 6 semesters.

**Bachelor of Music**— Music Education Concentration students are required to participate in an appropriate major ensemble for a total of 7 semesters, excluding the semester in which student teaching is undertaken. Two semesters of ensembles in the opposite performance area are required for the Integrated Concentration.

#### Required Major Ensembles (linked to applied principal/major and degree program) :

- Winds and Percussion –Concert Band, Symphonic Band, Wind Ensemble, Marching Band (Marching Band is required for wind/percussion Music Education majors in the Fall until the 2 semester requirement is met.)

- Voice – Chorale or Choral Society
  - Piano and Organ– must declare and maintain Instrumental or Vocal status for the purpose of determining ensemble requirements
  - Guitar – Guitar Ensemble (for BA and Music Performance degrees). Guitarists on the Music Education Track must declare and maintain Instrumental or Vocal status for the purpose of determining major ensemble requirements and fulfill 7 semesters in that major ensemble category.
  - Strings – University Orchestra
  - Opposite area (vocal) ensembles are Choral Society, Men’s Chorus, and Women’s Chorus. At least one of the 2 required Opposite area ensembles must be an SATB chorus.
  - Opposite area (instrumental) ensembles are Marching Band, Wind Ensemble, Symphonic Band, and Concert Band.
5. **Concert and Recital Attendance:** Students majoring in music are required to attend 14 departmental and university sponsored recitals and concerts each semester. Students register for MUS 155 to meet this requirement. The course is graded as pass/fail at the end of each semester.
6. **Revisions of Requirements, Policies, and Regulations:** The Department of Music updates the Student Handbook each year, and it can be found at [www.wku.edu/music](http://www.wku.edu/music), Current Students, Forms, Student Handbook.

### Graduate Study

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The Department of Music offers the Master of Arts in Education (MAE) degree with a major in music education. This program offers a flexible schedule of music, music education, and education courses designed to broaden the public school teacher’s background in all three areas.

Assistantships are available to outstanding graduate students. For further information, contact the Department of Music.

### Music Fees

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Individual or small group instruction in applied music voice or musical instrument: Fall and Spring \$50 Per Course

### Applied Music Instruction

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Applied music is private or small group instruction. Applied Music Secondary is intended for beginners and requires no audition. Subsequent courses in the secondary track are available upon satisfactory completion of the immediately preceding course in that sequence.

The Applied Music Principal track is intended primarily for Bachelor of Music (music education) and Bachelor of Arts students (all of whom must have pre-college training in an instrument or voice) and is available by audition only.

The Applied Music Major track is intended primarily for students seeking the Bachelor of Music (performance) degree and is available only to those who demonstrate advanced skills and high potential in an audition. Placement in subsequent courses after the initial semester in both the principal and major tracks is made on the basis of faculty committee recommendations.

Students registering for one credit hour (secondary track) receive one half-hour private lesson per week or the equivalent. Those registering for two to three credit hours (principal and major tracks) receive one hour (or its equivalent) of private lesson per week. Students are required to practice a minimum of three hours per week for each credit hour received.

Instruction is offered in piano, organ, harpsichord, voice, violin, viola, harp, cello, double bass, guitar, flute, oboe, clarinet, bassoon, saxophone, horn, trumpet, euphonium, trombone, tuba, percussion, composition, and jazz improvisation.

Applied music courses include: MUS 150, 350 (Applied Music Secondary); MUS 153, 353 (Applied Music Principal); MUS 357, 457 (Applied Music Major). See the course descriptions for each course in the back of the catalog.

## Department of Philosophy and Religion

### Philosophy

The mission of the philosophy program is to use its faculty's collective expertise and experience in the various philosophical disciplines to teach philosophy with the intention of enabling its students to become effective, self-critical leaders able to empower others, to solve problems in diverse social and professional settings, and to experience satisfactions that can only come from living the examined life. To serve this mission, the philosophy program is committed to providing courses that:

- foster ethical understanding, analytical reading, logical thinking and clear expression in our students;
- illuminate the assumptions, methods and foundations of other disciplines for students who also major or minor in philosophy;
- acquaint students with paradigms and perspectives from past philosophies that provide recurring thought patterns whose strengths and weaknesses an autonomous individual should know;
- prepare students to deal with problems for which there are neither simple nor obvious solutions;
- equip students for graduate and professional study in fields such as law, government service, management, medicine, the ministry, and philosophy.

The philosophy program is to aid students to draw out from within themselves the assumptions and beliefs—often unconsciously but nonetheless deeply felt and held—governing their thoughts and actions, to express these inner convictions fully and clearly, and to subject them to critical analysis. This is the birth into the examined life. It is also the first step toward awakening in the students the spirit of critical inquiry, encouraging them to question readily accepted ideas, to probe for and to expose all assumptions, and to subject all claims and all issues—personal or public, local or international—to close examination. Philosophy lays bare fundamental questions and instructs students in the methods for grappling with them. As students develop, they see how ideas drive the phenomena of daily life. Philosophy calls students to the responsibility of putting all ideas to the test to know their value.

### Religious Studies

The mission of the religious studies program is to promote the academic study of religion at Western Kentucky University and in the Commonwealth of Kentucky.

The academic study of religion provides the student with the methodological orientation necessary to comprehend the central beliefs, ethical practices, ritual systems, symbols, and social institutions of diverse religious traditions in their historic, their contemporary and their global contexts. Study in this field is multicultural and comparative, examining the life, ways, and moral worlds of societies past and present, our own as well as others. The student learns to probe for the structure, function and meaning of religion through those rites of passage, sacred narratives, faith communities, and codes of behavior that give meaning to human existence.

The department offers a major and a minor in philosophy and a major and a minor in religious studies. These majors prepare students for graduate work in philosophy and religious studies. Majors and minors in these fields also contribute to preparation for a variety of professional and vocational fields. In each case, the number of semester hours required is modest in order to encourage second majors and minors. The requirements are flexible enough to permit students to select courses which develop and extend their interest.

### Asian Religions and Cultures

The continent of Asia is home to some of the most ancient and formative civilizations in history. All of the world's largest religious traditions have their origins on the continent, and Asian peoples have shaped and reshaped how humanity understands the world and itself for centuries. The Asian Religions and Cultures major facilitates the understanding of the continent and its peoples, allowing students to understand not only the Asian past but to put current issues and problems into a broader historical, religious, and cultural context.

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**Professors:** M. Seidler, J. Trafton  
**Associate Professors:** I. Mukonyora,  
J. Samuels, L. Snyder  
**Assistant Professors:** A. Anton, P. Fischer,  
I. Lilly, I. Schnee, A. Switzer  
**Transitional Retirees:** A. Anderson,  
J. Garrett, J. Long, C. Pinnick,  
E. Schoen, A. Vos  
**Professors Emeriti:** M. Curtis, D. Tuck,  
R. Veenker

## Major in Philosophy

The major in philosophy (reference number 745) requires a minimum of 32 semester hours and leads to a Bachelor of Arts degree. At least 18 hours must be in courses numbered 300 or above. A minor or second major is required.

The 32 hours must be distributed as follows:

- I. Logic, Epistemology, and Metaphysics (6 hours, must take PHIL 215):
  - PHIL 215
  - Take one of the following: PHIL 330, 331, 404, 415
- II. History of Philosophy (9 hours, at least one course from each category):
  - Ancient and Medieval: PHIL 341, 342, 343
  - Modern and Contemporary: PHIL 344, 345, 346, 347, 348, 432, 433
- III. Ethics and Values (6 hours, must take PHIL 350):
  - PHIL 350, Ethical Theory
  - Take one of the following: PHIL 201, 202, 207, 212, 305, 310, 315, 320, 321, 322, 323, 324, 329, 333, 426.
- IV. Philosophical Writing (5 hours): PHIL 299 (1 hour each, for a total of 2 hours) and PHIL 496
- V. Electives (6 hours): Any of the previous courses or PHIL 101, 102, 103, 401, 499.

The Philosophy program offers an honors option for superior students that provides opportunities for a challenging and intensive investigation of philosophical topics through Honors enriched options available to qualified students in all classes. An Honors Thesis is required in addition to the 30 hours for the regular major. Full details of the program may be obtained by contacting the philosophy undergraduate advisor.

## Major in Religious Studies

The major in religious studies (reference number 769) requires a minimum of 30 semester hours and leads to a Bachelor of Arts degree. At least 15 hours must be in courses numbered 300 or above, with at least 3 hours at the 400-level. A minor or second major is required.

The thirty hours must be distributed as follows:

- I. Religious Texts (3 hours)
  - RELS 100, The New Testament, or
  - RELS 101, The Old Testament/Hebrew Scriptures, or
  - RELS 300, The Life of Jesus, or
  - RELS 301, Life and Teaching of Paul, or
  - RELS 311, The Qur'an
- II. Religious Traditions (9 hours; at least one course from each category)
  - Category A:*
  - RELS 302, Buddhist Religious Traditions
  - RELS 303, Hindu Religious Traditions
  - RELS 307, Native American Religious Traditions
  - RELS 308, East Asian Religious Traditions
  - Category B:*
  - RELS 304, Judaic Religious Traditions
  - RELS 305, Christian Religious Traditions
  - RELS 306, Islamic Religious Traditions
- III. Senior Seminar (3 hours): RELS 496
- IV. Electives (15 hours; at least 9 hours must be in RELS courses): Electives may be selected from among the total offerings in RELS. Electives may also be selected from the following pre-approved list (or other courses approved by the Department Head) as well as from departmentally-approved language and study abroad courses.
  - ANTH 446, ART 316, 407, ENG 396, 487, HIST 318, 407, PHIL 310, 329, 341, 342, PSY 485, SOCL 322.

### Major in Asian Religions and Cultures

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The major in Asian Religions and Cultures (reference number 615) requires 33 credit hours. A minor or second major is required. The following courses are required:

- Religion courses (9 credit hours) chosen from: RELS 103, 302, 303, 306, 308, 320.
- Language (one sequence, 6 credit hours) chosen from: ARBC 101, 102, CHIN 101/102, JAPN 101, 102, RELS 390/391.
- History and Politics (6 credit hours) chosen from: HIST 110, 370, 460, 461, 462, 471, 472, PS 365, 366.
- Electives (three courses from the following list or any of the previous courses; 9 credit hours): ARC 401, 498, ANTH 341, ART 407, ENG 368, GEOG 465, 467, PERF 105, RELS 100, 101, 311, SOCL 353.
- Senior Project (3 credit hours): ARC 499

*Note: students must take courses from at least four different departments. At least 17 hours must be at the 300-level or above.*

### Minor in Philosophy

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The minor in philosophy (reference number 429) requires a minimum of 25 hours. At least 12.5 hours must be taken in courses numbered 300 or above.

The 25 hours must be distributed as follows:

- I. Logic (3 hours): PHIL 215, Elementary Logic
- II. History of Philosophy (9 hours, at least one course from each category):
  - Ancient and Medieval: PHIL 341, 342, 343
  - Modern and Contemporary: PHIL 344, 345, 346, 347, 348, 432, 433
- III. Ethics and Values (6 hours, must take PHIL 350):
  - PHIL 350, Ethical Theory
  - Take one of the following: PHIL 201, 202, 207, 212, 305, 310, 315, 320, 321, 322, 323, 324, 329, 333, 426.
- IV. Philosophical Writing Workshop (1 hour): PHIL 299
- V. Electives (6 hours): Any of the previous courses or PHIL 101, 102, 103, 330, 331, 401, 415, 496, 499.

### Minor in Religious Studies

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The minor in religious studies (reference number 447) requires a minimum of 21 hours. At least 12 hours must be taken in courses numbered 300 or above.

The 21 hours must be distributed as follows:

- I. Religious Texts (3 hours)
  - RELS 100, The New Testament, or
  - RELS 101, The Old Testament/Hebrew Scriptures, or
  - RELS 300, The Life of Jesus, or
  - RELS 301, Life and Teaching of Paul, or
  - RELS 311: The Qur'an
- II. Religious Traditions (9 hours; at least one course from each category)
  - Category A:*
  - RELS 302, Buddhist Religious Traditions
  - RELS 303, Hindu Religious Traditions
  - RELS 307, Native American Religious Traditions
  - RELS 308, East Asian Religious Traditions



*Category B:*

RELS 304, Judaic Religious Traditions  
 RELS 305, Christian Religious Traditions  
 RELS 306, Islamic Religious Traditions

- III. Electives (9 hours; at least 6 hours must be in RELS courses): Electives may be selected from among the total offerings in RELS. Electives also may be selected from the following pre-approved list (or other courses approved by the department head) as well as from departmentally-approved language and study abroad courses.

ANTH 446, ART 316, 407, ENG 396, 487, HIST 318, 407, PHIL 310, 329, 341, 342, PSY 485, SOCL 322.

## Pre-Theology

Theological seminaries, accredited by the American Association of Theological Schools, require for entrance the Bachelor of Arts or Bachelor of Science degree from an accredited four-year college or university. Pre-theological students should seek to attain a broad background in liberal arts subjects in their university studies. In selecting majors, serious consideration should be given to the fields of English, history, philosophy, and religious studies. Minors and free electives should be chosen from the areas of English, history, mass communication, philosophy, psychology, religious studies, sociology, and communication.

Entry requirements for specific theological seminaries and for different programs within these institutions vary. Students should consult seminary catalogs and the pre-theology advisor. Special attention should be paid to the language requirement made by some seminaries.

The courses recommended below to be taken in fulfilling Western Kentucky University's general education guidelines are not mandatory but include every basic recommendation of the American Association of Theological Schools: ENG 100, 300; BLNG 382, 383, 384, 385; HIST 119, 120, 418; Natural Science (chemistry, physics, biology, or geology); PHIL 101, 102, 103; PSY 100; RELS 100, 101, 102, plus elective; COMM 145; Social Sciences (six hours from sociology, economics, political science, anthropology, political science); MATH (three hour elective).

## Department of Political Science

### Major in Political Science

A program of study in Political Science furthers student awareness and understanding of political concepts and processes, assists the student in developing critical and analytical abilities, and creates a knowledgeable citizen. Completion of a curriculum in political science provides an individual with a broad background preparatory to a number of careers. Among these are government service, politics, business, teaching, research in political science, and entry into law and other graduate schools. Students may major or minor in political science.

### Major in International Affairs

The International Affairs major is designed to prepare students for success in a global society. It integrates the information, techniques and skills of several disciplines including political science, economics, history, geography, religion and modern languages to study and understand the complexity of the international environment. Students graduating in international affairs pursue careers in international and public affairs, international business, diplomacy, public service, journalism and international humanitarian work.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware

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**Professor: E. Yager**  
**Associate Professors: S. Ardrey,**  
**C. Cobane, V. Gordon, J. Kash,**  
**S. Kiasatpour, S. Lasley, R. Murphy**  
**Assistant Professors: J. Budziak,**  
**J. Turner**  
**Transitional Retiree: J. Petersen**  
**Professional-in-Residence: J. Chappell**

that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

**Study Abroad**

The world is our classroom. The Department of Political Science offers several study abroad opportunities including the United Kingdom, Ghana, the Czech Republic, Russia and Turkey. Student scholarships and financial assistance are available through the University. For more information on international student travel, contact Drs. Roger Murphy, Soleiman Kiasatpour or Sandra Ardrey.

**Honors Program**

The Department of Political Science participates in the University Honors College. Department honors courses allow students of exceptional academic abilities to investigate political phenomena and concepts in a more in-depth manner and to discuss contemporary political issues in small group settings. Honor courses encourage the development of critical thinking skills and analytical writing. Students also have an opportunity to assist faculty with research, present papers at regional and national conferences and/or engage in self-designed research projects. Political Science majors/minors and International Affairs majors in the University Honors College can complete their honors thesis in consultation with an advisor. For further information on honors courses and opportunities, contact Dr. Sandra Curry Ardrey, Department of Political Science.

<b>Suggested Programs of Study</b> <i>(A-F) denotes General Education Category</i>			
<b>Department of Political Science International Affairs Major (702)</b>			
<b>Freshman Year</b>	<b>Hrs.</b>	<b>Sophomore Year</b>	<b>Hrs.</b>
ENG 100 (A.I)	3	ENG 200 (B.I)	3
Foreign Language Course (A.II)	3	Humanities Elective Courses (B.II)	3
Public Speaking Course (A.III)	3	International Affairs Courses	9
PS 250 (C)	3	Foreign Language Course (A.II)	3
PS 260 (C)	3	ECON 202 or 203	3
HIST 120 (C)	3	Natural Science Course (D)	3
Natural Science Course (D)	3	World Cultures Course (E)	3
Math Course (D)	3	Courses in Minor	6
Physical Development Course (F)	2		
GEOG110	3		
UC 175	2		
<b>Total Hours</b>	<b>31</b>	<b>Total Hours</b>	<b>33</b>
<b>Junior Year</b>	<b>Hrs.</b>	<b>Senior Year</b>	<b>Hrs.</b>
ENG 300 (A.I)	3	International Affairs Courses	9
PS 357	3	Courses in Minor	15
International Affairs Courses	6	PS 497	3
Foreign Language Course (A.II)	3		
General Elective	2		
General Elective Courses	12		
<b>Total Hours</b>	<b>29</b>	<b>Total Hours</b>	<b>27</b>
<b>Grand Total Hours: 120</b>			

**Major in International Affairs**

The major in international affairs (reference number 702) requires a minimum of 45 semester hours and leads to a bachelor of arts degree. At least 23 hours must be at the 300-level or above. A minor or second major is required. The requirements for a major include the following 21 hours of core courses:

- A. PS 250 (International Politics)
- B. PS 260 (Introduction to Comparative Politics)
- C. PS 357 (U.S. Foreign Policy)
- D. PS 497 (Senior Seminar in International Affairs)
- E. HIST 120 (Western Civilization Since 1648)
- F. ECON 202 (Principles of Economics-Micro) or ECON 203 (Principles of Economics-Macro)
- G. GEOG 110 (World Regional Geography)

Students are advised to take all core courses before enrolling in PS 497.

In addition to the 21 core hours, students are required to select 9 additional hours in political science from PS 200, 267, 299, 300, 303, 350, 355, 360, 361, 362, 363, 365, 366, 367, 368, 449, 450, 457, and 460. Students may also enroll in PS 403, 405, or 407 for a total of three hours. (Note: PS 200 is cross-listed as HIST 200, GEOG 200, and SPAN 200 and can be taken only once.)

The remaining 15 hours of electives should be chosen from the following courses with no more than 6 semester hours from one academic discipline. Students should consult the appropriate department and course catalog for prerequisites. COMM 463; ECON 380, 385, 386, 496; FIN 433, 436; FLK 340, 350; FREN 323, 427; GERM 202,

335; GEOG 278, 425, 455, 464, 465, 466, 467, 485; HIST 299, 324, 335, 360, 365, 370, 425, 438, 439, 461, 462, 465, 471, 472, 494; JOUR 354; MGT 316, 403; MKT 324; RELS 302, 303, 304, 305, 306, 308, 324; SPAN 372, 373.

Additional baccalaureate degree requirements for students pursuing a major in international affairs:

- Students are required to take a modern language through the intermediate level (201 and 202). For modern languages not taught at Western Kentucky University, students should consult with the Department of Modern Languages for transfer and testing information.

Students pursuing a degree in international affairs are strongly encouraged to participate in a study abroad program or an international internship experience.

### Major in Political Science

The major in political science (reference number 686) requires a minimum of 34 semester hours and leads to a Bachelor of Arts degree. A minor or second major is required. The requirements for a major include the following 19 hours of core courses:

- A. PS 110 (American National Government)
- B. PS 201 (Concepts of Political Science)
- C. PS 250 (International Politics)
- D. PS 260 (Introduction to Comparative Politics)
- E. PS 301 (Research Methods in Political Behavior)
- F. PS 330 (Introduction to Political Theory) or PS 435 (American Political Thought)
- G. PS 499 (Senior Seminar in Government)

Students are advised to take all core courses before enrolling in PS 499.

In addition to the 19 core hours, students are required to select 15 additional hours to complete the major. No more than 6 hours total can come from PS 403, 405, 407, and 498. PS 324 and 325 can both be repeated once. Three hours can be used for the major and three hours as general electives. Students design their own program of study in consultation with an advisor: 15 hours of political science courses, with at least 10 hours of 300/400 level courses.

#### Suggested Program of Study

(A-F) denotes General Education Category

#### Department of Political Science Political Science Major (686)

Freshman Year		Hrs.	Sophomore Year		Hrs.
ENG 100 (A.I)	3		ENG 200 (B.I)	3	
Foreign Language Course (A.II)	3		Humanities Elective Courses (B.II)	6	
Public Spkg. Course (A.III)	3		PS 250 (C)	3	
PS 110 (C)	3		PS 260 (C)	3	
PS 201	3		PS 301	3	
HIST 119 or 120 (C)	3		Natural Science Course (D)	3	
Natural Science Course (D)	3		World Cultures Course (E)	6	
Math Course (D)	3		Courses in Minor		
Physical Development Course (F)	2				
UC 175	2				
General Elective Course	2				
<b>Total Hours</b>	<b>30</b>		<b>Total Hours</b>	<b>30</b>	
Junior Year		Hrs.	Senior Year		Hrs.
ENG 300 (A.I)	3		PS Concentration Courses	9	
PS 330	3		Courses in Minor	12	
PS Concentration Courses	6		General Elective Courses	8	
Courses in Minor	6		PS 499	1	
General Elective Courses	12				
<b>Total Hours</b>	<b>30</b>		<b>Total Hours</b>	<b>30</b>	
<b>Grand Total Hours: 120</b>					

### Minor in Political Science

The minor in political science (reference number 383) requires a minimum of 21 semester hours with at least one-half of the hours to be earned at the 300-level or above. The requirements for a minor include the following:

6 hours of core courses: PS 110 (American National Government) and PS 250 (International Politics) or PS 260 (Introduction to Comparative Politics).

In addition to the 6 core hours, students are required to select 15 additional hours to complete the minor. No more than three hours total may come from PS 403, 405, 407 and 498. PS 324 and 325 can both be repeated once. Only 3 hours can be used for the minor and 3 hours as general electives.

### Certificate in Political Communication

The certificate in Political Communication (reference number 192) allows for exploration of the role that communication plays in political systems by combining studies in the fields of communication and political science.

The certificate is designed for students preparing for careers as legislative aides, political consultants, campaign managers, speechwriters, or lobbyists. Students who complete the certificate will have a foundation of communication skills and theory with a working knowledge of the political system.

Housed in the Potter College Dean's Office, the certificate program consists of 15 hours of required and elective courses that complement both a student's major/minor and career aspirations.

Students are required to take PS 375, Fundamentals of Political Campaign Management and PS/COMM 488, Senior Seminar in Political Communication. Students will select one course from a list of Political Science courses and 2 courses from a list of Communication Studies courses. Students should contact the Political Science or Communication Department for specific information on designing a certificate program.

### Graduate Degree Program

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The Department of Political Science offers courses leading to a master of public administration degree. Assistantships are available to outstanding graduate students. For further information see the Graduate Studies Catalog or contact the Department of Political Science.

### Department of Sociology

The Department of Sociology offers programs and course work designed to further awareness and understanding of social life including the social causes and consequences of human behavior in groups, organizations, societies and various cultures. Completion of the curriculum in sociology or criminology provides a broad background for students pursuing a variety of careers; and students develop the skills most desired by today's employers including the ability to communicate effectively, frame and solve problems realistically and in teamwork situations, plan and evaluate projects and programs, prepare clear and concise reports, and speak effectively in varied group situations. The programs provide preparation for research and administrative positions, for pursuing graduate degrees in sociology, and for the training of teachers.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

### Major in Sociology

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A major in sociology (reference number 775) requires a minimum of 31 semester hours of sociology course work and leads to a Bachelor of Arts degree. At least half of the total semester hours earned must be in upper-division courses (courses numbered 300-499). A minor or second major is required. The following courses are required for a major: SOCL 100, 300, 302, 304, 499, and one course to be selected from among the following: SOCL 210, 220, 232, 233, 234, 240, 245, and 260. Not more than 3 hours earned in SOCL 495 "Directed Study" in Sociology may be counted toward the first 31 hours required for the major.

A student may work with an advisor to develop an individualized program to fit his or her personal interests or career goals. Some may wish to sample a variety of topics, while others may wish to focus on a particular area of study. Some examples of topical areas would include, but not be limited to, social psychology, research methods and evaluation, or criminology and deviance.

### Minor in Sexuality Studies

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The minor in Sexuality Studies (reference number 454) requires a minimum of 18 semester hours, including three required courses: PSY 345, PH 365, and SOCL 359. Students will fulfill the remaining nine hours of the minor by choosing from among the following elective courses: ANTH 343, BIOL 302, FACS 311, FACS 495, ENG 360, HIST

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**Associate Professors:** J. Daday,  
H. Drummond, J. Kanan, A. Krull,  
J. Musalia, A. Onyekwuluje

**Assistant Professors:** N. Breazeale  
D. Lovell, K. Nemoto, C. Trojan

**Instructor:** D. DuCoff

**Transitional Retiree:** E. Bohlander,  
A. Goetting

**Professors Emeritus:** F. Baali,  
H. Dansereau, T. Dunn, J. Grimm,  
K. Kalab, J. Krenzin, J. Schock,  
C. Taylor

420, PHIL 201, PH 464, PH 468, SOCL 220, SOCL 355 and SOCL 466. Students may not apply more than nine credit hours from one discipline toward the minor. The minor in Sexuality Studies is a cross-disciplinary exploration of human sexuality. Students who complete the minor gain a better understanding of human sexuality and acquire valuable background knowledge applicable to a wide variety of humanities and social science fields, and to careers in education, counseling, social work, social service agencies, and public health.

### Minor in Sociology

The minor in sociology (reference number 461) requires a minimum of 21 semester hours of sociology course work. At least 12 hours earned in the minor must be in upper-division courses (courses numbered 300-499). The following courses are required for a minor: SOCL 100, 300, 302, 304. Not more than 3 hours earned in SOCL 495 "Directed Study" in Sociology may be counted toward the first 21 hours required for the minor.

### Minor in Criminology

The minor in criminology (reference number 342) requires a minimum of 21 semester hours of course work. The following courses are required: SOCL309, 330, 332, and 380. An additional 9 elective hours are to be selected from approved courses in sociology, government, social work, history, psychology, health and safety, or management. Students should consult with advisors in the criminology program concerning approved elective courses.

### Graduate Degree Programs

Graduate courses are offered from which the student may select a sequence of advanced study leading to the Master of Arts degree in sociology. Graduate teaching and research assistantships are available to qualified students. Students may also pursue an online Master of Arts degree in Criminology. For further information see the departmental website, Graduate Studies Catalog or contact the Graduate Advisor, Department of Sociology, Western Kentucky University.

### Suggested Program of Study

A suggested program of study that illustrates how one can graduate in four years with an AB (Bachelor of Arts) in Sociology is available on our website.

## Department of Theatre and Dance

The Department of Theatre and Dance offers 3 majors, and 4 minors. Our A.B. degrees in Theatre and in Dance are designed to offer students the opportunity to explore those disciplines in depth while leaving room to include a minor (or to double major) in another discipline. Our BFA in Performing Arts degree provides a broad study of theatre while also offering intensive pre-professional training in one of four required areas of concentration: acting, directing, music theatre, or theatre design and technology. We also offer 4 minors: a minor in Theatre, a minor in Music Theatre, a minor in Dance and a minor in Performing Arts Administration.

Western Kentucky University is an accredited institutional member of The National Association of Schools of Theatre.

All of the programs of study offered by the Department of Theatre and Dance are designed to ensure a thoughtful balance of theory and practice. Our basic curriculum is comprehensive, featuring courses in dramatic theory, theatre history, voice, movement, acting, directing, children's theatre, music theatre, performing arts management, technical theatre, sound design, scenic design, lighting design, costume design, dance technique (ballet, jazz, modern and tap) dance history and choreography. Our intensive production season complements that curriculum by offering students ample opportunity to put theory to the test as they work side by side with their peers, faculty and guest artists on a steady variety of theatre and dance productions. Career preparation is also woven into our curriculum with courses such as Acting Audition Workshop, Performing Arts Career Seminar, and independent study co-ops that allow students to earn college credit while apprenticing with theatre and dance companies.

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**Professors:** S. Stroot, T. Tutino  
**Associate Professors:** C. Brown, A. Clark,  
S. Pollatsek, D. Young

**Assistant Professors:** A. Duff,  
L. Draskovich-Long, M. Dvoskin,  
T. Moore

**Adjunct Professor:** J. Brown  
**Instructor:** D. Pierce

**Professors Emeritus:** W. Leonard,  
B. Veenker, L. Ruff

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) "Academic Requirements and Regulations." Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

### **Major in Theatre (A.B.)**

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The major in theatre (reference number 798) requires a minimum of 45 semester hours and leads to a Bachelor of Arts degree. A minor or second major is required.

The following courses are required for the major: PERF 175, THEA 219, 252, 363, 354 or 355, 364, and PERF 120, 121, 220, 221, 320, 321. Seven hours are required from the following performance courses: PERF 105, 205, THEA 101, 371, DANC 235, or any single dance technique course. Two of the three technical theatre courses: THEA 222, 241, 250. Students must take 9 hours of restricted electives from any relevant course in drama, theatre, dance, music theatre performance, etc. with advisor's approval.

### **Major in Dance (A.B.)**

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The major in Dance (reference number 630/630P) requires the completion of a minimum of 44 credit hours and leads to a Bachelor of Arts degree. A minor or second major is required.

Students seeking admission must meet the following requirements before applications for the A.B. in Dance will be considered:

- Maintained an overall GPA of at least 2.5;
- Completed 8 credit hours of dance technique;
- Taken or currently be enrolled in a 300-level technique course (ballet, jazz, modern).

The final decision for admittance will be based on student's ability level and potential to successfully complete the program as assessed by the dance faculty.

Students denied admission in to the A.B. in Dance program may appeal that decision by submitting a written appeal to the department head. The department head will meet with the dance faculty to discuss the appeal.

The following courses are required: PERF 175, 120, 121, DANC 200, 235, 310, 350, 420, BIOL 131 (tallied as part of the general education requirements), one technical production course chosen from THEA 250 or THEA 241, and 6 hours of upper-division restricted electives in dance or related areas. In addition, students are required to complete 8 hours of ballet technique courses (2 hours each), 4 hours of modern technique courses (2 hours each), and 4 hours of jazz technique courses (2 hours each). Initial placement for technique courses will be based on demonstrated skill level; students must achieve at least a level 5 in either ballet or jazz and a level 3 in a second genre.

### **Major in Performing Arts (B.F.A.)**

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The Performing Arts major (reference number 588) is an interdisciplinary Bachelor of Fine Arts degree that requires the completion of a common 37 semester hour performing arts core and a 37 semester hour depth concentration in one of the following areas:

- Acting
- Directing
- Music Theatre
- Theatre Design and Technology

Acceptance into the BFA in Performing Arts is by audition or interview, typically in the student's third semester in the program. Until admission, the student's status is considered "seeking admission," reference number 588P. The auditioning student should demonstrate exceptional talent, commitment, self-discipline, reliability and a reasonable likelihood of success as a performing arts professional in at least one area of BFA concentration. In order to audition, the student should have a 2.5 cumulative GPA and complete an application process in consultation with his or her advisor. Once admitted, the student must maintain a cumulative GPA of at least 2.5, earn a grade of C or better in all courses required in the BFA program, and maintain an exceptional level of commitment, self discipline, reliability, and consistent artistic growth and development appropriate to his or her chosen concentration, as assessed through the department Jury/Portfolio Review (JPR) process. For a complete explanation of the BFA in Performing Arts policies and procedures please visit the Theatre and Dance department website at <http://www.wku.edu/theatre-and-dance/departamental-forms.php> and download a copy of the current BFA Handbook.

**Performing Arts Core (37 hours)** All concentrations require the following courses: PERF 175, 120, 121, 220, 221, 320, 321, 450, 451.

- Nine hours of history/theory courses: THEA 252, 363, and either THEA 364 (required in all concentrations except music theatre) or THEA 431 (required of music theatre concentrators).
- Three hours of related arts courses selected from: ART 100, 105, or MUS 120. Theatre design and technology concentrators must take ART 105.
- Five hours of performance courses selected from: PERF 105, 205, THEA 101, 371, DANC 235, 310, or any *single* dance technique course. Music theatre concentrators must take THEA 101.
- Nine hours of design and production courses: THEA 219 and two of the following three courses: THEA 222, 250, 241.

**Acting Concentration Required Courses (37 hours):** THEA 101, 141, 203, 300, 301, 354 or 355, 391, 401, 410, PERF 205, a modern dance technique course (level depends on initial placement), and 10-15 hours of restricted electives (any relevant course in drama, theatre, dance, music theatre performance, etc. with advisor's approval). The total number of restricted electives may vary, depending on whether PERF 205 and THEA 101 are tallied in the BFA core or in this concentration.

**Directing Concentration Required Courses (37 hours):** PERF 205, THEA 101, 300, 301, 312, 354 or 355, 371, 380, 391, 401, DANC 310, PERF 400 or THEA 392, and 5-13 hours of restricted electives (any relevant course in drama, theatre, dance, music theatre performance, etc. with advisor's approval). The total number of restricted electives may vary, depending on whether PERF 205, THEA 101 and/or THEA 371 are tallied in the BFA core or in this concentration.

**Theatre Design and Technology Concentration Required Courses (37 hours):** THEA 319, 354 or 355, PERF 420, 421, THEA 222 or 250 or THEA 241 (must take whichever not taken in satisfaction of the BFA core requirement), 9 hours of THEA 424 (repeatable 3 hours topics course), and 17 hours of restricted electives (any relevant course in drama, theatre, dance, music theatre performance, etc. with advisor's approval).

**Music Theatre Concentration Required Courses (37 hours):** THEA 101, 141, 203, 300, 301, 307, 407, 385 for 4 hours (repeatable 1 credit course), PERF 205, 6 hours of jazz dance technique courses, 4 hours of ballet dance technique courses, and 2 hours of tap dance. The following music courses are also required: MUS 100, MUS 160, MUS 162 and MUS 350 for 3 hours (repeatable 1 credit course). Students demonstrating the ability to play the piano adequately may substitute an additional credit of any applied music lesson or vocal ensemble for MUS 160. MUS 162 may be replaced with an additional applied voice lesson by audition with the music department voice music faculty.

### Minor in Dance

The minor in dance (reference number 344) requires a minimum of 27 semester hours. The requirements are:

- Ballet Technique Courses 4 hours (Initial placement based on demonstrated skill level. Must achieve at least level 4\* in one technique and level 3\* in a second technique.)
- Jazz Technique Courses 4 hours (Initial placement based on demonstrated skill level. Must achieve at least level 4\* in one technique and level 3\* in a second technique.)
- Modern Technique Courses 2 hours (Initial placement based on demonstrated skill level. Must achieve at least level 4\* in one technique and level 3\* in a second technique.)
- PERF 120: Rehearsal & Production I 1 hour
- PERF 121: Rehearsal & Production II 1 hour
- DANC 235: Dance Improvisation 3 hours
- DANC 310: Choreography I 3 hours
- One of the following history courses:
  - DANC 360: Dance in Culture 3 hours
  - DANC 350: Dance History 3 hours
- One of the following technical production courses:
  - THEA 250: Stage Electrics 3 hours
  - THEA 241: Costume Technology 3 hours
- Restricted Electives 3 hours (Three hours earned by successfully completing any upper-division DANC courses.)

\* Please note that Dance courses at level III and up are upper-division courses and thus will serve to ensure that at least 50% of the coursework in this minor will be at the upper-division level.

### Minor in Theatre

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The minor in theatre (reference number 490) requires the completion of the following 26 credit hour program. At least 50% of the coursework in this minor must be at the upper-division level.

#### Required Courses:

- THEA 252: Fundamentals of Theatre 3 hours
- THEA 363: World Theatre History I 3 hours
- THEA 364: World Theatre History II 3 hours
- PERF 120: Rehearsal & Production I 1 hour
- PERF 121: Rehearsal & Production II 1 hour

#### One of the following technical production courses:

- THEA 222: Stagecraft 3 hours
- THEA 250: Stage Electrics 3 hours
- THEA 241: Costume Technology 3 hours

#### Restricted Electives 12 hours

- Twelve hours earned by successfully completing any relevant courses in Drama, Theatre, Dance, Music Theatre Performance or related fields, with the approval of the Theatre and Dance Department Head. At least seven hours in this category must be upper-division. THEA 151 is a required general education course.

### Minor in Musical Theatre

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The minor in music theatre (reference number 424) offers students the opportunity to attain basic skills required for musical theatre performance. It requires the completion of a minimum of 28 credit hours, as indicated below. No fewer than 14 credits in the minor must be upper-division.

- Two dance technique courses (2 credits each, students must earn 4 credits). Recommended: DANC 113 or 213 (Jazz); DANC 115 or 215 (Tap). *Note: Course number is determined by initial placement.*
- THEA 101: Acting I 3 hours
- THEA 300: Acting II 3 hours (PERF 205 prerequisite is waived for this minor.)
- MUS 162: Group Voice 1 hour (May be replaced with MUS 150 or MUS 350 upon appropriate approvals.)
- MUS 150: Applied Music Secondary – Voice 1 hour (May be replaced with MUS 350)
- PERF 120: Rehearsal and Production I 1 hour
- THEA 306: Music Theatre Ensemble OR PERF 121: Rehearsal and Production II 1 hour
- THEA 252: Fundamentals of Theatre 3 hours
- THEA 363: Theatre History I 3 hours
- THEA 431: Musical Theatre History & Repertoire 3 hours
- THEA 307: Musical Theatre Workshop I 2 hours
- One elective from any upper-division DANC, THEA, or PERF course 3 hours

### Minor in Performing Arts Administration

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A 24 hour interdisciplinary minor (reference number 428) offering students an opportunity to learn and practice the fundamentals of performing arts management and administration.

- Nine credit hours from at least two of these subject areas: Theatre, Music, Dance. Students pursuing major concentrations in one of these performing arts areas should distribute these 9 hours across the other two disciplines.
- MKT 220: Basic Marketing Concepts 3 hours
- MGT 333: Managing in the Non-Profit Sector 3 hours
- PERF 423: Performing Arts Management 3 hours
- ACCT 200: Introductory Accounting-Financial Or BA 110: Intro to Business and Entrepreneurship 3 hours
- JOUR 355: Fundamentals of Public Relations\* Or MKT 322: Integrated Marketing Communications 3 hours (*Carries the prerequisites of JOUR 201 and 202 for Journalism majors only.*)



## Interdisciplinary Studies

### Major in Popular Culture Studies

The major in popular culture studies (reference number 758) requires a minimum of 34 credit hours and leads to a Bachelor of Arts degree. The major is composed of three levels of required courses plus electives and is designed to ensure that students gain an interdisciplinary perspective on the subject of popular culture but still have the opportunity to pursue their particular interests. A minor or second major in another discipline is required. No more than 6 hours in the popular culture studies major may count towards a student's minor. Students must earn a grade of "C" or better in all non-elective core courses applied to the popular culture studies major. Students are encouraged to include at least one course on popular culture outside the United States and to participate in relevant study abroad opportunities. The four-year plan for timely completion of the major appears on the departmental website at [www.wku.edu/pop](http://www.wku.edu/pop).

#### Required Courses (19 hours):

1. *POP 201 (3 hours)* Prerequisite: ENG 100 or permission of instructor. Note: It is essential that students planning to pursue this major take this course as early as possible, ideally no later than having completed 9 credit hours within the major.
2. *Core Courses (12 hours)*: Students must take one course from each of the following four categories, each of which represents a shared theoretical approach to the subject.  
 Category One: HIST 340 or HIST 447  
 Category Two: FLK 371, 373, 281  
 Category Three: BCOM 300, JOUR 201, ENG 366, ENG 465  
 Category Four: PHIL 207, SOCL 245, PS 372
3. *POP 498 (4 hours)*: Students should have completed POP 201, have senior status, and have accumulated 21 credit hours in the major prior to or concurrent with taking this course.

**Elective Courses (15 hours):** Students will fulfill the remaining fifteen hours of the major by choosing from the following elective courses: AFAM 190, ANTH 120, 277, 350, 448, 303, 312, 313, 334, 390, 405, 445, ART 312, 313, 334, 390, 405, 445, BCOM 201, 300, 401, ENG 320, 321, 340, 365, 366, 368, 370, 465, 466, FILM 201, FLK 276, 281, 371, 373, 379, 410, 445, 464, 478, FREN 323, 427, 450, GEOG 430, GERM 333, 335, 437, HIST 320, 321, 340, 391, 402, 447, 490, JOUR 201, PHIL 207, POP 399, PS 303, 320, 321, 372, SOCL 245, 324, 345, SPAN 373, 376, 490, THEA 431, GWS 375. Students can take no more than 6 credit hours in any one discipline unless they are minoring or double majoring in that discipline. Students should consult the appropriate department and course catalog listing for any prerequisites.

### African American Studies

The minor in African American Studies (reference number 305) requires a minimum of 21 semester hours. Required courses are AFAM 190, AFAM 358 or 359, AFAM 377, AFAM 393 and nine hours of restricted electives. The minor in African American Studies recognizes an attempt to compress the unique and diverse experiences of the African American into a manageable and definable program of study. Viewed from the cross-disciplinary perspective, the African American Studies minor is concerned with providing a comprehensive and honest picture of the life and institutions of the American people of African ancestry and of their role in the development of the United States.

The person who completes the African American Studies minor will have enlarged perspectives and increased awareness of diverse cultures; these are skills well-suited for jobs in governmental departments and agencies and with private organizations. As a related minor on any teacher certification program, African American Studies should add new dimensions to classroom teaching.

In fulfilling the minimum requirements for a minor, the student normally should not include more than six hours in any one department. All exceptions must be approved in advance by the director of the African American Studies Program.

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**Assistant Professor: L. Foster**

### Honors Program

The African American Studies Program participates in the University Honors College. Honors courses allow students of exceptional academic abilities to investigate the African American experience in a more in-depth manner and to discuss contemporary issues in small group settings. Honors courses encourage the development of critical thinking skills and analytical writing. Students also have an opportunity to assist faculty with research, present papers at regional and national conferences and/or engage in self-designed research projects. African American Studies minors in the University Honors College can complete their honors thesis on a topic in consultation with an advisor. For further information on honors courses and opportunities, contact Dr. Saundra Curry Ardrey, (270) 745-4558.

### Minor in Film Studies

The minor in film studies (reference number 358) requires a minimum of 21 semester hours, including three required courses: FILM 201, ENG 366, and ENG 465. Students will fulfill the remaining twelve hours of the minor by choosing from among seventeen elective courses: ANTH 448, ANTH 449, BCOM 264, BCOM 350, BCOM 376, BCOM 378, BCOM 481, ENG 309, ENG 365, ENG 368, ENG 466, ENG 499, GERM 437, FREN 450, PS 303, SPAN 490, and THEA 303 (Note: ANTH 449 OR BCOM 264 will count toward the minor, but not both). The minor in Film Studies will give students an opportunity to study several aspects of cinema in an organized, in-depth manner. Because it is an interdisciplinary minor, it will allow students to examine film from a variety of perspectives. Completing this minor will give students a strong background in media history and literacy and in the critical analysis of film.

**Director: Dr. Ted Hovet**  
**e-mail: [Ted.Hovet@wku.edu](mailto:Ted.Hovet@wku.edu)**

**Cherry Hall;**  
**Office 110-B, Phone: 745-5782**

### Minor in Legal Studies

The minor in legal studies (reference number 409) requires a minimum of 24 semester hours, including 9 required hours: HIST 445, 446, and PS 326. There are 9 hours of restricted electives, with one course from each POD: (POD 1) PHIL 350, JOUR 301, or PS 338; (POD 2) GEOG 487, PSY 470, or SOCL 432; and (POD 3) ECON 390, MGT 200, or MGT 301. Students also complete 6 hours of general electives from two different disciplines, chosen from the following: ECON 390, GEOG 487, HIST 430, JOUR 301, MGT 200, 365, 400, PHIL 321, 322, 323, 350, PS 338, PSY 470, RELS 202, SOCL 330, 332, 432, or a three-credit service-learning component in consultation with the program director. Students should consult with the program director for the suggested sequence of studies and for course prerequisites.

**Advisor: Dr. Patricia Minter**  
**e-mail: [patricia.minter@wku.edu](mailto:patricia.minter@wku.edu)**

**Cherry Hall**  
**Office 206, Phone: (270) 745-5098**

### Humanities Semester

The Humanities Semester offers WKU students a unique opportunity to fulfill General Education Requirements, in Category C and Category B. Instead of taking unrelated courses students enroll in a set of team-taught classes on a major cultural epoch in Western Civilization, often including a specially designated section of HIST 119 or HIST 120 appropriate to the epoch being studied. Faculty teams jointly plan the courses resulting in a series of integrated course outlines, readings, and themes. Each epoch is approached from the standpoint of its history, philosophy, literature, and art.

**Director: Dr. Lawrence Snyder**  
**e-mail: [Lawrence.Snyder@wku.edu](mailto:Lawrence.Snyder@wku.edu)**

**Ivan Wilson Center for Fine Arts**  
**Office 200, Phone: (270) 745-2344**

The three cultural periods offered in the Humanities Semester are Ancient Greece and Rome, Medieval and Renaissance Europe, and the Modern Western World.

Any student may register for the Humanities Semester. However, the program will be particularly attractive to freshmen to fulfill general education requirements. Because enrollments are limited, students interested in the Humanities Semester should contact Dr. Lawrence Snyder in the Office of the Dean of Potter College, FAC 200.

### Certificate in Kentucky Studies

The certificate in Kentucky Studies (reference number 169) provides students with the opportunity to study the Commonwealth of Kentucky from multiple perspectives, emphasizing cultural and natural history and resources. It enhances student learning by providing insight into Kentucky life, enriching the understanding of both natives and outsiders and fosters an appreciation for the unique character of the Commonwealth.

**Coordinator: Dr. Carol Crowe-Carraco**  
**(270-745-5728)**

**Cherry Hall 214A**

The certificate requires a completion of a minimum of 12 semester hours, including 9 hours from core courses and 3 hours from contextual courses.

**Core Courses: (9 Hours)**

HIST 456 Kentucky History – required

**Select two courses representing different disciplines (6 hours)**

ANTH 430 Kentucky Archaeology  
 ANTH 432 Field Course in Archaeology  
 ANTH 434 Graveyard Archaeology  
 ENG 394 Kentucky Literature  
 GEOG 451 Geography of Kentucky  
 PS 412 Kentucky Government and Politics

**Contextual courses - Select one course (3 hours)**

ANTH 378 Southern Appalachian Folklife  
 FLK 281 Roots of Southern Culture  
 FLK 378 Southern Appalachian Folklife  
 HIST 457 Old South  
 HIST 458 New South  
 RELS 330 Religion in the American South

**Latin American Studies****Minor in Latin American Studies**

The minor in Latin American studies (reference number 408) requires a minimum of 21 semester hours. An Introduction to Latin America (cross-listed as GEOG 200, PS 200, HIST 200, and SPAN 200) is required of students taking the minor. At least three departments must be represented among the remaining 18 hours. Completion of one year of college Spanish or Portuguese or its equivalent is an additional requirement.

**An Introduction to Latin America.** 3 hours. (Required)(cross-listed as GEOG 200, PS 200, HIST 200, and SPAN 200).

The course is a broad, interdisciplinary introduction to the study of Latin America, emphasizing its regions, peoples and cultures.

**Approved courses for the Latin American studies minor are:** ANTH/FLK 340, ANTH/FLK 342, GEOG 454, 462, PS 362, HIST 364, 365, 464, 465, SPAN 201, 202, 370, 371, 375, 376, 377, 470, 471, 477, 478, 490.. Interested students should consult the program advisors. Other courses with Latin American content can be substituted in the minor with the approval of the faculty advisors.

**Faculty Advisors:**

**Dr. David Keeling**  
*Environmental Science & Tech 304*  
 Phone: (270) 745-4555  
 e-mail: [David.Keeling@wku.edu](mailto:David.Keeling@wku.edu)

**Dr. Marc Eagle**  
*Cherry Hall 214b*  
 Phone: (270) 745-7026  
 E-mail: [Marc.eagle@wku.edu](mailto:Marc.eagle@wku.edu)

**Asian Studies**

**Minor in Asian Studies**—The minor is Asian studies (reference number 317) requires 21 semester hours. Students must pursue one of two tracks—either the track in Asian Religions and Cultures or the South and East Asian track.

*Asian Religions and Cultures Track:* Students must take the following courses: religion (9 hours) selected from RELS 103, 302, 303, 306, 308, 320; history and politics (6 hours) selected from HIST 110, 370, 460, 461, 462, 471, 472, PS 364, 366; and electives (6 hours) selected from ANTH/FLK 341, ARBC 101, ARC 401, 490, ART 407, CHIN 101, 102, ENG 368, GEOG 465, 367, JAPN 101, 102, PERF 105, RELS 100, 101, 311, 390, 391, SOCL 353, or any course from a previous category. Students must take courses from at least three different departments. At least 12 credit hours must be at the 300-level or above.

*East and South Asian Track:* Students must take the following courses: culture and history (12 hours from at least three different departments) selected from ANTH/FLK 341, ENG 368, HIST 110, 370, 460, 461, 471, 472, PERF 105 (may be taken up to three times), RELS 103, 302, 303, 306, 308, 311; and 9 hours electives selected from ARBC 101, 387, ARC 401, 498, CHIN 101, 102, GEOG 465, JAPN 101, 102, PS 366, RELS 390, 391, SOCL 353. Students must take courses from at least four different departments, and at least 12 hours must be at the 300-level or above.

**Faculty Advisor: Dr. Jeffrey Samuels**

**Cherry Hall 311**  
 Phone: (270) 745-5748  
 e-mail: [Jeffrey.Samuels@wku.edu](mailto:Jeffrey.Samuels@wku.edu)  
 webpage: [www.wku.edu/History/AsianStudies](http://www.wku.edu/History/AsianStudies)

**Russian and East European Studies**

**Minor in Russian and East European Studies**—Russia and Eastern Europe have long occupied a pivotal, but largely misunderstood, place in world history. Recent events, including the Cold War, the collapse of East European communism, and the crumbling of the Soviet empire, have underscored the need for a better comprehension of this neglected but fascinating area.

**Faculty Advisor: Dr. Hugh Phillips**

**Cherry Hall 230A**  
 Phone: (270) 745-5738  
 e-mail: [Hugh.Phillips@wku.edu](mailto:Hugh.Phillips@wku.edu)

Now students at WKU have the advantage of an interdisciplinary minor in Russian and East European studies (reference number 451). This minor can equip students to comprehend the vast changes sweeping this region, the

global implications of this transition, and the social and career-related opportunities likely to develop from increased trade and other contacts between East and West.

The Slavic peoples have great importance in contemporary world affairs, and have contributed immeasurably to Western civilization and modern life. Unfortunately, most Americans have little knowledge beyond Cold War stereotypes of these peoples, their rich history, geographic importance, ethnic diversity, and world impact. The minor will bring the significance of these societies to the attention of students and the Kentucky community.

Students will select the 21 hours required for the minor from the following list of existing courses or from related courses that may be added in the future. Courses must represent at least three different departments.

**Approved courses for the Russian and East European studies minor are:** HIST 338, 438, 439, 490 (Russia); PS 353, 367; and GEOG 453.

In addition, all students must complete RUSS 101 and 102 or demonstrate the equivalent language facility, including an equivalent facility in a Slavic or East European area language. Interested students should consult the program advisor.

### **Canadian Studies Certificate**

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WKU offers a Canadian Studies Certificate (reference number 198), administered by the Office of International Programs, with classes taught by faculty members of participating disciplines (and on the Web by professors at other colleges and universities). The CSC has been designed to encourage the study of Canada in the undergraduate curriculum. The multidisciplinary nature of the CSC accommodates a variety of student interests and provides an opportunity for participants to learn about our neighbors to the north. Students take a minimum of 12 hours (among the courses listed below) in order to have the CSC listed on their transcripts. Many of these courses may also count toward departmental majors and minors.

**Approved courses for the CSC are:** HIST 492 (required); AGRI 468; ECON 380; ENG 395 A/B; FREN 427, 445; GEOG 360, 471; PS 360; HCA 440; MGT 403, 410; MKT 420.

Students should contact the respective departments for information on the frequency of course offerings. They may also arrange independent studies on specific topics in some of these departments.

WKU is also the administrative home for the Canadian Parliamentary Internship Program that offers summer internships for students in the Canadian House of Commons and Senate in Ottawa. Interested students should consult Dr. James Baker for details.

### **Middle East Studies Certificate**

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The Middle East is of great importance to the United States. Ties of history, culture and religion; economic interdependence; and mutual strategic and security interests link the United States to the Middle East. The origins of three of the world's major religions (Judaism, Islam, and Christianity) are found there as well as the majority of the world's oil reserves.

**Faculty Advisor: Dr. Jeffrey Samuels**

**Cherry Hall 311**

**Phone: (270) 745-5748**

**e-mail: [jeffrey.samuels@wku.edu](mailto:jeffrey.samuels@wku.edu)**

Students who complete at least 12 credit hours of approved coursework will be awarded a certificate in Middle East Studies (reference number 179), with designation on their transcript. A certificate in Middle East Studies would supplement, but not supplant, existing major-minor and general education requirements for undergraduate students. Courses approved for the certificate will be drawn from classes with major Middle East-oriented content offered through a variety of academic departments. Courses currently in the university curriculum which count toward a certificate in Middle East Studies include the following: (Other courses could be added in the future.)

- HIST 462 History of the Middle East
- HIST 404 History of Ancient Egypt
- RELS 306 Islamic Religious Traditions
- RELS 320 Religions of the Middle East
- GEOG 467 Geography of the Middle East
- PS 352 International Relations of the Middle East
- PS 365 Middle East Government and Politics

All certificate students must take HIST 462 (or the equivalent) and must include courses from at least three different departments to insure a multi-disciplinary perspective. There is no foreign language requirement for the certificate. However, students will be encouraged to study Arabic, to take advantage of study abroad opportunities to the Middle East, and to participate in the Model League of Arab States. Interested students should consult the program advisor.

# Gordon Ford College of Business



The Gordon Ford College of Business traces its roots to the Bowling Green Business University, founded in 1884 as the Southern Normal School and Business College. In 1907, the Southern Normal School became Western Kentucky State Normal School, and the Bowling Green Business University began a long history of nationally noted programs. In June 1963, Western Kentucky University assumed the business programs of the Bowling Green Business University, and in 1964 the Bowling Green College of Commerce became a division of the University. The name was changed in 1972 to the Bowling Green College of Business and Public Affairs; and following department realignment in 1979, it became the Bowling Green College of Business Administration. To honor the generosity of Gordon B. Ford, the college was renamed the Gordon Ford College of Business in December of 1998, becoming the second named business school in Kentucky. All business programs offered by the College are accredited by AACSB International - - The Association to Advance Collegiate Schools of Business.

*Dr. Jeffrey T. Katz, Dean*

*Dr. Robert Reber, Associate Dean*

**Grise Hall**

**Office 445, Phone: (270) 745-6311**

**e-mail: [gfcg@wku.edu](mailto:gfcg@wku.edu)**

**web page: [www.wku.edu/business](http://www.wku.edu/business)**

## **Mission**

The mission of the Gordon Ford College of Business is to be a leader in providing high-quality and applied business academic programs to enhance the economic well-being of the Commonwealth of Kentucky and beyond. We do so through dedicated student-focused teaching, relevant and high impact research, and value adding outreach activity.

Gordon Ford College of Business programs focus upon:

- functional interdependence and the global environment of business
- values conducive to personal and professional career development
- development of critical-thinking and problem solving skills and knowledge needed for ethical decision-making
- knowledge and application of information systems and current technology
- effective listening, speaking and writing
- lifelong learning and quality improvement

In fulfilling the college and university missions, a highly qualified faculty emphasizes effective teaching and active student learning. Faculty demonstrate competency through continuous intellectual activity in business, applied or instructional research with relevant professional service activities and involvement with business, industry and government organizations.

Baccalaureate programs are designed to build upon a firm liberal arts education with professional theory and applications necessary for creative and rational decision-making in the business world. The Gordon Ford College of Business offers undergraduate majors in Accounting, Business Economics, Computer Information Systems, Economics, Finance, Management, and Marketing. The Master of Business Administration provides professional education for individuals seeking successful careers and executive leadership positions.

## **Advising for Gordon Ford College of Business Students**

Gordon Ford College of Business students must receive advising until they gain admission to the college, earn 90 credit hours, and file an application for graduation. Advisors are available in the Undergraduate Advising Center (Grise Hall 453; 745-3290). The office provides academic advising and assistance with degree requirements. Advisors also provide information on study abroad, internship opportunities, and student/professional organizations.

## **Center for Entrepreneurship and Innovation Grise Hall 234**

Under the direction of Dr. R. Wilburn Clouse, the Mattie Newman Ford Professor of Entrepreneurship, the CEI serves to assist in the delivery of undergraduate and graduate courses in entrepreneurship, new venture management, and economic growth and development. Specifically, the CEI is dedicated to:

- Provide training and consulting services to aspiring entrepreneurs and small business owners.
- Engage faculty from various disciplines across campus to conduct interdisciplinary research in entrepreneurship.
- Facilitate outreach and networking activities by engaging domestic and international entrepreneurs to promote an entrepreneurial culture in the region.
- Provide internship and part-time work opportunities for entrepreneurial students at WKU.
- Link the entrepreneurial community of South Central Kentucky and the region with WKU.
- Provide on- and off-site training and mentoring services to small business owners and their employees.

The CEI also serves as a home for the award-winning Students in Free Enterprise (SIFE) and the Small Business Institute® student organizations.

### **Gordon Ford College of Business Majors**

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In order to be admitted to the Gordon Ford College, students must have:

1. earned a minimum of 60 hours;
2. completed ACCT 200 and 201, CIS 141, ECON 202, 203, and 206, MATH 116 or higher, and COMM 161 with a minimum grade point average of 2.5 in the courses listed above; and
3. a minimum overall GPA of 2.5. Students with lower than a 2.5 grade point average will be allowed to take only those upper-division courses in the Gordon Ford College of Business they are repeating above the 12 hours allowed prior to admission.

Undergraduate degree programs are not accepted by the college from students pursuing a second baccalaureate degree until the student has been formally admitted. Once a student has been admitted, he/she is encouraged to declare a major. Students receiving a baccalaureate degree in the Gordon Ford College of Business at Western Kentucky University must complete a minimum of one-half of the business curriculum in residence.

**Enrollment Policy for Upper-Division Courses** – In order to enroll in upper-division business courses, students must have a minimum of 60 earned hours and a 2.0 overall grade point average. Enrollment in upper-division business courses is limited to a maximum of 12 credit hours for students not admitted to one of the baccalaureate programs in the Gordon Ford College of Business. A complete set of regulations concerning enrollment in the Gordon Ford College is available in the Undergraduate Advising Center (Grise Hall 453).

**Accounting Majors** – Students interested in pursuing a major in Accounting must have a 2.5 GPA in ACCT 200 and 201, and must complete ACCT 200 and 201 with a grade of “C” or higher. Accounting students must also earn a grade of “C” or higher for any course serving as a prerequisite for any major required course.

**Economics Majors** – Economics majors pursuing a Bachelor of Arts degree are not required to take ACCT 200 and 201.

**Gordon Ford College of Business Minors** – A student who is not pursuing a major in the college may enroll in upper-division courses leading to a minor in the college provided the student has earned a minimum of 60 semester hours.

**Appeals and Requests for Exception** – Requests for exception to the enrollment and/or admission policies for the Gordon Ford College must be submitted in writing to the Gordon Ford College of Business Admissions and Appeals Committee.

**Registration** – Under most circumstances, students are approved to register for upper-division courses in the college without making application. Eligible students who experience problems with registration should contact the Undergraduate Advising Center (Grise Hall 453).

### **Transfer Policies**

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Students pursuing a major in the Gordon Ford College of Business must earn a minimum of one-half of the major in residence at Western Kentucky University.

Students wishing to transfer to Western Kentucky University need to follow general education guidelines as listed in the catalog. This strategy should minimize the risk of losing credits toward graduation. Courses that are offered only at the upper-division level at Western Kentucky University should not normally be taken at other schools. Students are advised to consult the Western Kentucky University department chair of their major program or the Undergraduate Advising Center (Grise Hall 453) regarding the transferability of any upper-division course. Students who plan to enroll or who are presently enrolled in junior or community colleges who envision transferring to WKU to complete a baccalaureate degree in the Gordon Ford College of Business should follow a program of general education and prerequisite courses similar to the catalog requirements for freshmen and sophomores on the WKU

campus. The Gordon Ford College is an active participant in the statewide transfer agreement for business programs for KCTCS students completing the A.A. or A.S. degrees. Students enrolled in the Kentucky Community and Technical College System (KCTCS) should contact their advisor for specific information on transferring courses to the Gordon Ford College of Business and Western Kentucky University.

Introductory courses in accounting (6 hours), economics (6 hours), statistics (3 hours) and an introductory computer course with microcomputer applications (3 hours) taken at accredited schools are readily transferable to Gordon Ford College of Business programs. Courses in linear mathematics (3 hours) and calculus (4 hours) are also generally transferable to Gordon Ford College of Business programs.

### **Minor in Business Administration**

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The business administration minor (reference number 332) provides a basic exposure to business for students whose majors are outside the Gordon Ford College of Business. It involves courses from each of the college departments and is administered through the Office of the Dean. Students with a minor in business administration receive a 3-hour waiver in upper-division coursework in the minor.

The minor requires 30 semester hours consisting of:

- ACCT 200
- ECON 202 or 203
- CIS 141
- MATH 116
- FIN 330
- MGT 210
- MKT 220
- 9 hours of upper-level business electives with at least two fields represented

Credits for ECON 202 or 203 may be applied to Category C of the General Education requirements and credits for MATH 116 may be applied to Category D.

If the student's major program requires a computer course and/or a course in statistics, the advisor for the business administration minor should be consulted for possible adjustments in the program requirements.

The business administration minor is not available to business majors, but it is among the minor programs which are available to the student who is majoring in economics (Bachelor of Arts).

### **Minor in International Business**

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The international business minor (reference number 333) prepares students to be effective citizens and leaders in a global environment of growing economic interdependence among nations. The program is open to all qualified undergraduates who want to pursue professional positions in both small and large multinational firms.

The minor requires 33 semester hours. The curriculum consists of:

- 12 hours in foreign language courses with at least nine hours credit represented by one language;
- 9 hours from the following, with no more than one course from each set (a selection of courses with a coherent regional focus is recommended):
  1. upper-level modern history;
  2. an upper-level government course listed under "International Relations" or "Comparative Government and Politics (courses in the Kentucky Legislative Internship Program are excluded);
  3. FREN 323 French Civilization and Culture; FREN 331 Business French; FREN 427 Francophone Culture; GERM 331 Business German; GERM 333 Germanic Civilization and Culture; GERM 433 Contemporary German; SPAN 331 Business Spanish; SPAN 372 Spanish American Civilization and Culture; SPAN 373 Spanish Civilization and Culture.
- 9 hours from the following Gordon Ford College of Business courses: ECON 380 International Economics; ECON 385 Economic Development; ECON 386 Economies in Transition; FIN 436 International Finance; MKT 324 International Marketing; MGT 303 International Management. (Two fields must be represented.)
- 3 hours of applied elective (study abroad or international internship). Strongly encouraged are courses offered through the Kentucky Institute for International Studies (KIIS) and the Cooperative Center for Study Abroad (through domestic or foreign firms approved for academic credit).

**Curricula**

The curricula in the Gordon Ford College of Business are rigorously structured and require students to satisfy prerequisites and major requirements in proper sequence. Basically, the freshman and sophomore years are used for courses in general education and for lower-division core or admission requirements. The junior year should be used to complete all remaining general education courses and the 300-level professional core courses. The senior year is used primarily to satisfy advanced course requirements in the major. Students pursuing the Bachelor of Science degree in accounting, business economics, computer information systems, finance, management, or marketing must follow this pattern. These majors are structured in such a way that no second major or minor is required. Business majors who are interested in completing a minor in the college should examine the departmental sections of the catalog for possible restrictions which may apply to them.

Students pursuing the Bachelor of Arts degree in economics have considerable flexibility in designing a degree program. These students are not required to satisfy the professional core. They should consult the department chair for prerequisites and sequencing requirements.

Curricula and courses of instruction are detailed in the departmental sections on the following pages. Students should carefully read the information provided by the departments before choosing a field of study. Any questions should be directed to the appropriate department chair. Although students may choose one program and later change to another one, such changes may extend the number of credit hours required for graduation.

The professional core provides a comprehensive business background as a basis in preparing students for imaginative and responsible leadership roles in business and society—domestic and world-wide. The core content responds to social, economic, and technological developments and reflects the application of evolving knowledge in economics and the behavioral and quantitative sciences. Completion of most of the core courses by the end of the junior year is essential as a foundation for advanced study during the senior year.

The professional core consists of 42 semester hours and is composed of the following courses:

- ACCT 200 and 201
- ECON 202, 203, and 206
- MGT 200, 210, 314 and 498 (or ENT 496)
- MGT 313, ECON 306, or ECON 307
- MKT 220
- FIN 330
- CIS 141 and 243

Most Bachelor of Science programs in the Gordon Ford College of Business are structured as shown below:

- General education courses-44 hours
  - Professional core (Includes 6 general education hours)-42 hours
  - Advanced major and elective courses-40 hours
- TOTAL 120 hours

Freshman and Sophomore Years College of Business Majors			
<b>Freshman Year Fall Semester</b>	<b>Hrs.</b>	<b>Freshman Year Spring Semester</b>	<b>Hrs.</b>
ENG 100 (A.I)	3	World Cultures Course (E)	3
CIS 141	3	Humanities Course (B)	3
MATH 116 (D.II)	3	HIST 119 or 120 (C)	3
Natural Science Course (D)	3	Phys. Develop. Course (F)	1
Phys. Develop. Course (F)	1	Social Science Course (C)	3
BA 175	3	COMM 161 (A.III)	3
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>
<b>Sophomore Year Fall Semester</b>	<b>Hrs.</b>	<b>Sophomore Year Spring Semester</b>	<b>Hrs.</b>
ACCT 200	3	ACCT 201	3
Humanities Course (B)	3	ECON 203	3
ECON 202 (C)	3	ECON 206	3
Literature Course (B-L)	3	MGT 210	3
MGT 200	3	MKT 220	3
CIS 243	3		
<b>Total Hours</b>	<b>18</b>	<b>Total Hours</b>	<b>15</b>
<i>(A-F) denotes General Education Category</i>			



## Department of Accounting

### Mission Statement

The mission of the Department of Accounting at Western Kentucky University is to be a leader in providing excellent accounting education and preparing students for successful and rewarding careers in accounting and business.

The mission is supported by:

- effective teaching.
- applied, pedagogical, and discipline-based research.
- service to the college, the university, the profession, and the business community.

### Accounting Program

The accounting department provides a challenging program of study for students who desire to pursue a major in the field of accounting. Students are engaged in unique and enriching learning experiences both inside and outside the classroom. Upon the successful completion of the 120 hour undergraduate program, students are prepared for a rewarding career in public accounting, industry, government, and other business fields.

Students in community or junior colleges who plan to transfer to Western Kentucky University to complete a baccalaureate degree in accounting should concentrate on courses which will satisfy general education requirements. Credit for accounting or business courses completed at community or junior colleges, with the exception of some 200-level courses, will generally not be allowed as part of the Accounting Program.

Students attending four-year schools who wish to transfer to Western Kentucky University should follow a program of general education and prerequisite courses for entry into the Gordon Ford College of Business. For accounting and business courses offered only at the 300-level and 400-level at Western Kentucky University, a maximum of nine semester hours may be transferred from other four-year schools for credit in the accounting major. Such transfers require the prior approval of the Western Kentucky University Chair of Accounting. Courses completed prior to entering WKU will be accepted for transfer credit as part of the accounting program only if the grade of "C" or better was earned. Students already enrolled at Western Kentucky University should not plan on completing accounting requirements at other institutions.

When planning a program of study in this department, students should refer to the suggested Program of Study. Each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Students are encouraged to contact the Gordon Ford College Undergraduate Advising Center and/or the Accounting department Chair for academic advising and assistance. For career-related information, students should contact the Accounting department, the Career Services Center, or an Accounting faculty member for career mentoring and advising.

### Major in Accounting

The major in accounting (reference number 602) requires 120 credit hours and leads to a Bachelor of Science degree.

Accounting majors should refer to the Gordon Ford College of Business introductory section for the requirements for being formally admitted to the Gordon Ford College of Business, a condition which students must satisfy before being admitted to the Accounting Program. Students seeking admission to the Accounting Program must have completed ACCT 200 and 201 with a cumulative 2.5 GPA in the two courses combined and grades of "C" or higher in each course. Except for ACCT 300 and ACCT 310, students must be admitted to the Accounting Program to enroll in upper-level accounting courses. Accounting majors must earn a grade of "C" or better in ACCT 200, 201, 300, 301, 310, and 312 and other courses that are prerequisites for succeeding courses. For example, an accounting major must earn at least the grade of "C" in ACCT 200, before enrolling in ACCT 201. In addition, accounting majors are allowed to repeat an upper-division accounting course only once, even if they received a "W" on the first attempt. Exceptions to this policy will be considered only in extenuating circumstances.

**Dr. Steve Wells, Chair of Accounting**  
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e-mail: [steve.wells@wku.edu](mailto:steve.wells@wku.edu)

**Grise Hall**  
**Office 501, Phone: (270) 745-3895**  
**Fax: (270) 745-5953**  
**Website: [www.wku.edu/accounting](http://www.wku.edu/accounting)**  
**e-mail: [Acct@wku.edu](mailto:Acct@wku.edu)**

**Holland Professor: Vacant**  
**Meany Professor: R. Aldridge**  
**Nixon Professor: Y. Chen**

**Professors: N. Magner, S. Wells**  
**Associate Professors: R. Kinnersley,**  
**M. Lee, H. Little**  
**Assistant Professors: M. Ross, S. Wade**  
**Instructor: S. Henson**  
**Transitional Retiree: J. Hall**  
**Executive-in-Residence: R. Callahan**

All students must take two accounting electives and one approved accounting or business elective.

### Pursuing a Second Degree in Accounting

Individuals who have already received a college degree have the opportunity of enrolling in WKU to pursue a degree in accounting.

Students with a first degree in the area of business should be able to complete the Bachelor of Science degree in accounting with approximately 30 additional hours. Those individuals without previous courses in business tend to need a higher number of hours to complete the second degree.

Admission requires the completion of certain pre-professional courses and the attainment of a grade point average (GPA) of at least 2.5 in those courses.

Second baccalaureate degree candidates are exempt from the Western Kentucky University general education requirements. Accounting students must, however, complete college algebra and an approved speech course, either in previous college work or as a part of the proposed course of study.

Only those professional business courses completed within five years of the time that the student enrolls for the second degree in accounting will be accepted. The business environment is ever changing and course work taken many years ago likely has either been forgotten or is not currently relevant.

The decision on acceptability of any previously taken professional business course on the second degree rests with the Chair of Accounting.

The prospective candidate for the degree should contact the Chair of Accounting to schedule a meeting to evaluate the individual's situation, to develop a program of study, and to obtain an estimate of the time necessary to complete the Accounting degree.

### Certificate in Advanced Accounting Studies

The Certificate Program in Advanced Accounting Studies (reference number 215) is intended to meet the needs of Accounting majors who need to earn a total of 150 credit hours to become a Certified Public Accountant. The program requires the completion of 12 unduplicated hours from the following 21 hours of elective accounting courses: ACCT 401, ACCT 410, ACCT 420, ACCT 431, ACCT 440, ACCT 451, and ACCT 460. All students must complete all accounting courses required for the Bachelor of Science in Accounting to be eligible for the Certificate Program in Advanced Accounting Studies.

Suggested Program of Study			
Accounting--Seeking Admission (602P) Admitted (602) Gordon Ford College of Business			
<b>Freshman-Fall Semester</b>	<b>Hrs.</b>	<b>Freshman-Spring Semester</b>	<b>Hrs.</b>
ENG 100, Freshmen English (A)	3	GEN ED, Humanities (B)	3
COMM 161, Bus. & Prof. Spkg. (A)	3	HIST 119/120, Western Civ. (C)	3
MATH 116, College Algebra (D)	3	GEN ED, Nat. Science # (D)	3
CIS 141, Basic Computer Literacy	3	GEN ED, Foreign Language (A)	3
GEN ED, Soc. And Behavioral (C)	3	GEN ED, World Cultures (E)	3
GEN ED, Health/Wellness (F)	1	GEN ED, Health/Wellness (F)	1
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>
<b>Sophomore-Fall Semester</b>	<b>Hrs.</b>	<b>Sophomore-Spring Semester</b>	<b>Hrs.</b>
ACCT 200, Intro. to Financial Acct.	3	ACCT 201, Intro. to Managerial Acct.	3
ECON 202, Principles-Micro (C)	3	ECON 203, Principles-Macro	3
CIS 243, Prin. of MIS	3	ECON 206, Statistics	3
ENG 200, Literature (B)	3	MGT 210, Organ. & Management	3
MGT 200, Legal Environ. Business	3	MKT 220, Basic Mkt. Concepts	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Junior-Fall Semester</b>	<b>Hrs.</b>	<b>Junior-Spring Semester</b>	<b>Hrs.</b>
ENG 300, Junior English (A)	3	GEN ED, Nat. Science # (D)	3
FIN 330, Principles of Financial Mgt.	3	GEN ED, Humanities (B)	3
ACCT 300, Inter. Financial Acct. I	4	MGT 313, Quantitative Methods	3
ACCT 310, Managerial Cost Acct.	3	Or ECON 306 Stat Analysis	
		Or ECON 307 Fin Data Modeling	
		ACCT 301, Inter. Fin. Acct. II	3
		ACCT 312, Acct. Information Systems	3
<b>Total Hours</b>	<b>13</b>	<b>Total Hours</b>	<b>15</b>
<b>Senior-Fall Semester</b>	<b>Hrs.</b>	<b>Senior-Spring Semester</b>	<b>Hrs.</b>
MGT 314, Operations Management	3	ACCT 450, Aud. & Assurance Svcs.	3
ACCT 402, Cont. Acct. Issues	3	ACCT Elective	3
ACCT 430, Fed. Taxation-Individuals	3	MGT 498, Strategy & Policy OR	3
ACCT Elective	3	ENT 496, Small Bus. Anal. & Strat.	
ACCT or Business Elective**	3	Elective	3
		ACCT 499, Senior Assessment	1
		General University Elective	2
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Grand Total: 120 Hours</b>			
**Subject to approval by Chair of Accounting.			
# At least one of these courses must have a laboratory component (DL).			
() Letter in parentheses indicates General Education Requirement.			

## Department of Computer Information Systems

### Systems Management/Computer Information Technology

*Preparing Students to Succeed in the 21st Century*

The U.S. Bureau of Labor Statistics lists Information Systems occupations among the fastest-growing fields during the next decade (see: [www.bls.gov](http://www.bls.gov)). The Computer Information Systems department at Western Kentucky University provides students with the foundation for success in computer-related careers including: systems analysts, network administrators, web-designers, hardware specialists, technical trainers, and computer consultants. The department offers two degree options. Systems Management (SM) is an interdisciplinary major with an Informatics perspective. Computer Information Technology (CIT) is an applied computer-technology major. The Information Systems department at WKU has been nationally recognized for its innovative curriculum and teaching methods. Please visit the SM website at <http://www.wku.edu/sm> and the CIT website at <http://www.wku.edu/cit> for additional details on the programs of study, sample class schedules, job opportunities, and faculty information.

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**CIS Website: [www.wku.edu/information-systems](http://www.wku.edu/information-systems)**

**SM Website: [www.wku.edu/sm](http://www.wku.edu/sm)**

**CIT Website: [www.wku.edu/cit](http://www.wku.edu/cit)**

**Associate Professors:** R. Blankenship,  
J. Butterfield, T. Crews, Jr.

**Assistant Professors:** K. Atkinson,  
M. Ciampa, P. Coleman, S. Marston,  
M. Revels, E. Thrasher

**Instructors:** M. Hill, J. Lindsey, J. Willis

### Overview of Computing Facilities

Western Kentucky University maintains a number of general-purpose computing labs across campus with a computer-to-student ratio that is among the highest of all state universities. In addition, the Information Systems department offers extensive hands-on learning opportunities through its own computer-enhanced instructional classrooms, computer labs, and many web-enabled courses. These resources allow SM/CIT students to make use of the latest hardware and software technologies in their major courses. This unique blend of classroom instruction and hands-on experience helps to prepare our graduates for professional success.

### Major in Business Informatics

The business informatics major (reference number 507/507P) requires 72 semester hours and is designed to prepare students for professional careers using information technologies to control, support, and enhance business operations and functions. Global business is increasingly relying on the acquisition, deployment, and management of information technology resources and services for use in organizational processes which is resulting in an increasing need for information workers. The business informatics major will provide students with a solid business foundation combined with relevant study of modern technology trends and the impact information systems are having throughout business and society. As demand for computer and information processing services continues to increase, so does the need for hybrid business technology roles. This major will help strengthen the knowledge economy in Kentucky and increase the availability of information workers critical to attracting and retaining corporate interests in the state.

All students must take the following 45 hours of business core courses: MATH 116; ACCT 200, 201; CIS 141; ECON 202, 203, 206; CIS 243; FIN 330; MKT 220; MGT 200, 210, 314, 498 or ENT 496; ECON 306 or MGT 313. Students are required to meet all admission requirements for the Gordon Ford College of Business.

Students must take the following 27 hours of courses for business informatics: CIS 320; 321; SM 443; SM 447; CIT 350; 12 hours of business and technology electives.

### Minor in Computer Information Systems

The CIS minor (reference number 347) has been specifically designed for non-technical majors who want to learn more about how technology can improve their personal and professional productivity. Students in the CIS minor take a set of required and elective courses in areas such as web-design, desktop publishing, multi-media, computer graphics, geographic information systems, computer-aided drafting and digital video production. Almost all professions today require their employees to be proficient with computers—not just 'literate.' The CIS minor is a valuable addition to any WKU major.

The minor in computer information systems requires 18 semester hours. Required courses are CIS 141, CIS 243, CIS 320, CIS 321, and two approved electives. Approved electives include: CIS 226, AMS 163, AMS 205, CS 240, ART 231, JOUR 232, BCOM 264, GEOG 317 and ART 435. No more than three hours of electives may be used to fulfill other degree requirements. Students with a minor in computer information systems receive a 3-hour waiver in upper-division coursework in the minor. See the department about other elective options.

**Department of Economics**

**Mission Statement**

The primary mission of the economics program is to offer educational opportunities to students in order to prepare them to become accomplished citizens and professionals capable of critical thinking and independent analysis. The economics faculty places an emphasis on excellence in teaching and continuous professional development in applied, instructional and basic research. The department also recognizes the importance of conducting professionally relevant service activities for the university, the public, and private constituents at the local, state and national levels.

Economics is an integral part of a well-rounded liberal arts education because the study of economics provides an antecedent to ethical judgments, to the assessment of the full range of both past and present public policies, and to an understanding of other economies and cultures. Economics is a versatile, multifaceted subject that includes global dimensions that are of increasing importance in today's diverse society.

The program also recognizes the importance of economic science in the preparation of a wide variety of professionals including those in business, law, journalism, banking, government, and academia. The faculty also acknowledges the importance of communication and technical skills in the development of well-rounded students. Economics courses require the application of the appropriate verbal and writing skills that are crucial complements to analytical skills. The economics curriculum and course offerings are designed to highlight and illustrate the practical importance of a knowledge of economics in understanding today's local, national and global issues.

**Economics**

Economics is a discipline concerned with how society chooses to allocate scarce resources among alternative uses in order to produce and distribute private and public goods.

The programs and course offerings are designed to provide a basic understanding of economic concepts, institutions, processes, and problems; to foster critical and analytical methods of thinking; and to lay the foundation for further study of economics.

Each year, the economics program awards the C. Keith Davis Memorial, N.O. Taff and the Kenneth T. & Maria Cann Scholarships. The recipients must be economics majors and selection is made on the basis of academic performance. Faculty also select a junior and a graduating senior economics, business economics, or mathematical economics major whose outstanding performances merit their selection as the Outstanding Junior and Outstanding Senior in Economics. Additionally, economics majors participate in the "Best Papers in Economics" competition for annual awards.

Students wishing to pursue a graduate degree in economics should note that economic doctoral programs are highly

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**Website: [www.wku.edu/economics](http://www.wku.edu/economics)**

**Professors: M. Borland, M. Carey, B. Goff, Y. Kim, S. Lile, T. Noser, R. Pulsinelli, M. Trawick**

**Associate Professors: A. Lebedinsky, D. Myers, B. Strow, C. Strow, D. Wilson**

**Assistant Professor: D. Zimmer**

**Professors Emeriti: R. Cantrell, C. Roberts**

**Transitional Retirees: B. Davis, R. Howsen**

**Suggested Program of Study**

**Department of Economics**  
**Economics Major 638P (seeking admission) and 638 (admitted)**

<b>Freshman Year</b>		<b>Hrs.</b>	<b>Sophomore Year</b>		<b>Hrs.</b>
Foreign Language (A.II)	3		ECON 202 (C)	3	
ENG 100 (A.I)	3		ENG 200 (B)	3	
Humanities (B)	3		Course in 2nd Major or Minor	3	
Social Science (C)	3		CIS 141	3	
Natural Science (D)	3		ECON 203 (C)	3	
Health and Wellness (F)	1		ECON 206	3	
World Cultures (E)	3		Course in 2nd Major or Minor	3	
HIST 119 or 120 (C)	3		COMM 161 (A.III)	3	
MATH 116 (D.II)	3		Natural Science (D)	3	
Humanities Elective (B)	3		General Elective Course	3	
General Elective	3				
Health and Wellness (F)	1				
<b>Total Hours</b>	<b>32</b>		<b>Total Hours</b>	<b>30</b>	
<b>Junior Year</b>		<b>Hrs.</b>	<b>Senior Year</b>		<b>Hrs.</b>
ECON 302	3		ECON 465 or ECON 480	3	
ENG 300 (A)	3		ECON 499	1	
Upper-Division ECON Electives	12		Upper-Division ECON Electives	9	
Upper-Division Courses in 2nd Major or Minor	6		Upper-Division Courses in 2nd Major or Minor	12	
ECON 303	3		General Elective Course	3	
General Elective	3				
<b>Total Hours</b>	<b>30</b>		<b>Total Hours</b>	<b>28</b>	

**Grand Total Hours: 120**

*Capital letters in parentheses refer to General Education Category.*

mathematical. The B.S. in Mathematical Economics (reference number 731) is strongly recommended for students considering either a Ph.D. in Economics or highly applied, analytical occupations. An alternative path would be a math minor in conjunction with either the A.B. in Economics (reference number 638) or the B.S. in Business Economics (reference number 724). A WKU minor in mathematics (reference number 417) requires a minimum of 17 semester hours. To obtain a math minor, the student must take the foundational sequence (MATH 136, 137, 307). The student is also required to select two additional math classes. The two classes that would best prepare a student for graduate studies in economics are MATH 237 and 331.

When planning a program of study in the economics department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

**Major in Economics**

The major in economics (reference number 638) requires a total of 120 credit hours of course work with 31 hours in economics and leads to a Bachelor of Arts degree. The program requires completion of a second major or a minor. All majors must complete a 19 hour core composed of ECON 202, 203, 206, 302, 303, 465 or 480, and 499. Either MATH 116, MATH 119 or ECON 464 must be completed. The remaining 12 hours for completing the major may be selected from other 300 and 400 level economics courses. In addition, students must complete CIS 141, MATH 116 (or higher), and COMM 161, all of which may be applied toward general education requirements. A sample schedule follows.

Admission to the economics major requires (1) the completion of MATH 116 (or higher), ECON 202, 203, and 206 and CIS 141 with a minimum GPA of 2.0 in the courses listed; and (2) completion of a minimum of 60 semester hours with a minimum GPA of 2.0; and (3) completion of a minimum of 12 hours at Western Kentucky University with a minimum WKU GPA of 2.0. All economics majors will be required to participate in an assessment process prior to graduation (ECON 499, 1 hour).

**Major in Business Economics**

The major in business economics (reference number 724) requires 73 hours in professional and elective courses and leads to a Bachelor of Science degree. The program of study requires 120 hours. Business economics majors must complete the Gordon Ford College of Business core consisting of ACCT 200, 201, CIS 141, ECON 202, 203, 206, COMM 161, CIS 243, FIN 330, MGT 200, 210, 314, 498, and MKT 220. Required courses in economics include: ECON 302, 303, 306 or 307, 414, 499; and either ECON 465 or ECON 480; fifteen hours of economics courses; and an approved 3-hour upper-division business elective. Either MATH 116, MATH 119 or ECON 464 must be completed. No minor or second major is required.

Business economics majors should refer to the Ford College of Business introductory

<b>Suggested Program of Study</b>			
<b>Department of Economics</b>			
<b>Business Economics Major 724P (seeking admission) and 724 (admitted)</b>			
<b>Freshman Year</b>	<b>Hrs.</b>	<b>Sophomore Year</b>	<b>Hrs.</b>
Foreign Language (A.II)	3	ACCT 200	3
ENG 100 (A.I)	3	CIS 141	3
Humanities (B)	3	ECON 202 (C)	3
Social Science (C)	3	ENG 200 (B.I)	3
Natural Science (D)	3	ACCT 201	3
Health and Wellness (F)	1	ECON 203 (C)	3
World Cultures (E)	3	ECON 206	3
HIST 119 or 120 (C)	3	COMM 161 (A.III)	3
MATH 116 (D.II)	3	Natural Science (D)	3
Humanities Elective (B)	3	General Elective Course	3
General Elective	3		
Health and Wellness (F)	1		
<b>Total Hours</b>	<b>32</b>	<b>Total Hours</b>	<b>30</b>
<b>Junior Year</b>	<b>Hrs.</b>	<b>Senior Year</b>	<b>Hrs.</b>
ECON 302	3	CIS 243	3
ECON 306 or ECON 307	3	ECON 414	3
Upper-Div. Optional Elec.	3	ECON Upper-Div. Option Elec.	3
ENG 300 (A)	3	ECON Upper-Div. Option Elec.	3
MGT 200	3	ECON 499	1
ECON 303	3	ECON 480 or ECON 465	3
FIN 330	3	ECON Upper-Div. Option Elec.	3
MGT 210	3	ECON Upper-Div. Option Elec.	3
MKT 220	3	MGT 498	3
Bus. Upper-Div. Elec.	3	MGT 314	3
<b>Total Hours</b>	<b>30</b>	<b>Total Hours</b>	<b>28</b>
<b>Grand Total Hours: 120</b>			
<i>Capital letters in parentheses refer to General Education Category.</i>			

section for sample course schedules for the freshman and sophomore years. That section also outlines the requirements for being formally admitted to the Gordon Ford College of Business, a condition which students must satisfy before they will be permitted to enroll in 300-level and 400-level professional courses. All economics majors will be required to participate in an assessment process prior to graduation (ECON 499, 1 hour).

### Major in Mathematical Economics

The major in Mathematical Economics (reference number 731) requires a total of 120 credit hours of course work, with 27 hours in Economics, 21 hours in Mathematics, and 1 hour of an interdisciplinary senior seminar course. This major leads to a Bachelor of Science degree intended for students interested in graduate studies in economics, public policy, or business, as well as those students seeking analytical careers that will require extensive mathematics backgrounds.

The program of study requires completion of a second major or a minor. The second major may not be economics, business economics, or mathematics. The minor may not be economics or mathematics.

All majors must complete a 40-hour core consisting of ECON 202, 203, 206 (or STAT 301), 302, 303, 306 or 307, 464, 465; MATH 136, 137, 237, 307; and ECON 497 or MATH 497. Additionally, either MATH 331 or 310 must be completed, and students must take three additional hours from either MATH 331, 310, 305, 382, 435, or 405. The remaining 3 hours in economics for completion may be selected from other 300 and 400 level economics courses. A sample schedule follows.

Admission to the mathematical economics major requires (1) the completion of MATH 136, ECON 202 and 203, and ECON 206 or STAT 301 with a minimum GPA of 2.0 in the courses listed; and (2) completion of a minimum of 60 hours with a minimum GPA of 2.0 overall; and (3) completion of a minimum of 12 hours at Western Kentucky University with a minimum WKU GPA of 2.0. All mathematical economics majors will be required to enroll in an interdisciplinary senior seminar course prior to graduation (ECON 497 or MATH 497, 1 hour).

### Minor in Economics

The minor in economics (reference number 356) requires 21 semester hours. All minors must complete a 15-hour core composed of ECON 202, 203, 206, 302, and 303. The remaining 6 hours for completing the minor must be selected from other 300 and 400 level economics courses. All minors must also complete MATH 116 or higher. The remainder of the program depends on what other major or minor is pursued.

### Graduate Program

The Economics Department offers a *one-year* graduate program leading to a Master of Arts in Applied Economics (reference number 0410). The program is designed to prepare students for private and public sector employment requiring analytical and communication skills sufficient for independent investigation and report writing. There are opportunities for interdisciplinary study and internships. Graduate assistantships are available. Consult the Economics Department web page for details.

### Suggested Program of Study

#### Department of Economics Mathematical Economics Major 731P (seeking admission) and 731 (admitted)

Freshman Year		Hrs.	Sophomore Year		Hrs.
Foreign Language (A.II)	3		ECON 202 (C)	3	
ENG 100 (A.I)	3		ENG 200 (B.I)	3	
Humanities (B)	3		MATH 237	4	
Social Science (C)	3		Natural Sciences (D)	3	
Math 136 (D.II)	4		ECON 206 or STAT 301	3	
Health and Wellness (F)	1		ECON 203	3	
World Cultures (E)	3		Courses in Second Major or Minor	6	
HIST 119 or 120 (C)	3		COMM 161 (A.III)	3	
Humanities Elective (B)	3		Health and Wellness	1	
Math 137	4		MATH 307	3	
<b>Total Hours</b>	<b>30</b>		<b>Total Hours</b>	<b>32</b>	
Junior Year		Hrs.	Senior Year		Hrs.
ECON 302	3		ECON 464	3	
ECON 306 or ECON 307	3		Upper-Div. MATH Elective	3	
MATH 310 or MATH 331	3		General Electives	3	
Upper-Div. Courses in Second Major or Minor	6		Upper Div. Courses in Second Major or Minor	6	
ENG 300 (A)	3		ECON 480 or ECON 465	3	
ECON 303	3		General Electives	3	
Upper Div. ECON Elective	3		ECON Upper-Div. Courses in Second Major or Minor	6	
General Electives	3		ECON 497 or MATH 497	1	
Natural Science with a Lab	3		<b>Total Hours</b>	<b>28</b>	
<b>Total Hours</b>	<b>30</b>		<b>Total Hours</b>	<b>28</b>	

#### Grand Total Hours: 120

*Capital letters in parentheses refer to General Education Category.*

## Department of Finance

### Mission Statement

The finance program is committed to offering a high quality baccalaureate program in finance with concentrations in financial management and financial planning. The concentrations in finance provide students with not only a broad general educational background but also a thorough professional education in finance. The primary mission of the finance group is teaching and instruction, which is supported by faculty involvement in basic and applied research as well as research that supports the teaching mission.

### Finance Undergraduate Program

The undergraduate finance program at Western Kentucky University consists of two distinct concentrations with overlapping but separate requirements. The two concentrations are:

1. Finance—financial management concentration
2. Finance—financial planning concentration

The finance—financial management concentration deals with the acquisition and use of funds to maximize the value of the firm. Financial managers make decisions about alternative sources and uses of funds. Proper financial management within the firm will help the business to provide better products at reasonable prices to its customers and greater returns to the investors who supply the capital needed to form and then operate the business.

The finance—financial planning concentration deals with the process of developing comprehensive financial plans for individuals. Financial planners help individuals determine financial goals and objectives and the best strategies for obtaining these goals. The rapid growth of multi-income families in the U.S. has placed more and more people in a position of need to apply sophisticated financial planning techniques to their personal economic affairs. As a result, one of the fastest growing career paths in the financial services industry is financial planning, and the Certified Financial Planner® (CFP) designation has become the most widely recognized financial planning credential among consumers.

The finance—financial planning concentration is registered with the Certified Financial Planner Board of Standards in Denver, CO. As of June 2010, we are one of only five registered universities in the state of Kentucky! This registration confers a special advantage on our graduates, which is that upon completion of our program, they are allowed to sit for the CFP® Certification Examination.

Western Kentucky University does not certify individuals to use the CFP®, Certified Financial Planner™, and CFP (with flame logo)®, certification marks. The CFP certification is granted only by the Certified Financial Planner Board of Standards to those persons who, in addition to completing an educational requirement such as this CFP Board-Registered Program, have met its ethics, experience, and examination requirements.

The Certified Financial Planner Board of Standards Inc. owns the marks CFP®, Certified Financial Planner™, AND CFP (with flame logo)®, which it awards to individuals who successfully complete initial and ongoing certification requirements.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

Students majoring in a program in this department may refer to the Gordon Ford College of Business introductory section for sample course schedules for the freshman and sophomore years. That section also outlines the requirements for being formally admitted to the College. For convenience a sample "suggested program of study" also follows.

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**Page Professor: K. Chan**

**Professors: C. Brown, I. Chhachhi,**  
**S. Thapa**

**Assistant Professor: Y. Ling Lo**

**Executives-in-Residence: A. Head,**  
**J. Snavely**

**Transitional Retiree: E. Wolfe**

**Major in Finance**

**Financial Management Concentration**

The finance major (reference number 664)—financial management concentration requires 120 credit hours and leads to a Bachelor of Science degree. Finance majors must earn a minimum grade point average of 2.0 in 300 and 400 level finance courses. No minor or second major is required or prohibited. All finance majors will be required to participate in an assessment process in FIN 499 prior to graduation.

Requirements for Finance—Financial Management Concentration are:

- General Education Requirements (see Catalog)—35 hours
- COMM 161\*—3 hours
- MATH 116\* or above—3 hours
- ACCT 200, 201—6 hours
- CIS 141, 243—6 hours
- ECON 202\*, 203, 206, 307—12 hours
- MKT 220—3 hours
- MGT 200, 210, 314—9 hours
- MGT 498 or ENT 496—3 hours
- FIN 330, 332, 433, 436, 437, 438, 499—19 hours
- FIN 439 or 449—3 hours
- FIN 435 or MKT 323/325, or ACCT 300/330/430/440 – 3 hours
- Approved Finance Electives\*\*—6 hours
- Approved Business Electives\*\*\*—3 hours
- General University Electives (unrestricted)—6 hours

\* Counts toward General Education requirements for a total of 41 hours in General Education.

\*\* Approved Finance Electives are any 300- or 400-level Finance courses.

\*\*\* Approved Business Electives are any 300- or 400- level course in Finance, Accounting, Economics, Computer Information Systems, MKT 323 or MKT 325.

Suggested Program of Study			
Recommended Schedule: Finance-Financial Management			
<b>Freshman Year</b>	<b>Hrs.</b>	<b>Freshman Year</b>	<b>Hrs.</b>
ENG 100 (A)	3	Humanities Elective (B)	3
COMM 161* (A)	3	HIST 119/120 (C)	3
MATH 116* (D)	3	Natural Science Elective (D)	3
CIS 141*	3	Foreign Language 102 (A)	3
BA 175 or General Elective	3	World Cultures Elective (E)	3
Physical Dev. Elective (F)	1	Physical Dev. Elective (F)	1
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>
<b>Sophomore Year</b>	<b>Hrs.</b>	<b>Sophomore Year</b>	<b>Hrs.</b>
ACCT 200*	3	ACCT 201*	3
ECON 202* (C)	3	ECON 203*	3
CIS 243**	3	ECON 206*	3
FIN 161 (C)	3	MGT 210**	3
MGT 200**	3	MKT 220**	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Junior Year</b>	<b>Hrs.</b>	<b>Junior Year</b>	<b>Hrs.</b>
ENG 200 (B)	3	Humanities Elective (B)	3
Nat. Science w/ Lab Elective (D)	3	ENG 300 (A)	3
FIN 330**	3	FIN 332	3
ECON 307	3	Approved Business Elective	3
MGT 314**	3	FIN 435 OR MKT 323/325 OR ACCT 300/330/430/440	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Senior Year</b>	<b>Hrs.</b>	<b>Senior Year</b>	<b>Hrs.</b>
FIN 433	3	MGT 498 or ENT 496**	3
FIN 437	3	FIN 436	3
FIN 438	3	FIN 439 or 449	3
General Elective	3	Approved FIN Elective	3
Approved FIN Elective	3	FIN 499	1
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>13</b>
<b>Total Hours: 120</b>			
(A-F) Denotes General Education Category			
* Denotes Required Pre-Admission Core Business Course			
** Denotes Required Business Core Course			

The four-year plan for timely completion of a finance (financial management concentration) major is outlined below and also appears on the departmental website: [www.wku.edu/gfcb/finance](http://www.wku.edu/gfcb/finance).



**Financial Planning Concentration**

The finance major (reference number 664)—financial planning concentration requires 120 credit hours and leads to a Bachelor of Science degree. Finance majors must earn a minimum grade point average of 2.0 in 300 and 400 level Finance courses. No minor or second major is required or prohibited. All finance majors will be required to participate in an assessment process in FIN 499 prior to graduation.

Requirements for Finance—Financial Planning Concentration are:

- General Education Requirements (see Catalog)—35 hours
- COMM 161\*—3 hours
- MATH 116\* or above—3 hours
- ACCT 200, 201,330—9 hours
- CIS 141, 243—6 hours
- ECON 202\*, 203, 206, 307—12 hours
- MKT 220—3 hours
- MGT 200, 210, 314—9 hours
- MGT 498 or ENT 496—3 hours
- FIN 330, 331, 332, 350, 437, 438, 444, 445, 499—25 hours
- FIN 439 or FIN 449—3 hours
- Approved Finance electives\*\*—3 hours
- Approved Business electives\*\*\*—3 hours
- General University electives (unrestricted)— 3 hours

\* Counts toward General Education requirements for a total of 41 hours in General Education.  
 \*\* Approved Finance electives are any 300- or 400-level Finance courses.  
 \*\*\*Approved Business electives are any 300- or 400-level course in Finance, Accounting, Economics, Computer Information Systems, MKT 323 or MKT 325.

Suggested Program of Study			
Recommended Schedule: Finance-Financial Planning			
<b>Freshman Year</b>	<b>Hrs.</b>	<b>Freshman Year</b>	<b>Hrs.</b>
ENG 100 (A)	3	Humanities Elective (B)	3
COMM 161* (A)	3	HIST 119/120 (C)	3
MATH 116* (D)	3	Natural Science Elective (D)	3
CIS 141*	3	Foreign Language 102 (A)	3
BA 175 or General University Elective	3	World Cultures Elective (E)	3
Physical Dev. Elective (F)	1	Physical Dev. Elective (F)	1
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>
<b>Sophomore Year</b>	<b>Hrs.</b>	<b>Sophomore Year</b>	<b>Hrs.</b>
ACCT 200*	3	ACCT 201*	3
ECON 202* (C)	3	ECON 203*	3
CIS 243**	3	ECON 206*	3
FIN 161 (C)	3	MGT 210**	3
MGT 200**	3	MKT 220**	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Junior Year</b>	<b>Hrs.</b>	<b>Junior Year</b>	<b>Hrs.</b>
ENG 200 (B)	3	Humanities Elective (B)	3
Nat. Science w/ Lab Elective (D)	3	ENG 300 (A)	3
FIN 330**	3	FIN 331	3
ECON 307	3	FIN 332	3
MGT 314**	3	ACCT 330	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Senior Year</b>		<b>Senior Year</b>	
FIN 350	3	MGT 498 or ENT 496**	3
FIN 437	3	FIN 439 OR 449	3
FIN 438	3	FIN 445	3
FIN 444	3	Approved Business Elective	3
Approved FIN Elective	3	FIN 499	1
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>13</b>
<b>Total Hours: 120</b>			
(A-F) Denotes General Education Category			
* Denotes Required Pre-Admission Core Business Course			
** Denotes Required Business Core Course			

**Minor in Finance**

The minor in finance (reference number 357) requires 27 semester hours of course work. The minor in finance requires FIN 330 and 12 hours of approved finance electives from any 300 or 400 level finance courses. As preparation for this minor, students must also complete MATH 116 and ECON 202 or 203, ECON 206 and ACCT 200.

**Certificate Program in Financial Planning**

The Certificate Program in Financial Planning (reference number 200) is intended to qualify non-finance majors or degree-holding individuals who wish to pursue a career in financial planning. After successful completion of the following seven courses, the student receives a Certificate of Financial Planning from Western Kentucky University and fulfils the educational requirement to sit for the comprehensive CERTIFIED FINANCIAL PLANNER® (CFP®) exam. Required courses are: ACCT 330, FIN 330, 331, 332, 350, 444, and 445. There may be additional course requirements for students not meeting pre-requisites.

Western Kentucky University does not certify individuals to use the CFP®, Certified Financial Planner™, and CFP (with flame logo)®, certification marks. The CFP certification is granted only by the Certified Financial Planner Board

of Standards to those persons who, in addition to completing an educational requirement such as this CFP Board-Registered Program, have met its ethics, experience, and examination requirements.

Certified Financial Planner Board of Standards Inc. owns the marks CFP®, CERTIFIED FINANCIAL PLANNERTM, and CFP (with flame logo)®, which it awards to individuals who successfully complete initial and ongoing certification requirements.

## Department of Management

### Mission Statement: “Learning by Doing”

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This phrase succinctly summarizes the mission of the Management faculty. It is espoused by our diverse group whose interests and responsibilities include general management, strategic management, entrepreneurship, human resource management, organizational theory and behavior, production and operations management, management science, international business and the legal environment of business.

While we instruct a heterogeneous student population comprised of majors within the department, within the college, and from other areas, there is a major emphasis on experiential learning. We further endeavor to expose students to the latest developments in technology, global perspectives, ethics, and changes in the legal and business environment. We seek to produce graduates who have a strong foundation in management with the necessary analytical skills to assume leadership roles in business and society. With such a background, our graduates pursue careers in a variety of fields including banking, construction, insurance, manufacturing, public administration, retailing, and entrepreneurial ventures.

“Learning by doing” applies to the scholarly activity which is another essential ingredient to our mission and to the goal of ensuring a high quality faculty. A variety of scholarly activities conducted by the Management faculty include basic, applied, pedagogical, cross-disciplinary, and interpretive research. It is the expectation that all research should enhance teaching, service, or add to the knowledge base of the discipline.

### Major in Management

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The undergraduate major in management (reference number 723) requires 120 hours and leads to a Bachelor of Science degree. No minor is required, although approved minors inside or outside the Gordon Ford College of Business are encouraged.

The undergraduate management program offers two areas of concentration within the major: 1) Business Administration, and 2) Human Resource/Personnel Management. This allows students to choose a program of study that fits well with their career aspirations.

The Business Administration concentration develops student’s abilities to analyze and to manage a wide range of business situations. This development occurs by building on fundamental business functions studied in the core courses. The program is for students who intend to manage an independent business or a unit of a larger organization and who want a broad curriculum.

The Human Resource Management concentration is designed to develop skills for managing an essential resource of any organization—its employees. Because of the importance of increasing human productivity, human resource management is viewed as a key contributor to organizational effectiveness and achievement of strategic goals. Human resources managers are frequently involved in top level decision making. The Society for Human Resource Management (SHRM) acknowledges our HR curriculum aligns with its guidelines. We are one of only 34 U.S. universities with this recognition. Courses required in the HRM concentration include: MGT 210, MGT 305 or MATH 119, MGT 311, 313, 314, 417, 411, 414, 473, 495, 498 (or ENT 496), 499; ECON 305; MGT 361 or ENG 306 or ENG 307; and an elective from MGT 400, 416, 419, or another advisor approved elective. The HRM concentration is designed to prepare students for a rewarding career as a specialist in an area such as recruitment and selection, training and development, compensation and benefits administration, or labor relations.

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**Mattie Newman Ford Professor of  
Entrepreneurship: R. Wilburn Clouse**

**Professors: J. Katz, Z. Mohamed, A. Rahim,  
R. Reber**

**Associate Professors: S. Droege,  
R. Hatfield, M. Marvel, P. Potter, B. Sullivan**

**Assistant Professors: D. Bolton, I. Civelek,  
L. Coder, H. Lee, S. Spiller**

**Executives-in-Residence: D. Cosby-Simmons,  
G. Rasmussen**

**Instructor: K. Schell**

Students majoring in management should refer to the Gordon Ford College of Business introductory section for sample courses schedules for the freshman and sophomore years. That section also outlines the requirements for formal admission to the College, a condition which students must satisfy before they will be permitted to enroll in 300- and 400-level professional courses. Students should note that both concentrations in this major are the same through the first semester of the junior year.

Suggested Program of Study			
Human Resources Concentration Management 723			
<b>Freshman Year</b>	<b>Hrs.</b>	<b>Sophomore Year</b>	<b>Hrs.</b>
BA 175 Univ. Exper. - Bus.	3	ACCT 200 - Intro. to Fin.	3
ENG 100 (A)	3	ECON 202 - Princ. of Micro (C)	3
COMM 161 - Business & Prof. Spkg. (A)	3	CIS 243 - Princ. of MIS Social Science Course (C)	3
MATH 116 - College Alg (D)	3	MGT 200 - Legal Environment	3
CIS 141 - Comp. Literacy Health/Wellness Course (F)	3	ACCT 201 - Intro Managerial	3
Humanities Course (B)	3	ECON 203 - Princ. of Macro	3
HIST 119/120 (C)	3	ECON 206 - Statistics	3
Natural Science Course (D)	3	MGT 210 - Org. & Mgt.	3
Foreign Language Course (A)	3	MKT 220 - Basic Marketing	3
World Cultures Course (E)	3		
Health/Wellness Course (F)	1		
<b>Total Hours</b>	<b>32</b>	<b>Total Hours</b>	<b>30</b>
<b>Junior Year</b>	<b>Hrs.</b>	<b>Senior Year</b>	<b>Hrs.</b>
ENG 200 - Literature (B)	3	MGT 411	3
Natural Science (D/L)	3	MGT 414	3
FIN 330 - Fund. of Finance	3	MGT 417 - Org. Behavior	3
MGT 311 - Human Res. Mgt.	3	MGT 361/ENG 306/ENG 307	3
MGT 305 - Ethics & Crit. Thinking OR MATH 119 Calculus	3 or 4	MGT 498 - Strat. & Policy/ENT 496 – Small Bus. Analysis	3
Humanities Course (B)	3	MGT 495	3
ENG 300 - Composition (A)	3	MGT 473	3
MGT 313 – Decision Modeling	3	MGT Elective (300-400)	3
ECON 305 - Labor Econ	3	HRM Elective*	3
MGT 314 - Operations Mgt.	3	MGT 499 - Sr. Assessment	1
<b>Total Hours</b>	<b>30-31</b>	<b>Total Hours</b>	<b>28</b>
*HRM Elective includes MGT 400, 416, and 419. (A-F) Denotes General Education Category			

Suggested Program of Study			
Business Administration Concentration Management 723			
<b>Freshman Year</b>	<b>Hrs.</b>	<b>Sophomore Year</b>	<b>Hrs.</b>
BA 175 Univ. Exper. – Bus.	3	ACCT 200 - Intro. to Fin. Acct.	3
ENG 100 (A)	3	ECON 202 - Princ. of Micro (C)	3
COMM 161 - Business & Prof. Spkg. (A)	3	CIS 243 - Princ. of MIS Social Science Course (C)	3
MATH 116 - College Algebra (D)	3	MGT 200 - Legal Environment	3
CIS 141 - Comp. Literacy Health/Wellness Course (F)	3	ACCT 201 - Intro Managerial	3
Humanities Course (B)	3	ECON 203 - Princ. of Macro	3
HIST 119/120 (C)	3	ECON 206 - Statistics	3
Natural Science Course (D)	3	MGT 210 - Org. & Mgt.	3
Foreign Language Course (A)	3	MKT 220 - Basic Marketing	3
World Cultures Course (E)	3		
Health/Wellness Course (F)	1		
<b>Total Hours</b>	<b>32</b>	<b>Total Hours</b>	<b>30</b>
<b>Junior Year</b>	<b>Hrs.</b>	<b>Senior Year</b>	<b>Hrs.</b>
ENG 200 - Literature (B)	3	FIN Elective (300-400)	3
Natural Science (D/L)	3	MKT Elective (300-400)	3
FIN 330 - Fund. of Finance	3	MGT 417 - Org. Behavior	3
ACCT 315 - Managerial Acct.	3	MGT 361/ENG 306/ENG 307	3
MGT 305 - Ethics & Crit. Thinking OR MATH 119 Calculus	3 or 4	Elective	3
Humanities Course (B)	3	MGT 498 - Strat. & Policy/ENT 496 – Small Bus. Analysis	3
ENG 300 - Composition (A)	3	ECON 414 - Managerial Econ. Professional Elective*	3
MGT 313 – Decision Modeling	3	MGT Elective (300-400)	3
MGT 311 - Human Res. Mgt.	3	MGT 499 - Sr. Assessment	1
MGT 314 - Operations Mgt.	3		
<b>Total Hours</b>	<b>30-31</b>	<b>Total Hours</b>	<b>28</b>
* 300 and 400 level courses in ACCT, CIS, ECON, FIN, MGT, and MKT are approved as Professional Electives. (A-F) Denotes General Education Category			

### Major in Entrepreneurship

The major in entrepreneurship (reference number 542) requires 70 hours in professional and elective courses and leads to a Bachelor of Science degree. The program of study requires 120 hours. The entrepreneurship program is designed to provide maximum flexibility in the integration of coursework and actual experience to develop entrepreneurial potential and to provide the opportunity to turn that capability into reality. Coursework and practical experiences allow the student to apply principles of innovative thought, idea generation, market development, financial analysis, legal and ethical compliance, and human resource development. Students are prepared to start and develop a new venture, to immediately contribute to the growth and expansion of the fast-growth firm, to be leaders in social or non-profit activities, and to be corporate "intrapreneurs" if employed in larger firms.

### Major in International Business

The international business major (reference number 569) requires 73 hours in professional and elective courses and leads to a Bachelor of Science degree. The program of study requires 120 hours. The objective of the international business (IB) major is to prepare students to succeed in the increasingly competitive and inter-dependent world of international business. The IB program equips students for global careers by providing sound business skills, geo-political understanding, language skills, and cultural and value awareness of other regions. The IB major, upon graduation, may pursue graduate study in international business/international MBA programs, gain entry level positions in firms with existing international operations, engage in entrepreneurial opportunities with domestic firms wishing to expand internationally and governmental and/or non-governmental organizations whose objective is to provide international trade support or economic development. Available as a primary or secondary major, the IB major combines courses in international management, marketing, economics, finance, and entrepreneurship with foreign-language study. Students are required to do an internship in a firm engaged in international business or study abroad. Students can earn a dual degree in IB with our overseas partner universities in France (St. Etienne University) and Mexico (Universidad Autonoma Nuevo Leon) by taking a full year of courses with/without an internship.

Suggested Program of Study			
Entrepreneurship 542			
<b>Freshman Year</b>	<b>Hrs.</b>	<b>Sophomore Year</b>	<b>Hrs.</b>
BA 175 Univ. Exper. - Bus.	3	ACCT 200 - Intro. to Fin.	3
ENG 100 (A)	3	ECON 202 - Princ. of Micro (C)	3
COMM 161 - Business & Prof. Spkg. (A)	3	CIS 243 - Princ. of MIS	3
MATH 116 - College Alg (D)	3	Social Science Course (C)	3
CIS 141 - Compt. Literacy	3	MGT 200 - Legal Environment	3
Health/Wellness Course (F)	1	ACCT 201 - Intro Managerial	3
Humanities Course (B)	3	ECON 203 - Princ. of Macro	3
HIST 119/120 (C)	3	ECON 206 - Statistics	3
Natural Science Course (D)	3	MGT 210 - Org. & Mgt.	3
Foreign Language Course (A)	3	MKT 220 - Basic Marketing	3
World Cultures Course (E)	3		
Health/Wellness Course (F)	1		
<b>Total Hours</b>	<b>32</b>	<b>Total Hours</b>	<b>30</b>
<b>Junior Year</b>	<b>Hrs.</b>	<b>Senior Year</b>	<b>Hrs.</b>
ENG 200 - Literature (B)	3	MGT 314 - Operations Mgt.	3
Natural Science (D/L)	3	FIN 441- Small Bus. Finance	3
ENT 312 - Entrepreneurship	3	MKT 427 – Entrepreneurial Marketing	3
FIN 330 - Fund. of Finance	3	Approved Elective 1	3
MGT 305 - Ethics & Crit. Thinking	3 or 4	Entrepreneurship Elective 1*	3
OR MATH 119 Calculus		Elective	3
Humanities Course (B)	3	ENT 496 - Small Bus. Analysis	3
ENG 300 - Composition (A)	3	Entrepreneurship Elective 2	3
MGT 313 – Decision Modeling	3	Approved Elective 2	3
ENT 380 – New Venture Business Planning	3	MGT 499 - Sr. Assessment	1
Elective	3		
<b>Total Hours</b>	<b>30-31</b>	<b>Total Hours</b>	<b>28</b>
<p><i>*Entrepreneurship electives must be chosen from ENT 308, 463, 490, 425, 410 or any other approved 300- or 400-level ENT course. Approved electives must be chosen from ACCT 315, ECON 414, MKT 323, MKT 325, MKT 328, MKT 329, MKT 311, MKT 333.</i></p> <p><i>** Must be selected and approved by the Management Department Chair. May come from ENTREPRENEUR ELECTIVES 1-5 list or may be from any discipline on campus.</i></p>			

<b>Suggested Program of Study</b>			
<b>International Business 569</b>			
<b>Freshman Year</b>	<b>Hrs.</b>	<b>Sophomore Year</b>	<b>Hrs.</b>
BA 175 University Experience – Bus.	3	ACCT 200 Intro – Financial	3
ENG 100	3	ECON 202 Principles of Micro (C)	3
COMM 161- Bus & Prof Speak (A)	3	CIS 243 Principles of MIS	3
MATH 116- College Algebra (D)	3	PS 250 (C)	3
CIS 141 Computer Literacy	3	MGT 200 Legal Environment	3
Health and Wellness Course (F)	1	ACCT 201 – Intro Managerial	3
Humanities Course (B) 3	3	ECON 203 - Principles of Macro	3
HIST 119/120	3	ECON 206 – Statistics	3
Natural Science Course	3	MGT 210 – Org and Mgt	3
Foreign Language Course 102	3	MKT 220 – Basic Marketing	3
GEOG 110	3		
Health and Wellness Course (F)	1		
<b>Total Hours</b>	<b>32</b>	<b>Total Hours</b>	<b>30</b>
<b>Junior Year</b>	<b>Hrs.</b>	<b>Senior Year</b>	<b>Hrs.</b>
ENG 200 – Literature (B)	3	Intl. Business Elective <sup>1</sup>	3
Natural Science (D/L)	3	Intl. Business Elective <sup>1</sup>	3
FIN 330 Fund of Finance	3	Humanities Elective	3
MGT 305/COMM 463	3	Foreign Language 202	3
MGT 303- International Business	3	MGT 314 Operations Management	3
Humanities Course (B)	3		
ENG 300 – Composition (A)	3	MGT 498 - Strategy & Policy	3
Intl. Business Elective <sup>1</sup>	3	Internship/Study Abroad	3
Foreign Language Course 201	3	Intl. Business Elective <sup>1</sup>	3
MGT 313 Decision Modeling	3	Intl. Business Elective <sup>1</sup>	3
		MGT 499 – Sr. Assessment	1
<b>Total Hours</b>	<b>30</b>	<b>Total Hours</b>	<b>28</b>
<sup>1</sup> Intl. Business electives: Choose from – MGT 316, MGT 390, MKT 324, FIN 436, ECON 380, ECON 385, ECON 386, ECON 496, ENT 425, and other approved electives. At least three areas must be represented.			

**Minor in Entrepreneurship**

A minor in entrepreneurship (reference number 355) is an interdisciplinary program housed in the Management Department and coordinated with various departments across campus. It is suitable for those who might want to have their own business or work in an entrepreneurial environment (including large organizations). Students of all majors are encouraged to meet with entrepreneurial advisors to fit the minor to their career interests. The 12 hours of required core classes are: Any ECON class, ACCT 200, MKT 220, and ENT 312. Nine hours of electives can be chosen with the consent of the minor advisor. Business majors are required to take ENT 496 as part of their nine hours of electives. For business majors six hours in the entrepreneurship minor must be unduplicated from courses counted in the business major.

**Department of Marketing and Sales**

**Marketing Vision Statement**

Western Kentucky University's Marketing Department will be regionally acclaimed and nationally recognized for excellence in marketing and sales education.

**Marketing Mission Statement**

"To offer high quality undergraduate and graduate education for our varied constituencies." Our goal is to graduate students with the knowledge and skills necessary for success and leadership in the business community. To accomplish this mission, we will use progressive teaching techniques as well as seek and apply knowledge through research. We also provide service to the university and the community using our expertise. Ultimately, we insure that students are prepared to excel in an ever changing, increasingly competitive, global environment by engaging them in the classroom and the business community.

**Core Values (for students and faculty)**

Honesty • Integrity • Trustworthiness • Ethics • Initiative • Curiosity • Tolerance of Other People and Ideas • Loyalty • Accountability / Personal Responsibility • Entrepreneurial Spirit • Strong Work Ethic • Empathy • Cultural Awareness and Respect

**Marketing**

The Marketing discipline offers three areas of concentration within the major: 1) strategic marketing; 2) professional sales; and 3) social media marketing. This allows a student to develop an education program which most closely fits their career aspirations and increases their placement opportunities.

Marketing is a dynamic business function that leads to goal-oriented exchanges between individuals and organizations. Important marketing activities include developing an idea, good or service intended to satisfy consumer wants and needs, promoting / advertising it to likely customers, selling it at a mutually agreeable price, and distributing it in acceptable locations.

The objectives of the marketing program are to teach students (1) the importance of marketing in an economy characterized by free consumer choice, (2) the knowledge and skills required to perform marketing activities, and (3) the interaction between marketing and diverse environmental forces which impact marketing decisions. The marketing student is prepared for a wide range of career opportunities in business and non-business, for profit and not-for-profit organizations. Entry-level business positions serve as a step into professional selling and sales force management, pricing, product or brand management, social media marketing, advertising, market research, physical distribution, retail management and merchandising, sports and event marketing or purchasing. Marketing also provides a solid foundation for those who hope to

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**Professors:** J. Gotlieb, R. Milliman  
**Associate Professors:** L. Forbes, C. Martin, R. Shannon  
**Assistant Professors:** J. Phillips-Melangon, P. Todd  
**Executives-in-Residence:** C. Derry, M. Gardner, A. Hall  
**Professor Emeritus:** R. Jefferson

**Suggested Program of Study**

**Strategic Marketing (MKGM)**

Freshman Year		Hrs.	Freshman Year		Hrs.
ENG 100 (A)	3		Humanities Elective (B)	3	
COMM 161* (A)	3		HIST 119/120 (C)	3	
MATH 116* (D)	3		Natural Science	3	
CIS 141*	3		Elective (D)		
BA 175	3		Foreign Language (A)	3	
			Health and Wellness (F)	2/3	
<b>Total Hours</b>	<b>15</b>		<b>Total Hours</b>	<b>14/15</b>	
Sophomore Year		Hrs.	Sophomore Year		Hrs.
ACCT 200*	3		ACCT 201*	3	
ECON 202* (C)	3		ECON 203*	3	
CIS 243**	3		ECON 206*	3	
FIN 161 (C)	3		MKT 220**	3	
Foreign Language (If needed) (A)	3		MGT 200**	3	
<b>Total Hours</b>	<b>15</b>		<b>Total Hours</b>	<b>15</b>	
Junior Year		Hrs.	Junior Year		Hrs.
MGT 361/ENG 306	3		ENG 300 (A)	3	
MKT 321	3		MKT 323/324	3	
ECON 306**	3		Nat. Sci. w/Lab Elective (D)	3	
MKT 325	3		ENG 200 (B)	3	
MGT 210**	3		FIN 330**	3	
<b>Total Hours</b>	<b>15</b>		<b>Total Hours</b>	<b>15</b>	
Senior Year		Hrs.	Senior Year		Hrs.
MKT 421	3		MKT 327/423	3	
MKT 422	3		Professional Elective	3	
MGT 314**	3		Marketing Elective	3	
MKT 322/427	3		MGT 498/ENT 496**	3	
World Cultures Elective (E)	3		Humanities Elective (B)	3	
			MKT 499	1	
<b>Total Hours</b>	<b>15</b>		<b>Total Hours</b>	<b>16</b>	

(A-F) Denotes General Education Category.  
 \* Denotes required Pre-Admission Core Business Course  
 \*\* Denotes required Business Core Course

own their own business in the future.

Careers in marketing often lead to high-level management positions. Non-business and not-for-profit organizations (hospitals, educational institutions and charitable groups) also seek well-trained marketing graduates.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

**Major in Marketing**

The major in marketing (reference number 720) requires 73 hours in professional and elective courses and leads to a Bachelor of Science degree. Marketing majors must earn a "C" or better in all Marketing classes (MKT prefix) used as a part of the major on the degree program. Transfer Marketing classes with a grade of less than a "C" will not count towards the Marketing major. No minor or second major is required, although approved minors inside or outside the Gordon Ford College of Business are permitted and encouraged. Marketing majors must complete the Gordon Ford College of Business core consisting of ACCT 200, 201, CIS 141, ECON 202, 203, 206, MATH 116, COMM 161, CIS 243, ECON 306, FIN 330, MGT 200, 210, 314, 498, and MKT 220.

All marketing majors must take the following required courses: MKT 321, 325, 421, 422, and 499; MGT 361, and a 3-hour upper-division business elective. For the Strategic Marketing concentration (MKGM), a student must also take MKT 322 or 427; MKT 327 or 423; MKT 323 or 324; plus one additional marketing elective. For the Sales concentration (MKSA), a student must also take MKT 329, 424, and 425, plus one additional marketing elective. For the Social Media Marketing concentration (MKSM), a student must take MKT 322, 328, and 331, plus one additional marketing elective.

**Minor in Marketing**

The marketing minor (reference number 413) provides an attractive complement to many traditional liberal arts majors. Combinations of marketing with foreign language, agriculture, advertising, the performing arts, sports, health care and hospitality services, fashion retailing and others would broaden and strengthen career options. Marketing has a role in any occupational field that involves consumers and the choices which they make. The marketing minor is also appropriate for business majors who wish to increase their understanding of marketing. Students who are business majors must take 15 hours of marketing courses beyond MKT 220. The minor requires 24 to 27 semester hours. MATH 116 and SOCL 100 or PSY 100 are recommended as background courses before beginning the minor though they are not a part of the minor program. The MATH and SOCL/PSY courses may be applied to general education requirements. The minor sequence is as follows: ACCT 200; ECON 202 or ECON 203; ECON 206 or equivalent; MKT 220; MKT 321; and 9 hours of upper-level MKT electives (12 hours of upper-level MKT electives for business majors). Marketing minors must earn a "C" or better in all Marketing classes (MKT prefix) used as a part of the minor on the degree program. Transfer marketing classes with a grade of less than a "C" will not count towards the marketing minor. More detailed information is available from the Department of Marketing.

Suggested Program of Study			
Marketing - Sales (MKSA)			
<b>Freshman Year</b>	<b>Hrs.</b>	<b>Freshman Year</b>	<b>Hrs.</b>
ENG 100 (A)	3	Humanities Elective (B)	3
COMM 161* (A)	3	HIST 119/120 (C)	3
MATH 116* (D)	3	Natural Science Elective (D)	3
CIS 141*	3	Foreign Language (A)	3
BA 175	3	Health and Wellness (F)	2/3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>14/15</b>
<b>Sophomore Year</b>	<b>Hrs.</b>	<b>Sophomore Year</b>	<b>Hrs.</b>
ACCT 200*	3	ACCT 201*	3
ECON 202* (C)	3	ECON 203*	3
CIS 243**	3	ECON 206*	3
FIN 161* (C)	3	MGT 210**	3
Foreign Lang. (If needed) (A)	3	MKT 220**	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Junior Year</b>	<b>Hrs.</b>	<b>Junior Year</b>	<b>Hrs.</b>
ENG 200 (B)	3	ENG 300 (A)	3
MGT 361/ENG 306	3	Humanities Elective (B)	3
MKT 321	3	Nat. Sci. w/Lab Elective (D)	3
ECON 306**	3	FIN 330**	3
MGT 200**	3	MKT 325	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Senior Year</b>	<b>Hrs.</b>	<b>Senior Year</b>	<b>Hrs.</b>
MKT 425	3	MKT 424	3
MKT 421	3	MKT 422	3
MGT 314**	3	Professional Elective	3
World Cultures Elective (E)	3	Marketing Elective	3
MKT 329	3	MGT 498/ENT 496**	3
<b>Total Hours</b>	<b>15</b>	MKT 499	1
		<b>Total Hours</b>	<b>16</b>
<i>(A-F) Denotes General Education Category.</i>			
<i>* Denotes required Pre-Admission Core Business Course</i>			
<i>** Denotes required Business Core Course</i>			

**Minor in Sales**

The sales minor (reference number 452) provides an attractive option for students interested in professional selling. Combining a sales minor with a variety of fields such as finance, accounting, management, advertising, communication, health care and hospitality services, public relations, fashion retailing and numerous others would provide very strong career options. The minor requires 18 semester hours. All students must complete a 12-hour core composed of MKT 220, 325, and 425, along with COMM 263. A student must also take either COMM 345 or PSY 350. The remaining three credits must be chosen from MKT 323, 424, or 427, or another MKT course approved by the marketing department head. Sales minors must earn a "C" or higher in all marketing classes (MKT prefix) used as part of the minor. At least 6 hours in the Sales minor must be unduplicated from courses counted in the major and/or other minors. More detailed information is available from the Department of Marketing.

**Graduate Degree Programs**

For detailed information, consult the Graduate Catalog.

Suggested Program of Study			
Marketing – Social Media Marketing (MKSM)			
<b>Freshman Year</b> ENG 100 (A) COMM 161* (A) MATH 116* (D) CIS 141* BA 175	<b>Hrs.</b> 3 3 3 3 3	<b>Freshman Year</b> Humanities Elective (B) HIST 119/120 (C) Natural Science Elective (D) Foreign Language (A) Health and Wellness (F)	<b>Hrs.</b> 3 3 3 3 2/3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>14/15</b>
<b>Sophomore Year</b> ACCT 200* ECON 202* (C) CIS 243** FIN 161* (C) Foreign Lang. (If needed) (A)	<b>Hrs.</b> 3 3 3 3 3	<b>Sophomore Year</b> ACCT 201* ECON 203* ECON 206* MGT 210** MKT 220**	<b>Hrs.</b> 3 3 3 3 3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Junior Year</b> ENG 200 (B) MGT 361/ENG 306 MKT 321 ECON 306** MGT 200**	<b>Hrs.</b> 3 3 3 3 3	<b>Junior Year</b> ENG 300 (A) Humanities Elective (B) Nat. Sci. w/Lab Elective (D) FIN 330** MKT 331	<b>Hrs.</b> 3 3 3 3 3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Senior Year</b> MKT 322 MKT 421 MGT 314** World Cultures Elective (E) MKT 325	<b>Hrs.</b> 3 3 3 3 3	<b>Senior Year</b> MKT 328 MKT 422 Professional Elective Marketing Elective MGT 498/ENT 496** MKT 499	<b>Hrs.</b> 3 3 3 3 3 1
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>16</b>
<i>(A-F) Denotes General Education Category.</i>			
<i>* Denotes required Pre-Admission Core Business Course</i>			
<i>** Denotes required Business Core Course</i>			



# College of Education and Behavioral Sciences



The College of Education and Behavioral Sciences is composed of the School of Teacher Education and the Departments of Counseling and Student Affairs; Educational Administration, Leadership, and Research; Military Science and Leadership; and Psychology. In addition, the College provides services to the community through the Green River Regional Educational Cooperative; the Center for Excellence in School Reform; the Center for Gifted Studies; Training and Technical Assistance Services; the Center for Environmental Education and Sustainability; the Center for Excellence in Teaching and Learning – Models in Innovation; the Center for Literacy; the Center for Innovation in Math, Science, and Technology Educational Excellence; and the Kelly Autism Program and the Family Counseling Clinic, both housed in the Suzanne Vitale Clinical Education Complex. The College also houses the Center for the Study of Lifespan Development.

Within the College undergraduate and/or graduate programs are offered in educational leadership, school counseling, mental health counseling, marriage and family therapy, student affairs, educational administration, elementary education, business and marketing education, gifted studies, middle grades education, secondary education, science and mathematics education, environmental education, interdisciplinary early childhood education, exceptional education, library media education, literacy education, adult education, military science, general psychology, clinical psychology, industrial/organizational psychology, experimental psychology, and school psychology. The College's programs are designed to prepare graduates for roles as teachers and school leaders, as well as for roles in business, clinical agencies, government, and industry. In conjunction with the ROTC program, the College provides well-educated commissioned officers to serve in the Regular Army, the Army National Guard, and the U.S. Army Reserves.

Baccalaureate programs (undergraduate majors and minors) in these areas are described in this catalog, while information about master's, education specialist, and doctoral degree programs is provided in the Graduate Studies catalog. Those interested in any of these programs should contact the head of the appropriate department or the College of Education and Behavioral Sciences Dean's Office. In addition, information about each department and program may be found on the College's website: <http://www.wku.edu/cebs>.

## Teacher Education Programs

The College of Education and Behavioral Sciences offers programs that are specifically designed for the professional growth of teachers and school leaders. These programs encompass the pre-service, in-service, and continuing education aspects of teachers' professional preparation. Within this framework the programs serve to develop positive attitudes toward the profession of teaching, skills in specific areas, and skills and techniques necessary for continuous professional growth.

While the College of Education and Behavioral Sciences assumes primary responsibility for the professional preparation of teachers, the opportunity to educate teachers for the schools of the Commonwealth and the nation is shared by the University as a whole. Western Kentucky University is a charter member of the Renaissance Group for Teacher Education, which reflects its total campus commitment to quality teacher education programs.

The College's teacher preparation programs are designed to meet the University's standards for baccalaureate degrees and the Kentucky standards for the designated teaching certificate. If the requirements for certification are changed at the state level, students seeking certification may be required to modify their programs of study to meet

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the new requirements. All teacher certification programs are accredited by Kentucky's Education Professional Standards Board and the National Council for the Accreditation of Teacher Education.

All professional education courses require completion of field experiences in appropriate off-campus settings. Details about the field placement policy, including the requirements for approval to be placed in a field setting, are provided on the website for the Office of Teacher Services (<http://www.wku.edu/teacherservices>).

For the most current information on teacher education and certification, admission to professional education, and admission to student teaching, consult the website for the Office of Teacher Services: <http://www.wku.edu/teacherservices>. Other policies applicable to students in teacher education programs may be found here: <http://www.wku.edu/cebs/programs/undergraduate/policies/>.

**The following are required of all students seeking admission to professional education:**

1. File an application for admission to professional education.
2. File a statement indicating no convictions or pending charges on a felony or a sexual misconduct misdemeanor.
3. Submit documentation of a completed physical exam, TB test, and thumbprint criminal background check, all dated within one year prior to admission to teacher education.
4. Submit an appropriate photograph for the teacher admission file.
5. File a statement indicating a commitment to uphold the Professional Code of Ethics for Kentucky School Personnel.
6. Complete teacher admission standardized testing requirement for demonstration of basic skills by satisfying the indicated cut-off score(s) for one of the following:
  - The Enhanced American College Test (ACT) with a minimum composite score of 21
  - The Scholastic Aptitude Test (SAT) with a minimum composite score of 1500
  - The Pre-Professional Skills Test (PPST) with minimums of 173 in Mathematics, 173 in Reading, and 172 in Writing
  - The Graduate Record Exam (GRE) with a minimum Verbal + Quantitative total of 800 and an Analytical Writing score of at least 3.5, or a minimum GAP score (undergraduate GPA multiplied by GRE V+Q) of 2200 and an Analytical Writing score of at least 3.5

**Required of undergraduate students** (*in addition to the requirements for all students*):

1. Attend a Teacher Education Admissions Orientation session.
2. Achieve the required minimum GPA of 2.5 overall.
3. Demonstrate proficiency in oral communication by attaining a minimum grade of "C" in COMM 145 or 161 (or approved equivalent course).
4. Demonstrate proficiency in written communication by attaining a GPA of at least 2.5 in ENG 100 and ENG 300 (or approved equivalent courses), with neither grade lower than a C" (English credit earned with an Advanced Placement score of 3 or higher, ACT English score of 29, SAT Verbal score of 620, or CLEP proficiency will be accepted as equivalent to a "B").
5. Obtain three favorable faculty recommendations.
6. If not on iCAP, submit a copy of an approved written degree program for a program leading to initial certification.

**Required of applicants seeking a second baccalaureate degree or certification-only for initial certification** (*in addition to the requirements for all students*):

1. Document a minimum overall GPA of at least 2.5 (counting all course work completed at the time of admission to teacher education), or a minimum GPA of at least 3.0 in the last 60 hours.
2. Demonstrate proficiency in oral communication, either by attaining a minimum grade of "C" in COMM 145 or 161 (or approved equivalent course); OR by documenting a minimum undergraduate degree GPA of at least 2.5.
3. Demonstrate proficiency in written communication, either by attaining a GPA of at least 2.5 in ENG 100 and ENG 300 (or approved equivalent courses), with neither grade lower than a C" (English credit earned with an Advanced Placement score of 3 or higher, ACT English score of 29, SAT Verbal score of 620, or CLEP proficiency will be accepted as equivalent to a "B"); OR by documenting a minimum undergraduate degree GPA of at least 2.5.
4. Obtain three favorable faculty recommendations.
5. Submit a copy of an approved written degree program or certification-only program for a program leading to initial certification.

**Required of graduate students seeking initial certification** (*in addition to the requirements for all students*):

1. Document a minimum overall GPA of at least 2.5 (counting all course work completed at the time of admission to professional education), or a minimum GPA of at least 3.0 in the last 60 hours.
2. Submit a copy of an approved program of studies (Form B/C) for a program leading to initial certification.

**WKU is approved to offer the following programs:**

1. Bachelor of Science in Elementary Education (grades P-5) leading to certification.
2. Bachelor of Science in Middle Level Education in Social Studies and Language Arts (grades 5-9) leading to certification in English/Communications and/or Social Studies.
3. Bachelor of Science in Science and Mathematics Education, leading to certification for middle school (grades 5-9) or secondary (grades 8-12) mathematics or science certification when combined with one of the following majors:
  - o Middle Grades Mathematics
  - o Middle School Science Education
  - o Biological Science
  - o Mathematics
  - o Chemistry
  - o Earth and Space Science
  - o Physics
4. Bachelor of Science in Interdisciplinary Early Childhood Education (birth to primary age), leading to certification.
5. Program of study in Secondary Education (grades 8-12) leading to certification with the following academic majors:
  - o English for Secondary Teachers
  - o Social Studies (includes Economics, Geography, Government, History, Psychology, Sociology)
6. Program of study in Middle/Secondary Education (grades 5-12) leading to certification with the following academic majors:
  - o Agriculture Education
  - o Business and Marketing Education
  - o Family and Consumer Sciences Education
  - o Technology Education
  - o Industrial (Vocational, Career, and Technical) Education
7. Program of study in Comprehensive Education (grades P-12) leading to certification with the following academic majors:
  - o Art Education
  - o Modern Languages Education, including French, German, Spanish
  - o Music Education
  - o Physical Education
  - o Exceptional Education, Learning and Behavior Disorders and Moderate and Severe Disabilities
8. Program of study in Comprehensive Education (grades P-12) leading to certification with the following academic minor (also requires completion of a teacher certifiable major):
  - o Health Education
9. An endorsement may be obtained in the following area:
  - o Teaching English as a Second Language (TESL)
10. Bachelor of Science in Communication Disorders with academic preparation for graduate study.

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**Expiration of Courses and Programs Leading to Teacher Certification**

***Undergraduate certification-only programs:*** A student who entered WKU as a beginning freshman or transfer student Fall 2005 and thereafter (i.e., iCAP-eligible students) will be allowed seven consecutive years from the student's catalog term (initial term of entry) to complete teacher certification requirements. The Dean of the College of Education and Behavioral Sciences may grant an extension to this deadline.

***Undergraduate courses used to satisfy requirements in programs leading to teacher certification:*** Approved courses for programs leading to teacher certification must be aligned with current standards. Some older courses are not aligned with current standards, and thus it may not be appropriate to count them in a student's program. Generally speaking, professional education and "content" courses used to satisfy program requirements in programs leading to professional education certification should be no more than 10 years old. Decisions about whether older courses may be used will be made on a case-by-case basis by the department head of the student's major. Students who wish to use courses taken more than 10 years ago to satisfy program requirements may be required to demonstrate proficiency related to current course content and learning outcomes.

### Advising for Teacher Education Programs

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Elementary Education majors and Middle Level Education in Social Studies and Language Arts majors receive advising in the School of Teacher Education (1092 GRH, 745-5414). Business and Marketing Education majors are advised in the Office of Teacher Services (2052 GRH, 745-4897). Majors in secondary education programs (Grades 8-12, 5-12, and P-12) are advised in the departments of their content areas as well as in the Office of Teacher Services. Majors in Science and Mathematics Education are advised in the SKyTeach Office (TCCW 105, 270 745-3900). Majors in Interdisciplinary Early Childhood Education and Exceptional Education are advised in the School of Teacher Education, and Communication Disorders majors are advised in the Department of Communication Disorders.

### Recommendation for Initial Teacher Certification

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To be recommended for initial certification at the baccalaureate level (including post-baccalaureate certification-only programs), an applicant must document:

- Completion of approved teacher preparation program in each desired certification area(s);
- Passing score(s) on the PRAXIS II exam(s) or other assessments required for each desired teaching area(s) (see <http://www.kyepsb.net/assessment/teachertests.asp> for the most current list of required assessments);
- Achievement of at least a 2.5 GPA overall, in each major(s) and minor(s), and in professional education courses; and
- Attainment of at least a “C” in all professional education courses, including EDU 489 and student teaching.

### Transfer Credit for Teacher Education

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If determined to be equivalent, professional education courses completed at another institution may be accepted for transfer to Western Kentucky University teacher preparation programs provided that a minimum grade of “C” was earned in each course accepted for transfer.

### Field Experience Policy

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WKU undergraduate teacher preparation programs are designed to meet the University’s standards for baccalaureate degrees and the Kentucky standards for the designated teaching certificate. All undergraduate professional education programs require completion of field experiences in appropriate off-campus settings as well as student teaching. The number of required hours of field experiences varies by program; however, a minimum of 75 hours of off-campus field experience is required in professional education courses. In addition, all programs require one 16-week or two 8-week full-time student teaching placements, totaling at least 430 hours. Every effort is made to provide teacher candidates with field experiences in diverse settings (based on socioeconomic status, race/ethnicity, language, and exceptionalities of students) in order to ensure that they are prepared to help all students learn. Prior to visiting any school, a student must have on file in the Office of Teacher Services a current TB test, a current physical exam, and a current Kentucky criminal background check. **Students are responsible for the expenses incurred in complying with this requirement.**

### Professional Education Requirements

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Professional education requirements for all programs leading to initial certification at the baccalaureate level may be found in the following table:

Certification Area	Professional Education Courses
<b>Interdisciplinary Early Childhood Education (B.S.), Birth to Primary</b>	Contact program advisor at 745-2317.
<b>Elementary Education, P-5</b> (Contact advisor in the School of Teacher Education, 745-5414.)	EDU 250 Instruction to Education (3) LTCY 320 The Teaching of Reading (3) PSY 310 Educational Psychology: Development and Learning (3) EXED 330 Intro to Exception Ed: Diversity in Learning (3) ELED 345 Teaching Strategies for Elementary Teachers I (3) ELED 355 Student Diversity in the Classroom (3) ELED 365 Strategies for Elementary Teachers II (3) ELED 405 Teaching Mathematics in the Elementary School (3) ELED 406 Teaching Science in the Elementary School (3) ELED 407 Materials/Methods in Social Studies (3) LTCY 420 Reading in the Primary Grades (3) ELED 465 Senior Projects in Elementary Education (3) EDU 489 Student Teaching Seminar (3) ELED 490 Student Teaching (10)
<b>Middle Level Education in Social Studies and Language Arts</b> (Contact advisor in the School of Teacher Education, 745-5414.)	MGE 275 Middle Grades Foundations (3) PSY 310 Educational Psychology: Development and Learning (3) CS 145 or CIS 141 OR LME 448 (computer literacy) (3) EXED 330 Intro to Exceptional Ed: Diversity in Learning (3) PSY 421 Psychology of Early Adolescence (3) <b>OR</b> PSY 422 Adolescent Psychology (3) LTCY 421 Content Area Reading in the Middle and Secondary Grades (3) MGE 475 Teaching Language Arts (3) <b>AND/OR</b> MGE 481 Teaching Social Studies (3) MGE 385 Middle Grades Teaching Strategies (3) EDU 489 Student Teaching Seminar (3) MGE 490 Student Teaching (10)
<b>English/Language Arts, 8-12</b> <b>Social Studies, 8-12</b> (Contact advisor in department of content area and secondary education advisor in the Office of Teacher Services.)	EDU 250 Introduction to Education (3) PSY 310 Educational Psychology: Development and Learning (3) SEC 351 Teaching Strategies for Secondary Schools (3) SEC 352 Planning for Student Diversity (3) SEC 453 Management of Instruction (3) SEC 472-483 Teaching of XXX (3) EDU 489 Student Teaching Seminar (3) SEC 490 Student Teaching (10)
<b>Middle School Mathematics, 5-9</b> <b>Middle School Science, 5-9</b> <b>Biological Science, 8-12</b> <b>Mathematics, 8-12</b> <b>Physics, 8-12</b> <b>Chemistry, 8-12</b> <b>Earth and Space Science, 8-12</b>  (Contact advisor in the SKyTeach office, TCCW 105, 745-3900.)	SMED 101 Intro to Inquiry-Based Approaches/Teaching (1) SMED 102: Intro to Inquiry-Based Lesson Design (2) SMED 210: Knowing & Learning in Math & Science (3) SMED 320: Classroom Interactions (3) EXED 330: Intro to Excep Ed: Diversity in Learning (3) SMED 340: Perspectives on Mathematics & Science (3) SMED 360: Research Methods for Math & Science Teachers (3) SMED 470: Project-Based Instruction (3) SMED 489: Student Teaching Seminar (3) MGE/SEC 490 Student Teaching (10)
<b>Art Education, P-12</b>	Contact advisor in the Department of Art, 745-7052.
<b>Modern Languages Education, (French, German, Spanish) P-12</b>	EDU 250 Introduction to Education (3) PSY 310 Educational Psychology: Development and Learning (3) EXED 330 Intro to Exceptional Ed: Diversity in Learning (3) SEC 351 Teaching Strategies for Secondary Schools (3) SEC 453 Management of Instruction (3) SEC 474 Teaching Foreign Language (3 hours) <b>OR</b> MLNG 474 Teaching Foreign Lang. [Modern Lang. Majors Only] (3) EDU 489 Student Teaching Seminar (3) SEC 490 Student Teaching (10)
<b>Music Education (Instrumental, Vocal, Integrated), P-12</b>	Contact advisor in the Department of Music, 745-5920.
<b>*Health Education Minor, P-12</b>	Contact advisor in department of content area.
<b>Physical Education, P-12</b>	Contact advisor in the Department of Kinesiology, Recreation, and Sport (745-3347) and education advisor in the Office of Teacher Services.
<b>Exceptional Education Learning and Behavior Disorders and Moderate and Severe Disabilities</b>	Contact advisor in the School of Teacher Education, 745-5414.

<b>Certification Area</b>	<b>Professional Education Courses</b>
<b>Agriculture Education, 5-12</b> (Contact advisor in Department of Agriculture, 745-3151 and advisor in the Office of Teacher Services.)	EDU/AGED 250 Intro to Education (3) PSY 310 Educational Psychology (3) EXED 330 Intro to Exceptional Education (3) AGRI 398 Seminar in Agricultural Ed (1) AGED 470 Methods in Teaching Ag Ed (3) AGED 471 Organization and Planning in Ag Ed (3) EDU 489 Student Teaching Seminar (3) SEC 490 Student Teaching (10)
<b>Business and Marketing Education, 5-12</b> (Contact advisor in the Office of Teacher Services.)	EDU 250 Introduction to Education (3) EXED 330 Introduction to Exceptional Education (3) PSY 310 Educational Psychology (3) SEC 351 Teaching Strategies (3) SEC 352 Planning for Diversity (3) SEC 453 Management of Instruction (3) SEC 473 Teaching Business/Marketing Ed (3) EDU 489 Student Teaching Seminar (3) SEC 490 Student Teaching (10)
<b>Family and Consumer Sciences Education, 5-12</b> (Contact advisor in Department of Consumer and Family Sciences, 745-4352.)	EDU 250 Introduction to Education (3) MGE 275 Foundations of Middle Grades Instruction (3) PSY 310 Educational Psychology (3) SEC 351 Teaching Strategies (3) SEC 352 Planning for Diversity (3) LTCY 421 Content Area Reading in the Middle and Secondary Grades (3) EDU 489 Student Teaching Seminar (3) SEC 490 Student Teaching (5) MGE 490 Student Teaching (5)
<b>Technology Education, 5-12</b> (Contact advisor in the Department of Architecture and Manufacturing Sciences, 745-4433.)	AMS 331 Methods in Vocational Education (3) AMS 329 Foundations of Indus, Voc, Career Ed (3) PSY 310 Educational Psychology (3) AMS 333 Instructional Media in Indus, Voc, Technical Ed (3) LTCY 421 Content Area Reading in the Middle and Secondary Grades (3) EXED 330 Intro to Exceptional Ed (3) EDU 489 Student Teaching Seminar (3) SEC 490 Student Teaching (10)
<b>Industrial (Vocational, Career, and Technical) Education, 5-12 B.S. and A.S. Degrees.</b>	Contact advisor in the Department of Architecture and Manufacturing Sciences, 745-4433.
<b>Speech and Communications Disorders (B.S.) P-12</b> (Not certifiable at baccalaureate level)	Contact advisor in the Department of Communication Disorders, 745-4541.

## School of Teacher Education

The School of Teacher Education provides graduate and undergraduate programs in elementary education, middle grades education, secondary education, science and mathematics education, exceptional education, interdisciplinary early childhood education, literacy education, and library media education. Undergraduate majors offered are: elementary education; business and marketing education; exceptional education: learning and behavioral disorders and moderate and severe disabilities; interdisciplinary early childhood education; middle level education in social studies and language arts; and science and mathematics education.

Elementary Education majors and Middle Level Education in Social Studies and Language Arts majors receive advising in the School of Teacher Education (1092 GRH, 745-5414). Business and Marketing Education majors are advised in the Office of Teacher Services (2052 GRH, 745-4897). Majors in secondary education programs (Grades 8-12, 5-12, and P-12) are advised in the departments of their content areas as well as in the Office of Teacher Services. Majors in Science and Mathematics Education are advised in the SKyTeach Office (TCCW 105, 270 745-3900). Majors in Interdisciplinary Early Childhood Education and Exceptional Education are advised in the School of Teacher Education. Refer to the table in the Teacher Education section of this catalog and the School of Teacher Education website for further information (<http://www.wku.edu/ste>).

### Major in Elementary Education

The elementary education program (reference number 527) leads to the Bachelor of Science degree and the Kentucky Elementary Certificate (P-5). The program requires completion of a general education component, related studies component, and professional education component. While students follow university guidelines in completing the general education component, a speech course and biological science course with laboratory are specifically included within this 44 semester hour requirement. The related studies component consists of 36 semester hours and includes the following courses: MATH 205, MATH 206, MATH 308, LME 318, ENG 302, EXED 330, ART 310, MUS 311, MUS 314, PE 354, GEOG 451 or HIST 456, and a computer literacy course selected from CS 145, CIS 141, or LME 448. The professional education component is 46 semester hours and is sequenced as follows: EDU 250, PSY 310, LTCY 320, ELED 345, ELED 355, ELED 365, ELED 407, LTCY 420, ELED 465, ELED 405, ELED 406, EDU 489, and ELED 490. Within the professional education sequence, students are also required to have a minimum of 150 clock hours of laboratory experience in addition to coursework. At least 75 clock hours of this laboratory work will be in field experiences away from the main university campus.

Elementary Education candidates may receive academic advising in the School of Teacher Education, GRH 1092, (270) 745-5414. Refer to the School of Teacher Education website (<http://www.wku.edu/ste>) for additional information.

### Major in Middle Level Education in Social Studies and Language Arts

The Middle Level Education in Social Studies and Language Arts program (reference number 5001) leads to the Bachelor of Science degree and certification for grades 5-9 in Social Studies, Language Arts/Communication, or both. Three concentrations are available: 1) Dual area teacher certification in middle level social studies and language arts/communication; 2) Single area teacher certification in middle level social studies; 3.) Single area teacher certification in middle level language arts/communication.

The program requires completion of:

- A biological science course and a physical science course, generally taken as part of general education coursework;

**Dr. Sherry Powers, Director and Associate Dean**

**Gary A. Ransdell Hall**

**Office 1092, Phone: (270) 745-5414**

**Fax: (270) 745-6322**

**Website: <http://www.wku.edu/ste>**

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**Professional in Residence:** R. Tyler

**Transitional Retirees:** J. Ferguson, R. Roberts, V. Stayton

- 37-40 semester hours of professional education courses: MGT 275 (3 hours), PSY 310 (3 hours), EXED 330 (3 hours), PSY 421 or 422 (3 hours), LTCY 421 (3 hours), MGE 385 (3 hours), a 3-hour MGE methods course for each area of certification, MGE 490 (10 hours), and EDU 489 (3 hours), plus a 3-hour computer literacy course selected from CS 145, CIS 141, and LME 448; and
- The indicated content-area coursework for dual area or single area teacher certification in one of the three concentrations.

**Concentration 1: Dual area certification in middle level social studies and language arts/communication.**

Students who choose this concentration must complete both of the following methods courses as part of the professional education coursework listed above: MGE 475 Teaching Language Arts (3 hours) and MGE 481 Teaching Social Studies (3 hours). In addition, they must complete the following content requirements:

*Social Studies (dual area certification) 27-30 hours:* HIST 119 or 120, HIST 240, 241, GEOG 110, 360, ECON 150 or 202 and 203, PS 110, SOCL 100 or ANTH 120, and a 3-hour elective selected from an upper-division, non U.S., non-European history course.

*Language Arts/Communication (dual area certification) 24 hours :* ENG 100, 300, 302, 390, COMM 145 or 161, LME 407. In addition, six hours of electives should be chosen from ENG 301, 401, 410.

**Total Hours for this concentration: 91-94**

**Concentration 2: Single area teacher certification in middle level social studies**

Students who choose this concentration must complete MGE 481 Teaching Social Studies (3 hours) as part of the professional education coursework listed above. In addition, they must complete the following content requirements:

*Social Studies (single area teacher certification) 36-39 hours:* HIST 119 or 120, HIST 240, 241, GEOG 110, 360, ECON 150 or ECON 202 and 203, PS 110, SOCL 100 or ANTH 120. In addition, 12 hours of electives (4 courses) should be selected from the following list (at least one of these courses must be a non U.S., non-European history course): HIST 305, 306, 307, 317, 353, 358, 456, 453, GEOG 330, 350, 451, 480.

**Total Hours for this concentration: 73-76**

**Concentration 3: Single area teacher certification in middle level language arts/communication.**

Students who choose this concentration must complete MGE 475 Teaching Language Arts (2 hours) as part of the professional education coursework listed above. In addition, they must complete the following content requirements:

*Language Arts/Communication (single area teacher certification) 33 hours:* ENG 100, 300, 301, 302, 304, 390, 401, 404, 410, COMM 145 or 161, LME 407.

**Total Hours for this concentration: 70**

Students must be admitted to professional education before enrolling in LTCY 421. See <http://www.wku.edu/teacherservices> for details on the requirements for admission to professional education.

In order to meet the prerequisites for admission to student teaching, students must complete all professional education and content courses with grades of "C" or higher; attain at least a 2.5 GPA overall, in professional education courses, and in each content area; and achieve specified ratings on dispositional and critical performance assessments. For details on the prerequisites for student teaching, see [http://www.wku.edu/teacherservices/student\\_teaching/index.php](http://www.wku.edu/teacherservices/student_teaching/index.php).

Students in the Middle Level Education in Social Studies and Language Arts program receive advising in the School of Teacher Education, GRH 1092,(270) 745-5414. Refer to the School of Teacher Education website (<http://www.wku.edu/ste>) for additional information. Students with a major in Middle Level Education in Social Studies and Language Arts receive a 12-hour waiver in the upper-division hour requirement in the major field.

Individuals who have or are eligible for certification in middle school math or science and who wish to seek either middle level social studies or middle level language arts/communication certification are required to complete the content coursework indicated for dual area certification with the corresponding methods course and LTCY 421.

**Certificates and Programs, Grades 5-12**

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Refer to the table in the Teacher Education section of this catalog for required professional education courses for each of the following programs.

**Agriculture Education:** offered in Department of Agriculture, Ogden College of Science and Engineering.

**Business and Marketing Education:** offered in the School of Teacher Education.



**Family and Consumer Sciences Education:** offered in the Department of Family and Consumer Sciences, College of Health and Human Services.

**Technology Education:** offered in the Department of Architectural and Manufacturing Sciences, Ogden College of Science and Engineering.

**Industrial (Vocational, Career, and Technical) Education:** offered in the Department of Architectural and Manufacturing Sciences, Ogden College of Science and Engineering.

### Major in Business and Marketing Education

The major in business education (reference number 621) requires 82 hours and leads to a Bachelor of Science degree. No minor or second major is required.

This major prepares students for certification in all business and marketing subjects in grades 5-12. The program carries the Kentucky Business and Marketing Certification.

Students in this program must complete the program of study in secondary education plus EXED 330. The business and marketing content courses (48 semester hours) are as follows: ACCT 200 and 201; ECON 202 or ECON 203; BE 210; CIS 243; FIN 261 or FACS 310; MGT 210; OST 220C or OST 221C, 255C; BUS 226C or MGT 200; BE 310, 350, 410, and 486; MKT 220 and one marketing elective selected from MKT 321, 323, 324, 326 or 327. Business and Marketing Education candidates may receive academic advising in the Office of Teacher Services, 2051 GRH, (270) 745-6249. Additional information may be found on the website for the School of Teacher Education: <http://www.wku.edu/ste>.

### Program of Study in English for Secondary Teachers (Grades 8-12) and Social Studies (Grades 8-12)

Preparation for secondary certification in the content areas of English and in Social Studies involves completing the Bachelor of Arts degree and all requirements for a Kentucky secondary certificate (grades 8-12), including a minimum of 31 semester hours of professional education course work. Required courses are SEC 351, 352, 453, and 490; EDU 250 and 489; a methods course for each certification area; PSY 310; and all requirements for the English for Secondary Teachers major or the major in Social Studies. Required courses for these majors are described in the respective catalog sections for the Department of English and the Department of History.

Students with sophomore standing are eligible to enroll in secondary education courses. They may enroll in EDU 250 by itself or concurrently with PSY 310. Application for admission to teacher education is made during the semester in which EDU 250 is taken. The next two courses, SEC 351 and 352, are junior level courses. The remaining courses (SEC 453, a methods course, EDU 489, and student teaching) are taken during the senior year. Students are required to have 150 clock hours of field experiences in addition to coursework.

Students are expected to work closely with their major advisor and their professional education advisor. Secondary certification candidates may receive academic advising in the Office of Teacher Services, GRH 2051, (270) 745-6249. Refer to the School of Teacher Education website for additional information: <http://www.wku.edu/ste>.

### Major in Science and Mathematics Education (SMED)

Students who wish to be science or mathematics teachers in middle or secondary schools must complete the major in Science and Mathematics Education (SMED), offered in the School of Teacher Education, and at least one content major from the following list (consult the catalog listing for the respective department for information about the requirements for the content majors):

Middle Grades Mathematics (Grades 5-9)	Department of Mathematics
Middle School Science Education (Grades 5-9)	Department of Physics
Biology (Grades 8-12)	Department of Biology
Chemistry (Grades 8-12)	Department of Chemistry
Earth and Space Science (Grades 8-12)	Department of Geography and Geology
Mathematics (Grades 8-12)	Department of Mathematics
Physics (Grades 8-12)	Department of Physics

Students seeking certification in middle grades (5-9) or secondary grades (8-12) must complete both the science and mathematics education program (SMED, reference number 774) and one of the following: the middle school science education (MSSE) program (reference number 734), the middle grades mathematics (MGM) program (reference

number 730), or a teacher certifiable science or mathematics content major. This combination of programs leads to a bachelor's degree with a minimum of two majors. Completion of the two programs, as well as the successful completion of the current requirements to be recommended for certification, will qualify a student for Kentucky middle grades science or mathematics certification (grades 5-9), or secondary certification (grades 8-12) in one of the following approved science or mathematics secondary content fields: biology, chemistry, earth and space science, mathematics, or physics. Students seeking admission to the SMED program must earn a grade of C or higher in SMED 101 and SMED 102 and meet requirements for admission to teacher education.

Students seeking academic advising with regard to preparation as a science or mathematics teacher should contact the SKyTeach office, Thompson Complex Central Wing 105, (270) 745-3900, or refer to the SKyTeach website: <http://www.wku.edu/skyteach> for additional information.

The science and mathematics education program requires completion of 34 hours of professional education courses. The recommended general education mathematics course is either MATH 117 or 118. The required courses are:

- SMED 101: Introduction to Inquiry-Based Approaches to Teaching (1 hour)
- SMED 102: Introduction to Inquiry-Based Lesson Design (2 hours)
- SMED 210: Knowing and Learning in Mathematics and Science (3 hours)
- SMED 320: Classroom Interactions (3 hours)
- EXED 330: Intro to Exceptional Education: Diversity in Learning (3 hours)
- SMED 340: Perspectives on Science and Mathematics (3 hours)
- SMED 360: Research Methods for Science and Math Teachers (3 hours)
- SMED 470: Project-Based Instruction (3 hours)
- SMED 489: Student Teaching Seminar (3 hours)
- \*MGE/SEC 490: Student Teaching (10 hours)

*\*MGE 490 for students seeking middle grades certification or SEC 490 for students seeking secondary certification.*

### **Comprehensive Certificates, Grades Primary through 12**

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Refer to the table in the Teacher Education section of this catalog for required professional education courses for each of the following programs.

**Art:** offered in the Department of Art - Potter College of Arts and Letters

**French:** offered in the Department of Modern Languages - Potter College of Arts and Letters

**German:** offered in the Department of Modern Languages - Potter College of Arts and Letters

**Health Minor:** offered in the Department of Public Health - College of Health and Human Services

**Music:** offered in the Department of Music - Potter College of Arts and Letters

**Physical Education:** offered in the Department of Kinesiology, Recreation, and Sport - College of Health and Human Services

**Spanish:** offered in the Department of Modern Languages - Potter College of Arts and Letters

### **Major in Exceptional Education**

#### **Learning and Behavior Disorders and Moderate and Severe Disabilities**

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The program of study leading to the Bachelor of Science degree in Exceptional Education, Learning and Behavior Disorders (LBD) and Moderate and Severe Disabilities (MSD) in grades P-12 (reference number 553), is a dual certification program in compliance with 704 KAR 20:235. Required courses are: EDU 250, EXED 330, (Grade of B or higher), LME 318, LME 448, PSY 310, LTCY 320, EXED 331, 332, 333, 334, 415, 416, 417, 418, 419, 422, 430, 431, 432, 433, 434, and 490. The student must meet the general academic proficiency requirement of Teacher Admissions no later than the semester of enrollment in EXED 331, EXED 333, 419 and 432. Enrollment in EXED 332, 334, 415, 416, 417, 418, 422, 430, 431 and 433 is permitted only after admission to both Professional Education and Exceptional Education.

Each level in the program sequence has standards for both the required exhibits for the cumulative portfolio as well as critical performance indicators. Because each critical performance is the foundation for succeeding tasks, the student should take the courses in the following sequence: Semester 1 (in the program): PSY 100; Semester 2: EDU 250; Semester 3: PSY 310; Semester 4: LTCY 320, EXED 330; Semester 5: EXED 331, EXED 333, 432, 419. The student must be admitted to Professional Education in order to be formally admitted to the dual EXED LBD and MSD major and the five course block sequence, EXED 332, 334, 422, 430, 431 and 433. The last sequence of coursework prior to admission to student teaching (EXED 434 and EXED 490) is EXED 415, 416, 417, 418 and 431.

The student must have met or exceeded the standards for both the portfolio and critical performance indicators, and completed all EXED coursework, prerequisite courses EDU 250 (B or higher), PSY 310 and Specialty Coursework –

MATH 211, MATH 212, LME 448, LME 318/407, LTCY 320 (with no grade lower than a “C”) prior to enrollment in EXED 434 and EXED 490 (Student Teaching Semester).

Additional information about the EXED major, including the required course sequence and undergraduate information handbook, can be found on the program website in the School of Teacher Education (<http://www.wku.edu/ste>).

### **Major in Interdisciplinary Early Childhood Education**

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The major in interdisciplinary early childhood education (reference number 526) requires 68-75 hours and leads to a Bachelor of Science degree. The major is designed to prepare early childhood educators to work with children, both with and without disabilities, ages birth through kindergarten, and their families. A grade of “C” or higher must be earned for all courses required for this major. No minor or second major is required. Students select either the teacher certification concentration (75 hours, which leads to initial certification for Birth-5 years) or the non-teacher certification concentration (75 hours), which leads to initial certification for Birth-5 years, or the non-certification concentration (68 hours).

Graduates of the certification concentration are eligible to apply for certification in Interdisciplinary Early Childhood Education (IECE), Birth to Primary. Graduates of this concentration are prepared for preschool and kindergarten positions in public schools, First Steps, Head Start, and other public and private agencies serving young children and families. Graduates of the non-certification concentration are prepared for preschool and kindergarten positions in private schools, Head Start, and other public and private agencies serving young children and families; or as a First Steps Service Coordinator.

Both concentrations require the following courses: FACS 191, FACS 192, FACS 295, FACS 296, FACS 294, CD 481, PE 313, EXED 330, EXED 419, EXED 422, EXED 432, LME 318, IECE 321, IECE 322, IECE 323, IECE 324, IECE 325, IECE 326, IECE 421, IECE 422, and LTCY 310. Students in the certification concentration must take IECE 490 (Infant and Toddler) Student Teaching, IECE 490 (Preschool) Student Teaching, and EDU 489. Students must be admitted to professional education prior to enrollment in IECE 324, IECE 325, and IECE 326. Student teaching occurs during the final semester of the program. Students in the non-certification concentration must take IECE 491 and IECE 489.

Additional information about the IECE major, including any curriculum changes made since the printing of this catalog, can be found on the program web site in the School of Teacher Education, (<http://www.wku.edu/ste>).

### **Minor in Library Media Education**

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The undergraduate minor in LME (reference number 411) requires a minimum of 18 semester hours of course work. The undergraduate LME minor does not lead to teacher certification as a library media specialist. Certification as a library media specialist is obtained at the master’s level. The minor does offer the basic level of Kentucky public library certification.

The minor in LME may be used as preparation for a master’s degree. An ALA-accredited master’s degree is appropriate for people who are committed to careers in college, university, or large public libraries. The WKU master’s degree in LME can be obtained with initial certification as a library media specialist at the graduate level by students who are committed to a career as a school library media specialist, but who do not hold teacher certification at the baccalaureate level. It may also be used for a professional certificate in smaller Kentucky public libraries.

The required courses (6 semester hours) for the LME minor are LME 445 Introduction to Educational Technology and LME 448 Technology Applications in Education. Elective courses (minimum of 12 semester hours) include LME 318 Children’s Literature, LME 407 Literature for Young Adults, LME 409 Selected Topics, LME 410 Storytelling, and LME 411 Creative Media Experiences for Children, and LME 475 Workshop

Courses from other colleges and universities may be transferred with approval of an LME advisor. Bluegrass Community and Technical College offers online courses in its Library Information Technology Program that may be transferred as additional electives to achieve a 24 semester hour minor in LME.

Students should contact an LME advisor for further information about the minor, transfer of appropriate courses, and career information about library and information service, or see the web site for the School of Teacher Education: <http://www.wku.edu/ste>.

### **Literacy**

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Currently there is no undergraduate major or minor in literacy. However, literacy may be an endorsement at the graduate level. At the undergraduate level literacy courses are required for teacher certification in most programs. Further information can be found on the literacy program website in the School of Teacher Education (<http://www.wku.edu/ste>).

## Department of Military Science and Leadership

The Department of Military Science and Leadership prepares well-educated students with leadership potential to serve as officers in the United States Army, the Army Reserve, or the Army National Guard through progressive, hands-on training with the Reserve Officers' Training Corps (ROTC). Academic instruction and supervision are provided by a career Army officer in the grade of Lieutenant Colonel, who serves as the department head and the Professor of Military Science (PMS). A staff of Army commissioned and non-commissioned officers assists the PMS.

Category F Health and Wellness, general education requirements are met by the MIL 101 – Military Mountaineering and Leadership course.

The military science program is voluntary and is open to both male and female students. Students do not incur a military obligation by participating in the basic course.

The military science curriculum consists of basic and advanced courses.

### Basic Course

The basic course consists of a four-semester block of instruction normally taken during the freshman and sophomore years. The emphasis in these courses is on team and leadership development, "hands-on" equipment instruction, land navigation, and leadership skills training. In order to receive credit for completing the basic course in residence at Western Kentucky University, the student must complete MIL 101, 102, 201, and 202.

The student also may gain credit for the basic course by taking MIL 210. This course is the 28-Day Leader's Training Course conducted at Fort Knox, Kentucky, and instructs students in those subjects taught during the basic course of the ROTC program.

Students with prior military service, or membership in the National Guard or Reserves, also may receive advanced placement for part of or the entire basic course, depending upon the amount and character of service performed. Regardless of the option, advanced placement, or prior military training completed, a student must complete the basic course or its equivalent to gain eligibility to enroll in the advanced course.

### Advanced Course

The advanced course is designed to commission officers for service in the United States Army, both active duty and reserve. Successful completion of the advanced course at Western Kentucky University earns the student a commission as a Second Lieutenant in the United States Army. The advanced course consists of four semester-long courses and a 33-day summer course. An additional military history course, normally taken during the junior or senior years, must also be completed prior to being fully qualified for commissioning. Advanced course students in their junior year are paid a tax-free subsistence allowance of \$450.00 per month and in their senior year, \$500.00.

The student must graduate from the Leadership Development Assessment Course (LDAC) prior to being eligible for commissioning. LDAC is normally attended during the summer break between the end of the junior and start of the senior year.

While attending LDAC, students receive training pay. The U.S. Army furnishes travel expenses to and from LDAC, uniforms, quarters, medical care, and rations during the course period.

Additionally, advanced course cadets may be eligible to attend Army schools such as Airborne, Air Assault, and Northern Warfare. They may also spend several weeks during the summer with active Army units located in Europe, Asia, and throughout the United States. These activities are voluntary, and students must meet high standards to be eligible for attendance.

The applicant for the advanced course of instruction must:

1. Be a citizen of the United States or an alien in a category approved by the Department of the Army. Approval must be granted prior to enrollment.
2. Be at least 17 years of age at the time of enrollment and not reach 30 years of age at the time of commissioning in the U.S. Army (this may be waived).
3. Be medically qualified in accordance with standards prescribed by the Department of the Army.

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4. Have satisfactorily completed the basic course or Leader's Training Course or have equivalent military or ROTC training in lieu of. Veterans holding honorable discharges may qualify for the advanced course.
5. Have a minimum overall academic average of 2.0 and have completed a minimum of 60 credit hours.
6. Be selected by the Professor of Military Science.
7. Execute a written agreement with the government to complete the two-year advanced course of training; attend LDAC; agree in writing to accept an appointment as a commissioned officer in the Army Reserve; and serve a prescribed tour of active or reserve component duty as a commissioned officer.

### Major in Military Leadership

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The major in military leadership (reference number 733) creates well-prepared, well-educated, culturally aware, dynamic leaders through interdisciplinary coursework, internships, Army training and schools, community involvement, and various leadership opportunities. The military leadership program spans up to eight semesters, during which the student is mentored and developed using emphasis on team and leadership skills training. In addition to military science courses, the student selects nine credit hours from political science, psychology, management, communications, geography, sociology, and history. With the completion of additional requirements, students may also be able to earn a certificate in leadership studies.

Although the program prepares students to be eligible for commission in the U.S. Army, program graduates are not required to seek commissions. In addition to prospective officers, non-commissioned officers and veterans may also be admitted to the major in military leadership.

Program admission requirements for those seeking a commission are:

- Be a citizen of the United States or an alien in a category approved by the Department of the Army. Approval must be granted prior to enrollment.
- Be at least 17 years of age at the time of enrollment and not reach 30 years of age at the time of commissioning in the U.S. Army (this may be waived).
- Be medically qualified in accordance with standards prescribed by the Department of the Army.
- Have a minimum overall academic grade point average of 2.0.
- Be recommended by the Professor of Military Science (department head).
- Execute a written agreement with the government to complete the two-year advanced course of training, attend the leadership development and assessment course (LDAC), agree in writing to accept appointment as a commissioned officer in the Army Reserve, and service a prescribed tour of active or reserve service component duty as a commissioned officer.

Upon completion of the program, the student will be eligible to receive a commission as a Second Lieutenant in the United States Army.

Program admission requirements for those with prior military service or those who are currently serving as non-commissioned officers not seeking a commission are:

- Be a citizen of the United States or an alien in a category approved by the Department of the Army. Approval must be granted prior to enrollment.
- Be medically qualified in accordance with standards prescribed by the Department of the Army.
- Have a minimum overall academic grade point average of 2.0.
- Be recommended by the Professor of Military Science (department head).

The major in military leadership (reference number 733) requires 36-42 hours and leads to a Bachelor of Science degree. A second major or minor is required. Students are encouraged to choose a second major related to their intended career objectives. The four-year plan for timely completion of the Military Leadership major appears on the departmental web site at <http://www.wku.edu/rotc/major.php>.

#### Program Requirements

*Basic Course (7-10 hours):* Students must take the following courses in sequential order unless authorized by the PMS: MIL 101, 102, 201, 202; OR MIL 209, 210.

*Advanced Course (17-20 hours):* Students must take the following courses in sequential order unless otherwise authorized by the PMS: MIL 301, 302, 401, 402, 410 or LEAD 400.

*Restricted Elective (3 hours):* Choose one of the following restricted electives: HIST 299 or HIST 494

*Electives (9 hours):* Select 9 hours of electives with advisor approval from the following list; at least two disciplines must be represented: PSY 355, 412, PS 250, 260, 350, 357, 363, 365, 366, 367, 368, 457, COMM 240, 461, 463, MGT 210, 419, LEAD 200, 400, HIST 426, 439, SOCL 260, 362, 375, GEOG 462, 464, 465, 466, 467.

### Minor in Military Science

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Those students who complete the advanced course may use military science as an academic minor (reference number 420). A minor in military science requires 26-30 hours depending upon the amount of advanced placement awarded the student. Required courses are MIL 101, MIL 102, MIL 201, and MIL 202; or MIL 210, or credit for the basic course through military service (i.e. completion of the Basic Course); MIL 301, MIL 302, MIL 401, MIL 402 and MIL 410 (Advanced Course).

### Simultaneous Membership Program

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This program is designed to allow selected members of the Army National Guard and Army Reserve to enroll in the Advanced Army ROTC Program. These students serve in their units as officer trainees while completing the advanced course of instruction. Upon completion of the advanced course and college graduation, they are commissioned as Second Lieutenants.

### Financial Assistance Program

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Army ROTC offers a scholarship program to provide financial assistance to outstanding young men and women who are interested in the Army as a profession. Scholarships may be awarded for periods of two, three, or four years. Four-year scholarships are awarded to selected high school applicants who plan to attend a university hosting Army ROTC. Applicants must apply prior to the deadline during their senior year in high school. Contact the Recruiting Officer for the deadline.

Two- and three-year scholarships are awarded to university sophomores or freshmen who desire to earn an officer's commission. Each scholarship provides tuition, textbooks, classroom supplies, and laboratory fees in addition to tax-free allowances of \$300.00 to \$500.00 per month. Budget dependent, four-year scholarship recipients *may* receive room and board scholarships from the University. Two- and three-year scholarship recipients may receive room scholarships from the University.

Applicants are not required to be enrolled in the ROTC program to apply. Competition is very keen and is open nationwide. Students wishing to apply for these scholarships must submit a completed application to the Department of Military Science and Leadership.

## Department of Psychology

The Department of Psychology offers courses, programs, and research opportunities that contribute to the professional and pre-professional training of psychology students and at the same time serves other departments where professional training requires knowledge of psychology. Information about the psychology major, including a recommended plan of study and curriculum changes made since the printing of this catalog, can be found on the department web site: <http://www.wku.edu/psychology>.

### Major in Psychology

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The general major in psychology (reference number 760) requires a minimum of 37 semester hours and leads to a Bachelor of Arts degree. A minor or second major is required. At least half of the program must be in upper division courses (numbered 300 or above). Requirements are PSY 100, 210, 211, 301 (prerequisite MATH 116), 361, 495, and the indicated number of hours from each of the following categories:

#### Developmental Psychology 3 hours

- PSY 321 - Child Developmental Psychology
- PSY 422 - Adolescent Psychology
- PSY 423 - Psychology of Adult Life and Aging

#### Social/Industrial-Organizational/Motivation 3 hours

- PSY 350 - Social Psychology
- PSY 370 - Industrial/Organizational Psychology
- PSY 412 - Psychology of Motivation and Emotion

**Dr. Steven J. Haggbloom, Head**

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**Transitional Retirees:** R. Greer, W. Pfohl, R. Poe, D. Roenker, J. Wilder

**Personality/Abnormal Psychology 3 hours**

- PSY 440 - Abnormal Psychology
- PSY 450 - Psychology of Personality

**Biopsychology 3 hours**

- PSY 411 – Psychology of Sensation and Perception
- PSY 480 – Physiological Psychology

**Learning/Cognition 3 hours**

- PSY 405 - Cognitive Psychology
- PSY 410 - Psychology of Learning

**Psychology Electives: 6 hours**

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**Extended Major in Psychology**

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The extended major in psychology (reference number 591) requires a minimum of 52 semester hours and leads to a Bachelor of Arts degree. No minor or second major is required. The extended major is especially appropriate for the student whose career objectives require a more comprehensive undergraduate psychology background. The extended major is designed for students who maintain a minimum 2.50 GPA both overall and in psychology. Requirements are PSY 100, 210, 211, 301 (prerequisite MATH 116), 361, 390 or 490, 495, and the indicated number of hours from each of the following categories:

**Developmental Psychology 3 hours**

- PSY 321 - Child Developmental Psychology
- PSY 422 - Adolescent Psychology
- PSY 423 - Psychology of Adult Life and Aging

**Social/Industrial-Organizational/Motivation 3 hours**

- PSY 350 - Social Psychology
- PSY 370 – Industrial/Organizational Psychology
- PSY 412 – Psychology of Motivation and Emotion

**Personality/Abnormal Psychology 3 hours**

- PSY 440 - Abnormal Psychology
- PSY 450 - Psychology of Personality

**Biopsychology 3 hours**

- PSY 411 – Psychology of Sensation and Perception
- PSY 480 – Physiological Psychology

**Learning/Cognition 3 hours**

- PSY 405 - Cognitive Psychology
- PSY 410 - Psychology of Learning

**Applied Psychology 3 hours**

- PSY 340 – Sport Psychology
- PSY 371- The Psychology of Sales Behavior
- PSY 455 – Introduction to Clinical Practice of Psychology
- PSY 422 – Beginning Skills in Psychological Interviewing
- PSY 443 – Behavior Modification
- PSY 470 – Psychology and Law
- PSY 473 – Training in Business and Industry

**Psychology Electives: 15 hours**

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**Minor in Psychology**

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The minor in psychology (reference number 438) requires a minimum of 21 semester hours including PSY 100. The minor program is designed by the student with the approval of the student's advisor. At least twelve hours of the course work must be in upper-division courses (numbered 300 or above).

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**Graduate Degree Programs**

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Graduate training can prepare psychology graduates for teaching careers in colleges or for other professional careers. A master's degree is usually the minimum level of training for teaching positions in higher education or licensure as a practicing psychologist. For students who wish to pursue professional training beyond the undergraduate level, WKU offers a Master of Arts degree with specialization in general psychology,

industrial/organizational psychology, experimental psychology, and clinical psychology; and an Education Specialist degree (Ed.S.) in school psychology.

Specific information on each of the above programs may be obtained by contacting the Department of Psychology, by consulting the Graduate Studies Catalog, or on the departmental web site: <http://www.wku.edu/psychology>. Financial support is available for outstanding graduate students.

### **Department of Counseling and Student Affairs**

The Department of Counseling and Student Affairs offers graduate courses and programs designed to prepare mental health counselors, marriage and family therapists, school counselors, and student affairs professionals. Specific information about these programs can be obtained from the Graduate Studies Catalog, or see the departmental website at <http://www.wku.edu/csa> for the most current program information.

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### **Department of Educational Administration, Leadership, and Research**

The Department of Educational Administration, Leadership, and Research offers graduate courses and programs designed to prepare school personnel for effective leadership in the elementary and secondary schools. The department also includes Educational Foundations faculty who teach courses in research methods and statistics for graduate level programs. A doctoral degree in Educational Leadership is offered in one of four tracks: Organizational Leadership, P-12 Administrative Leadership, Post-secondary Leadership, and Teacher Leadership. Specific information about the graduate programs can be obtained from the Graduate Studies Catalog, or see the departmental website at <http://www.wku.edu/ealr> for the most current program information.

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# Ogden College of Science and Engineering



Ogden College of Science and Engineering encompasses the applied and basic sciences, offering a broad range of degree programs in agriculture, biology, chemistry, computer science, construction management, engineering, geography, geology, architectural design, manufacturing sciences, mathematics, meteorology, and physics and astronomy. Ogden College also offers a cooperative doctoral program in chemistry with the University of Louisville.

In collaboration with the College of Education, Ogden College offers the SKyTeach Program for those interested in teaching science and math at middle or high school levels. This program is a replication of a nationally recognized program in teacher preparation developed at the University of Austin, Texas. WKU received \$2.4 M in funding from Exxon/Mobil through the National Mathematics and Science Initiative to develop the SKyTeach program at WKU.

Ogden College of Science and Engineering is recognized by the high quality and success of its students and graduates that result from personal attention to student professional development through engagement with faculty in projects that expand on classroom instruction. The College's mission is to create an academic environment of rigor and achievement, to cultivate a community of scholars, and to enhance interconnections among the disciplines.

Ogden College is located on the campus of an earlier education institution established in Bowling Green in 1877 as a provision in the will of Major Robert W. Ogden. The original Ogden College closed, and its properties were leased to WKU in 1928. The name Ogden reappeared when the Ogden College of Science and Technology was established within Western Kentucky University in 1965.

Those interested in more detailed information regarding programs offered by departments of the College should follow the links listed under departments or e-mail the dean of Ogden College of Science and Engineering directly.

Since 1993, students and faculty at WKU have benefited from its membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of 98 colleges and universities and a contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowships, scholarships, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, our undergraduates, graduates, postgraduates, as well as our faculty enjoy access to a multitude of opportunities for study and research. Students can participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry, and mathematics. Appointment and program length ranges from one month to four years. Many of these programs are especially designed to increase the numbers of underrepresented minority students pursuing degrees in science and engineering related disciplines.

For more information about ORAU and its programs, contact: Blaine R. Ferrell, Dean, Ogden College of Science and Engineering, ORAU counselor for WKU.

***Dr. Blaine R. Ferrell, Dean***

***Dr. Andrew Ernest, Associate Dean***

***Dr. Bruce Kessler, Associate Dean***

***Thompson Complex Central Wing  
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## Department of Agriculture

The complexity of the technological and financial structure of modern agriculture has made education increasingly important. It has also brought about a need for personnel to fill positions in various businesses and professions which support agriculture.

Processing and marketing of agricultural products and supplying of agricultural chemicals, machinery, seed, feed and other products require research, sales and service personnel who have met specific educational requirements. Governmental agencies which conduct research, extension, advisory and regulatory activities are staffed by highly trained agricultural personnel.

The Department of Agriculture strives to fill the needs of both the student who requires general technical knowledge for production agriculture and the student who needs more specialized training to pursue one of many careers. This is accomplished by offering specific curricula with enough flexibility to allow specialization within the curriculum.

Many students studying agriculture have urban backgrounds and lack farm experiences. The Department of Agriculture uses the University Farm and the Agricultural Exposition Center as integral parts of its laboratory and classroom instructional program to provide practical experiences. Internships and cooperative work experiences are encouraged for all students.

To complete the 120 semester hours required for a Bachelor of Science degree in agriculture, students must complete the basic curriculum and one of the specialization tracks. The basic curriculum includes the general education requirements and specialty support requirements as well as basic professional courses in agriculture. These concentrations are agribusiness, agricultural education, agronomy (plant science or soil science), animal science, horse science, dairy science, general agriculture, turf and golf course management, horticulture, pre-veterinary medicine and pre-forestry. These concentrations allow students to vary their course selection to better meet their particular area of interest. The student, in consultation with an assigned advisor, will choose specific courses, other than those required.

When planning a program of study, students should be aware of the University academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may include additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

Agriculture majors who follow the listed guidelines can graduate in 4 years (8 semesters) or less.

### Guidelines

1. Follow one of the undergraduate degree plans listed at the Agriculture Department website: [www.wku.edu/agriculture](http://www.wku.edu/agriculture).
2. Be advised by an assigned faculty advisor in the Department of Agriculture each semester and enroll in the courses decided upon at the advising session.
3. Excluding remedial classes, receive a passing grade for an average of 15 hours per semester for 8 semesters with a minimum 2.0 GPA and a minimum total of 120 hours, including 42 or more hours upper-division (300- and 400- level) courses. Complete the General Education requirements of the department and the university. Note specific required mathematics, biology and chemistry courses.
4. Deviation from any of these conditions might lead to the need for additional hours/courses and/or semester in order to graduate.

### Major in Agriculture (No minor or 2nd major required.)

This major in agriculture (reference number 508) requires a minimum of 50 semester hours in agriculture and leads to a Bachelor of Science degree. Agriculture courses required for the major are AGRI 108, AGRO 110, ANSC 140, AGMC 170/171, AGRI 291, AGRO 320 or ANSC 345, AGRO 350, AGEC 360, AGRI 398 (Gen), AGRI 398 (Sp) and AGRI 494. Electives chosen from agriculture courses focusing on a concentration, when approved by an assigned advisor, complete the minimum total of 50 semester hours in agriculture. No other minor or major is required for the student following the curriculum for this major in agriculture. Students are required to complete specified courses in

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**Professors:** C. Anderson, R. Gilfillen  
L. Gonzales, J. Rudolph, N. Speer,  
T. William

**Associate Professors:** M. Stone, P. Woosley  
**Assistant Professors:** F. DeGraves, S. King  
**Instructors:** R. Dennis, K. Guffey, C. Scudder  
**Transitional Retirees:** A. Bedel, J. Britt, E. Gray,  
G. Jones, D. Stiles

biology, chemistry and mathematics. At least half of the semester hours in the major must be in courses numbered 300 or above.

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### **Major in Agriculture** (Minor or 2nd major required.)

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This major in agriculture (reference number 605) requires completion of a minimum of 30 semester hours and leads to a Bachelor of Science degree. These hours must be taken in approved agriculture courses and a suitable major or minor(s) in other departments must be earned to total at least 54 approved semester hours. Agriculture courses required for a major are AGRI 108, AGRO 110, ANSC 140, AGMC 170/171, AGRI 398 (Gen.), AGRI 398 (Sp) and AGRI 494. Electives chosen by the student and approved by an assigned advisor provide sufficient credits to satisfy an option. In addition, majors are required to complete specified courses in biology, chemistry and mathematics. At least half of the semester hours in the major must be in courses numbered 300 or above.

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### **Minor in Agriculture**

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The minor in agriculture (reference number 308) requires a minimum of 18 approved semester hours in agriculture, including AGRI 494 with at least half of the courses numbered 300 or above.

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### **Associate of Science Degree in Agricultural Technology and Management**

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#### ***Turf and Golf Course Management Option***

This program (reference number 205) is a program designed for individuals interested in becoming superintendents of golf courses, athletic fields and parks and recreational facilities, lawn care professionals, and cemetery caretakers. The course of study includes the care and growing of warm and cool season grasses, turf disease management, and equipment management and maintenance. A total of 67 hours of specific courses are required for this program. The curriculum for this program is outlined in the Department of Agriculture Student Planning Manual.

#### ***General Agriculture Option***

This two-year curriculum is designed to fulfill the needs of students primarily interested in the application of modern agricultural technology (reference number 205). Agriculture courses required for the general option in this degree are AGRI 108, 269 and 398, AGRO 110, ANSC 140\*, AGMC 170/171, AGECE 365, 360 and 361. Also required are ENG 100, COMM 145 or 161, MATH 116, CHEM 105/106, a humanities course and BIOL 120/121. Electives chosen from agriculture or other supporting departments, when approved by an assigned advisor, complete the total of 64 semester hours required for this degree.

*\*Not required for Horticulture.*

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### **Teacher Certification in Agricultural Education**

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Numerous job opportunities are available for students who have completed certification for teaching agriculture education in public schools at the middle or secondary level. A 2.5 minimum grade point average in agriculture, general education and professional education is required for admission to teacher education. Students desiring to become certified to teach agriculture education in Kentucky public schools are required to have a minimum of 50 hours in agriculture including a minimum of 6 hours of plant/horticulture science, 6 hours of animal science, 6 hours of agricultural mechanics (AGMC 170/171 and 371/372), 6 hours of agricultural economics (AGECE 360 and 361), and 6 hours of soil sciences. Computer science requirement may be fulfilled by completing AGECE 365, CS 145 or CIS 141. Professional education courses required are AGED 250(EDU 250), PSY 310, EXED 330, AGRI 398E, AGED 470, AGED 471, EDU 489 and SEC 490. Student must complete 250, 310, 330, 398E before the fall semester of the senior year. AGED 470 and 471 are taught the fall semester. SEC 489 and 490 are completed the student teaching semester, usually the spring semester. Teachers hired in other states may be required to have other professional education course work according to local regulations.

## Department of Architectural and Manufacturing Sciences

### Baccalaureate Degree Programs

The Architectural and Manufacturing Sciences (AMS) Department offers five distinct degree programs. Four of these programs provide students with both a technical background and fundamental managerial skills to enable the graduate to move into a leadership position in their chosen profession. The four managerial programs follow: Advanced Manufacturing, Architectural Sciences, Construction Management, and Technology Management. The fifth degree program is Industrial (Vocational, Career, and Technical) Education. This program is designed to prepare educators for vocational education programs or for technology education in the middle and high school grades. Refer to the department web site <http://www.wku.edu/ams> for additional information regarding the curricula for each program of study.

**Mission Statement:** A&M Sciences: the best at preparing graduates for positions of leadership in industry, business, and education since 1920.

**AMS Website:** See the departmental web site <http://www.wku.edu/ams> for exciting career opportunities in the department of Architectural and Manufacturing Sciences. A semester-by-semester outline of studies is listed for all programs of study on the departmental web site.

### Major in Advanced Manufacturing

The major in Advanced Manufacturing (reference number 506) requires 74 hours and leads to a Bachelor of Science degree. Students must choose one of the following concentrations: Food Processing and Technology, Manufacturing and Industrial Distribution, or Quality Systems. This program prepares individuals to apply basic engineering principles and advanced manufacturing technical skills in support of industrial operations. The major includes instruction in optimization theory, human factors, organizational behavior, industrial processes, industrial planning procedures, systems integration, quality, and project management. Graduates achieve positions of leadership in business and industry while practicing innovation in the global marketplace.

#### Career Opportunities

Graduates obtain employment in a wide variety of positions. Some job titles of graduates include: systems integrator, industrial engineer, production manager/specialist, new product development engineer, manufacturing engineer, quality manager, quality engineer, production engineer, general manager, plant manager, industrial trainer, project manager, and technology educator.

#### Program Description

A minor or second major is not required. Course requirements for the major are shown below. Students should consult with an advisor in planning their course schedules and career goals. The program is accredited by ATMAE (the Association of Technology, Management, and Applied Engineering).

**Technical Core (19 hours):** ACCT 200, AMS 120, 163/205, 271, 328, 398, and 490

**Management Core (30 hours):** AMS 310, 356, 371, 390, 394, 396, 430, COMM 345, MGT 301, ENG 306 or 307

In addition to the coursework in the technical core and managerial core, students will pick one of the following concentrations.

**Food Processing and Technology Concentration (25 hours):** AMS 301, 303, 343, 352, 381, 395, 443, 462, and 1 hour of an advisor approved elective. The following courses are required in addition to the courses required for the major: ECON 202, MATH 117 or MATH 118 or higher, CHEM 105/106, BIOL 207/208, SFTY 171; these courses may fulfill general education requirements.

**Manufacturing and Industrial Distribution Concentration (25 hours):** AMS 217, 227, 342, 343, 370, and 10 hours of advisor approved electives. The following courses are required in addition to the courses required for the major: ECON 202, MATH 117 or MATH 118 or higher, CHEM 116, 106, PHYS 201, SFTY 171; these courses may fulfill general education requirements.

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**Fax: (270) 745-5946**

**Website: [www.wku.edu/ams](http://www.wku.edu/ams)**

**Professors:** B. Askins, G. Mills

**Associate Professors:** G. Arbuckle,

A. Doggett, N. Downing, D. Jackson,

B. Reaka

**Assistant Professors:** S. Aly,

A. Khalafallah, J. Khouryieh, L. Leach

**Quality Systems Concentration (25 hours):** AMS 217, 342, 370, 391, 392, 471, and 7 hours of advisor approved electives. The following courses are required in addition to the courses required for the major: ECON 202, MATH 117 or MATH 118 or higher, SFTY 171; these courses may fulfill general education requirements.

### **Major in Architectural Science**

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The major in Architectural Science (reference number 518) requires 83 semester hours. Architectural Science is a bridge between design theory and construction practice. Architectural Technologists perform a variety of important functions in many areas of the architectural and building construction fields and are widely recognized by professionals in the construction industry. Graduates find employment as drafters, designers, construction planners, estimators, inspectors, technical sales representatives, and many other exciting areas.

#### **Career Opportunities**

Graduates obtain employment in a wide variety of organizations: architectural firms, engineering firms, interior design firms, contractors, design-build construction firms, surveying firms, government agencies, construction product manufacturers, construction material suppliers, inspection and testing firms, specialty consultants, and computer applications consultants.

#### **Program Description**

The program in Architectural Science is designed to provide graduates with a practical architectural education combining an understanding of the philosophy of building design with an applied technical knowledge of construction systems and materials. Graduates are prepared with the knowledge and skills to assist in developing drawings and related documentation, constructing architectural models, developing architectural renderings, creating digital images and visualizations, preparing cost estimates and construction planning documentation, and making professional presentations.

Program instruction includes architectural drafting, construction methods and materials, design principles, environmental systems, building systems, building codes, structural principles, project management, sustainability, and professional presentations.

The major in Architectural Science leads to a Bachelor of Science degree. A minor or second major is not required. Course requirements for the major are shown below. Students should consult with an advisor in planning their course schedules and career goals. The program is accredited by ATMAE (the Association of Technology, Management, and Applied Engineering).

The following courses are required for the major: AMS 151, 120, 140, 163, 175, 251, 261, 262, 263, 273, 282, 305, 325, 363, 369, 371, 390, 398, 430, 463, 469, 488, 490, CE 303, 304, ENG 306 or 307, 9 hours of advisor-approved architectural science electives, and 3 hours of advisor-approved management electives. Students are also required to take the following additional courses outside of the major: AMS 180, ECON 202, MATH 117, PHYS 201, and SFTY 171; these courses may fulfill general education requirements.

### **Major in Construction Management**

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The major in Construction Management (reference number 533) leads to a Bachelor of Science degree. A minor or second major is not required. The curriculum requires a total of 128 hours: (71 technical specialty hours, 46 hours of general education, plus 11 hours of other requirements). Course requirements for the major are shown below.

Students should consult with an advisor in planning their four-year degree program. A four-year plan of study (semester-by-semester) is outlined below and on the departmental web site [www.wku.edu/ams](http://www.wku.edu/ams). The program layout is also available in the Departmental Office (ESTB 204).

The following courses are required for the major: AMS 140, 163, 261, 262, 271, 325, 398, 430, 490, CM 227, 250, 337, 346, 363, 400, 426, 462, 463, CE 160, 161, 303, 304, 316, ACCT 200, 201, MGT 301, 311, and 6 hours of advisor-approved construction management electives. Students are also required to take the following additional courses outside of the major: AMS 175, CIS 141, ENG 100, 200, 300, COMM 161, PHIL 321, HIST 119(120), ECON 150, MATH 122, CHEM 106 and 116, PHYS 201, and SFTY 171; these courses may fulfill general education requirements.

#### **Career Opportunities**

Graduates from the construction management program have many career options available to them. They may choose to work for construction management firms, general contractors, and specialty contractors serving the commercial, industrial, heavy civil, and residential construction markets. They may choose to become specialists in estimating, scheduling, safety, quality, or field supervision. Typical job titles include project manager, project engineer, office engineer, field engineer, and superintendent along with many others.

## Industrial (Vocational, Career, and Technical) Education

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The major in Industrial (Vocational, Career, and Technical) Education (reference number 599) leads to a Bachelor of Science degree. Students have the option to follow one of the two concentrations: (1) technology education and (2) industrial education. The program is designed to meet the increasing need for more and better-qualified teachers in the nation's expanding programs of vocational-industrial and technology education.

**Requirements for both concentrations (15 hours):** PSY 310, AMS 331, 329, 333, and EXED 330

**Technology Education Concentration Requirements:** AMS 330, LTCY 421, EDU 489, SEC 490, and 48 hours of technical electives

**Industrial Education Concentration Requirements:** AMS 330, 334, 435, and 48 hours of technical electives

### Curriculum Requirements

#### Industrial Education Components

Credits are selected from the specialization components of the curriculum standards for the High School Certificate Degree Program with an area of concentration in Industrial Education-Preparation and Orientation Levels (Technology Education).

Eighteen hours of credit may be earned by passing the written and performance components of the competency exam administered by the National Occupational Competency Testing Institute. The competency exam must be in the teaching field (preparation only).

Work Experience: four years of successful and appropriate occupational experience in the teaching area (two of the four years must have been within the last five years). Total 48 hours.

The following courses are required to complete the professional education component (preparation): PSY 310, AMS 329, 330, 331, 333, 334, 435, and EXED 330. The following courses are required to complete the professional education component: PSY 310, AMS 329, 330, 331, 333, 334, 435, and EXED 330. (AMS 435 must be completed for 8 hours of credit. Four years of teaching experience may substitute for 4 hours of student teaching).

## Major in Technology Management

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Technology is defined as any tool or operating system designed to improve the efficiency, quality, and competitiveness of an organization. Technology Management (reference number 575) at Western Kentucky University is a 2+2 program designed specifically for students who currently hold a certificate or associates degree from a technical school, two-year college or four-year institution. The Technology Management program is a capstone program that provides a two-year management emphasis for those working toward a supervisory position in industry. Graduates are empowered to obtain a position of leadership in business, industry or workforce development in support of innovation and global competitiveness. The program is available completely on-line or by face-to-face instruction on campus.

Transfer students with an associate degree who major in technology management receive a 15-hour waiver of the overall upper-division hour requirement.

### Career Opportunities

Graduates obtain employment in a wide variety of positions, some job titles of graduates include: systems integrator, industrial engineer, production manager/specialist, manufacturing engineer, maintenance specialist, quality manager, quality engineer, production engineer, general manager, plant manager, industrial trainer, project manager, systems analyst, shift supervisor, and technology educator.

### Program Description

Western Kentucky University provides upper-division hours both in the major and in general education toward the completion of the degree. Students take 39 hours of major courses through the Architectural and Manufacturing Sciences Department that includes 12 hours of upper-division electives approved by the advisor. Majors then take AMS, general education or elective courses to fulfill university requirements regarding the following:

- 36 hours minimum in WKU courses
- 42 hours minimum upper-division courses
- 120 hours minimum for graduation
- General education categorical requirements
- MATH 116 or equivalent

### ***Degree Requirements for Technology Management Major (54 hours)***

- 24 semester hours of advisor approved courses transferred from a technical school, college or university – 100/200 level and
- 39 semester hours – Architectural and Manufacturing Sciences Department for a total of 54 hours in the major. Major courses include: AMS 271, 310, 356, 371, 390, 394, 430, 490, ENG 307, and twelve hours of advisor-approved technical upper-division electives.

### **General Education**

- 30/31 semester hours transferred from a community college or university – 100/200 level courses and/or KCTCS (Kentucky Community and Technical College System)
- 15 semester hours from WKU, extended campus, KCVU or by correspondence – includes 15 hours of upper-division credit – 300/400

Students should consult with an advisor in planning their four-year degree program in Technology Management.

### **Minor in Construction Management**

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The minor in construction management (reference number 343) requires a minimum of 21 hours, only 9 of which can be duplicated in the student's major program of study. The student who elects a minor in construction management must complete the following courses: AMS 261, 262, CE 303/304, CM 363 or CE 360/361, and CM 462. Remaining hours shall be selected in consultation with the minor advisor.

### **Minor in Industrial Sciences**

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The minor in industrial sciences (reference number 395) requires a minimum of 18 semester hours (half of which must be upper division 300 or 400 level). The purpose of the minor in industrial sciences is to provide students with technical preparation that will support their career goals in their current major. Each program of study will include a balance of basic and advanced courses. Programs must be planned in advance with the department head.

### **Associate Degree Programs**

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Architectural and Manufacturing Sciences offers four associate degree programs. Two of the associate degrees are linked to the four-year degree programs in Architectural Sciences and Advanced Manufacturing. The third is linked to the teacher education program of study. The associate of science degrees in Architectural Drafting Technology (reference number 207) and the associate of science in Manufacturing Technology (reference number 257) are designed to be 2+2 programs with the four-year degrees in Architectural Sciences and Advanced Manufacturing. This gives students the ability to complete the two-year degree with the option of completing a four-year degree with little or no loss of credit. For more information regarding the associate degree programs in Architectural Drafting Technology and Manufacturing Technology, visit the departmental website or obtain advisement sheets in the main office of the department (ESTB 204).

### **Associate of Science Degree in Vocational/Industrial and Technical Teacher Education**

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The Vocational/Industrial and Technical Teacher Education associate degree (reference number 296) is designed to meet the increasing need for more qualified teachers in the nation's expanding programs of vocational-industrial technical education.

#### ***Curriculum Requirements***

#### **Technical Education Components**

Specialization credits are selected from the specialization components of the curriculum standards for the Provisional High School Certificate Degree Program with an area of concentration in Industrial Education-Preparation Level (advisor's approval required).

Eighteen hours of credit may be earned by passing the written and performance components of the competency exam administered by the National Occupational Competency Testing Institute. The competency exam must be in the teaching field.

Work Experience: four years of successful and appropriate occupational experience in the teaching area (two of the four years must have been within the last five years). Total 24 semester hours.

The following courses are required to fulfill the professional education component: PSY 310, AMS 329, 330, 331, 333, 334, and 435.

### Associate of Science Degree in Water Resource Management

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The associate degree in water resource management (reference number 298) requires a minimum of 60 hours. The program is designed to meet the increasing need for individuals in the fields of water and wastewater treatment to understand the broad concepts of the industry and the technical tasks required.

The following 15 hours of general education courses are required: ENGL 100C, a category B elective, PS 110C, a category C elective, and MATH 116C. The following 21 hours of core courses are required: BIOL 113/C, 207/C, CHEM 101/C, ENV 280, MATH 117/C, PHYS 101, GEOG 100/C. In addition, students must take 24 hours in a specific concentration.

*Water Technology:* WTTI 200C, 210C, 212C, 220C, 222C, 226C, 230C, 291C.

*Wastewater Technology:* WTTI 200C, 211C, 212C, 221C, 222C, 226C, 231C, 291C.

*Water Utilities Management:* WTTI 200C, UM 101C, 205, 215C, 225C, 235C, 245C, 290C.

### Certificate in Drinking Water Operations

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The certificate in drinking water operations (reference number 1715) requires 24 semester hours. This program is intended for students wishing to pursue a career in drinking water operations without completing an associate degree. The courses needed to fulfill the requirements for this certificate are WTTI 200, 210, 220, 222, 226, 230, and AMS 367.

### Department of Biology

Students interested in biology are presented with a variety of dynamic educational opportunities. These opportunities, involving diverse biological sub-disciplines from molecules to ecosystems, challenge the student of biology in one of the most exciting and eras in human history. The Department of Biology is dedicated to producing well-informed, scientifically literate graduates capable of applying the knowledge and skills acquired to ensure professional success and lifelong learning.

Undergraduate students collaborate with biology faculty on an array of interesting research topics. By applying what students have learned in the classroom to research projects, students can more smoothly make the transition to professional and graduate programs and the work force. Our novel Biotechnology Certification program is designed to provide students with technical skills for research. New state-of-the-art classrooms, research laboratories, and the Potter-Nicely Outdoor Education Center and Upper Green River Biological Preserve provide outstanding settings for student research. The Biology Department is also proud to house the Biotechnology Center, Center for Biodiversity Studies, and Bioinformatics and Information Science Center. The centers are integral components of the Applied Research and Technology Program, a state-funded program of distinction.

When planning a program of study in the Department of Biology each student must be aware of the University's academic requirements and regulations contained in this catalog in the section, "Academic Information." Specific attention should be given to the subsections entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic requirements and standards not specified in the catalog. To obtain a copy of these requirements, students should contact the department head. We offer five options for a B.S. degree: A Biology major without a minor (reference number 525), a Biology major with a minor (reference number 617), an Investigative Biotechnology major (reference number 714), a Biochemistry major (reference number 519), and a Medical Technology major (reference number 582). Each is described below along with our minor in Biology, minor in Investigative Biotechnology, Teaching Certifications, and other Special Programs, including our 5-year B.S./M.S. combination program in Biology.

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D. McElroy, A. Meier, T. Philips,  
C. Rinehart, S. Sahi, B. Schulte,  
M. Stokes

**Associate Professors:** L. Alice,  
K. Crawford, S. Huskey, R. King,  
P. Lienesch, N. Rice, M. Smith,  
R. Wyatt

**Assistant Professors:** M. Collyer, C. Dick,  
C. Emani, J. Johnson, A. Srivastava,

**Instructors:** P. do Amaral, W. Mason,  
H. Mahmood, K. McDaniel, N. Sharma



**Major in Biology  
(without a minor)**

This option for a major in biology (reference number 525) requires a minimum of 48 hours in biology with 24 hours at the 300 or higher level. No minor is required. Several areas of emphasis are available including ecology and evolutionary biology, molecular and cellular biology, plant biology, animal biology, and microbiology. All students are required to complete BIOL 120-121 and BIOL 122-123, and at least one course from each of the following three groups:

- (A) BIOL 222-223 or BIOL 224-225 or BIOL 226-227
- (B) BIOL 319 & 322 or BIOL 327
- (C) BIOL 315 or BIOL 430.

Students, with the aid of their advisor, select additional 300- and 400-level courses to focus their studies on specific areas within biology. Because an understanding of the principles of mathematics, physics, and chemistry is essential to the study of biology, majors are required to complete supporting courses as follow:

1. MATH 116 & 117 or MATH 118 or higher
2. PHYS 231-232 or PHYS 255-256
3. CHEM 120-121, and
4. two courses from the following list: AGRO 350 and AGRO 452 or AGRO 454 or AGRO 455/456 or AGRO 457/458. BIOL 283, CHEM 222-223, CHEM 314 or CHEM 340-341, CHEM 330, CIS 343, CIS 226 or CS 226 or CS 146, GEOG 316, GEOG 317, GEOG 328, GEOG 416, GEOG 417, MATH 136, MATH 137, MATH 142, MATH 305, MATH 307, PHYS 332-233 or PHYS 265-266; SOCL 302.
5. Students may count up to 6 credit hours of a combination of BIOL 369, 389, and 399 and up to 6 credit hours of BIOL 485 toward this major.

**Major in Biology (with minor)**

This option for a major in biology (reference number 617) requires a minimum of 36 semester hours in biology with 18 hours at the 300 or higher level plus the requirements of a minor area. The major-minor combination must be at least 54 semester hours. All students are required to complete BIOL 120-121 and BIOL 122-123, and at least one course from each of the following three groups:

- (A) BIOL 222-223 or BIOL 224-225 or BIOL 226-227
- (B) BIOL 319 & 322 or BIOL 327
- (C) BIOL 315 or BIOL 430.

Students with the aid of their advisor, select additional 300- and 400-level courses to focus their studies on specific areas within biology. Because an understanding of the principles of mathematics, physics, and chemistry is essential to the study of biology, majors are required to complete supporting courses as follows:

1. MATH 116 & 117 or MATH 118 or higher
2. PHYS 231-232 or PHYS 255-256
3. CHEM 120-121, and
4. two courses from the following list: AGRO 350 and AGRO 452 or AGRO 454 or AGRO 455/456 or AGRO 457/458. BIOL 283, CHEM 222-223, CHEM 314 or CHEM 340-341, CHEM 330, CIS 343, CIS 226 or CS 226 or CS 146, GEOG 316, GEOG 317, GEOG 328, GEOG 416, GEOG 417, MATH 136, MATH 137, MATH 142, MATH 305, MATH 307, PHYS 332-233 or PHYS 265-266, SOCL 302.
5. Students may count up to 3 credit hours of a combination of BIOL 369, 389, and 399 and up to 4 credit hours of BIOL 485 toward this major.

Suggested Program of Study			
Biology Major - 525 and 617			
<b>Fall Semester Freshman Year</b>	<b>Hrs.</b>	<b>Spring Semester Freshman Year</b>	<b>Hrs.</b>
BIOL 120-121 or BIOL 122-123	4	BIOL 122-123 or BIOL 120-121	4
MATH 118 or 142	5	CHEM 120-121	5
ENG 100	3	General Education Elective	3
BIOL 175 or Gen. Ed. Elective	2-3	General Education Elective	3
<b>Total Hours</b>	<b>14-15</b>	<b>Total Hours</b>	<b>15</b>
<b>Fall Semester Sophomore Year</b>	<b>Hrs.</b>	<b>Spring Semester Sophomore Year</b>	<b>Hrs.</b>
BIOL 222-223 or BIOL 224-225 or BIOL 226-227	4	BIOL 319 & 322 or BIOL 327	4
PHYS 231-232	4	Biology supporting course	3,5
Biology supporting course	3-5	General Ed. or Bio. Elective	3-4.5
General Education Elective	3	General Education Elective	3
<b>Total Hours</b>	<b>14-16</b>	<b>Total Hours</b>	<b>13-16.5</b>

### Major in Investigative Biotechnology

This major (reference number 714) meets the needs of students interested in the rapidly growing field of genetic engineering, molecular genetics and biotechnology. Biotechnology is expanding in many directions including the production of new pharmaceutical drugs, industrial chemicals, food products, energy sources, pollution-control products and, more recently, methods employed in agriculture. In addition to receiving training for industrial employment, graduates of this program will also have the broad liberal arts training necessary to enter graduate programs and the contemporary skills to be competitive for top positions in industry or academia. The major requires a minimum of 48 semester hours in biology with 24 hours at the 300 or higher level. No minor is required. The required core courses are: BIOL 150, 151, 199, 275, 312, 327, 350, 369 or 399, 411, 446, and 495. Required supporting courses are: MATH 136 or BIOL 283, CHEM 120-121, 222-223, 314 or 340-341/342-343, and PHYS 231-232, 332-233. Any course in the biology curriculum applicable to the biology major may be used as an elective for the Investigative Biotechnology major in consultation with the student's advisor. Interested students should contact a faculty member affiliated with the Biotechnology Center.

Suggested Program of Study			
Department of Biology Investigative Biotechnology Major 714			
<b>Fall Semester Freshman Year</b>	<b>Hrs.</b>	<b>Spring Semester Freshman Year</b>	<b>Hrs.</b>
BIOL 150	5	BIOL 151	5
CHEM 120-121	5	BIOL 199	1
ENG 100	3	MATH 136	4
General Ed. Elective	3	CHEM 222-223	5
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>15</b>
<b>Fall Semester Sophomore Year</b>	<b>Hrs.</b>	<b>Spring Semester Sophomore Year</b>	<b>Hrs.</b>
BIOL 283 or BIOL 327	4	BIOL 350	3
PHYS 231-232	4	BIOL 312	4
CHEM 314 or CHEM 340-341	5	CHEM 342-343 or BIOL 275	5
General Ed. Elective	3	PHYS 332-233	4
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

### Major in Biochemistry

(See Biochemistry, reference number 519.) Interested students should contact Dr. S. Jacobshagen, Department of Biology.

### Major in Medical Technology

(See Medical Technology, reference number 582) Interested students should contact Dr. K. McDaniel, Department of Biology.

### Minor in Biology

The minor in biology (reference number 326) requires a minimum of 24 semester hours in biology with 12 hours at the 300 or higher level. The required courses are BIOL 120-121 and BIOL 122-123. Students, with the aid of their advisor, select additional biology courses to complete the minor. Students may count up to 3 credit hours of a combination of BIOL 369 and 399 and up to 4 credit hours of BIOL 485 toward this minor.

### Minor in Investigative Biotechnology

The minor in Investigative Biotechnology (reference number 399) requires a minimum of 24 semester hours in biology with 12 hours at the 300 or higher level. The required courses are BIOL 150, 151, and 350. Students, with the aid of their advisors, select additional biology courses to complete the minor.

### Secondary Teaching Certification in Biology

Students who wish to be certified to teach high school biology must complete both the major in Biology (reference number 525 or 617) and the major in Science and Mathematics Education (SMED, reference number 774), offered in the School of Teacher Education. Interested students should contact the SKyTeach Office, Thompson Complex Central Wing 105, (270) 745-3900.

### Middle Grades Science Certification

Students who wish to teach middle school science must complete both the major in Middle School Science Education (MSSE, reference number 734), offered in the Department of Physics, and the major in Science and Mathematics Education (SMED, reference number 774), offered in the School of Teacher Education. Interested students should contact the SKyTeach Office Thompson Complex Central Wing 105, (270) 745-3900.

## Other Department Programs

Several other biologically oriented, specialized programs are available such as biophysics, environmental studies, environmental science, as well as several pre-professional programs. Specific details of these programs are listed under Pre-Professional and Interdisciplinary Programs.

## A Five-Year Plan

For highly motivated students, especially those planning to pursue graduate study, the department offers a five-year program leading to both B.S. and M.S. degrees in biology. Typically, students will also participate in the University Honors Program as undergraduates. Completion of the M.S. portion of the program requires enrollment in summer terms during the fourth and fifth years. A key component of this program is early and sustained involvement in undergraduate research, beginning in the sophomore year. As such, interested students must work closely with their undergraduate advisor early in their freshman year to design their five-year plan and identify a faculty mentor and area of research.

## Graduate Degree Programs

Students interested in graduate study in biology should consult the University's Graduate Studies Catalog for detailed information concerning the various programs available. The department offers: (1) M.S. degree with research thesis for students interested in a career in biology or in preparation for Ph.D. studies; (2) M.S. degree without research thesis (an online option is available); (3) M.A. degree in Education (major or minor in biology) which places less emphasis on specialization and research and more on breadth in biology.

Admission to graduate study in biology requires a 3.0 on a 4.0 scale overall grade point average with superior performance in biology and related sciences, and an appropriate GRE score or an acceptable equivalent. The prospective graduate student is expected to have completed an undergraduate course program equivalent to that required for a standard major in biology at Western Kentucky University.

## Department of Chemistry

Chemistry is often described as "The Central Science" in today's technology-driven world. Chemistry plays an important role in the research, development and quality assurance of products and materials ranging from pharmaceuticals and polymers to ceramics and nanocomposites. A knowledge and understanding of fundamental chemical concepts are crucial to success in professions such as medicine, pharmacy, veterinary medicine, forensic science, environmental science, engineering, medical technology, physical therapy, nursing, patent and environmental law and science education.

In order to best serve such a diverse audience, the chemistry curriculum at Western Kentucky University offers an integrated series of lecture and laboratory courses. Our courses provide students with grounding in theoretical models balanced with real-life applications and hands-on laboratory experiences. This allows students to achieve an understanding of chemical and physical phenomena at the molecular level and to develop the critical thinking skills necessary for chemical problem solving. In addition to course work, the Department of Chemistry provides our undergraduates a wide variety of research opportunities from biochemistry to materials science. Research encourages students to continue to build their laboratory skills and scientific knowledge while working one-on-one with a faculty member. Undergraduate research students often present their research at both regional and national professional meetings. Recently, students have presented their research at meetings located in Orlando and San Francisco. The combination of lecture, laboratory and one-on-one faculty interaction allows students to develop the skills necessary to be successful in their chosen profession.

As part of the educational experience, students are routinely trained in the operation of state-of-the-art instrumentation in the academic and research laboratories. The Department has an extensive holding of instrumentation which includes: atomic spectrometers, calorimeters, a capillary electrophoresis system, electrochemical analyzers, elemental analyzers, gas chromatographs, FT-infrared spectrometers, ion chromatographs, mass spectrometers, spectrofluorophotometers, supercritical fluid extractors, UV-visible

**Dr. Cathleen Webb, Department Head**

**E-mail: [Cathleen.Webb@wku.edu](mailto:Cathleen.Webb@wku.edu)**

**Thompson Complex, Central Wing**

**Office 444, Phone: (270) 745-3457 Fax: (270) 745-5361**

**Website: [www.wku.edu/chemistry](http://www.wku.edu/chemistry)**

**Professors:** L. Byrd, E. Conte, D. Dahl, W. Pan, L. Pesterfield

**Associate Professors:** S. Burris, C. Webb, K. Williams

**Assistant Professors:** R. Dakshinamurthy, J. Maddox,  
M. Nee, H. Rathnayake, C. Snyder, B. Yan, R. Zhang

**Instructor:** A. Brooks

**Professors Emeriti:** D. Hartman, C. Henrickson, N. Hunter,  
J. Reasoner, J. Riley, L. Shank, D. Slocum, C. Wilkins

spectrophotometers, a Nd-YAG laser system and a 500 MHz nuclear magnetic resonance spectrometer, and a newly acquired 90 MHz fixed magnet NMR.

General education requirements for students majoring outside the sciences are satisfied by CHEM 101 or 109 where only one semester of chemistry is needed and by the sequences 105-106, 107-108 or 120-121, 222-223 where two semesters of chemistry are desired. All students seeking entrance into CHEM 120 must take the Chemistry Placement Exam. Please call the WKU Testing Center at 270-745-3159 to make an appointment. CHEM 102 (laboratory to accompany CHEM 101) is not necessary to satisfy general education requirements but is often desired by students taking Chemistry 101.

Biochemistry courses (CHEM 446, 447, 462, and 467) may be taken as electives toward a major or minor in chemistry. CHEM 446 is required for the major certified by the American Chemical Society. Biochemistry is also strongly recommended for pre-medicine and pre-dentistry students, and for biology majors desiring a second major in chemistry.

Chemistry as the major or minor field is available under both the regular and teacher certification programs.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter, "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

### Major in Chemistry

The major in chemistry (reference number 623) requires a minimum of 30 semester hours and leads to the Bachelor of Science degree. A second major or minor is also required. The department offers three programs of study that lead to a Bachelor of Science degree in chemistry. Prior to selection of a program of study, a student must consult with a chemistry advisor in order to determine the most appropriate option.

#### Option I – ACS Certified Chemistry Major

WKU is on the approved list of the Committee on Professional Training of the American Chemical Society. For certification by this committee of the completion of minimum standards (48 hours of chemistry) for the Bachelor of Science degree in chemistry, the required courses are as follows, with the sequence recommended.

Qualified students may omit MATH 118 and start with MATH 136. Students whose high school preparation in mathematics makes them ineligible for MATH 118 should consult their academic advisor for the proper first course in mathematics. It is recommended that students in this program take MATH 307 and 331 in addition to the above math requirements. MATH 116/117 will substitute for MATH 118.

Suggested Program of Study			
Chemistry major: graduate and professional with ACS certification --Option I			
<b>Freshman - Fall</b> CHEM 120/121 MATH 118	<b>Hrs.</b> 4/1 5	<b>Freshman - Spring</b> CHEM 222/223 MATH 136	<b>Hrs.</b> 3/2 4
<b>Sophomore - Fall</b> CHEM 340/341 MATH 137 PHYS 255/256	<b>Hrs.</b> 3/2 4 4/1	<b>Sophomore - Spring</b> CHEM 342/343 CHEM 330* PHYS 265/266	<b>Hrs.</b> 3/2 5 4/1
<b>Junior - Fall</b> CHEM 450/451 CHEM 446 CHEM 398	<b>Hrs.</b> 3/2 3 1	<b>Junior - Spring</b> CHEM 452/453 CHEM 399	<b>Hrs.</b> 3/2 1
<b>Senior - Fall</b> CHEM 435 CHEM 399	<b>Hrs.</b> 3 1	<b>Senior - Spring</b> CHEM 420 CHEM 476 (highly recommended)	<b>Hrs.</b> 3 2
* Sophomores and Juniors are given preference for registration in CHEM 330.			
It is important that physical chemistry, CHEM 450, 451, 452 and 453, be taken in the junior year since CHEM 452 is a prerequisite or corequisite for most courses numbered above 400.			

**Option II**

Majors, who plan on attending professional or graduate school but who do not wish the full American Chemical Society program, should take the following courses:

<b>Suggested Program of Study</b>			
<b>Chemistry major: graduate and professional w/o ACS certification Option II</b>			
<b>Freshman - Fall</b> CHEM 120/121 MATH 118	<b>Hrs.</b> 4/1 5	<b>Freshman - Spring</b> CHEM 222/223 MATH 136	<b>Hrs.</b> 3/2 4.5
<b>Sophomore - Fall</b> CHEM 340/341 MATH 137 PHYS 255/256	<b>Hrs.</b> 3/2 4.5 4/1	<b>Sophomore - Spring</b> CHEM 342/343 CHEM 330* PHYS 265/266	<b>Hrs.</b> 3/2 5 4/1
<b>Junior - Fall</b> CHEM 450/451 CHEM 320 or 446	<b>Hrs.</b> 3/2 3	<b>Junior - Spring</b> CHEM 452/453	<b>Hrs.</b> 3/2
<b>Senior Year</b> CHEM 398, 399, 420, 435, and 476 are highly recommended.			
* Sophomores and Juniors are given preference for registration in CHEM 330.			

**Option III**

Pre-health professional students majoring in chemistry and students who desire a double major are advised to include the following courses:

<b>Suggested Program of Study</b>			
<b>Chemistry major: ideal for double major and pre-health professional Option III Students (see advisor regarding other science requirements)</b>			
<b>Freshman - Fall</b> CHEM 120/121 MATH 118	<b>Hrs.</b> 4/1 5	<b>Freshman - Spring</b> CHEM 222/223 MATH 136	<b>Hrs.</b> 3/2 4
<b>Sophomore - Fall</b> CHEM 340/341 CHEM 330* PHYS 231/232	<b>Hrs.</b> 3/2 5 3/1	<b>Sophomore - Spring</b> CHEM 342/343 PHYS 332/233	<b>Hrs.</b> 3/2 3/1
<b>Junior - Fall</b> CHEM 446 or 320	<b>Hrs.</b> 3	<b>Junior - Spring</b> CHEM 412	<b>Hrs.</b> 5
* Sophomores and Juniors are given preference for registration in CHEM 330.			

At least one semester of organic chemistry, one semester of inorganic chemistry or biochemistry, and one semester of physical chemistry are required, with additional courses in chemistry numbered above 300 to make a total of 30 semester hours. MATH 136 is only required for Option I (ACS Certified Major). MATH 116/117 will substitute for MATH 118.

For a chemistry major under the teacher certification curriculum, students should take:

**Freshman Year:**

- Fall – CHEM 120-121 and MATH 118
- Spring – CHEM 222-223 and MATH 136.

**Sophomore Year:**

- Fall – CHEM 330, PHYS 231-232 and GEOL 111/113
- Spring – CHEM 314 and PHYS 332/233.

**Junior Year:**

- Fall – CHEM 320, 446-447 and 399
- Spring - CHEM 412 and CHEM 399. Education courses required for certification are: EDU 250, 351, 352, 453, 479, 489, 490 and PSY 310.

Other upper division Chemistry courses can be substituted for CHEM 399 with the permission of the Department Head.

**Major in Biochemistry**

A BS degree in biochemistry (reference number 519) requires a minimum of 60 credit hours and consists of core chemistry and biology courses with electives selected from chemistry, biology, agriculture and physics. For more information, see "Biochemistry" under Pre-Professional and Interdisciplinary programs.

### Minor in Chemistry

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The minor in chemistry (reference number 335) requires a minimum of 18/21 hours. For a minor a student must have CHEM 120-121, 222-223, 330 and courses numbered above 300 to make a total of at least 18 semester hours. Note that at least nine semester hours must be earned in courses numbered 300 and above.

For a minor under the teacher certification curriculum, a student must have CHEM 120-121, 222-223, 330, 314, and 412. An additional 3 credits of upper-division chemistry courses will also complete a second major in chemistry.

### Minor in Coal Chemistry

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The minor in coal chemistry (reference number 340) requires a minimum of 20-22 hours in chemistry. For a minor a student must have CHEM 120-121, 222-223, 314.

### Minor in Environmental Studies

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(See Environmental Studies under Pre-professional and Interdisciplinary Programs.)

### Minor in Nutritional and Food Chemistry

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The minor in nutritional chemistry (reference number 421) will require a minimum of 18 hours, including 12 hours of required courses and at least 6 hours of elective courses to be selected in consultation with an advisor. The required courses are CHEM 105, 106, 107, 108, and 304. Students much choose at least 6 hours from the following electives: CHEM 299, 314; FACS 111, 261; AMS 301, 303, 352, 381, 443, 462; BIOL 207, 208; AGECE 468. At least half of the credits must be at the upper-division level.

### Graduate Degree Programs

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Graduate programs and courses leading to the Master of Science and Master of Arts in Education with a major in chemistry are available in the Department of Chemistry. Each year a number of graduate teaching assistantships are available for qualified graduate students. For additional information see the Graduate Studies Catalog or contact the Chair of the Chemistry Graduate Programs.

A cooperative graduate program leading to the doctor of philosophy is administered by the Department of Chemistry at Western Kentucky University and the Department of Chemistry at the University of Louisville. Interested students may obtain complete information about the program from Dr. Cathleen Webb, Head, Department of Chemistry, Western Kentucky University, or from the Chair of the Department of Chemistry at the University of Louisville, Louisville, Kentucky.

## Department of Engineering

Engineers turn dreams into reality. Engineering is the process of designing solutions to real world problems using mathematical and scientific principles. It merges creative thinking with analytical skills to create systems and processes such as automobiles, buildings, bridges, computers, electrical systems, manufacturing processes, and software. Engineering is a primary difference between our modern world and primitive societies.

The engineering programs at Western Kentucky University are dedicated to teaching the practice of engineering to undergraduate students in a project-based environment. Beginning with the first freshman class and progressing through the last senior class, engineering students at WKU engage in the practice of engineering under the instruction and guidance of degreed, practicing engineers. Engineering at WKU differs from most other institutions because its faculty is dedicated exclusively to undergraduate engineering education and to engaging students in the practice of engineering without the requirement of supervising graduate research. Many studies have shown that the

**Dr. Julie Ellis, Head**

**Engineering and Biological Sciences Building (EBS)  
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Fax: (270) 745-5856  
Website: <http://www.wku.edu/engineering/>**

**Professors:** C. Byrne, M. Dettman, J. Ellis, A. Ernest,  
J. Lenoir, K. Schmaltz, S. Wilson  
**Associate Professors:** M. Cambron, W. Campbell,  
R. Choate, W. Collett, S. Palmquist  
**Assistant Professor:** R. Gallagher  
**Professor Emeritus:** J. Russell

**Kenneth E. and Irene S. Hall Professor in Civil  
Engineering:** W. Campbell  
**James L. "Bud" Layne Professor in Mechanical  
Engineering:** J. Lenoir  
**James D. Scott Professorship in Civil Engineering:**  
M. Dettman

educational methodologies employed by engineering faculty at WKU are not only the most enjoyable and interesting for students; they are also a more effective way to learn engineering.

The Department of Engineering offers Bachelor of Science degrees in the following areas:

- Civil Engineering (reference number 534)
- Electrical Engineering (reference number 537)
- Mechanical Engineering (reference number 543)

The programs in civil engineering and mechanical engineering are offered jointly with the University of Kentucky. The program in electrical engineering is offered jointly with the University of Louisville.

The Department of Engineering offers minors in electrical engineering (reference number 354), land surveying (reference number 405), and floodplain management (reference number 361), as well as a certificate in land surveying (reference number 1700).

### **Department Mission**

The mission of the Department of Engineering is to produce, as its graduates, competent engineering practitioners. An engineering practitioner is one who has a foundation of basic science, mathematics, and engineering knowledge, combined with practical knowledge and experience in applying existing technology to contemporary problems. Realization of the departmental mission requires that the design of courses and curricula and the activities of the faculty create opportunities for students to understand and gain competence as engineering practitioners. In addition to its primary mission, the department adds value to the university and the community through the activities of its students and faculty.

Engineering projects, developed and directed by faculty, in the various disciplines of the department create an important avenue through which the technical capability of the community is expanded. Faculty and student service on boards and to agencies and other entities provides valuable enrichment to the community.

To fulfill the departmental missions, the department has the following characteristics:

- Program curricula establish an understanding of fundamental engineering concepts. The curricula provide an opportunity for students to obtain a sufficient depth of fundamental knowledge to support lifelong learning in the field of study.
- Programs are baccalaureate-driven. The primary purpose is to prepare undergraduates for entry-level positions upon graduation. Preparation for advanced study is also achieved in each program.
- Programs are regionally relevant. While prepared to be competitive in any market, graduates will be well prepared to begin productive careers as practitioners in regional industries.
- Program curricula are project-based. Students have sufficient opportunity to engage in project activities to support development of a clear understanding of engineering practice. The roles of students – as learners, as observers, as assistants, and as practitioners – are supported by project activities that clearly demonstrate the practice of engineering. Projects that provide opportunity to accomplish design, development, and implementation are available.
- Faculty of the department are practitioners. Scholarly activities of the faculty include engineering practice and are conducted in the context of the departmental programs and our students. Documentation of faculty productivity is produced in the manner and form expected by the university of all faculty.

Details of the curriculum and course information can be found at [www.wku.edu/engineering](http://www.wku.edu/engineering) or by contacting the Department of Engineering.

### **Major in Civil Engineering**

***Program Coordinator: S. Palmquist***

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Civil engineers design a better world in which to live. They design, build, and maintain our nation's infrastructure. Some of the things that civil engineers design include: roads and bridges; buildings and foundations; water supply and waste-water facilities; storm water management systems; and environmental protection facilities.

The civil engineering program at WKU focuses on construction, geotechnical engineering, construction materials, structures, surveying, and hydrology.

The major in civil engineering (reference number 534) leads to a Bachelor of Science degree. This degree is jointly offered by Western Kentucky University and the University of Kentucky for students in residence at WKU.

The curriculum requires a minimum of 65 technical specialty hours, completion of general education hours, and additional hours for math and science requirements. Students in the joint civil engineering program are required to obtain 16 credit hours in the major from University of Kentucky (UK) faculty members. Students completing this requirement take the following courses: ENGR 175 or UE 175, CE 176/ME 176 or EE 101, EM 221, 302, 313, CE 341, 373, 331 or 332, 351 or 352, 483, 490, and 491. CE 490 and 491 may be taken more than once provided the topic is different. Students are admitted as a pre-major in civil engineering. To transition from pre-major to major and to graduate with a degree in civil engineering, students must complete each of the following courses and labs with a grade of "C" or better: CE 176, AMS 163, ENG 100, CE 160 and 161, EM 221 or 222, COMM 145 or 161, MATH 136, 137, PHYS 255 and 256, and CHEM 120 and 121. Students must also complete the following courses with a grade of "C" or better: all civil engineering courses; all technical electives; EM 221 or 222; and EM 302 or 303. However, one "D" in a single CE 400-level senior course is permitted. In addition, each student is required to have a 2-course sequence in four (4) different civil engineering areas. The curriculum already includes a 2-course sequence in structures, geotechnical engineering, and construction. Therefore, each student must select one of the technical electives to cover an additional area such as surveying, materials, environmental engineering, hydrology, or transportation. The structures elective may be completed by taking CE 384 or 482 or 483. Students may not receive credit for both CE 482 or 483 and 383, or for CE 482 or 483 and 384. For detailed information on the civil engineering program, please see the "Civil Engineering Handbook" and/or contact your advisor.

<b>Suggested Program of Study</b>			
<b>Department of Engineering 534 Civil Engineering</b>			
<b>Freshman: Fall</b> ENGR 175 or UE 175	<b>Hrs.</b> 2 or 1	<b>Freshman: Spring</b> CE 160 CE 161	<b>Hrs.</b> 3 1
AMS 163	3	MATH 137	4
MATH 136	4	PHYS 255	4
GEOL 111	3	PHYS 256	1
GEOL 113	1	COMM 161 or 145	3
Category E	3	ENG 100	3
CE 176	1		
<b>Sophomore: Fall</b> EM 221 or EM 222	<b>Hrs.</b> 3	<b>Sophomore: Spring</b> EM 302 or EM 303	<b>Hrs.</b> 3
CE 303	3	CE 310	1
CE 304	1	MATH 331	3
MATH 237	4	PHYS 265	4
CHEM 120	4	PHYS 266	1
CHEM 121	1	ENG 200	3
Category F	1	Category A-II	3
<b>Junior: Fall</b> CE 382 or CE 373	<b>Hrs.</b> 3	<b>Junior: Spring</b> CE 316	<b>Hrs.</b> 3
CE 410	3	CE 331 or CE 332	3
CE 411	1	CE 412	3
CE 370 /371	2/1	ENG 300	3
CE 341 or CE 342	4	CE 384	3
STAT 301	3	Technical Elective	3
Category F	1		
<b>Senior: Fall</b> CE 400	<b>Hrs.</b> 1	<b>Senior: Spring</b> CE 461	<b>Hrs.</b> 3
CE 351 or CE 352	3	CE 498	3
Technical Elective	3	Technical Elective	3
ECON 202	3	Category B-II	3
Category B-II	3	Category C	3
HIST 119 or 120	3		
<b>Total Hours: 136</b>			
<i>(A-F) denotes General Education Category</i>			

**Civil Engineering Program Mission**

The mission of the civil engineering program is to prepare students for professional engineering and management positions in all phases of civil engineering projects.

The program provides a broad educational background with a foundation in basic engineering and business principles. These basic skills are complemented by advanced topics in engineering design, management, finance, computer applications, and real world civil engineering experiences throughout the baccalaureate degree program.

The civil engineering program fulfills the overall mission of the Department of Engineering and also meets the following goals:

- Understanding of fundamental engineering concepts that nurture problem solving abilities.
- Knowledge of basic civil engineering skills to prepare graduates for immediate productivity upon graduation.
- A background in management skills as they relate to working with financial matters as well as with people from diverse backgrounds.
- The ability to communicate ideas, processes, and designs effectively.

The teaching philosophy of this program focuses on project-based learning. This is achieved by placing competent, practicing engineers in the classroom as professors, engaging students in the practice of civil engineering through



hands-on class projects, and involving students in faculty consulting and applied research activities. Real engineering projects often serve as class projects. Project sites and professional engineering and construction management firm offices often serve as classrooms.

### **Civil Engineering Program Mission**

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- Knowledge of basic civil engineering skills to prepare graduates for immediate productivity upon graduation.
- A background in management skills as they relate to working with financial matters as well as with people from diverse backgrounds.
- The ability to communicate ideas, processes, and designs effectively.

The teaching philosophy of this program focuses on project-based learning. This is achieved by placing competent, practicing engineers in the classroom as professors, engaging students in the practice of civil engineering through hands-on class projects, and involving students in faculty consulting and applied research activities. Real engineering projects often serve as class projects. Project sites and professional engineering and construction management firm offices often serve as classrooms.

**Objective 1: The graduates of the civil engineering program are technically competent.** They will possess a broad knowledge of the principles and fundamentals of civil engineering and their application, and thus be able to: successfully practice as professional civil engineers; pursue graduate or professional degrees; or engage in other professional careers that involve the application of the engineering method.

**Objective 2: The graduates of the civil engineering program are effective team members.** They will function effectively in multicultural and multidisciplinary groups in their practice of the civil engineering. They will effectively participate in the management of projects and the business of which they are a part.

**Objective 3: The graduates of the civil engineering program are professional.** They will perform all of their duties professionally and ethically. They will understand that what they do is a part of a larger society and will understand their part within that society. They will engage in life-long learning to continually provide themselves with the necessary skills, certifications, and licenses to effectively perform their professional duties, even if their career takes them beyond engineering and into another profession.

### **Minor in Floodplain Management**

*Minor Coordinator: W. Campbell*

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This minor has been coordinated with the Geography and Geology Department and with the Kentucky Association of Mitigation Managers. The Floodplain Management minor (reference number 361) requires completion of at least 21 semester hours including 13 core hours taken by all students and an additional 8 hours of electives. At least six hours of the minor must be taken from classes not counting toward completion of the major. The minor provides students with basic knowledge and skills needed to implement and administer flood mitigation and recovery programs. Students develop familiarity with federal floodplain management regulations, the National Flood Insurance Program, hydrology, surveying, and tools such as Geographic Information Systems that are critical to administering an aggressive floodplain management program. Completion of the minor requires familiarity with all aspects of floodplain management and with the impacts of floods on individuals, on property, and on regional or national economics. Students successfully completing the program must have passed the Certified Floodplain Manager (CFM) exam. The CFM is a nationally recognized certification and is considered a desirable qualification by many employers. Required courses for the minor are CE 160/161, CE 300, GEOG 318 (required for engineering students, GEOG 317 may be substituted for geography/geology students), and CE 461 or GEOG/GEOL 310. A minimum of 8 semester hours of electives must be selected from GEOG 121, 207, 208, 209, 391, 414, 433, 416, 417, 419, 437 and 438. GEOG/GEOL 420, GEOG 422, 424, 426, 427, 431, 445, 455, 474, 477, GEOL 111, 113, CE 351, CE 380/381, CE 461 and CE 480/481.

For students majoring in civil engineering, a suggested sequence of courses for completion of this minor is: CE 160 and 161, CE 380 and 381, GEOG 121, GEOG 208, CE 300, GEOG 318, and CE 461.

For students majoring in geography or geology, a suggested sequence of courses for completion of this minor is: GEOG 121, GEOG 208, CE 160 and 161, GEOG 318, CE 300, GEOG 310, and GEOG 414.

**Minor in Land Surveying**

*Minor Coordinator: R. Gallagher*

The land surveying minor (reference number 405) provides the student with the basic knowledge and skills needed to accomplish land surveying tasks for entry-level employment. These tasks include boundary surveys, topographic mapping, leveling, stakeouts, traversing, field note taking, distance and angle measurements, plus proper techniques and use of surveying equipment (total stations, EDMs, and levels).

The following courses are currently required for the land surveying minor (26 hours): AMS 163, CE 160 and 161, CE 380 and 381, CE 378 and 379, GEOG 316, and GEOG 317 or 318, and GEOG 414.

**Certificate in Land Surveying**

Undergraduate students majoring in civil engineering or post-graduate students with baccalaureate degrees in civil engineering, mining, or agricultural engineering accredited by the Accreditation Board of Engineering and Technology ( ABET) may obtain a Certificate in Land Surveying (reference number 1700) in order to pursue licensure as a professional surveyor in the state of Kentucky by completing the following courses (15 hours): AMS 163, CE 160 and 161, CE 380 and 381, and CE 378 and 379.

Post-graduate students with baccalaureate degrees in majors other than civil engineering, mining or agricultural engineering may obtain a Certificate in Land Surveying in order to pursue licensure as a professional surveyor in the state of Kentucky by completing the same courses as listed for the minor in land surveying (26 hours). See minor in land surveying.

**Major in Electrical Engineering**

*Program Coordinator: M. Cambron*

Electrical engineers are experts in dealing with electricity, electromagnetism, and electronics. Electrical engineering touches virtually every aspect of life in the twenty-first century. Our electrical engineering curriculum exposes students to a variety of topics to prepare them for careers as engineers. Electrical engineers are employed in a variety of industries including:

<b>Suggested Program of Study</b>			
<b>Electrical Engineering Curriculum</b>			
<b>Freshman: Fall</b>	<b>Hrs.</b>	<b>Freshman: Spring</b>	<b>Hrs.</b>
ENGR 175 Univ Expr - ENGR	1	EE 180 Digital Circuits	4
EE 101 EE Design I	1	MATH 137 Calculus II	4
MATH 136 Calculus I	4	PHYS 255/256 Physics 1/Lab	5
Science Elective	3	HIST 119 or 120 Western Civ.	3
ENG 100 Composition	3	Category F Elective	1
COMM 161(or 145) Business Spkg.	3	<b>Total Hours</b>	<b>17</b>
<b>Total Hours</b>	<b>15</b>		
<b>Sophomore: Fall</b>	<b>Hrs.</b>	<b>Sophomore: Spring</b>	<b>Hrs.</b>
EE 200 EE Design II	1	EE 211 Circuits and Networks II	3.5
EE 210 Circuits and Networks I	3.5	EE 380 Microprocessors	4
MATH 331 Diff. Equations	3	MATH 237 Calculus III	4
PHYS 265 Physics II	4	ECON 202 Economics	3
CS 239 Prob. Solving Using Comp.	3	Literature (B-I)	3
Foreign Lang. (A-II)	3	<b>Total Hours</b>	<b>17.5</b>
<b>Total Hours</b>	<b>17.5</b>		
<b>Junior: Fall</b>	<b>Hrs.</b>	<b>Junior: Spring</b>	<b>Hrs.</b>
EE 345 Electronics	4	EE 300 EE Design III	1
EE 473 Intro. to EM Fields or PHYS 440	3	EE 420 Signals & Linear Sys.	3
Engineering/Science Elec	3	EE 431 Intro. to Power Systems	3
Math 307 Linear Algebra or MATH	3	EE 479 Optoelectronics	2
350 Adv. Engineering Math	3	STAT 301 Applied Stats.	3
Category B Elective	3	ENG 300 Composition	3
Category F Elective	1	Category E Elective	3
<b>Total Hours</b>	<b>17</b>	<b>Total Hours</b>	<b>18</b>
<b>Senior: Fall</b>	<b>Hrs.</b>	<b>Senior: Spring</b>	<b>Hrs.</b>
EE 400 EE Design IV	1	EE 401 Capstone Design	3
EE 405 EE Senior Research Sem.	1	EE 450/451 Digital Signal Proc.	4
EE 410/411 Computer Design	4	EE 470/475 Communications	4
EE 460 Cont. Control Systems	4	EE Senior Elective	3
Engineering/Science Elect	3	Category B Elective	3
Category C Elective	3	<b>Total Hours</b>	<b>17</b>
<b>Total Hours</b>	<b>16</b>		
<b>Grand Total Hours: 135</b>			
<b>EE Senior Elective</b>	<b>Hrs.</b>	<b>Science Elective</b>	<b>Hrs.</b>
EE 432 Power Systems II	3	BIOL 120 Biological Concepts	3
EE 443 Microfabrication and MEMS	3	CHEM 116 Intro College Chem	3
EE 445 Advanced Electronics	3	CHEM 120 College Chemistry I	3
EE 461 Discrete Control Sys	3	ENV 280 Environmental Sc.	3
EE 462 Special Topics in Control	3	GEOL 111 The Earth	3
EE 477 Numerical Tech.	3		
EE 490 Robotics	3		
<i>(A-F) Denotes General Education Category</i>			

- Circuits and Electronics
- Communication and Signal Processing
- Electrical Power Systems
- Computer Hardware and Embedded Systems
- Robotics, Control Systems and Automation
- Biomedical Applications
- Automotive and Aerospace Systems
- Manufacturing plants

The major in electrical engineering (reference number 537) leads to a Bachelor of Science degree.. This degree is jointly offered by Western Kentucky University and the University of Louisville for students in residence at Western.

The curriculum requires a minimum of 63-65 technical specialty hours and 27 semester hours of required science and mathematics courses.

#### **Academic Standards for the WKU/UofL Joint Electrical Engineering Program**

Students are admitted as a pre-major in Electrical Engineering. In order to transition from the pre-major to major and to graduate with a degree in Electrical Engineering, students must complete the following courses earning a grade of "C" or better in each course.

- EE 101 EE Design I or EE 175 - University Experience
- EE 180 - Digital Circuits (4 hours)
- EE 210 – Circuits & Networks (3.5 hours)
- ENG 100 - Freshman English (3 hours)
- COMM 145 or 161 - Public or Business Speaking (3 hours)
- MATH 136 - Calculus and Analytical Geometry I (4 hours)
- MATH 137 - Calculus and Analytical Geometry II (4 hours)
- PHYS 255/256 - University Physics I and Lab (5 hours)
- PHYS 265 - University Physics II (4 hours)
- CS 239 – Problem Solving Comp Tech (3 hours)

In addition, each student's transcript must have at least 16 hours of EE credit in the major taught by a UofL faculty member.

#### **Engineering/Science Electives (must take at least 6 hours)**

- EM 221 or EM 222 or PHYS 350 (3 hours)
- ME 365 or ME 220 or PHYS 330 (3 hours)
- ME 240 Materials and Methods of Manufacturing (3 hours)
- ME 330 or CE 341 or CE 342 (3 hours)
- PHYS 450 Classical Mechanics II (3 hours)
- PHYS 318 Data Acquisition Using Labview (3 hours)

#### **Electrical Engineering Program Mission**

The mission of our Electrical Engineering Program at WKU is to build a foundation of knowledge in electrical engineering by integrating a variety of project experiences at every level throughout the curriculum.

Our program is to be relevant to our region and to produce graduates who can immediately contribute to the profitability of their employer.

Our graduates should be:

- Practical problem solvers with abstract thinking skills.
- Life-long learners capable of building their careers upon a solid foundation of knowledge.
- Competent in communicating technical materials and concepts in individual and group situations.
- Able to apply with confidence the basic sciences and mathematics to their professional activities, and
- Acclimated to individual and team project activities based upon numerous experiences relating to our project-based, industry-related curriculum.

Our faculty must be:

- Excellent teachers
- Competent in their profession as engineers, and
- Capable of integrating projects into all aspects of our engineering curriculum to the extent practicable.

The program achieves its mission by focusing on specific educational objectives. They are:

- **Objective 1:** Our graduates are prepared to pursue successful and productive engineering careers and are technically competent with the ability to analyze and solve electrical engineering problems.
- **Objective 2:** Our graduates are application-oriented problem solvers, accomplishing solutions through sound engineering and economic practice.
- **Objective 3:** Our graduates are involved in continuing professional development and lifelong learning.
- **Objective 4:** Our graduates practice engineering in a professional manner demonstrating an awareness of legal and ethical responsibilities.
- **Objective 5:** Our graduates have the ability to effectively communicate their ideas and designs.

### **Minor in Electrical Engineering**

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The minor in electrical engineering (reference number 354) requires a minimum of 21 semester hours in electrical engineering. The required courses include EE 210 and EE 211. Students, with the approval of an EE advisor, select additional electrical engineering courses to complete the minor; at least 11 hours must be at the 300-level or above. Students majoring in electrical engineering cannot earn a minor in electrical engineering. EE 350 does not count towards the EE minor.

### **Major in Mechanical Engineering**

**Program Coordinator: J. Lenoir**

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Mechanical engineers are involved in designing and building almost everything that is needed in our modern world, from nearly invisible electro-mechanical devices to enormous power generating and distribution systems producing millions of horsepower. Mechanical engineers use scientific principles from the physical world to create a tremendous variety of mechanical and thermal systems. Practicing mechanical engineers use these principles to design, analyze, manufacture and maintain systems that include:

- automobiles and aircraft
- heating and cooling systems
- electric power plants
- specialized materials
- manufacturing plants
- industrial equipment and machinery

Mechanical engineers need a solid understanding of engineering science, which includes mechanics, engineering materials, thermodynamics and fluid mechanics. The program at Western focuses on these sciences as well as design and professional skills necessary for a successful career in mechanical engineering.

The major in Mechanical Engineering (reference number 543) leads to a Bachelor of Science degree. This degree is jointly offered by WKU and the University of Kentucky for students in residence at Western. The curriculum requires a minimum of 67-68 technical specialty hours, completion of required general education, and 23.5 semester hours of required mathematics and science.

#### **Academic Standards for the WKU/UK Joint Mechanical Engineering Program**

Students are admitted as a Pre-Major in Mechanical Engineering. In order to transition from Pre-Major to Major and to graduate with a degree in Mechanical Engineering, students must earn a GPA of 2.5 in the following courses and a grade of "C" or better in each course in the list. This requirement must be completed before enrolling in ME 300: Junior Design.

- ME 175: University Experience (or ME 176 for transfers) (2/1 hours)
- ENG 100: Freshman English (3 hours)
- HIST 119 or 120: Western Civilization (3 hours)
- COMM 145 or 161: (3 hours)
- MATH 136: Calculus and Analytic Geometry I (4 hours)
- MATH 137: Calculus and Analytic Geometry II (4 hours)

- ME 180: Freshman Design II (3 hours)
- PHYS 255/256: University Physics I and Laboratory (5 hours)
- CHEM 120/121: College Chemistry I and Laboratory (5 hours)
- ME 240/241: Materials and Methods of Manufacturing (4 hours)

TOTAL 36 hrs

After satisfying the requirements to transition from Pre-Major to Major in Mechanical Engineering, the students must also earn a grade of C or better in the following courses required for the major: EM 221, 303, ME 200, 220, 310, 330, 347, MATH 237, 331.

Each mechanical engineering student's transcript must include at least 16 hours of credit in the major taught by UK faculty members.

Each mechanical engineering student must also take at least one mathematics elective. This elective must meet three criteria:

- It must be a course offered by the Department of Mathematics.
- It must not be a course repeating subject matter already covered in a required course.
- It must be of a level greater than or equal to the required courses in mathematics.

Suggested Program of Study			
Mechanical Engineering Curriculum			
Fall Semester	Hrs.	Spring Semester	Hrs.
ME 175/176 Univ. Experience	2 or 1	ME 180 Freshman Design II	3
CHEM 120/121 Chemistry I & LAB (4,1)	5	MATH 137 Calculus II	4
MATH 136 Calculus I	4	PHYS 255/256 Physics I & LAB (3,2)	5
ENG 100 Freshman Eng.	3	HIST 119/120 Western Civ.	3
COMM 145 or 161 Public Spkg.	3	Foreign Language	3
	<b>17</b>		<b>18</b>
MATH 237 Multivariable Calc.	4	ME 200 Sophomore Design	3
EM 221 UK Statics	3	MATH 331 Diff. Equations	3
ME 240/241 Mat./Meth. & LAB (3,1)	5	EM 313 Dynamics	3
PHYS 265/266 Physics II & LAB (4,1)	4	ME 285 Fundamentals Ind. Auto	3
ENG 200 Intro. to Literature	3	EM 303 WKU Mechs. Of D. Solids	1
	<b>19</b>	ME 347 Mech. Systems Lab	1
		Category B Elective 1 of 2	3
			<b>17</b>
ME 220 Eng. Thermo I	3	ME 300 Junior Design	2
ME 344 Mechanical Design	3	ME 310 Eng. Instrumentation	3
EE 350 EE Fundamentals	4	ME 321 Eng. Thermo II	3
MATH --- Math Elective 1 of 1	3	ME 330 Fluid Mechanics	3
Category C Elective 1 of 2	3	ME - ME Tech Elective 1 of 3	3
Category F Elective 1 of 2	1	ENG 300 Junior English	3
	<b>17</b>		<b>17</b>
ME 325 Heat Transfer	3	ME 412 ME Senior Project	3
ME 416 UK Dyn. Systems Elective	3	ME - ME Tech. Elective 3 of 3	3
ME 400 Mech. Engr. Design	2	Category C Elective 2 of 2	3
ME 440 Therm/Fluids Lab	2	Category B Elective 2 of 2	3
ME 445 Dynamic Systems Lab	2	Category E Elective 1 of 1	3
ME - ME Tech. Elective 2 of 3	3	Category F Elective 2 of 2	1
	<b>15</b>		<b>16</b>
<b>Program Total = 135 Hours</b>			

### Mechanical Engineering Program Mission

The mechanical engineering program produces graduates who are well prepared for the start of productive, successful careers as practicing engineers.

Our graduates have a strong competitive advantage with their unique background of engineering fundamentals combined with practical knowledge and experience.

The mechanical engineering program provides a project-based, learner-driven environment relevant to the needs of our region. In support of this learning environment, the professional engineering activities of the faculty create opportunities for the students to practice the art and science of contemporary Mechanical Engineering.

The program achieves its mission by focusing on specific educational objectives. They are:

### Technical

- Our graduates have demonstrated competence in the use of scientific, technical, and professional skills for the practice of Mechanical Engineering.
- Our graduates have demonstrated the ability to identify problem causation and have implemented practical, application-oriented solutions.
- Our graduates have demonstrated the ability to find additional knowledge necessary to solve unfamiliar problems.

### Professional

- Our graduates have exhibited excellent two-way communication skills (written, oral, visual, and graphical) with a wide variety of audiences.
- Our graduates have demonstrated ethical professional behavior and a comprehension of the breadth of the Engineer's professional roles and responsibilities.

### Societal

- Our graduates have adapted to an ever-changing world by engaging in life-long learning and professional development activities.
- Our graduates have contributed to their region's economic development through their professional practice.

## Department of Geography and Geology

Programs offered by the Department of Geography and Geology are designed to meet the career goals of students in a wide variety of geoscience areas. Over the past twenty years, most of our program graduates have found employment in their preferred professions.

Geography courses provide a scientific foundation for the investigation and understanding of the physical and biological environments, the nature of social, political and economic activity, and the interaction between humans and the environment. Collectively, these courses offer basic professional training for geographers and planners, as well as providing geographic training for prospective elementary, middle, and high school teachers. They are also an essential component of international programs offered by the university in Latin American, Asian, African, and Canadian studies, and in International business. Geography is considered an essential life skill.

Geography prepares students for service as water and environmental resource managers, city and regional planners, industrial and commercial consultants, meteorologists and climatologists, cartographers, G.I.S. analysts, educators, and government employees in a wide range of national, state, and local agencies. Environmental Planning, Resource Management, and Sustainable Development are interdisciplinary specialties of the Department and many graduates work for the National Park Service, National Forest Service, and other management agencies. Majors in Meteorology and Geographic Information Science (GIS) prepare students for professional careers in the atmospheric sciences and in positions that demand sophisticated spatial analytical techniques.

Geology courses provide the basic professional foundation for the scientific investigation of the Earth as well as geological education for the prospective teacher. Geology majors may enter positions in industry and government agencies. Many geologists work in interdisciplinary fields such as hydrology, energy, environmental and engineering geology, geophysics, and geochemistry. Geologists are needed in many areas for basic Earth research, for exploration and development of natural resources, and to address various environmental problems. Students are prepared for a variety of interesting and important career positions in federal and state agencies, engineering and environmental firms, and other areas of private industry, including oil, gas, and coal companies. In addition to the traditional BS degree in geology, majors may also select A.B. options in earth and space science or general geoscience. The geology program also prepares students for eventual certification as a Professional Geologist.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter, "Academic Information." Specific attention should be given to the subsections in the chapters entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

The four-year plan for timely completion of a geography, meteorology, GIS, or geology major appears on the departmental website at: [www.wku.edu/geoweb/aboutgeo.php](http://www.wku.edu/geoweb/aboutgeo.php). A five-year bachelors/masters in geography, geology, meteorology, or GIS and geoscience is in development so that motivated students can focus their research interests

**Dr. David J. Keeling, Head**

**Environmental Sciences and Technology Building**

**Office 304, Phone: (270) 745-4555**

**Website: [www.wku.edu/geoweb](http://www.wku.edu/geoweb)**

**Wendy Decroix: Office Coordinator**

**Professors:** S. Foster, C. Groves, D. Keeling, R. Mahmood, M. May

**Associate Professors:** K. Algeo, J. All G. Goodrich, F. Siewers, A. Wulff, J. Yan

**Assistant Professors:** A. Celestian, J. Durkee, X. Fan, M. Gripshover, L. North, J. Polk

**Instructors:** W. Blackburn, K. Cary, M. Crowder, S. Dobler, J. Islas, D. Kreitzer, A. Nemon, D. Reader

and gain a Master's degree in an expedited timeframe. Five-year bachelors/masters programs can be tailored to meet other research interests for motivated students.

### **Major in Geographic Information Science**

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The major in geographic information science (reference number 576) focuses on the concepts and principles of GISystems, along with its four components: (1) input, corrections, and collection of geospatial data; (2) storage and retrieval of geospatial data; (3) manipulation and analysis of geospatial data; and (4) maps and other forms of presentation of geospatial data. The major in geographic information science (reference number 576) requires a minimum of 58 semester hours of GIS courses. The following 22 hours are foundation requirements: AMS 163, CS 145, 146, GEOG 100 or GEOL 102, GEOG 110, GEOG 475 or 495, and GEOG 499. The following 14 hours are technique requirements: GEOG 300, 316, 317, and 391. The following 22 hours are professional requirements: GEOG 414, 417, 418, 419, 443, 477, and 492. Required support courses are CE 160-161, CS 240, ENG 307, MATH 118 (or MATH 116 or 117) and MATH 136. Qualified students may omit MATH 118 and start with MATH 136. GIS courses require a course fee.

### **Major in Meteorology**

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The major in meteorology (reference number 578) leads to a Bachelor of Science in Meteorology and requires a minimum of 49.5 semester hours of meteorology, geography, and computer science. A minor program is not required. Other required courses in physics and mathematics total an additional 26 semester hours. Students majoring in meteorology will learn the key concepts and skills necessary to qualify as a meteorologist for the National Weather Service, and to meet the standards of the American Meteorological Society. The following 10 hours are foundation requirements: GEOG 100 or GEOL 102 or GEOL 111, GEOG 110, 121, and 499. The following 10 hours are technique requirements: GEOG 300, 316, 391. The following 10 hours are thematic requirements: GEOG 422, 424, and CS 240. The following 19.5 hours are professional requirements: GEOG 325, 431, 432, 433, 437, 438, CS 245. The following are additional courses required outside of the major: PHYS 255/256, 265/266, MATH 136, 137, 237, and 331.

### **Major in Geography**

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The major in geography (reference number 674) requires a minimum of 36 semester hours and leads to a Bachelor of Science degree. A minor or second major is required. Required courses totaling 30 - 32 hours are required for each area of concentration, with an additional 3-6 hours chosen from specified electives. Incoming freshmen are encouraged to take GEOG 175 (University Experience) as preparation for the major.

Students majoring in geography will develop, with their advisor, a group of courses designed to meet their specific needs within the framework of departmental offerings.

At present, the department offers six specific areas of concentration with a required course of study. These areas of concentration with their specific curricula are as follows:

#### **Environmental Planning and Resource Management**

- Foundation Requirements (13 hours): GEOG 100 or GEOL 102, GEOG 110, 280, 475 or 495, 499.
- Thematic Requirements (9 hours): GEOG 328, 471, 474.
- Technique Requirements (10 hours): GEOG 300, 316, 391.
- General Electives (4 hours): GEOG 208, 209, 310, 317, 350, 380, 414, 417, 419, 444, 452, 455, 459, 461, 487, or GEOL 415.
- Program Total: 36 hours
- Additional requirements: MATH 118 (or MATH 116 and MATH 117) and one Ethics course: PHIL 320 or GEOG 444.

#### **Planning and GIS**

- Foundation Requirements (13 hours): GEOG 100 or GEOL 102, GEOG 110, 240, 475 or 495, 499.
- Thematic Requirements (10 hours): GEOG 317, 474, 484.
- Technique Requirements (10 hours): GEOG 300, 316, 391.
- General Electives (3 hours): GEOG 350, 360, 414, 416, 417, 419, 423, 451, 477, 480, 487, 488, 497.
- Program Total: 36 hours
- Additional Requirements: MATH 118 (or MATH 116 and 117), AMS 163, CIS/CS 226 or CS 146.

### **Land, Weather, and Climate**

- Foundation Requirements (13 hours): GEOG 100 or GEOL 102 or GEOL 111, GEOG 110, 121, 475 or 495, 499.
- Thematic Requirements (7 hours): GEOG 322, 424 or 426.
- Technique Requirements (10 hours): GEOG 300, 316, 391.
- General Electives (6 hours): GEOG 122, 222, 310, 325, 328, 414, 420, 424 or 426, 482, 455, 459, 461, 471, GEOL 311, 325.
- Program Total: 36 hours
- Additional Requirements: MATH 118 (or 116/117), PHYS 201

### **Karst Geosciences**

- Foundation Requirements (13 hours): GEOG 100 or GEOL 102 or GEOL 111, GEOG 110, GEOG 280, GEOG 475, GEOG 499
- Thematic Requirements (9-10 hours): GEOG 310 or 459, GEOG 461, 420 or 475
- Technique Requirements (10 hours): GEOG 300, 316, 391
- Approved Electives (3-4) hours): GEOG 208, 209, 317, 414, 417, 419, 444, 452, 455, 471, 474, 489, GEOL 415, 445
- Program Total: 36 hours
- Additional Requirements: MATH 136, CHEM 120, and BIOL 120 or PHYS 201

### **Cultural Geography**

- Foundation Requirements (14 hours): GEOG 100 or GEOL 102, GEOG 110, 330, 430, 475 or 495, 499.
- Regional Requirements (6 hours): Choose two courses from GEOG 200, 360, 451, 454, 462, 464, 465, 466, 467.
- Thematic Requirements (6 hours): Choose two courses from: GEOG 350, 378, 480, 481.
- Technique Requirements (10 hours): GEOG 300, 316, 391.
- Program Total: 36 hours
- Additional requirement: MATH 118 (or MATH 116 and MATH 117)

### **Geography Honors**

- Program Requirements (30 hours): GEOG 100 (Honors), 110 (Honors), 300, 316, 391, HONS 300, HONS 301, Honors Enriched Embedded Courses (10 hours), 499
- Program Electives (6 hours): HONS 403 Thesis for 6 hours, or 475 or 495
- Program Total 36 Hours
- Additional Requirements: MATH 118 (or MATH 116 and 117), one Ethics course: PHIL 320 or GEOG 444.

### **Four-Year Degree Program**

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By taking the courses required of all majors during the freshman, sophomore, and junior years and the courses required for the specific concentrations during the sophomore, junior, and senior years, a student may graduate in four years. Recommended semester-by-semester schedules can be obtained from advisors, the department office, or the department website: [www.wku.edu/geoweb/aboutgeo.php](http://www.wku.edu/geoweb/aboutgeo.php).

### **Major in Geology**

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The geology program offers four distinct major concentrations, depending on the career goals of the student.

The professional major in geology (reference number 677) is for students seeking careers as a professional geologist and requires a minimum of 40 semester hours and leads to a Bachelor of Science degree. A minor or second major is required. This major provides students with a solid background in all traditional areas of geology for entry-level employment or graduate school. Incoming freshmen are encouraged to take GEOG 175 (University Experience) as preparation for the major.

#### **Professional Major (reference number 677)**

- Program Requirements - 31 hours
- GEOL 111, 112, 113, 114, 270, 308, 330, 350, 380, 460, 499
- Program Electives - 9 hours
- Any 9 hours of approved geology electives



Additional requirements include: MATH 136, BIOL 122-123, CHEM 120-121, CS 146, GEOG 316, 317, 391, and an approved geology field camp or completion of the WKU certificate in Geographic Information Systems (GIS).

The professional extended major in geology (reference number 577) is for students seeking a comprehensive background in the essential content areas within the discipline of geology as defined by the Association of State Boards of Geology. Students who complete this program will be prepared to pass the nationally standardized ASBOG examination, which is one step in the process of achieving professional registration and becoming practicing, professional geologists.

**Professional Extended Major (reference number 577)**

- Program Requirements - 40 hours
- GEOL 111, 112, 113, 114, 270, 308, 310 (or GEOG 310), 330, 350, 380, 415, 460, 485, 499
- Program Electives - 12 hours
- Any 12 hours of approved geology electives

Additional requirements include: MATH 136, BIOL 122-123, CHEM 120-121, CS 146, GEOG 316, 317, 391, and an approved geology field camp or completion of the WKU certificate in Geographic Information Systems (GIS).

The earth and space science and general geoscience concentrations in geology (reference number 676) are for students who either seek the content knowledge needed to qualify for teacher certification in Kentucky in Earth and Space Science or who do not intend to practice professional geology. This major leads to a Bachelor of Arts degree.

**Earth and Space Science Concentration (reference number 676)**

- Program Requirements - 26 hours
- GEOL 111, 112, 113, 114, 308, 311, 325, 380, 460, 499
- Program Electives - 6 hours
- Any 6 hours of approved geology electives

Additional requirements include: MATH 116, PHYS 201, CS 145, GEOG 121, ASTR 104, 106, 405, and a minor field.

**General Geoscience Concentration (reference number 676)**

- Program Requirements - 26 hours
- GEOL 111, 112, 113, 114, 308, 311, 325, 380, 460, 499
- Program Electives - 6 hours
- Any 6 hours of approved geology electives

Additional requirements include: MATH 116, CHEM 105/106, PHYS 201, CS 146, GEOG 121, GEOG 316, and a minor field.

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**Minor in Geography**

The minor in geography (reference number 374) requires a minimum of 21 semester hours. Required courses are GEOG 100, 110, 330, one technique course selected from 300, 316, 317, 391, 417, 419, and 452, and 9 hours of upper-division electives chosen in consultation with your advisor.

Department advisors should be contacted to develop a course of study compatible with the department's philosophy and the student's needs.

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**Minor in Geology**

The minor in geology (reference number 377) requires a minimum of 21 semester hours. Required courses are GEOL 111, 112, 113, and 114. Two additional courses must be selected from GEOL 308, 330, 350, 380, 405, 460. Additional geology courses, to total a minimum of 5 hours, are to be chosen in consultation with a geology advisor.

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**Minor in Earth Science**

The minor in earth science (reference number 353) is for prospective earth science teachers and requires a minimum of 21 semester hours. Required courses are GEOL 111, 112, 113, 114, GEOG 121, and ASTR 214. Courses to total seven additional hours must be elected from GEOL 308, 330, 370, 405, 420, and GEOG 328 and 420. A minor in earth science must be taken in conjunction with a major or minor in another science or in mathematics.

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**Minor in City and Regional Planning**

The minor in city and regional planning (reference number 339) is designed to develop an academic foundation for students interested in pursuing careers in planning agencies, Geographic Information Sciences, and other

government public-service organizations. This minor, in conjunction with an appropriate major, provides a basic foundation for students seeking to pursue graduate or professional studies in the field of city and regional planning.

Two tracks are available in this minor. The Management Track requires GEOG 240, 484, one technique course chosen from GEOG 316, 300, 317, 391, 414, 417, 419, and 452; six hours chosen from GEOG 423, 434, 474, 480, 488, and 495; and six elective hours selected in consultation with the advisor. The GIS Analysis Track requires GEOG 240, 484, and 317; six hours chosen from GEOG 417, 474, 488, and 495; and 6 hours of electives chosen from GEOG 316, 419, 423, and 480 in consultation with your advisor. A minimum of 21 semester hours is required for completion of the minor.

### **Minor in Water Resources**

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This 22-hour minor program (reference number 491) provides a foundation in the physical and social science aspects of water resource management and policy. The minor is appropriate for students interested in careers in applied hydrology and/or water resources management and policy. Required courses (16 hours) include GEOL 111/113 and GEOG 121, 310, 427, and 474. Restricted elective courses (6 hours) include GEOL 415, 440, 445, GEOG 422, 426, 428, and 487.

### **Minor in Geographic Information Systems**

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This 23-hour minor program (reference number 366) provides a foundation in Geographic Information Systems (GIS). The minor is appropriate for students interested in careers utilizing GIS as a tool in areas such as geography, geology, biology, political science, business, journalism and broadcasting, engineering, and public health, or for students pursuing GIS as a profession in a related discipline such as Computer Science or Computer Information Systems. Required courses (23 hours) include GEOG 100 or GEOL 111, GEOG 110, 316, 317, 417, 419, and GEOG 414 or 477 (Remote Sensing or GIS Special Topics).

### **Minor in Environmental Studies**

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The environmental studies minor (reference number 363) is designed to provide a broad-based intellectual foundation for students interested in pursuing careers in environmental management and related areas. The minor is intended for natural science majors, as well as for students majoring in business, psychology, journalism, and other social science and humanities disciplines.

**Requirements:** The environmental studies minor requires 25 semester hours, including a 13-hour core and 12 hours of electives. Students must have at least 12 hours of coursework from outside their major program. Half of the hours in the minor must be at the 300- or 400-level.

#### **Core Courses (13 hours):**

**A.** Introduction to Environmental Science (3 hours): ENV 280, PH 280, CHEM 280, or GEOG 280. These courses present basic environmental concepts and their applications but with different emphases, allowing a student to select that which most closely parallels his/her individual interests.

**B.** Biological Concepts: Evolution, Diversity, Ecology (4 hours): BIOL 122/123.

The selected courses above should be taken during the sophomore year and no later than the fall semester of the third year.

**C.** Earth Science course (3 hours): GEOG 100 or GEOG 121 or GEOL 102, or GEOL 111. These courses present a common body of basic earth science but with different emphases.

**D.** Practicum Experience (3 hours): BIOL 369 or 389 or GEOG 495, or CHEM 489, or ENV 475 or 491. An approved capstone project, supervised practicum, or cooperative education experience in the senior year.

**Elective Courses (12 hours):** The remaining 12 hours of the minor are to be selected from the list of courses identified from the offerings of several departments. The specific courses to be taken will be determined after consultation with one of the environmental studies minor advisors. A sufficient number of offerings has been identified to allow the selection of a sequence that corresponds closely to the students interests. At least two departments must be represented in the 12 hours of elective coursework.

Department of Agriculture: AGRO 350/351, 454

Department of Architectural and Manufacturing Sciences: AMS 470

Department of Biology: BIOL 207/208, 315, 420, 446

#### **Advisors:**

**Dr. John All**

**Environmental Science and Technology  
Building, room 434**

**Phone: (270) 745-5975**

**Dr. David Keeling**

**Environmental Science and Technology  
Building, room 304**

**Phone: (270) 745-4555**

Department of Chemistry: CHEM 314, 446

Department of Engineering: CE 351

Department of Geography and Geology: GEOG 328, 427, 455, 474; GEOG/GEOL 310; GEOL 415

Department of Public Health: ENV 375, 460, 480, PH 385

Department of Philosophy and Religion: RELS 408

### **Minor in Sustainability**

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The minor in sustainability (reference number 475) requires 21 semester hours. The minor provides students with the environmental science knowledge and the theoretical foundation to approach decision making in a way that is sustainable for the long term. They will understand how both individual and societal decision-making impacts the environment. Completion of the minor will enable students to examine objectively the impact of specific human activities on the environment and how to mitigate the negative ramifications.

The following courses are required for the 21 hours in the minor (12 hours must be upper-level):

- Three courses in the foundation and capstone areas (9 hours total): GEOG 280, 380, and GEOG 495 or 489.
- At least one course from each of the following four clusters (12 hours total). Note—No more than 6 hours of cluster courses can be taken from any single discipline:
  - Cluster A: Ethics and Human Behavior—ANTH 442, GEOG 444, SOCL 470
  - Cluster B: Economics, Law, and Policy—ECON 430, GEOG 471, 487
  - Cluster C: Physical Systems and the Environment—BIOL 315, GEOL 415, GEOG 427, 455, ENV 375, PH 385, PHYS 100.
  - Cluster D: Planning and Land-Use—AGRO 454, AMS 470, CE 351, GEOG 474, ENV 460

### **Geographic Information Systems Certificate (14 hours)**

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Geographic Information Systems technology is widely used in business and industry, government, and education. This certificate (reference number 174) is designed for students in a variety of disciplines that involve the analysis, mapping, and interpretation of geographic data. Students who complete the program will have a solid foundation that spans the collection, management, analysis, interpretation, and display of data using geographic information systems. They will gain practical experience by completing projects that require the use of sophisticated GIS functions. Finally, they will learn how to develop and implement customized GIS applications.

The program is housed in the Department of Geography and Geology. It consists of a series of four courses taken for a total of 14 credit hours. The courses are GEOG 316, 317, 417, and 419.

### **Graduate Degree Programs**

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The Master of Science in geoscience programs are designed to provide advanced training for those students pursuing administrative and other higher level employment or who plan to continue their graduate education at other universities offering Ph.D. degrees. Undergraduate students who plan early can continue their education and receive a bachelors and masters within five years in the department. While the specializations in geography and geology are similar to those offered at the undergraduate level, emphasis is placed on independent research under the guidance of a graduate advisor. There are many funded research projects within the Department for qualified students. Graduate students are required to write a Master's thesis that derives from independent research in a topic of their choosing, .

The department also cooperates with the College of Education in offering a Master of Arts in Education – Geography Education for Teacher Leaders degree with emphases on cultural geography for social studies teachers and earth science for STEM teachers .

A number of assistantships are available to outstanding graduate students. For further information see the Graduate Studies Catalog or contact the Office of Graduate Studies.

Department of Mathematics and Computer Science

Mathematics and computer science courses at the University are designed with the interests and needs of varying groups of students in mind.

Mathematics majors are available to those planning to pursue careers in secondary and middle grades education as well as to those whose preparation is being directed toward positions in business and industry or toward further work in mathematics at the graduate level. In addition, several courses are offered to meet the demands for the mathematical training of students whose major educational objectives are not directly related to mathematics. Mathematics majors are assigned advisors from among the departmental faculty and are required to consult with these advisors before each registration period.

Computer science remains one of the most exciting and most rapidly growing professions worldwide. The supply of graduates with CS degrees is far exceeded by the demand for professionals at all levels. Such positions include applications programming, systems programming, software and network management, field maintenance and sales, research, and teaching. Many new areas of interest continue to emerge, such as animation, games, and simulation. Computer scientists offer expertise in the effective and efficient use of computers for industry, business, government, research and education.

Recent studies have estimated that the field continues to be among the top two or three in demand. For the last several years, Computer Science graduates with a bachelor's degree currently have commanded the second-highest starting salary for all undergraduate disciplines, according to the College Placement Council Survey.

According to a report from the Kentucky Department for Employment Services, Computer Support Specialists, Computer Software Engineers and Computer Systems Analysts are the three projected fastest growing occupations.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the sub-sections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations.

Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

This department offers the following majors and minors:

- **Major:** Non-teacher certifiable major in mathematics (reference number 728)
- **Major:** Mathematics extended major for employment in industry and/or graduate studies in mathematics (reference number 528)
- **Major:** Mathematics major certifiable for teaching secondary level mathematics (reference number 728)
- **Major:** Middle grades mathematics (reference number 730)
- **Major:** Mathematical Economics (reference number 731)
- **Major:** Computer Science with concentration in Systems/Scientific Applications (reference number 629)
- **Major:** Computer Science with Specialty concentration (reference number 629)
- **Major:** Computer Science with any minor (reference number 629)

**Dr. Peter Hamburger, Head**

**College High Hall**

**Office: 4124**

**Phone: (270) 745-3651**

**Fax: (270) 745-3699**

**Website: [www.wku.edu/mathcs](http://www.wku.edu/mathcs)**

**e-mail (Mathematics): [Math@wku.edu](mailto:Math@wku.edu)**

**e-mail (Computer Science): [cs@wku.edu](mailto:cs@wku.edu)**

**Professor Mark Robinson, Assistant Department Head (Mathematics)**

**Professor David Neal, Lead Advisor (Mathematics)**

**Associate Professor James Gary, Lead Advisor (Computer Science)**

**Professors:** F. Atici, M. Atici, R. Crawford, D. Erbach, C. Ernst, P. Hamburger, N. Iraniparast, B. Kessler, D. Neal, T. Richmond, M. Robinson, A. Shindhelm, J. Spraker, W. Weidemann, U. Ziegler

**Associate Professors:** J. Gary, D. Lanphier, V. Moody, L. Nguyen, Z. Xia, G. Xing

**Assistant Professors:** M. Autin, S. Bateiha, T. Bhattacharya, M. Dunkum, J. Giske, M. Kenner, Q. Li, H. Marchionda, S. Munasinghe, N. Nguyen, A. Por, J. Quiton, R. Schugart, H. Wang, D. Wu, R. Yang

**Instructors:** R. Ayers, J. Curtis, L. Fitzpatrick, T. Harris, L. Plumlee, L. Rogers, C. Shen, L. Wells

**Transitional Retirees:** J. Brantley, B. Brunson, J. Thornton

- **Minor:** Mathematics (reference number 417)
- **Minor:** Computer Science (reference number 341)
- **Minor:** Applied Statistics (reference number 313)

### Admission Requirements

To be admitted to the major in mathematics (reference numbers 728 and 528) students must complete the following admission requirements:

- Earn a C or better in each of the following courses: MATH 136, 137, and 307 (or 310).
- Have an overall GPA of at least 2.4 in the mathematics program courses completed prior to admission (MATH 136, 137, and 307 (or 310)).
- Note: If a course is repeated, then the second grade is used to compute the GPA. If a course is repeated multiple times, then the average of all grades after the first attempt is used to compute the GPA.

### Major in Mathematics

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A major in mathematics provides a Bachelor of Arts degree and requires either a minimum of 36-39 semester hours for a general major with a minor or second major (reference number 728) or a minimum of 51 semester hours for an extended major (reference number 528). Note: All mathematics courses listed as prerequisites for other courses must have been completed with a grade of C or better.

Students who wish to declare a 728 or 528 mathematics major will initially be designated as “seeking admission” until the following requirements have been satisfied:

- Complete MATH 136, 137, and 307 or 310, with a grade of C or better in each course.
- Have an overall GPA of at least 2.4 in mathematics program courses (MATH 136 and above) completed prior to admission.

The general major (728) offers two options: (1) Non-teacher certifiable Major in Mathematics; (2) Major Certifiable for Teaching Secondary Level Mathematics. The extended major (528) offers only the first option. Option 1 students are required to complete both CS 180 and 181. Option 2 students are required to complete either CS 170 or 180.

#### Option 1: Non-Teacher Certifiable Major in Mathematics

**(A) General Major (728):** To prepare for employment in industry, the student must complete a minimum of 39 hours of mathematics with a minor or second major giving a total of at least 59 hours (53 unduplicated) with the following requirements:

1. MATH 136, 137, 237, 307, 310, 317, 337, 498.
2. Two courses from: MATH 405, 406, 415, 417, 423, 431, 432, 435, 439, 450, 470, 473, 482.
3. Six elective hours from: MATH 275 (up to 3 hours), STAT 301, MATH 305, 315, 323, 331, 370, 382, 398 (up to 3 hours), 405, 406, 415, 417, 423, 432, 435, 439, 450, 470, 475 (up to 6 hours), 482.
4. Students may take certain 500-level mathematics courses for undergraduate credit with the approval of the Dept. Head in place of courses listed in items 2 or 3.
5. In addition, 12 credit hours of supporting courses from the Ogden College of Science and Engineering or Gordon Ford College of Business (courses such as mathematics, statistics, sciences, engineering, economics, finance and accounting) are required. These courses must be approved by the mathematics and computer science department head. These hours will not count toward a first minor nor usually toward a second major.
6. Also required is PHIL 215 or EE 180.
7. Note: This major is not intended to prepare students adequately for graduate mathematics. Students intending to seek a graduate degree should pursue major 528.

**(B) Extended Major (528):** To prepare for graduate study in mathematics, the student must complete a minimum of 51 hours of mathematics with the following requirements:

1. MATH 136, 137, 237, 307, 310, 317, 337, 431, 498.
2. Have a concentration in one of the following areas: B1, B2, or B3.

B1: Fundamentals of Analysis and Discrete Mathematics:

- i. MATH 417, 439, 450
- ii. Two courses from: MATH 315, 323, 415, 423, 432, 473
- iii. Six additional elective hours from: MATH 275 (up to 3 hours), STAT 301, MATH 305, 315, 323, 331, 370, 382, 398 (up to 3 hours), 405, 406, 409, 415, 423, 432, 435, 470, 473, 475 (up to 6 hours), 482.

B2: Fundamentals of Applied Mathematics

- i. MATH 331, 370, 382, 405.
- ii. Two courses from: MATH 305, 406, 435, 470, 482
- iii. Three credit hours from MATH 275, STAT 301, MATH 305, 315, 323, 398, 406, 409, 415, 417, 423, 432, 435, 439, 450, 470, 473, 475, 482.

B3: Fundamentals of Mathematical Studies

- i. Math 450
- ii. Two courses from: MATH 405, 406, 409, 415, 417, 423, 432, 435, 439, 470, 473, 482.
- iii. Twelve additional elective hours from MATH 275 (up to 3 hours), STAT 301, MATH 305, 315, 323, 331, 370, 382, 398 (up to 3 hours), 405, 406, 409, 415, 423, 432, 435, 470, 473, 475 (up to 6 hours), 482.

3. Students may take certain 500-level mathematics courses for undergraduate credit in place of courses listed in items B1i, B1ii, B2i, B2ii, B3i, or B3ii with the approval of the mathematics and computer science department head. No minor or second major for the extended major is required.

**Option 2: Major Certifiable for Teaching Secondary Level Mathematics**

**General Certifiable Major (reference number 728):** The student must complete a minimum of 36 hours of mathematics with a second major in Science and Mathematics Education (SMED) and with the following requirements:

1. MATH 136, 137, 237, 304, 307, 310, 317, 323, 498; STAT 301. Before the “professional semester,” the student must complete each of these courses with a grade of “C” or better and achieve a GPA of at least 2.5 in required mathematics courses.
2. At least 3 hours of 400-level mathematics from the following list: MATH 405, 406, 409, 415, 417, 421, 423, 431, 432, 435, 439, 450, 470, 482.
3. Also required is PHIL 215 or EE 180.

Students in this option must have a second major in science and mathematics education (SMED). In addition, students must attain a grade of “C” or better in each required mathematics course and a 2.5 GPA for all required mathematics courses.

**Major in Middle Grades Mathematics**

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A major in middle grades mathematics (reference number 730) is for students who plan to teach mathematics in grades 5-9 only. The degree requires a second major in science and mathematics education (SMED). Upon successful completion of both majors, the student will receive a Bachelor of Science degree.

Students who wish to declare a 730 middle grades mathematics major will initially be designated as “seeking admission” until the following requirements have been satisfied:

- Complete MATH 117 and MATH 136, or MATH 136 and MATH 137; and MATH 205, with a grade of C or better in each course.
- Have an overall GPA of at least 2.4 in all middle grades mathematics program courses (MATH 117 and above) completed prior to admission.

(If a course is repeated, then the second grade is used to compute the GPA. If a course is repeated multiple times, then the average of all grades after the first attempt is used to compute the GPA.)

The student must complete a minimum of 32 hours in mathematics by taking the following required courses: MATH 117 and 136 OR MATH 136 and 137; MATH 183 or STAT 301; MATH 205, 206, 304, 308, 403 or 323, 411 or 421, 413, 490.

Students must attain a grade of “C” or better in each required course and must have a 2.5 GPA overall in required mathematics courses.

### Major in Mathematical Economics

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The major in Mathematical Economics (reference number 731) requires 27 hours in Economics, 21 hours in Mathematics, and 1 hour of an interdisciplinary senior seminar course. This major leads to a Bachelor of Science degree intended for students interested in graduate studies in economics, public policy, or business, as well as those students seeking analytical careers that will require extensive mathematics backgrounds.

The program of study requires completion of a second major or a minor. The second major may not be economics, business economics, or mathematics. The minor may not be economics or mathematics.

All majors must complete a 40-hour core consisting of ECON 202, 203, 206 (or STAT 301), 302, 303, 306 or 307, 464, 465; MATH 136, 137, 237, 307; and ECON 497 or MATH 497. Additionally, either MATH 331 or 310 must be completed, and students must take three additional hours from either MATH 331, 310, 305, 382, 435, or 405. The remaining 3 hours in economics for completion may be selected from other 300 and 400 level economics courses.

Admission to the mathematical economics major requires (1) the completion of MATH 136, ECON 202 and 203, and ECON 206 or STAT 301 with a minimum GPA of 2.0 in the courses listed; and (2) completion of a minimum of 60 hours with a minimum GPA of 2.0 overall; and (3) completion of a minimum of 12 hours at Western Kentucky University with a minimum WKU GPA of 2.0. All mathematical economics majors will be required to enroll in an interdisciplinary senior seminar course prior to graduation (ECON 497 or MATH 497, 1 hour).

**NOTE:** A suggested Program of Study to complete each of the above in four years can be found on the Internet at: <http://www.wku.edu/~david.neal/advising/>.

### Minor in Mathematics (Minor for Employment in Industry and/or Graduate Studies in Mathematics)

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A minor in mathematics (reference number 417) requires a minimum of 24 semester hours. In addition to the foundational sequence (MATH 136, 137, 237, and either 307 or 370), the student is required to select at least nine hours from MATH 3XX\*, MATH 4XX\*, or STAT 301\*\*.

\*Students may not count MATH 304, 308, 403, 411, 413, 421, or 490 toward the minor. MATH 398 may count toward the minor only if the student completes MATH 498.

\*\* Students may not count both MATH 382 and STAT 301 in the minor.

### Minor in Applied Statistics

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A minor in applied statistics (reference number 313) requires a minimum of 19 semester hours. This program is designed for a student seeking a career as a statistical programmer/analyst/consultant in a knowledge-based industry or in a research institution.

The student who elects a minor in applied statistics must complete a minimum of 13 credit hours, as follows: MATH 136 or 142; STAT 301, 330, and 401.

In addition, the student is required to take relevant elective courses to total at least 6 credit hours from the following: (1) any 300-level or 400-level STAT course other than STAT 301, 330, and 401; (2) MATH 382, 482, or 470; (3) at most 3 credit hours of 300-400 level statistical coursework relevant to the student's area of study (with prior approval from the Statistics Education Committee of the Department of Mathematics and Computer Science).

### Grades K-5 Certification

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All students seeking grades K-5 certification must satisfy the general education requirement in mathematics prior to enrolling in the required courses: MATH 205-206-308.

### Certificate in Data Analysis using SAS®

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The Certificate in Data Analysis using SAS (reference number 1716) requires a minimum of 15 semester hours. This certificate is designed for a student seeking a career as a statistical programmer/analyst/consultant in a knowledge-based industry or in a research institution.

To be eligible for the program, the student must have completed MATH 136 (formerly MATH 126) or MATH 142 (or equivalent) with a grade of C or better. The student pursuing a Certificate in Data Analysis using SAS must complete a minimum of 12 credit hours of core statistics courses as follows: STAT 301, 330, 401, 402. In addition, this student is required to take at least 3 credit hours of courses using SAS, selected from the following courses:

- Any 300-level or higher STAT course using SAS, other than STAT 301, 330, 401, and 402.

- MATH 498. Students are required to provide an electronic copy of their paper to the Statistics Education Committee of the Department of Mathematics and Computer Science to verify the use of SAS software.
- Any 300-level or higher course using SAS in another department, with prior approval from the Statistics Education Committee of the Department of Mathematics and Computer Science.

### **Computer Science Curriculum and Career Objectives**

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Courses in the computer science curriculum develop students' knowledge in both theory and applications. Where appropriate, they will discuss contributions from and to other disciplines such as mathematics, statistics, the sciences, engineering, management, etc.

The Systems/Scientific Concentration, Specialty Concentration, and Any Minor option, prepare students for a career in the research and development of computers and their applications. The computer science minor provides a valuable complement to almost any career objective. The graduate degree offers advanced work beyond the undergraduate computer science major. (See the section on Requirements for Computer Science Degree Options for specific course information.)

Student organizations complement the formal coursework. The student chapter of the Association for Computing Machinery (ACM) invites guest speakers, organizes a programming contest for students, and hosts social events throughout the year. The Department maintains a student chapter of Upsilon Pi Epsilon (UPE), the computer science honor society. Other more informal groups bring together students interested in specific areas, such as Linux and its applications, or computer game programming.

The University provides numerous computing laboratories across the campus to which all students have access. In addition, the computer science department has its own laboratories in the new Snell Hall. Some courses are taught in a laboratory environment.

### **Major in Computer Science**

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The major in computer science (reference number 629) requires a minimum of 44 semester hours. All CS courses counting toward the CS program major must be completed with a grade of "C" or better. Computer Science electives may include from 0-6 hours of 200-level courses. Adherence to all University Policies as indicated in the WKU catalog section "Academic Information." Additional requirements are as follows:

#### **Systems/Scientific Applications Concentration**

1. 47 hours of computer science courses are required.
2. ENG 307, MATH 136, STAT 301, and PHIL 215 are required.
3. Completion of these 11 CS core courses (35 credit hours): CS 180, 181, 251, 280, 325, 360, 380, 382, 396, 425, and 496.
4. Completion of 12 hours of CS electives from the following courses: CS 370, 381, 443, 445, 446, 450, and 456.
5. Completion of 2 courses from the following list: MATH 127, 137, 305, 307, 331, 405, 406, 470 and 473.
6. Completion of one year of a laboratory science (a two semester sequence of the same science) and one additional science course (all must be designed for Science/Engineering majors).
7. One additional course from the above list of MATH courses (this course may not be used to satisfy any other CS major degree requirement) or one additional science course designed for science/engineering majors.

#### **Any Minor Option**

1. 44 hours of computer science courses are required.
2. ENG 307, MATH 136, STAT 301, and PHIL 215 are required.
3. Completion of these 11 CS core courses (35 credit hours): CS 180, 181, 251, 280, 325, 360, 380, 382, 396, 425, and 496.
4. Completion of an additional 9 hours of CS electives at the 200-level or above (excluding CS 226 and 257) including 3 hours at the 400-level and another 3 hours at the 300-level or higher. Note; At most 1.5 hours of credit for CS 239 may count towards the major. At most 3 hours of credit for CS 239 and 245 (only for languages for which credit is not received through another course) may count towards the major.
5. Completion of any additional minor/major.



### Specialty Concentration

1. 50 hours of computer science courses are required.
2. ENG 307, MATH 136, STAT 301, and PHIL 215 are required.
3. Completion of these 13 CS core courses (41 credit hours): CS 180, 181, 251, 280, 325, 360, 380, 381, 382, 396, 425, 443, and 496.
4. An additional 18 hours of specialty courses, selected in consultation with a CS advisor, not used to satisfy specific other graduation requirements for the CS major or for general education, including 9 hours of which are at the 300 level or above.
5. Completion of an additional 9 hours of CS electives at the 200-level or above (excluding CS 226 and 257) including 3 hours at the 400-level and another 3 hours at the 300-level or higher. Note: At most 1.5 hours of credit for CS 239 may count towards the major. At most 3 hours of credit for CS 239 and 245 (only for languages for which credit is not received through another course) may count towards the major.
6. **NOTE:** A suggested Program of Study to complete each of the above in four years can be found on the Internet at: <http://www.wku.edu/cs/undergraduate.php>.

### Minor in Computer Science

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The following 23 credit-hour program leads to a minor in computer science (reference number 341). All CS courses counting toward the CS program minor must be completed with a grade of "C" or better:

1. Completion of the following 11 credit hours: CS 180, 181, and 251 or 280.
2. Completion of at least 12 hours of CS courses at the 300-level or higher.
3. Completion of: MATH 119, MATH 122 or MATH 136, and PHIL 215.

### Graduate Degree Programs

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The Department of Mathematics and Computer Science offers graduate courses for the Master of Arts and Master of Science in mathematics and the Master of Science in computer science. Mathematics coursework is also provided for those seeking graduate degrees in elementary or middle grades education.

Several assistantships are available for qualified graduate students.

Additional information on admissions and graduate assistantships for the graduate programs in Mathematics can be obtained from:

**Dr. Claus Ernst**  
**Director of Graduate Studies in Mathematics**  
**Phone: (270) 745-6224**

The Master of Science in Computer Science is a 33 credit hour program. There are thesis and non-thesis options.

Additional information on admissions and graduate assistantships for the Master of Science in Computer Science can be obtained from:

**Dr. Guangming Xing**  
**Graduate Admission Advisor, Computer Science**  
**Phone: (270) 745-8848**

## Department of Physics and Astronomy

The Department of Physics and Astronomy provides a multidimensional framework to support a variety of professional goals and interests of students. The curriculum available within the departmental program affords preparation for careers as physicists in government or industrial laboratories, for teaching in public schools or junior colleges, for entering advanced programs at the graduate level, or as a basis for studies leading to careers in engineering and other professional fields. Fundamental to the program are scientific facilities and faculty providing opportunities for practicing scientific inquiry, which is the basis for understanding the operation of the physical universe, from the smallest to the largest components.

Modern facilities and equipment enhance the instructional program of the department. Space on the first three floors of the Thompson Science Complex Central Wing provides classroom, laboratory, shop, research, and computing accommodations, as well as convenient access to the facilities of Academic Computing Services. The adjacent Hardin Planetarium supports astronomy laboratories and demonstrations for classes, as well as focused presentations of astronomy and the physical universe for school groups and the general public. A roof-top astronomical observatory provides students with convenient access to the department's 12.5 inch Cassegrain reflector and several smaller telescopes. The University Physics laboratories are equipped with modern laboratory equipment and data acquisition interfaces using software that is standard in the physics community. The Applied Physics Institute houses an X-ray diffractometer, neutron generator, Beowulf Computer Cluster and a Large Chamber Scanning Electron Microscope. From the beginning of their careers our students are exposed to modern laboratory methods.

The diversity of our faculty is a major strength of our undergraduate program, allowing students to benefit from a breadth of available interest and specializations. Undergraduate students are encouraged, in the course of their studies, to participate in a variety of research opportunities with faculty members. Individual student research projects may start as early as the sophomore year, supported in some cases by available assistantships or formal course credit. Descriptions of current research studies by faculty members and specific research opportunities available to undergraduate students are outlined on the department's website.

The department sponsors a local chapter of the nationally affiliated Society of Physics Students (SPS) for students interested in physics, as well as a section of the Sigma Pi Sigma honor society. The local SPS chapter sponsors or participates in a variety of social and service activities related to physics, including field trips, trips to scientific meetings, tutoring, and interacting with students from area schools.

The Hilltopper Astronomy Club provides support for students interested in astronomy both as a hobby and a science. Regular observing sessions, informal meetings, and various projects are some of the benefits available to members.

Physics is the basic science, and all of the programs outlined below are designed to provide a sound knowledge of physical principles. The programs are also flexible to the extent that the student can select related courses in biology, chemistry, geology or astronomy to prepare for a career in interdisciplinary areas such as biophysics, geophysics, environmental science or chemical physics.

When planning a program of study in this department, each student should be aware of the University academic requirements and regulations contained in this catalog in the chapter, "Academic Information." Specific attention should be given to the sub-sections in the chapter entitled (a) Academic Programs, (b) General Requirements, and (c) Academic Requirements and Regulations.

### Major in Middle School Science

The middle school science education major (MSSE, reference number 734) is for students who plan to teach science in grades 5 through 9. The MSSE major requires completion of the science and mathematics education (SMED) program also. Upon successful completion of both majors, the student will earn a Bachelor of Science degree and will qualify for an institutional recommendation for a Kentucky Provisional Certificate for teaching in the middle grades (5-9) science field.

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**website: [www.wku.edu/physics](http://www.wku.edu/physics)**

**William McCormack Professor of Physics:**

*Charles H. McGruder, III*

**Madole Professor of Physics:**

*Douglas Harper*

**Professors:** *K. Andrew, M. Carini, G. Emslie,  
R. Gelderman, R. Scott, W. Van der Meer,  
P. Womble*

**Associate Professors:** *A. Barzilov,*

*S. Bonham, I. Novikov, L. Strolger*

**Assistant Professors:** *V. Dobrokhotov,  
S. Gibson, E. Kintzel*

**Professors Emeriti:** *D. Bryant, K. Hackney, D.  
Humphrey*

To earn the MSSE major, the student must earn a grade of “C” or better in each of the required core courses (33 semester credit hours) and in each of the minimum of 15 semester credit hours of courses selected from the list of restricted electives. MSSE majors must earn a grade of “C” or better in a mathematics course chosen from MATH 117, 118, or 126. Students must have an overall grade point average of at least 2.5 for all completed science courses. Students who complete this major will receive a 6 hour waiver of the university requirement that at least half the minimum hours in the major be at the 300- or 400-level.

Students seeking academic advising with regard to preparation as a mathematics or science teacher should contact the SKyTeach office, TCCW 102, (270) 745-3900, or refer to the SKyTeach website – <http://www.wku.edu/skyteach> for additional information.

Upon completing the appropriate certification requirements (including attaining a 2.5 GPA in both majors and overall and the minimum required scores on the appropriate PRAXIS II examinations) the student will be eligible to apply for Kentucky certification for Middle Grades Science, grades 5-9.

**Required courses:** ASTR 104 or 106; GEOL 111/113, 112/114; BIOL 120/121, 122/123; CHEM 105/106 or 120/121; PHYS 105, 201 or 231/232; SMED 360.

**Restricted Electives** (Minimum of 15 semester credit hours required, representing at least three of the five science disciplines. Asterisk indicates that another restricted elective is a prerequisite): ASTR 405; GEOL 308, 310, 311, 325, 380, 405; GEOG 427\*, 471; BIOL 325, 326, 327, 334, 319/322, 348, 350\*, 407, 411/412\*, 430\*; PHYS 410.

**Major in Physics**

The major in physics (reference number 754) requires a minimum of 35 semester hours and leads to a Bachelor of Science degree. A minor or second major is required. The foundation for the undergraduate major is provided by a core sequence of six lecture and five laboratory courses, requiring a total of 26 semester hours. This core sequence consists of the following:

- PHYS 180 /181 (4) Introductory Modern Physics and Lab
- PHYS 255/256 (5) University Physics I and Lab
- PHYS 265/266 (5) University Physics II and Lab
- PHYS 301 (1) Electrical Measurements Lab
- PHYS 302 (1) Atomic Lab
- PHYS 321 (3) Introductory Modern Physics II
- PHYS 350 (3) Classical Mechanics I
- PHYS 398 (.5) Junior Seminar
- PHYS 440 (3) Electricity and Magnetism I
- PHYS 498 (.5) Senior Seminar

The student majoring in physics must complete, in addition to this core, a minimum of 9 semester hours of selected upper division departmental courses. The selection is determined by the student’s career aspirations, subject to approval by the student’s departmental advisor. The upper division electives must be chosen from the courses listed for departmental majors and minors, excluding PHYS 389, 399, and 489. No more than 3 hours of PHYS 475 may be counted toward the 35 hour minimum requirement for the major. Support requirements include MATH 136, 137, 307 or 370, 237, and 331, 3 semester hours of CS 146 or higher, and CHEM

Suggested Program of Study: General Physics Track #1			
Fall (freshman year)	Hrs.	Spring (freshman year)	Hrs.
MATH 136	4	MATH 137	4
ENG 100	3	PHYS 255	4
PHYS 180	3	PHYS 256	1
PHYS 181	1	CHEM 120	4
COMM 145 or 161	3	CHEM 121	1
Gen. Ed.	3	HIST 119 or 120	3
<b>Total Hours</b>	<b>17</b>	<b>Total Hours</b>	<b>17</b>
Fall (sophomore year)	Hrs.	Spring (sophomore year)	Hrs.
MATH 310	3	PHYS 321	3
MATH 307 or 370	3	PHYS 301	1
PHYS 265	4	MATH 237	4
PHYS 266	1	CS 240	3
ENG 200	3	CS 244	1
Gen. Ed.	3	Gen. Ed.	3
		Foreign Language-Gen Ed.	3
<b>Total Hours</b>	<b>17</b>	<b>Total Hours</b>	<b>18</b>
Fall (junior year)	Hrs.	Spring (junior year)	Hrs.
MATH 382	3	PHYS 440	3
PHYS 350	3	PHYS 316 or 318	3
PHYS 330	3	PHYS 470	3
PHYS 302	1	PHYS 407	1
MATH 331	3	PHYS 398	0.5
Gen. Ed.	2	MATH 435	3
Gen. Ed.	3	ENG 300	3
<b>Total Hours</b>	<b>18</b>	<b>Total Hours</b>	<b>16.5</b>
Fall (senior year)	Hrs.	Spring (senior year)	Hrs.
PHYS 460	3	PHYS 450	3
PHYS 406	1	PHYS 445	3
PHYS 441	3	MATH 429	3
PHYS 404	1	MATH 450	3
PHYS 480	3	MATH 498	1
PHYS 498	0.5	Gen. Ed.	3
MATH 317	3		
Gen. Ed.	3		
<b>Total Hours</b>	<b>17.5</b>	<b>Total Hours</b>	<b>16</b>

120/121. (Support requirements differ for teacher certification; see below.) The department has prepared several career-oriented tracks, which detail relevant departmental electives and additional or departmentally-approved substitute support courses. Advising tracks currently defined within the Bachelor of Science in physics program include the following:

1. The general physics track is designed for those students who wish to pursue careers as physicists or are preparing for graduate study in physics.
2. The applied physics track combines extensive technical knowledge, related problem-solving skills, and computer techniques to prepare students for positions in industrial and governmental laboratories.
3. The physics and astronomy track prepares students for careers in astronomy/space science and for graduate study in these areas.
4. The teacher certification track prepares students for careers teaching physics at the secondary school level. The student must also complete professional education requirements as specified by the School of Integrative Studies in Teacher Education.
5. Dual-degree - physics/applied science/engineering (see below).
6. Other - There are some specified programs such as a suggested pre-medicine curriculum for students wishing to major in physics. Course recommendations for these tracks are available from the departmental office. In all cases, the student must work closely with the departmental advisor from the beginning to plan a program of study that meets departmental and University requirements and that maximizes preparation to meet career goals.

### **Dual-Degree Option (Physics/Applied Sciences/Engineering)**

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This is a 3/2 option that requires three years of study at Western Kentucky University and two years at a science/engineering school, leading to two degrees, one in physics and astronomy at Western Kentucky University and one in engineering or applied science. Western Kentucky University has cooperative agreements with a number of partner institutions. Under these agreements a student can pursue his/her studies

at Western Kentucky University for three years, taking courses in general education, mathematics, chemistry, and physics as required for a major in physics. The student then transfers to one of the partner schools for an additional two years of study in an engineering or applied science area of his/her choice. By transfer of credit from the partner school to Western Kentucky University and upon completion of the graduation requirements at Western Kentucky University, the student receives a Bachelor of Science degree in physics from Western Kentucky University. At the end of the fifth year and upon completion of the graduation requirements at the partner school, the student receives a Bachelor of Science degree from the cooperating school.

### **Minor in Astronomy**

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The minor in astronomy (reference number 318) requires a minimum of 20 semester hours and is designed to provide a background in astronomy, astrophysics, and planetary science for students from a wide range of backgrounds. Students who intend to undertake graduate work in astronomy should complete a major in physics with a minor in mathematics. A minor in astronomy consists of at least 16 credit hours of required core courses and at least 4 credit hours from the list of restricted electives. The core requirements are ASTR 214 (4 hrs); ASTR 314 (4 hrs); and an introductory sequence of classical physics: PHYS 255/256 and PHYS 265/266 (10 hours); or PHYS 201 and PHYS 202 (8 hours); or PHYS 231/232 and PHYS 332/233 (8 hours). Physics majors must substitute GEOL 111/113 for PHYS 255-256. The actual elective credit hours required for an astronomy minor is dependent upon satisfaction of the university requirement that at least one-half of the credits required for each major or minor be earned in courses numbered 300 and above. The list of restricted electives includes: ASTR 305, 414, PHYS 316, 441/404, 445, 450, 465, GEOL 325, 330, 350, 370, 420 or 465.

### **Minor in Biophysics**

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The minor in biophysics (reference number 329) requires a minimum of 18 semester hours. This course sequence is intended to serve students of the life sciences, that is, students of biology, pre-medicine and pre-dental, agriculture, environmental health, psychology, science teaching, environmental engineering, pre-veterinary, pre-pharmacy and pre-optometry. In general, this curriculum treats the physics of life processes and various applications of physics to biology and medicine. (See the Biophysics section in this catalog.)

Required courses: PHYS 231/232, 332/233, and 335 or 337 or 431; and at least 6 hours selected from appropriate physics and/or biology courses approved by a biophysics advisor.

## Minor in Physics

The minor in Physics (reference number 435) requires a minimum of 23 semester hours and the following courses: PHYS 180, 255, 265, 321, and a minimum of 9 semester hours selected from the lecture courses under the bulletin heading DEPARTMENTAL MAJORS AND MINORS.

### Course Categories

The courses offered by the Department of Physics and Astronomy belong to four categories according to clientele:

1. **Non-Science Majors**  
General courses treating a selection of coordinated topics in sufficient depth to be beneficial to the non-science students; 100-level.
2. **Science and Math Majors and Minors**  
Introductory courses for science and math students; mainly 200-level.
3. **Education Majors and Minors**  
Upper division courses for prospective teachers; 300- and 400-level.
4. **Department Majors and Minors**  
Upper division courses for students following the program options of physics, physics education, dual-degree: 300- and 400-level.

### Graduate Degree Programs

The Department of Physics and Astronomy offers courses leading to the Master of Arts in Education (physics minor) and Master of Science in Homeland Security Sciences.

## Pre-Professional and Interdisciplinary Programs

### Pre-Chiropractic

WKU has a 3-year (90 semester hours) curriculum designed to prepare potential candidates for entry into a professional chiropractic college. Prior to application at a chiropractic college, candidates must have earned a minimum of 90 semester hours (including at least 48 semester hours in the courses listed below). The candidate is responsible for ensuring that he or she has met those specific and elective requirements of the school(s) to which they are applying. WKU has an articulation agreement with Palmer College, Davenport, Iowa for preferred admission pending:

1. Application six months in advance of the intended start date
2. Maintenance of a minimum GPA of 2.50 on a 4.0 scale
3. Completion of at least eight courses at WKU and
4. Satisfaction of all other requirements for admission as prescribed in the Palmer College of Chiropractic catalog.

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Although the following requirements will meet current admission guidelines for Palmer, most chiropractic programs possess uniform pre-requisites that mirror these requirements. Completion of these pre-requisites will allow you to compete for available spaces in chiropractic programs, but will not guarantee admission into a professional chiropractic college:

- ENG 100 and 300
- BIOL 120/121; and 122/123 or 131
- CHEM 120/121; and CHEM 222/223
- CHEM 340/341; and CHEM 342/343
- MATH 118 (or MATH 116 and 117)
- PSY 100
- PHYS 231/232; II 332/233 [or PHYS 201; PHYS 202/208]

Humanities and Social Sciences: 15 hours of electives selected from literature, sociology, psychology, art, theatre, etc..., in conjunction with your advisor.

# Ogden College of Science and Engineering



Ogden College of Science and Engineering encompasses the applied and basic sciences, offering a broad range of degree programs in agriculture, biology, chemistry, computer science, construction management, engineering, geography, geology, architectural design, manufacturing sciences, mathematics, meteorology, and physics and astronomy. Ogden College also offers a cooperative doctoral program in chemistry with the University of Louisville.

In collaboration with the College of Education, Ogden College offers the SKyTeach Program for those interested in teaching science and math at middle or high school levels. This program is a replication of a nationally recognized program in teacher preparation developed at the University of Austin, Texas. WKU received \$2.4 M in funding from Exxon/Mobil through the National Mathematics and Science Initiative to develop the SKyTeach program at WKU.

Ogden College of Science and Engineering is recognized by the high quality and success of its students and graduates that result from personal attention to student professional development through engagement with faculty in projects that expand on classroom instruction. The College's mission is to create an academic environment of rigor and achievement, to cultivate a community of scholars, and to enhance interconnections among the disciplines.

Ogden College is located on the campus of an earlier education institution established in Bowling Green in 1877 as a provision in the will of Major Robert W. Ogden. The original Ogden College closed, and its properties were leased to WKU in 1928. The name Ogden reappeared when the Ogden College of Science and Technology was established within Western Kentucky University in 1965.

Those interested in more detailed information regarding programs offered by departments of the College should follow the links listed under departments or e-mail the dean of Ogden College of Science and Engineering directly.

Since 1993, students and faculty at WKU have benefited from its membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of 98 colleges and universities and a contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowships, scholarships, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, our undergraduates, graduates, postgraduates, as well as our faculty enjoy access to a multitude of opportunities for study and research. Students can participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry, and mathematics. Appointment and program length ranges from one month to four years. Many of these programs are especially designed to increase the numbers of underrepresented minority students pursuing degrees in science and engineering related disciplines.

For more information about ORAU and its programs, contact: Blaine R. Ferrell, Dean, Ogden College of Science and Engineering, ORAU counselor for WKU.

***Dr. Blaine R. Ferrell, Dean***

***Dr. Andrew Ernest, Associate Dean***

***Dr. Bruce Kessler, Associate Dean***

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## Department of Agriculture

The complexity of the technological and financial structure of modern agriculture has made education increasingly important. It has also brought about a need for personnel to fill positions in various businesses and professions which support agriculture.

Processing and marketing of agricultural products and supplying of agricultural chemicals, machinery, seed, feed and other products require research, sales and service personnel who have met specific educational requirements. Governmental agencies which conduct research, extension, advisory and regulatory activities are staffed by highly trained agricultural personnel.

The Department of Agriculture strives to fill the needs of both the student who requires general technical knowledge for production agriculture and the student who needs more specialized training to pursue one of many careers. This is accomplished by offering specific curricula with enough flexibility to allow specialization within the curriculum.

Many students studying agriculture have urban backgrounds and lack farm experiences. The Department of Agriculture uses the University Farm and the Agricultural Exposition Center as integral parts of its laboratory and classroom instructional program to provide practical experiences. Internships and cooperative work experiences are encouraged for all students.

To complete the 120 semester hours required for a Bachelor of Science degree in agriculture, students must complete the basic curriculum and one of the specialization tracks. The basic curriculum includes the general education requirements and specialty support requirements as well as basic professional courses in agriculture. These concentrations are agribusiness, agricultural education, agronomy (plant science or soil science), animal science, horse science, dairy science, general agriculture, turf and golf course management, horticulture, pre-veterinary medicine and pre-forestry. These concentrations allow students to vary their course selection to better meet their particular area of interest. The student, in consultation with an assigned advisor, will choose specific courses, other than those required.

When planning a program of study, students should be aware of the University academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may include additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

Agriculture majors who follow the listed guidelines can graduate in 4 years (8 semesters) or less.

### Guidelines

1. Follow one of the undergraduate degree plans listed at the Agriculture Department website: [www.wku.edu/agriculture](http://www.wku.edu/agriculture).
2. Be advised by an assigned faculty advisor in the Department of Agriculture each semester and enroll in the courses decided upon at the advising session.
3. Excluding remedial classes, receive a passing grade for an average of 15 hours per semester for 8 semesters with a minimum 2.0 GPA and a minimum total of 120 hours, including 42 or more hours upper-division (300- and 400- level) courses. Complete the General Education requirements of the department and the university. Note specific required mathematics, biology and chemistry courses.
4. Deviation from any of these conditions might lead to the need for additional hours/courses and/or semester in order to graduate.

### Major in Agriculture (No minor or 2nd major required.)

This major in agriculture (reference number 508) requires a minimum of 50 semester hours in agriculture and leads to a Bachelor of Science degree. Agriculture courses required for the major are AGRI 108, AGRO 110, ANSC 140, AGMC 170/171, AGRI 291, AGRO 320 or ANSC 345, AGRO 350, AGEC 360, AGRI 398 (Gen), AGRI 398 (Sp) and AGRI 494. Electives chosen from agriculture courses focusing on a concentration, when approved by an assigned advisor, complete the minimum total of 50 semester hours in agriculture. No other minor or major is required for the student following the curriculum for this major in agriculture. Students are required to complete specified courses in

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**Professors:** C. Anderson, R. Gilfillen  
L. Gonzales, J. Rudolph, N. Speer,  
T. Willian

**Associate Professors:** M. Stone, P. Woosley  
**Assistant Professors:** F. DeGraves, S. King  
**Instructors:** R. Dennis, K. Guffey, C. Scudder  
**Transitional Retirees:** A. Bedel, J. Britt, E. Gray,  
G. Jones, D. Stiles

biology, chemistry and mathematics. At least half of the semester hours in the major must be in courses numbered 300 or above.

### **Major in Agriculture** (Minor or 2nd major required.)

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This major in agriculture (reference number 605) requires completion of a minimum of 30 semester hours and leads to a Bachelor of Science degree. These hours must be taken in approved agriculture courses and a suitable major or minor(s) in other departments must be earned to total at least 54 approved semester hours. Agriculture courses required for a major are AGRI 108, AGRO 110, ANSC 140, AGMC 170/171, AGRI 398 (Gen.), AGRI 398 (Sp) and AGRI 494. Electives chosen by the student and approved by an assigned advisor provide sufficient credits to satisfy an option. In addition, majors are required to complete specified courses in biology, chemistry and mathematics. At least half of the semester hours in the major must be in courses numbered 300 or above.

### **Minor in Agriculture**

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The minor in agriculture (reference number 308) requires a minimum of 18 approved semester hours in agriculture, including AGRI 494 with at least half of the courses numbered 300 or above.

### **Associate of Science Degree in Agricultural Technology and Management**

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#### ***Turf and Golf Course Management Option***

This program (reference number 205) is a program designed for individuals interested in becoming superintendents of golf courses, athletic fields and parks and recreational facilities, lawn care professionals, and cemetery caretakers. The course of study includes the care and growing of warm and cool season grasses, turf disease management, and equipment management and maintenance. A total of 67 hours of specific courses are required for this program. The curriculum for this program is outlined in the Department of Agriculture Student Planning Manual.

#### ***General Agriculture Option***

This two-year curriculum is designed to fulfill the needs of students primarily interested in the application of modern agricultural technology (reference number 205). Agriculture courses required for the general option in this degree are AGRI 108, 269 and 398, AGRO 110, ANSC 140\*, AGMC 170/171, AGECE 365, 360 and 361. Also required are ENG 100, COMM 145 or 161, MATH 116, CHEM 105/106, a humanities course and BIOL 120/121. Electives chosen from agriculture or other supporting departments, when approved by an assigned advisor, complete the total of 64 semester hours required for this degree.

*\*Not required for Horticulture.*

### **Teacher Certification in Agricultural Education**

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Numerous job opportunities are available for students who have completed certification for teaching agriculture education in public schools at the middle or secondary level. A 2.5 minimum grade point average in agriculture, general education and professional education is required for admission to teacher education. Students desiring to become certified to teach agriculture education in Kentucky public schools are required to have a minimum of 50 hours in agriculture including a minimum of 6 hours of plant/horticulture science, 6 hours of animal science, 6 hours of agricultural mechanics (AGMC 170/171 and 371/372), 6 hours of agricultural economics (AGECE 360 and 361), and 6 hours of soil sciences. Computer science requirement may be fulfilled by completing AGECE 365, CS 145 or CIS 141. Professional education courses required are AGED 250(EDU 250), PSY 310, EXED 330, AGRI 398E, AGED 470, AGED 471, EDU 489 and SEC 490. Student must complete 250, 310, 330, 398E before the fall semester of the senior year. AGED 470 and 471 are taught the fall semester. SEC 489 and 490 are completed the student teaching semester, usually the spring semester. Teachers hired in other states may be required to have other professional education course work according to local regulations.



## Department of Architectural and Manufacturing Sciences

### Baccalaureate Degree Programs

The Architectural and Manufacturing Sciences (AMS) Department offers five distinct degree programs. Four of these programs provide students with both a technical background and fundamental managerial skills to enable the graduate to move into a leadership position in their chosen profession. The four managerial programs follow: Advanced Manufacturing, Architectural Sciences, Construction Management, and Technology Management. The fifth degree program is Industrial (Vocational, Career, and Technical) Education. This program is designed to prepare educators for vocational education programs or for technology education in the middle and high school grades. Refer to the department web site <http://www.wku.edu/ams> for additional information regarding the curricula for each program of study.

**Mission Statement:** A&M Sciences: the best at preparing graduates for positions of leadership in industry, business, and education since 1920.

**AMS Website:** See the departmental web site <http://www.wku.edu/ams> for exciting career opportunities in the department of Architectural and Manufacturing Sciences. A semester-by-semester outline of studies is listed for all programs of study on the departmental web site.

### Major in Advanced Manufacturing

The major in Advanced Manufacturing (reference number 506) requires 74 hours and leads to a Bachelor of Science degree. Students must choose one of the following concentrations: Food Processing and Technology, Manufacturing and Industrial Distribution, or Quality Systems. This program prepares individuals to apply basic engineering principles and advanced manufacturing technical skills in support of industrial operations. The major includes instruction in optimization theory, human factors, organizational behavior, industrial processes, industrial planning procedures, systems integration, quality, and project management. Graduates achieve positions of leadership in business and industry while practicing innovation in the global marketplace.

#### Career Opportunities

Graduates obtain employment in a wide variety of positions. Some job titles of graduates include: systems integrator, industrial engineer, production manager/specialist, new product development engineer, manufacturing engineer, quality manager, quality engineer, production engineer, general manager, plant manager, industrial trainer, project manager, and technology educator.

#### Program Description

A minor or second major is not required. Course requirements for the major are shown below. Students should consult with an advisor in planning their course schedules and career goals. The program is accredited by ATMAE (the Association of Technology, Management, and Applied Engineering).

**Technical Core (19 hours):** ACCT 200, AMS 120, 163/205, 271, 328, 398, and 490

**Management Core (30 hours):** AMS 310, 356, 371, 390, 394, 396, 430, COMM 345, MGT 301, ENG 306 or 307

In addition to the coursework in the technical core and managerial core, students will pick one of the following concentrations.

**Food Processing and Technology Concentration (25 hours):** AMS 301, 303, 343, 352, 381, 395, 443, 462, and 1 hour of an advisor approved elective. The following courses are required in addition to the courses required for the major: ECON 202, MATH 117 or MATH 118 or higher, CHEM 105/106, BIOL 207/208, SFTY 171; these courses may fulfill general education requirements.

**Manufacturing and Industrial Distribution Concentration (25 hours):** AMS 217, 227, 342, 343, 370, and 10 hours of advisor approved electives. The following courses are required in addition to the courses required for the major: ECON 202, MATH 117 or MATH 118 or higher, CHEM 116, 106, PHYS 201, SFTY 171; these courses may fulfill general education requirements.

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**Professors:** B. Askins, G. Mills  
**Associate Professors:** G. Arbuckle,  
A. Doggett, N. Downing, D. Jackson,  
B. Reaka  
**Assistant Professors:** S. Aly,  
A. Khalafallah, J. Houryieh, L. Leach

**Quality Systems Concentration (25 hours):** AMS 217, 342, 370, 391, 392, 471, and 7 hours of advisor approved electives. The following courses are required in addition to the courses required for the major: ECON 202, MATH 117 or MATH 118 or higher, SFTY 171; these courses may fulfill general education requirements.

### **Major in Architectural Science**

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The major in Architectural Science (reference number 518) requires 83 semester hours. Architectural Science is a bridge between design theory and construction practice. Architectural Technologists perform a variety of important functions in many areas of the architectural and building construction fields and are widely recognized by professionals in the construction industry. Graduates find employment as drafters, designers, construction planners, estimators, inspectors, technical sales representatives, and many other exciting areas.

#### **Career Opportunities**

Graduates obtain employment in a wide variety of organizations: architectural firms, engineering firms, interior design firms, contractors, design-build construction firms, surveying firms, government agencies, construction product manufacturers, construction material suppliers, inspection and testing firms, specialty consultants, and computer applications consultants.

#### **Program Description**

The program in Architectural Science is designed to provide graduates with a practical architectural education combining an understanding of the philosophy of building design with an applied technical knowledge of construction systems and materials. Graduates are prepared with the knowledge and skills to assist in developing drawings and related documentation, constructing architectural models, developing architectural renderings, creating digital images and visualizations, preparing cost estimates and construction planning documentation, and making professional presentations.

Program instruction includes architectural drafting, construction methods and materials, design principles, environmental systems, building systems, building codes, structural principles, project management, sustainability, and professional presentations.

The major in Architectural Science leads to a Bachelor of Science degree. A minor or second major is not required. Course requirements for the major are shown below. Students should consult with an advisor in planning their course schedules and career goals. The program is accredited by ATMAE (the Association of Technology, Management, and Applied Engineering).

The following courses are required for the major: AMS 151, 120, 140, 163, 175, 251, 261, 262, 263, 273, 282, 305, 325, 363, 369, 371, 390, 398, 430, 463, 469, 488, 490, CE 303, 304, ENG 306 or 307, 9 hours of advisor-approved architectural science electives, and 3 hours of advisor-approved management electives. Students are also required to take the following additional courses outside of the major: AMS 180, ECON 202, MATH 117, PHYS 201, and SFTY 171; these courses may fulfill general education requirements.

### **Major in Construction Management**

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The major in Construction Management (reference number 533) leads to a Bachelor of Science degree. A minor or second major is not required. The curriculum requires a total of 128 hours: (71 technical specialty hours, 46 hours of general education, plus 11 hours of other requirements). Course requirements for the major are shown below.

Students should consult with an advisor in planning their four-year degree program. A four-year plan of study (semester-by-semester) is outlined below and on the departmental web site [www.wku.edu/ams](http://www.wku.edu/ams). The program layout is also available in the Departmental Office (ESTB 204).

The following courses are required for the major: AMS 140, 163, 261, 262, 271, 325, 398, 430, 490, CM 227, 250, 337, 346, 363, 400, 426, 462, 463, CE 160, 161, 303, 304, 316, ACCT 200, 201, MGT 301, 311, and 6 hours of advisor-approved construction management electives. Students are also required to take the following additional courses outside of the major: AMS 175, CIS 141, ENG 100, 200, 300, COMM 161, PHIL 321, HIST 119(120), ECON 150, MATH 122, CHEM 106 and 116, PHYS 201, and SFTY 171; these courses may fulfill general education requirements.

#### **Career Opportunities**

Graduates from the construction management program have many career options available to them. They may choose to work for construction management firms, general contractors, and specialty contractors serving the commercial, industrial, heavy civil, and residential construction markets. They may choose to become specialists in estimating, scheduling, safety, quality, or field supervision. Typical job titles include project manager, project engineer, office engineer, field engineer, and superintendent along with many others.

## Industrial (Vocational, Career, and Technical) Education

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The major in Industrial (Vocational, Career, and Technical) Education (reference number 599) leads to a Bachelor of Science degree. Students have the option to follow one of the two concentrations: (1) technology education and (2) industrial education. The program is designed to meet the increasing need for more and better-qualified teachers in the nation's expanding programs of vocational-industrial and technology education.

**Requirements for both concentrations (15 hours):** PSY 310, AMS 331, 329, 333, and EXED 330

**Technology Education Concentration Requirements:** AMS 330, LTCY 421, EDU 489, SEC 490, and 48 hours of technical electives

**Industrial Education Concentration Requirements:** AMS 330, 334, 435, and 48 hours of technical electives

### Curriculum Requirements

#### Industrial Education Components

Credits are selected from the specialization components of the curriculum standards for the High School Certificate Degree Program with an area of concentration in Industrial Education-Preparation and Orientation Levels (Technology Education).

Eighteen hours of credit may be earned by passing the written and performance components of the competency exam administered by the National Occupational Competency Testing Institute. The competency exam must be in the teaching field (preparation only).

Work Experience: four years of successful and appropriate occupational experience in the teaching area (two of the four years must have been within the last five years). Total 48 hours.

The following courses are required to complete the professional education component (preparation): PSY 310, AMS 329, 330, 331, 333, 334, 435, and EXED 330. The following courses are required to complete the professional education component: PSY 310, AMS 329, 330, 331, 333, 334, 435, and EXED 330. (AMS 435 must be completed for 8 hours of credit. Four years of teaching experience may substitute for 4 hours of student teaching).

## Major in Technology Management

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Technology is defined as any tool or operating system designed to improve the efficiency, quality, and competitiveness of an organization. Technology Management (reference number 575) at Western Kentucky University is a 2+2 program designed specifically for students who currently hold a certificate or associates degree from a technical school, two-year college or four-year institution. The Technology Management program is a capstone program that provides a two-year management emphasis for those working toward a supervisory position in industry. Graduates are empowered to obtain a position of leadership in business, industry or workforce development in support of innovation and global competitiveness. The program is available completely on-line or by face-to-face instruction on campus.

Transfer students with an associate degree who major in technology management receive a 15-hour waiver of the overall upper-division hour requirement.

### Career Opportunities

Graduates obtain employment in a wide variety of positions, some job titles of graduates include: systems integrator, industrial engineer, production manager/specialist, manufacturing engineer, maintenance specialist, quality manager, quality engineer, production engineer, general manager, plant manager, industrial trainer, project manager, systems analyst, shift supervisor, and technology educator.

### Program Description

Western Kentucky University provides upper-division hours both in the major and in general education toward the completion of the degree. Students take 39 hours of major courses through the Architectural and Manufacturing Sciences Department that includes 12 hours of upper-division electives approved by the advisor. Majors then take AMS, general education or elective courses to fulfill university requirements regarding the following:

- 36 hours minimum in WKU courses
- 42 hours minimum upper-division courses
- 120 hours minimum for graduation
- General education categorical requirements
- MATH 116 or equivalent

### **Degree Requirements for Technology Management Major (54 hours)**

- 24 semester hours of advisor approved courses transferred from a technical school, college or university – 100/200 level and
- 39 semester hours – Architectural and Manufacturing Sciences Department for a total of 54 hours in the major. Major courses include: AMS 271, 310, 356, 371, 390, 394, 430, 490, ENG 307, and twelve hours of advisor-approved technical upper-division electives.

### **General Education**

- 30/31 semester hours transferred from a community college or university – 100/200 level courses and/or KCTCS (Kentucky Community and Technical College System)
- 15 semester hours from WKU, extended campus, KCVU or by correspondence – includes 15 hours of upper-division credit – 300/400

Students should consult with an advisor in planning their four-year degree program in Technology Management.

### **Minor in Construction Management**

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The minor in construction management (reference number 343) requires a minimum of 21 hours, only 9 of which can be duplicated in the student's major program of study. The student who elects a minor in construction management must complete the following courses: AMS 261, 262, CE 303/304, CM 363 or CE 360/361, and CM 462. Remaining hours shall be selected in consultation with the minor advisor.

### **Minor in Industrial Sciences**

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The minor in industrial sciences (reference number 395) requires a minimum of 18 semester hours (half of which must be upper division 300 or 400 level). The purpose of the minor in industrial sciences is to provide students with technical preparation that will support their career goals in their current major. Each program of study will include a balance of basic and advanced courses. Programs must be planned in advance with the department head.

### **Associate Degree Programs**

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Architectural and Manufacturing Sciences offers four associate degree programs. Two of the associate degrees are linked to the four-year degree programs in Architectural Sciences and Advanced Manufacturing. The third is linked to the teacher education program of study. The associate of science degrees in Architectural Drafting Technology (reference number 207) and the associate of science in Manufacturing Technology (reference number 257) are designed to be 2+2 programs with the four-year degrees in Architectural Sciences and Advanced Manufacturing. This gives students the ability to complete the two-year degree with the option of completing a four-year degree with little or no loss of credit. For more information regarding the associate degree programs in Architectural Drafting Technology and Manufacturing Technology, visit the departmental website or obtain advisement sheets in the main office of the department (ESTB 204).

### **Associate of Science Degree in Vocational/Industrial and Technical Teacher Education**

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The Vocational/Industrial and Technical Teacher Education associate degree (reference number 296) is designed to meet the increasing need for more qualified teachers in the nation's expanding programs of vocational-industrial technical education.

#### **Curriculum Requirements**

#### **Technical Education Components**

Specialization credits are selected from the specialization components of the curriculum standards for the Provisional High School Certificate Degree Program with an area of concentration in Industrial Education-Preparation Level (advisor's approval required).

Eighteen hours of credit may be earned by passing the written and performance components of the competency exam administered by the National Occupational Competency Testing Institute. The competency exam must be in the teaching field.

Work Experience: four years of successful and appropriate occupational experience in the teaching area (two of the four years must have been within the last five years). Total 24 semester hours.

The following courses are required to fulfill the professional education component: PSY 310, AMS 329, 330, 331, 333, 334, and 435.

## Associate of Science Degree in Water Resource Management

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The associate degree in water resource management (reference number 298) requires a minimum of 60 hours. The program is designed to meet the increasing need for individuals in the fields of water and wastewater treatment to understand the broad concepts of the industry and the technical tasks required.

The following 15 hours of general education courses are required: ENGL 100C, a category B elective, PS 110C, a category C elective, and MATH 116C. The following 21 hours of core courses are required: BIOL 113/C, 207/C, CHEM 101/C, ENV 280, MATH 117/C, PHYS 101, GEOG 100/C. In addition, students must take 24 hours in a specific concentration.

*Water Technology:* WTTI 200C, 210C, 212C, 220C, 222C, 226C, 230C, 291C.

*Wastewater Technology:* WTTI 200C, 211C, 212C, 221C, 222C, 226C, 231C, 291C.

*Water Utilities Management:* WTTI 200C, UM 101C, 205, 215C, 225C, 235C, 245C, 290C.

## Certificate in Drinking Water Operations

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The certificate in drinking water operations (reference number 1715) requires 24 semester hours. This program is intended for students wishing to pursue a career in drinking water operations without completing an associate degree. The courses needed to fulfill the requirements for this certificate are WTTI 200, 210, 220, 222, 226, 230, and AMS 367.

### Department of Biology

Students interested in biology are presented with a variety of dynamic educational opportunities. These opportunities, involving diverse biological sub-disciplines from molecules to ecosystems, challenge the student of biology in one of the most exciting and eras in human history. The Department of Biology is dedicated to producing well-informed, scientifically literate graduates capable of applying the knowledge and skills acquired to ensure professional success and lifelong learning.

Undergraduate students collaborate with biology faculty on an array of interesting research topics. By applying what students have learned in the classroom to research projects, students can more smoothly make the transition to professional and graduate programs and the work force. Our novel Biotechnology Certification program is designed to provide students with technical skills for research. New state-of-the-art classrooms, research laboratories, and the Potter-Nicely Outdoor Education Center and Upper Green River Biological Preserve provide outstanding settings for student research. The Biology Department is also proud to house the Biotechnology Center, Center for Biodiversity Studies, and Bioinformatics and Information Science Center. The centers are integral components of the Applied Research and Technology Program, a state-funded program of distinction.

When planning a program of study in the Department of Biology each student must be aware of the University's academic requirements and regulations contained in this catalog in the section, "Academic Information." Specific attention should be given to the subsections entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic requirements and standards not specified in the catalog. To obtain a copy of these requirements, students should contact the department head. We offer five options for a B.S. degree: A Biology major without a minor (reference number 525), a Biology major with a minor (reference number 617), an Investigative Biotechnology major (reference number 714), a Biochemistry major (reference number 519), and a Medical Technology major (reference number 582). Each is described below along with our minor in Biology, minor in Investigative Biotechnology, Teaching Certifications, and other Special Programs, including our 5-year B.S./M.S. combination program in Biology.

**Dr. Bruce A. Schulte, Head**

**Thompson Complex, North Wing  
Office 201, Phone: (270) 745-3696  
Fax: (270) 745-6856**

**Website:** <http://www.wku.edu/biology>

**Professors:** C. Davis, K. Doerner,  
B. Ferrell, S. Grubbs, S. Jacobshagen,  
D. McElroy, A. Meier, T. Philips,  
C. Rinehart, S. Sahi, B. Schulte,  
M. Stokes

**Associate Professors:** L. Alice,  
K. Crawford, S. Huskey, R. King,  
P. Lienesch, N. Rice, M. Smith,  
R. Wyatt

**Assistant Professors:** M. Collyer, C. Dick,  
C. Emani, J. Johnson, A. Srivastava,

**Instructors:** P. do Amaral, W. Mason,  
H. Mahmood, K. McDaniel, N. Sharma

### Major in Biology (without a minor)

This option for a major in biology (reference number 525) requires a minimum of 48 hours in biology with 24 hours at the 300 or higher level. No minor is required. Several areas of emphasis are available including ecology and evolutionary biology, molecular and cellular biology, plant biology, animal biology, and microbiology. All students are required to complete BIOL 120-121 and BIOL 122-123, and at least one course from each of the following three groups:

- (A) BIOL 222-223 or BIOL 224-225 or BIOL 226-227
- (B) BIOL 319 & 322 or BIOL 327
- (C) BIOL 315 or BIOL 430.

Students, with the aid of their advisor, select additional 300- and 400-level courses to focus their studies on specific areas within biology. Because an understanding of the principles of mathematics, physics, and chemistry is essential to the study of biology, majors are required to complete supporting courses as follow:

1. MATH 116 & 117 or MATH 118 or higher
2. PHYS 231-232 or PHYS 255-256
3. CHEM 120-121, and
4. two courses from the following list: AGRO 350 and AGRO 452 or AGRO 454 or AGRO 455/456 or AGRO 457/458. BIOL 283, CHEM 222-223, CHEM 314 or CHEM 340-341, CHEM 330, CIS 343, CIS 226 or CS 226 or CS 146, GEOG 316, GEOG 317, GEOG 328, GEOG 416, GEOG 417, MATH 136, MATH 137, MATH 142, MATH 305, MATH 307, PHYS 332-233 or PHYS 265-266; SOCL 302.
5. Students may count up to 6 credit hours of a combination of BIOL 369, 389, and 399 and up to 6 credit hours of BIOL 485 toward this major.

### Major in Biology (with minor)

This option for a major in biology (reference number 617) requires a minimum of 36 semester hours in biology with 18 hours at the 300 or higher level plus the requirements of a minor area. The major-minor combination must be at least 54 semester hours. All students are required to complete BIOL 120-121 and BIOL 122-123, and at least one course from each of the following three groups:

- (A) BIOL 222-223 or BIOL 224-225 or BIOL 226-227
- (B) BIOL 319 & 322 or BIOL 327
- (C) BIOL 315 or BIOL 430.

Students with the aid of their advisor, select additional 300- and 400-level courses to focus their studies on specific areas within biology. Because an understanding of the principles of mathematics, physics, and chemistry is essential to the study of biology, majors are required to complete supporting courses as follows:

1. MATH 116 & 117 or MATH 118 or higher
2. PHYS 231-232 or PHYS 255-256
3. CHEM 120-121, and
4. two courses from the following list: AGRO 350 and AGRO 452 or AGRO 454 or AGRO 455/456 or AGRO 457/458. BIOL 283, CHEM 222-223, CHEM 314 or CHEM 340-341, CHEM 330, CIS 343, CIS 226 or CS 226 or CS 146, GEOG 316, GEOG 317, GEOG 328, GEOG 416, GEOG 417, MATH 136, MATH 137, MATH 142, MATH 305, MATH 307, PHYS 332-233 or PHYS 265-266, SOCL 302.
5. Students may count up to 3 credit hours of a combination of BIOL 369, 389, and 399 and up to 4 credit hours of BIOL 485 toward this major.

Suggested Program of Study			
Biology Major - 525 and 617			
<b>Fall Semester Freshman Year</b>	<b>Hrs.</b>	<b>Spring Semester Freshman Year</b>	<b>Hrs.</b>
BIOL 120-121 or BIOL 122-123	4	BIOL 122-123 or BIOL 120-121	4
MATH 118 or 142	5	CHEM 120-121	5
ENG 100	3	General Education Elective	3
BIOL 175 or Gen. Ed. Elective	2-3	General Education Elective	3
<b>Total Hours</b>	<b>14-15</b>	<b>Total Hours</b>	<b>15</b>
<b>Fall Semester Sophomore Year</b>	<b>Hrs.</b>	<b>Spring Semester Sophomore Year</b>	<b>Hrs.</b>
BIOL 222-223 or BIOL 224-225 or BIOL 226-227	4	BIOL 319 & 322 or BIOL 327	4
PHYS 231-232	4	Biology supporting course	3,5
Biology supporting course	3-5	General Ed. or Bio. Elective	3-4.5
General Education Elective	3	General Education Elective	3
<b>Total Hours</b>	<b>14-16</b>	<b>Total Hours</b>	<b>13-16.5</b>

### Major in Investigative Biotechnology

This major (reference number 714) meets the needs of students interested in the rapidly growing field of genetic engineering, molecular genetics and biotechnology. Biotechnology is expanding in many directions including the production of new pharmaceutical drugs, industrial chemicals, food products, energy sources, pollution-control products and, more recently, methods employed in agriculture. In addition to receiving training for industrial employment, graduates of this program will also have the broad liberal arts training necessary to enter graduate programs and the contemporary skills to be competitive for top positions in industry or academia. The major requires a minimum of 48 semester hours in biology with 24 hours at the 300 or higher level. No minor is required. The required core courses are: BIOL 150, 151, 199, 275, 312, 327, 350, 369 or 399, 411, 446, and 495. Required supporting courses are: MATH 136 or BIOL 283, CHEM 120-121, 222-223, 314 or 340-341/342-343, and PHYS 231-232, 332-233. Any course in the biology curriculum applicable to the biology major may be used as an elective for the Investigative Biotechnology major in consultation with the student's advisor. Interested students should contact a faculty member affiliated with the Biotechnology Center.

Suggested Program of Study			
Department of Biology Investigative Biotechnology Major 714			
<b>Fall Semester Freshman Year</b>	<b>Hrs.</b>	<b>Spring Semester Freshman Year</b>	<b>Hrs.</b>
BIOL 150	5	BIOL 151	5
CHEM 120-121	5	BIOL 199	1
ENG 100	3	MATH 136	4
General Ed. Elective	3	CHEM 222-223	5
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>15</b>
<b>Fall Semester Sophomore Year</b>	<b>Hrs.</b>	<b>Spring Semester Sophomore Year</b>	<b>Hrs.</b>
BIOL 283 or BIOL 327	4	BIOL 350	3
PHYS 231-232	4	BIOL 312	4
CHEM 314 or CHEM 340-341	5	CHEM 342-343 or BIOL 275	5
General Ed. Elective	3	PHYS 332-233	4
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

### Major in Biochemistry

(See Biochemistry, reference number 519.) Interested students should contact Dr. S. Jacobshagen, Department of Biology.

### Major in Medical Technology

(See Medical Technology, reference number 582) Interested students should contact Dr. K. McDaniel, Department of Biology.

### Minor in Biology

The minor in biology (reference number 326) requires a minimum of 24 semester hours in biology with 12 hours at the 300 or higher level. The required courses are BIOL 120-121 and BIOL 122-123. Students, with the aid of their advisor, select additional biology courses to complete the minor. Students may count up to 3 credit hours of a combination of BIOL 369 and 399 and up to 4 credit hours of BIOL 485 toward this minor.

### Minor in Investigative Biotechnology

The minor in Investigative Biotechnology (reference number 399) requires a minimum of 24 semester hours in biology with 12 hours at the 300 or higher level. The required courses are BIOL 150, 151, and 350. Students, with the aid of their advisors, select additional biology courses to complete the minor.

### Secondary Teaching Certification in Biology

Students who wish to be certified to teach high school biology must complete both the major in Biology (reference number 525 or 617) and the major in Science and Mathematics Education (SMED, reference number 774), offered in the School of Teacher Education. Interested students should contact the SKyTeach Office, Thompson Complex Central Wing 105, (270) 745-3900.

### Middle Grades Science Certification

Students who wish to teach middle school science must complete both the major in Middle School Science Education (MSSE, reference number 734), offered in the Department of Physics, and the major in Science and Mathematics Education (SMED, reference number 774), offered in the School of Teacher Education. Interested students should contact the SKyTeach Office Thompson Complex Central Wing 105, (270) 745-3900.

## Other Department Programs

Several other biologically oriented, specialized programs are available such as biophysics, environmental studies, environmental science, as well as several pre-professional programs. Specific details of these programs are listed under Pre-Professional and Interdisciplinary Programs.

## A Five-Year Plan

For highly motivated students, especially those planning to pursue graduate study, the department offers a five-year program leading to both B.S. and M.S. degrees in biology. Typically, students will also participate in the University Honors Program as undergraduates. Completion of the M.S. portion of the program requires enrollment in summer terms during the fourth and fifth years. A key component of this program is early and sustained involvement in undergraduate research, beginning in the sophomore year. As such, interested students must work closely with their undergraduate advisor early in their freshman year to design their five-year plan and identify a faculty mentor and area of research.

## Graduate Degree Programs

Students interested in graduate study in biology should consult the University's Graduate Studies Catalog for detailed information concerning the various programs available. The department offers: (1) M.S. degree with research thesis for students interested in a career in biology or in preparation for Ph.D. studies; (2) M.S. degree without research thesis (an online option is available); (3) M.A. degree in Education (major or minor in biology) which places less emphasis on specialization and research and more on breadth in biology.

Admission to graduate study in biology requires a 3.0 on a 4.0 scale overall grade point average with superior performance in biology and related sciences, and an appropriate GRE score or an acceptable equivalent. The prospective graduate student is expected to have completed an undergraduate course program equivalent to that required for a standard major in biology at Western Kentucky University.

## Department of Chemistry

Chemistry is often described as "The Central Science" in today's technology-driven world. Chemistry plays an important role in the research, development and quality assurance of products and materials ranging from pharmaceuticals and polymers to ceramics and nanocomposites. A knowledge and understanding of fundamental chemical concepts are crucial to success in professions such as medicine, pharmacy, veterinary medicine, forensic science, environmental science, engineering, medical technology, physical therapy, nursing, patent and environmental law and science education.

In order to best serve such a diverse audience, the chemistry curriculum at Western Kentucky University offers an integrated series of lecture and laboratory courses. Our courses provide students with grounding in theoretical models balanced with real-life applications and hands-on laboratory experiences. This allows students to achieve an understanding of chemical and physical phenomena at the molecular level and to develop the critical thinking skills necessary for chemical problem solving. In addition to course work, the Department of Chemistry provides our undergraduates a wide variety of research opportunities from biochemistry to materials science. Research encourages students to continue to build their laboratory skills and scientific knowledge while working one-on-one with a faculty member. Undergraduate research students often present their research at both regional and national professional meetings. Recently, students have presented their research at meetings located in Orlando and San Francisco. The combination of lecture, laboratory and one-on-one faculty interaction allows students to develop the skills necessary to be successful in their chosen profession.

As part of the educational experience, students are routinely trained in the operation of state-of-the-art instrumentation in the academic and research laboratories. The Department has an extensive holding of instrumentation which includes: atomic spectrometers, calorimeters, a capillary electrophoresis system, electrochemical analyzers, elemental analyzers, gas chromatographs, FT-infrared spectrometers, ion chromatographs, mass spectrometers, spectrofluorophotometers, supercritical fluid extractors, UV-visible

**Dr. Cathleen Webb, Department Head**

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**Website: [www.wku.edu/chemistry](http://www.wku.edu/chemistry)**

**Professors:** L. Byrd, E. Conte, D. Dahl, W. Pan, L. Pesterfield

**Associate Professors:** S. Burris, C. Webb, K. Williams

**Assistant Professors:** R. Dakshinamurthy, J. Maddox,  
M. Nee, H. Rathnayake, C. Snyder, B. Yan, R. Zhang

**Instructor:** A. Brooks

**Professors Emeriti:** D. Hartman, C. Henrickson, N. Hunter,  
J. Reasoner, J. Riley, L. Shank, D. Slocum, C. Wilkins



spectrophotometers, a Nd-YAG laser system and a 500 MHz nuclear magnetic resonance spectrometer, and a newly acquired 90 MHz fixed magnet NMR.

General education requirements for students majoring outside the sciences are satisfied by CHEM 101 or 109 where only one semester of chemistry is needed and by the sequences 105-106, 107-108 or 120-121, 222-223 where two semesters of chemistry are desired. All students seeking entrance into CHEM 120 must take the Chemistry Placement Exam. Please call the WKU Testing Center at 270-745-3159 to make an appointment. CHEM 102 (laboratory to accompany CHEM 101) is not necessary to satisfy general education requirements but is often desired by students taking Chemistry 101.

Biochemistry courses (CHEM 446, 447, 462, and 467) may be taken as electives toward a major or minor in chemistry. CHEM 446 is required for the major certified by the American Chemical Society. Biochemistry is also strongly recommended for pre-medicine and pre-dentistry students, and for biology majors desiring a second major in chemistry.

Chemistry as the major or minor field is available under both the regular and teacher certification programs.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter, "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

### Major in Chemistry

The major in chemistry (reference number 623) requires a minimum of 30 semester hours and leads to the Bachelor of Science degree. A second major or minor is also required. The department offers three programs of study that lead to a Bachelor of Science degree in chemistry. Prior to selection of a program of study, a student must consult with a chemistry advisor in order to determine the most appropriate option.

#### Option I – ACS Certified Chemistry Major

WKU is on the approved list of the Committee on Professional Training of the American Chemical Society. For certification by this committee of the completion of minimum standards (48 hours of chemistry) for the Bachelor of Science degree in chemistry, the required courses are as follows, with the sequence recommended.

Qualified students may omit MATH 118 and start with MATH 136. Students whose high school preparation in mathematics makes them ineligible for MATH 118 should consult their academic advisor for the proper first course in mathematics. It is recommended that students in this program take MATH 307 and 331 in addition to the above math requirements. MATH 116/117 will substitute for MATH 118.

Suggested Program of Study			
Chemistry major: graduate and professional with ACS certification --Option I			
<b>Freshman - Fall</b> CHEM 120/121 MATH 118	<b>Hrs.</b> 4/1 5	<b>Freshman - Spring</b> CHEM 222/223 MATH 136	<b>Hrs.</b> 3/2 4
<b>Sophomore - Fall</b> CHEM 340/341 MATH 137 PHYS 255/256	<b>Hrs.</b> 3/2 4 4/1	<b>Sophomore - Spring</b> CHEM 342/343 CHEM 330* PHYS 265/266	<b>Hrs.</b> 3/2 5 4/1
<b>Junior - Fall</b> CHEM 450/451 CHEM 446 CHEM 398	<b>Hrs.</b> 3/2 3 1	<b>Junior - Spring</b> CHEM 452/453 CHEM 399	<b>Hrs.</b> 3/2 1
<b>Senior - Fall</b> CHEM 435 CHEM 399	<b>Hrs.</b> 3 1	<b>Senior - Spring</b> CHEM 420 CHEM 476 (highly recommended)	<b>Hrs.</b> 3 2
* Sophomores and Juniors are given preference for registration in CHEM 330.			
It is important that physical chemistry, CHEM 450, 451, 452 and 453, be taken in the junior year since CHEM 452 is a prerequisite or corequisite for most courses numbered above 400.			

**Option II**

Majors, who plan on attending professional or graduate school but who do not wish the full American Chemical Society program, should take the following courses:

<b>Suggested Program of Study</b>			
<b>Chemistry major: graduate and professional w/o ACS certification Option II</b>			
<b>Freshman - Fall</b> CHEM 120/121 MATH 118	<b>Hrs.</b> 4/1 5	<b>Freshman - Spring</b> CHEM 222/223 MATH 136	<b>Hrs.</b> 3/2 4.5
<b>Sophomore - Fall</b> CHEM 340/341 MATH 137 PHYS 255/256	<b>Hrs.</b> 3/2 4.5 4/1	<b>Sophomore - Spring</b> CHEM 342/343 CHEM 330* PHYS 265/266	<b>Hrs.</b> 3/2 5 4/1
<b>Junior - Fall</b> CHEM 450/451 CHEM 320 or 446	<b>Hrs.</b> 3/2 3	<b>Junior - Spring</b> CHEM 452/453	<b>Hrs.</b> 3/2
<b>Senior Year</b> CHEM 398, 399, 420, 435, and 476 are highly recommended.			
* Sophomores and Juniors are given preference for registration in CHEM 330.			

**Option III**

Pre-health professional students majoring in chemistry and students who desire a double major are advised to include the following courses:

<b>Suggested Program of Study</b>			
<b>Chemistry major: ideal for double major and pre-health professional Option III Students (see advisor regarding other science requirements)</b>			
<b>Freshman - Fall</b> CHEM 120/121 MATH 118	<b>Hrs.</b> 4/1 5	<b>Freshman - Spring</b> CHEM 222/223 MATH 136	<b>Hrs.</b> 3/2 4
<b>Sophomore - Fall</b> CHEM 340/341 CHEM 330* PHYS 231/232	<b>Hrs.</b> 3/2 5 3/1	<b>Sophomore - Spring</b> CHEM 342/343 PHYS 332/233	<b>Hrs.</b> 3/2 3/1
<b>Junior - Fall</b> CHEM 446 or 320	<b>Hrs.</b> 3	<b>Junior - Spring</b> CHEM 412	<b>Hrs.</b> 5
* Sophomores and Juniors are given preference for registration in CHEM 330.			

At least one semester of organic chemistry, one semester of inorganic chemistry or biochemistry, and one semester of physical chemistry are required, with additional courses in chemistry numbered above 300 to make a total of 30 semester hours. MATH 136 is only required for Option I (ACS Certified Major). MATH 116/117 will substitute for MATH 118.

For a chemistry major under the teacher certification curriculum, students should take:

**Freshman Year:**

- Fall – CHEM 120-121 and MATH 118
- Spring – CHEM 222-223 and MATH 136.

**Sophomore Year:**

- Fall – CHEM 330, PHYS 231-232 and GEOL 111/113
- Spring – CHEM 314 and PHYS 332/233.

**Junior Year:**

- Fall – CHEM 320, 446-447 and 399
- Spring - CHEM 412 and CHEM 399. Education courses required for certification are: EDU 250, 351, 352, 453, 479, 489, 490 and PSY 310.

Other upper division Chemistry courses can be substituted for CHEM 399 with the permission of the Department Head.

**Major in Biochemistry**

A BS degree in biochemistry (reference number 519) requires a minimum of 60 credit hours and consists of core chemistry and biology courses with electives selected from chemistry, biology, agriculture and physics. For more information, see "Biochemistry" under Pre-Professional and Interdisciplinary programs.

### Minor in Chemistry

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The minor in chemistry (reference number 335) requires a minimum of 18/21 hours. For a minor a student must have CHEM 120-121, 222-223, 330 and courses numbered above 300 to make a total of at least 18 semester hours. Note that at least nine semester hours must be earned in courses numbered 300 and above.

For a minor under the teacher certification curriculum, a student must have CHEM 120-121, 222-223, 330, 314, and 412. An additional 3 credits of upper-division chemistry courses will also complete a second major in chemistry.

### Minor in Coal Chemistry

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The minor in coal chemistry (reference number 340) requires a minimum of 20-22 hours in chemistry. For a minor a student must have CHEM 120-121, 222-223, 314.

### Minor in Environmental Studies

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(See Environmental Studies under Pre-professional and Interdisciplinary Programs.)

### Minor in Nutritional and Food Chemistry

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The minor in nutritional chemistry (reference number 421) will require a minimum of 18 hours, including 12 hours of required courses and at least 6 hours of elective courses to be selected in consultation with an advisor. The required courses are CHEM 105, 106, 107, 108, and 304. Students much choose at least 6 hours from the following electives: CHEM 299, 314; FACS 111, 261; AMS 301, 303, 352, 381, 443, 462; BIOL 207, 208; AGECE 468. At least half of the credits must be at the upper-division level.

### Graduate Degree Programs

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Graduate programs and courses leading to the Master of Science and Master of Arts in Education with a major in chemistry are available in the Department of Chemistry. Each year a number of graduate teaching assistantships are available for qualified graduate students. For additional information see the Graduate Studies Catalog or contact the Chair of the Chemistry Graduate Programs.

A cooperative graduate program leading to the doctor of philosophy is administered by the Department of Chemistry at Western Kentucky University and the Department of Chemistry at the University of Louisville. Interested students may obtain complete information about the program from Dr. Cathleen Webb, Head, Department of Chemistry, Western Kentucky University, or from the Chair of the Department of Chemistry at the University of Louisville, Louisville, Kentucky.

### Department of Engineering

Engineers turn dreams into reality. Engineering is the process of designing solutions to real world problems using mathematical and scientific principles. It merges creative thinking with analytical skills to create systems and processes such as automobiles, buildings, bridges, computers, electrical systems, manufacturing processes, and software. Engineering is a primary difference between our modern world and primitive societies.

The engineering programs at Western Kentucky University are dedicated to teaching the practice of engineering to undergraduate students in a project-based environment. Beginning with the first freshman class and progressing through the last senior class, engineering students at WKU engage in the practice of engineering under the instruction and guidance of degreed, practicing engineers. Engineering at WKU differs from most other institutions because its faculty is dedicated exclusively to undergraduate engineering education and to engaging students in the practice of engineering without the requirement of supervising graduate research. Many studies have shown that the

**Dr. Julie Ellis, Head**

**Engineering and Biological Sciences Building (EBS)  
Office 2101, Phone: (270) 745-2461  
Fax: (270) 745-5856  
Website: <http://www.wku.edu/engineering/>**

**Professors:** C. Byrne, M. Dettman, J. Ellis, A. Ernest, J. Lenoir, K. Schmaltz, S. Wilson  
**Associate Professors:** M. Cambron, W. Campbell, R. Choate, W. Collett, S. Palmquist  
**Assistant Professor:** R. Gallagher  
**Professor Emeritus:** J. Russell

**Kenneth E. and Irene S. Hall Professor in Civil Engineering:** W. Campbell  
**James L. "Bud" Layne Professor in Mechanical Engineering:** J. Lenoir  
**James D. Scott Professorship in Civil Engineering:** M. Dettman

educational methodologies employed by engineering faculty at WKU are not only the most enjoyable and interesting for students; they are also a more effective way to learn engineering.

The Department of Engineering offers Bachelor of Science degrees in the following areas:

- Civil Engineering (reference number 534)
- Electrical Engineering (reference number 537)
- Mechanical Engineering (reference number 543)

The programs in civil engineering and mechanical engineering are offered jointly with the University of Kentucky. The program in electrical engineering is offered jointly with the University of Louisville.

The Department of Engineering offers minors in electrical engineering (reference number 354), land surveying (reference number 405), and floodplain management (reference number 361), as well as a certificate in land surveying (reference number 1700).

### **Department Mission**

The mission of the Department of Engineering is to produce, as its graduates, competent engineering practitioners. An engineering practitioner is one who has a foundation of basic science, mathematics, and engineering knowledge, combined with practical knowledge and experience in applying existing technology to contemporary problems. Realization of the departmental mission requires that the design of courses and curricula and the activities of the faculty create opportunities for students to understand and gain competence as engineering practitioners. In addition to its primary mission, the department adds value to the university and the community through the activities of its students and faculty.

Engineering projects, developed and directed by faculty, in the various disciplines of the department create an important avenue through which the technical capability of the community is expanded. Faculty and student service on boards and to agencies and other entities provides valuable enrichment to the community.

To fulfill the departmental missions, the department has the following characteristics:

- Program curricula establish an understanding of fundamental engineering concepts. The curricula provide an opportunity for students to obtain a sufficient depth of fundamental knowledge to support lifelong learning in the field of study.
- Programs are baccalaureate-driven. The primary purpose is to prepare undergraduates for entry-level positions upon graduation. Preparation for advanced study is also achieved in each program.
- Programs are regionally relevant. While prepared to be competitive in any market, graduates will be well prepared to begin productive careers as practitioners in regional industries.
- Program curricula are project-based. Students have sufficient opportunity to engage in project activities to support development of a clear understanding of engineering practice. The roles of students – as learners, as observers, as assistants, and as practitioners – are supported by project activities that clearly demonstrate the practice of engineering. Projects that provide opportunity to accomplish design, development, and implementation are available.
- Faculty of the department are practitioners. Scholarly activities of the faculty include engineering practice and are conducted in the context of the departmental programs and our students. Documentation of faculty productivity is produced in the manner and form expected by the university of all faculty.

Details of the curriculum and course information can be found at [www.wku.edu/engineering](http://www.wku.edu/engineering) or by contacting the Department of Engineering.

### **Major in Civil Engineering**

**Program Coordinator:** S. Palmquist

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Civil engineers design a better world in which to live. They design, build, and maintain our nation's infrastructure. Some of the things that civil engineers design include: roads and bridges; buildings and foundations; water supply and waste-water facilities; storm water management systems; and environmental protection facilities.

The civil engineering program at WKU focuses on construction, geotechnical engineering, construction materials, structures, surveying, and hydrology.

The major in civil engineering (reference number 534) leads to a Bachelor of Science degree. This degree is jointly offered by Western Kentucky University and the University of Kentucky for students in residence at WKU.

The curriculum requires a minimum of 65 technical specialty hours, completion of general education hours, and additional hours for math and science requirements. Students in the joint civil engineering program are required to obtain 16 credit hours in the major from University of Kentucky (UK) faculty members. Students completing this requirement take the following courses: ENGR 175 or UE 175, CE 176/ME 176 or EE 101, EM 221, 302, 313, CE 341, 373, 331 or 332, 351 or 352, 483, 490, and 491. CE 490 and 491 may be taken more than once provided the topic is different. Students are admitted as a pre-major in civil engineering. To transition from pre-major to major and to graduate with a degree in civil engineering, students must complete each of the following courses and labs with a grade of “C” or better: CE 176, AMS 163, ENG 100, CE 160 and 161, EM 221 or 222, COMM 145 or 161, MATH 136, 137, PHYS 255 and 256, and CHEM 120 and 121. Students must also complete the following courses with a grade of “C” or better: all civil engineering courses; all technical electives; EM 221 or 222; and EM 302 or 303. However, one “D” in a single CE 400-level senior course is permitted. In addition, each student is required to have a 2-course sequence in four (4) different civil engineering areas. The curriculum already includes a 2-course sequence in structures, geotechnical engineering, and construction. Therefore, each student must select one of the technical electives to cover an additional area such as surveying, materials, environmental engineering, hydrology, or transportation. The structures elective may be completed by taking CE 384 or 482 or 483. Students may not receive credit for both CE 482 or 483 and 383, or for CE 482 or 483 and 384. For detailed information on the civil engineering program, please see the “Civil Engineering Handbook” and/or contact your advisor.

<b>Suggested Program of Study</b>			
<b>Department of Engineering 534 Civil Engineering</b>			
<b>Freshman: Fall</b> ENGR 175 or UE 175	<b>Hrs.</b> 2 or 1	<b>Freshman: Spring</b> CE 160 CE 161	<b>Hrs.</b> 3 1
AMS 163	3	MATH 137	4
MATH 136	4	PHYS 255	4
GEOL 111	3	PHYS 256	1
GEOL 113	1	COMM 161 or 145	3
Category E	3	ENG 100	3
CE 176	1		
<b>Sophomore: Fall</b> EM 221 or EM 222	<b>Hrs.</b> 3	<b>Sophomore: Spring</b> EM 302 or EM 303	<b>Hrs.</b> 3
CE 303	3	CE 310	1
CE 304	1	MATH 331	3
MATH 237	4	PHYS 265	4
CHEM 120	4	PHYS 266	1
CHEM 121	1	ENG 200	3
Category F	1	Category A-II	3
<b>Junior: Fall</b> CE 382 or CE 373	<b>Hrs.</b> 3	<b>Junior: Spring</b> CE 316	<b>Hrs.</b> 3
CE 410	3	CE 331 or CE 332	3
CE 411	1	CE 412	3
CE 370 /371	2/1	ENG 300	3
CE 341 or CE 342	4	CE 384	3
STAT 301	3	Technical Elective	3
Category F	1		
<b>Senior: Fall</b> CE 400	<b>Hrs.</b> 1	<b>Senior: Spring</b> CE 461	<b>Hrs.</b> 3
CE 351 or CE 352	3	CE 498	3
Technical Elective	3	Technical Elective	3
ECON 202	3	Category B-II	3
Category B-II	3	Category C	3
HIST 119 or 120	3		
<b>Total Hours: 136</b>			
<i>(A-F) denotes General Education Category</i>			

**Civil Engineering Program Mission**

The mission of the civil engineering program is to prepare students for professional engineering and management positions in all phases of civil engineering projects.

The program provides a broad educational background with a foundation in basic engineering and business principles. These basic skills are complemented by advanced topics in engineering design, management, finance, computer applications, and real world civil engineering experiences throughout the baccalaureate degree program.

The civil engineering program fulfills the overall mission of the Department of Engineering and also meets the following goals:

- Understanding of fundamental engineering concepts that nurture problem solving abilities.
- Knowledge of basic civil engineering skills to prepare graduates for immediate productivity upon graduation.
- A background in management skills as they relate to working with financial matters as well as with people from diverse backgrounds.
- The ability to communicate ideas, processes, and designs effectively.

The teaching philosophy of this program focuses on project-based learning. This is achieved by placing competent, practicing engineers in the classroom as professors, engaging students in the practice of civil engineering through

hands-on class projects, and involving students in faculty consulting and applied research activities. Real engineering projects often serve as class projects. Project sites and professional engineering and construction management firm offices often serve as classrooms.

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**Objective 1: The graduates of the civil engineering program are technically competent.** They will possess a broad knowledge of the principles and fundamentals of civil engineering and their application, and thus be able to: successfully practice as professional civil engineers; pursue graduate or professional degrees; or engage in other professional careers that involve the application of the engineering method.

**Objective 2: The graduates of the civil engineering program are effective team members.** They will function effectively in multicultural and multidisciplinary groups in their practice of the civil engineering. They will effectively participate in the management of projects and the business of which they are a part.

**Objective 3: The graduates of the civil engineering program are professional.** They will perform all of their duties professionally and ethically. They will understand that what they do is a part of a larger society and will understand their part within that society. They will engage in life-long learning to continually provide themselves with the necessary skills, certifications, and licenses to effectively perform their professional duties, even if their career takes them beyond engineering and into another profession.

### **Minor in Floodplain Management**

**Minor Coordinator:** *W. Campbell*

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This minor has been coordinated with the Geography and Geology Department and with the Kentucky Association of Mitigation Managers. The Floodplain Management minor (reference number 361) requires completion of at least 21 semester hours including 13 core hours taken by all students and an additional 8 hours of electives. At least six hours of the minor must be taken from classes not counting toward completion of the major. The minor provides students with basic knowledge and skills needed to implement and administer flood mitigation and recovery programs. Students develop familiarity with federal floodplain management regulations, the National Flood Insurance Program, hydrology, surveying, and tools such as Geographic Information Systems that are critical to administering an aggressive floodplain management program. Completion of the minor requires familiarity with all aspects of floodplain management and with the impacts of floods on individuals, on property, and on regional or national economics. Students successfully completing the program must have passed the Certified Floodplain Manager (CFM) exam. The CFM is a nationally recognized certification and is considered a desirable qualification by many employers. Required courses for the minor are CE 160/161, CE 300, GEOG 318 (required for engineering students, GEOG 317 may be substituted for geography/geology students), and CE 461 or GEOG/GEOL 310. A minimum of 8 semester hours of electives must be selected from GEOG 121, 207, 208, 209, 391, 414, 433, 416, 417, 419, 437 and 438. GEOG/GEOL 420, GEOG 422, 424, 426, 427, 431, 445, 455, 474, 477, GEOL 111, 113, CE 351, CE 380/381, CE 461 and CE 480/481.

For students majoring in civil engineering, a suggested sequence of courses for completion of this minor is: CE 160 and 161, CE 380 and 381, GEOG 121, GEOG 208, CE 300, GEOG 318, and CE 461.

For students majoring in geography or geology, a suggested sequence of courses for completion of this minor is: GEOG 121, GEOG 208, CE 160 and 161, GEOG 318, CE 300, GEOG 310, and GEOG 414.

**Minor in Land Surveying**

*Minor Coordinator: R. Gallagher*

The land surveying minor (reference number 405) provides the student with the basic knowledge and skills needed to accomplish land surveying tasks for entry-level employment. These tasks include boundary surveys, topographic mapping, leveling, stakeouts, traversing, field note taking, distance and angle measurements, plus proper techniques and use of surveying equipment (total stations, EDMs, and levels).

The following courses are currently required for the land surveying minor (26 hours): AMS 163, CE 160 and 161, CE 380 and 381, CE 378 and 379, GEOG 316, and GEOG 317 or 318, and GEOG 414.

**Certificate in Land Surveying**

Undergraduate students majoring in civil engineering or post-graduate students with baccalaureate degrees in civil engineering, mining, or agricultural engineering accredited by the Accreditation Board of Engineering and Technology ( ABET) may obtain a Certificate in Land Surveying (reference number 1700) in order to pursue licensure as a professional surveyor in the state of Kentucky by completing the following courses (15 hours): AMS 163, CE 160 and 161, CE 380 and 381, and CE 378 and 379.

Post-graduate students with baccalaureate degrees in majors other than civil engineering, mining or agricultural engineering may obtain a Certificate in Land Surveying in order to pursue licensure as a professional surveyor in the state of Kentucky by completing the same courses as listed for the minor in land surveying (26 hours). See minor in land surveying.

**Major in Electrical Engineering**

*Program Coordinator: M. Cambron*

Electrical engineers are experts in dealing with electricity, electromagnetism, and electronics. Electrical engineering touches virtually every aspect of life in the twenty-first century. Our electrical engineering curriculum exposes students to a variety of topics to prepare them for careers as engineers. Electrical engineers are employed in a variety of industries including:

<b>Suggested Program of Study</b>			
<b>Electrical Engineering Curriculum</b>			
<b>Freshman: Fall</b>	<b>Hrs.</b>	<b>Freshman: Spring</b>	<b>Hrs.</b>
ENGR 175 Univ Expr - ENGR	1	EE 180 Digital Circuits	4
EE 101 EE Design I	1	MATH 137 Calculus II	4
MATH 136 Calculus I	4	PHYS 255/256 Physics 1/Lab	5
Science Elective	3	HIST 119 or 120 Western Civ.	3
ENG 100 Composition	3	Category F Elective	1
COMM 161(or 145) Business Spkg.	3	<b>Total Hours</b>	<b>17</b>
<b>Total Hours</b>	<b>15</b>		
<b>Sophomore: Fall</b>	<b>Hrs.</b>	<b>Sophomore: Spring</b>	<b>Hrs.</b>
EE 200 EE Design II	1	EE 211 Circuits and Networks II	3.5
EE 210 Circuits and Networks I	3.5	EE 380 Microprocessors	4
MATH 331 Diff. Equations	3	MATH 237 Calculus III	4
PHYS 265 Physics II	4	ECON 202 Economics	3
CS 239 Prob. Solving Using Comp.	3	Literature (B-I)	3
Foreign Lang. (A-II)	3	<b>Total Hours</b>	<b>17.5</b>
<b>Total Hours</b>	<b>17.5</b>		
<b>Junior: Fall</b>	<b>Hrs.</b>	<b>Junior: Spring</b>	<b>Hrs.</b>
EE 345 Electronics	4	EE 300 EE Design III	1
EE 473 Intro. to EM Fields or PHYS 440	3	EE 420 Signals & Linear Sys.	3
Engineering/Science Elec	3	EE 431 Intro. to Power Systems	3
Math 307 Linear Algebra or MATH	3	EE 479 Optoelectronics	2
350 Adv. Engineering Math	3	STAT 301 Applied Stats.	3
Category B Elective	3	ENG 300 Composition	3
Category F Elective	1	Category E Elective	3
<b>Total Hours</b>	<b>17</b>	<b>Total Hours</b>	<b>18</b>
<b>Senior: Fall</b>	<b>Hrs.</b>	<b>Senior: Spring</b>	<b>Hrs.</b>
EE 400 EE Design IV	1	EE 401 Capstone Design	3
EE 405 EE Senior Research Sem.	1	EE 450/451 Digital Signal Proc.	4
EE 410/411 Computer Design	4	EE 470/475 Communications	4
EE 460 Cont. Control Systems	4	EE Senior Elective	3
Engineering/Science Elect	3	Category B Elective	3
Category C Elective	3	<b>Total Hours</b>	<b>17</b>
<b>Total Hours</b>	<b>16</b>		
<b>Grand Total Hours: 135</b>			
<b>EE Senior Elective</b>	<b>Hrs.</b>	<b>Science Elective</b>	<b>Hrs.</b>
EE 432 Power Systems II	3	BIOL 120 Biological Concepts	3
EE 443 Microfabrication and MEMS	3	CHEM 116 Intro College Chem	3
EE 445 Advanced Electronics	3	CHEM 120 College Chemistry I	3
EE 461 Discrete Control Sys	3	ENV 280 Environmental Sc.	3
EE 462 Special Topics in Control	3	GEOL 111 The Earth	3
EE 477 Numerical Tech.	3		
EE 490 Robotics	3		
<i>(A-F) Denotes General Education Category</i>			

- Circuits and Electronics
- Communication and Signal Processing
- Electrical Power Systems
- Computer Hardware and Embedded Systems
- Robotics, Control Systems and Automation
- Biomedical Applications
- Automotive and Aerospace Systems
- Manufacturing plants

The major in electrical engineering (reference number 537) leads to a Bachelor of Science degree.. This degree is jointly offered by Western Kentucky University and the University of Louisville for students in residence at Western.

The curriculum requires a minimum of 63-65 technical specialty hours and 27 semester hours of required science and mathematics courses.

#### **Academic Standards for the WKU/UofL Joint Electrical Engineering Program**

Students are admitted as a pre-major in Electrical Engineering. In order to transition from the pre-major to major and to graduate with a degree in Electrical Engineering, students must complete the following courses earning a grade of "C" or better in each course.

- EE 101 EE Design I or EE 175 - University Experience
- EE 180 - Digital Circuits (4 hours)
- EE 210 – Circuits & Networks (3.5 hours)
- ENG 100 - Freshman English (3 hours)
- COMM 145 or 161 - Public or Business Speaking (3 hours)
- MATH 136 - Calculus and Analytical Geometry I (4 hours)
- MATH 137 - Calculus and Analytical Geometry II (4 hours)
- PHYS 255/256 - University Physics I and Lab (5 hours)
- PHYS 265 - University Physics II (4 hours)
- CS 239 – Problem Solving Comp Tech (3 hours)

In addition, each student's transcript must have at least 16 hours of EE credit in the major taught by a UofL faculty member.

#### **Engineering/Science Electives (must take at least 6 hours)**

- EM 221 or EM 222 or PHYS 350 (3 hours)
- ME 365 or ME 220 or PHYS 330 (3 hours)
- ME 240 Materials and Methods of Manufacturing (3 hours)
- ME 330 or CE 341 or CE 342 (3 hours)
- PHYS 450 Classical Mechanics II (3 hours)
- PHYS 318 Data Acquisition Using Labview (3 hours)

#### **Electrical Engineering Program Mission**

The mission of our Electrical Engineering Program at WKU is to build a foundation of knowledge in electrical engineering by integrating a variety of project experiences at every level throughout the curriculum.

Our program is to be relevant to our region and to produce graduates who can immediately contribute to the profitability of their employer.

Our graduates should be:

- Practical problem solvers with abstract thinking skills.
- Life-long learners capable of building their careers upon a solid foundation of knowledge.
- Competent in communicating technical materials and concepts in individual and group situations.
- Able to apply with confidence the basic sciences and mathematics to their professional activities, and
- Acclimated to individual and team project activities based upon numerous experiences relating to our project-based, industry-related curriculum.



Our faculty must be:

- Excellent teachers
- Competent in their profession as engineers, and
- Capable of integrating projects into all aspects of our engineering curriculum to the extent practicable.

The program achieves its mission by focusing on specific educational objectives. They are:

- **Objective 1:** Our graduates are prepared to pursue successful and productive engineering careers and are technically competent with the ability to analyze and solve electrical engineering problems.
- **Objective 2:** Our graduates are application-oriented problem solvers, accomplishing solutions through sound engineering and economic practice.
- **Objective 3:** Our graduates are involved in continuing professional development and lifelong learning.
- **Objective 4:** Our graduates practice engineering in a professional manner demonstrating an awareness of legal and ethical responsibilities.
- **Objective 5:** Our graduates have the ability to effectively communicate their ideas and designs.

### **Minor in Electrical Engineering**

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The minor in electrical engineering (reference number 354) requires a minimum of 21 semester hours in electrical engineering. The required courses include EE 210 and EE 211. Students, with the approval of an EE advisor, select additional electrical engineering courses to complete the minor; at least 11 hours must be at the 300-level or above. Students majoring in electrical engineering cannot earn a minor in electrical engineering. EE 350 does not count towards the EE minor.

### **Major in Mechanical Engineering**

**Program Coordinator: J. Lenoir**

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Mechanical engineers are involved in designing and building almost everything that is needed in our modern world, from nearly invisible electro-mechanical devices to enormous power generating and distribution systems producing millions of horsepower. Mechanical engineers use scientific principles from the physical world to create a tremendous variety of mechanical and thermal systems. Practicing mechanical engineers use these principles to design, analyze, manufacture and maintain systems that include:

- automobiles and aircraft
- heating and cooling systems
- electric power plants
- specialized materials
- manufacturing plants
- industrial equipment and machinery

Mechanical engineers need a solid understanding of engineering science, which includes mechanics, engineering materials, thermodynamics and fluid mechanics. The program at Western focuses on these sciences as well as design and professional skills necessary for a successful career in mechanical engineering.

The major in Mechanical Engineering (reference number 543) leads to a Bachelor of Science degree. This degree is jointly offered by WKU and the University of Kentucky for students in residence at Western. The curriculum requires a minimum of 67-68 technical specialty hours, completion of required general education, and 23.5 semester hours of required mathematics and science.

#### **Academic Standards for the WKU/UK Joint Mechanical Engineering Program**

Students are admitted as a Pre-Major in Mechanical Engineering. In order to transition from Pre-Major to Major and to graduate with a degree in Mechanical Engineering, students must earn a GPA of 2.5 in the following courses and a grade of "C" or better in each course in the list. This requirement must be completed before enrolling in ME 300: Junior Design.

- ME 175: University Experience (or ME 176 for transfers) (2/1 hours)
- ENG 100: Freshman English (3 hours)
- HIST 119 or 120: Western Civilization (3 hours)
- COMM 145 or 161: (3 hours)
- MATH 136: Calculus and Analytic Geometry I (4 hours)
- MATH 137: Calculus and Analytic Geometry II (4 hours)

- ME 180: Freshman Design II (3 hours)
- PHYS 255/256: University Physics I and Laboratory (5 hours)
- CHEM 120/121: College Chemistry I and Laboratory (5 hours)
- ME 240/241: Materials and Methods of Manufacturing (4 hours)

TOTAL 36 hrs

After satisfying the requirements to transition from Pre-Major to Major in Mechanical Engineering, the students must also earn a grade of C or better in the following courses required for the major: EM 221, 303, ME 200, 220, 310, 330, 347, MATH 237, 331.

Each mechanical engineering student's transcript must include at least 16 hours of credit in the major taught by UK faculty members.

Each mechanical engineering student must also take at least one mathematics elective. This elective must meet three criteria:

- It must be a course offered by the Department of Mathematics.
- It must not be a course repeating subject matter already covered in a required course.
- It must be of a level greater than or equal to the required courses in mathematics.

Suggested Program of Study			
Mechanical Engineering Curriculum			
Fall Semester	Hrs.	Spring Semester	Hrs.
ME 175/176 Univ. Experience	2 or 1	ME 180 Freshman Design II	3
CHEM 120/121 Chemistry I & LAB (4,1)	5	MATH 137 Calculus II	4
MATH 136 Calculus I	4	PHYS 255/256 Physics I & LAB (3,2)	5
ENG 100 Freshman Eng.	3	HIST 119/120 Western Civ.	3
COMM 145 or 161 Public Spkg.	3	Foreign Language	3
	<b>17</b>		<b>18</b>
MATH 237 Multivariable Calc.	4	ME 200 Sophomore Design	3
EM 221 UK Statics	3	MATH 331 Diff. Equations	3
ME 240/241 Mat./Meth. & LAB (3,1)	5	EM 313 Dynamics	3
PHYS 265/266 Physics II & LAB (4,1)	4	ME 285 Fundamentals Ind. Auto	3
ENG 200 Intro. to Literature	3	EM 303 WKU Mechs. Of D. Solids	1
	<b>19</b>	ME 347 Mech. Systems Lab	1
		Category B Elective 1 of 2	3
			<b>17</b>
ME 220 Eng. Thermo I	3	ME 300 Junior Design	2
ME 344 Mechanical Design	3	ME 310 Eng. Instrumentation	3
EE 350 EE Fundamentals	4	ME 321 Eng. Thermo II	3
MATH --- Math Elective 1 of 1	3	ME 330 Fluid Mechanics	3
Category C Elective 1 of 2	3	ME - ME Tech Elective 1 of 3	3
Category F Elective 1 of 2	1	ENG 300 Junior English	3
	<b>17</b>		<b>17</b>
ME 325 Heat Transfer	3	ME 412 ME Senior Project	3
ME 416 UK Dyn. Systems Elective	3	ME - ME Tech. Elective 3 of 3	3
ME 400 Mech. Engr. Design	2	Category C Elective 2 of 2	3
ME 440 Therm/Fluids Lab	2	Category B Elective 2 of 2	3
ME 445 Dynamic Systems Lab	2	Category E Elective 1 of 1	3
ME - ME Tech. Elective 2 of 3	3	Category F Elective 2 of 2	1
	<b>15</b>		<b>16</b>
<b>Program Total = 135 Hours</b>			

### Mechanical Engineering Program Mission

The mechanical engineering program produces graduates who are well prepared for the start of productive, successful careers as practicing engineers.

Our graduates have a strong competitive advantage with their unique background of engineering fundamentals combined with practical knowledge and experience.

The mechanical engineering program provides a project-based, learner-driven environment relevant to the needs of our region. In support of this learning environment, the professional engineering activities of the faculty create opportunities for the students to practice the art and science of contemporary Mechanical Engineering.

The program achieves its mission by focusing on specific educational objectives. They are:

### Technical

- Our graduates have demonstrated competence in the use of scientific, technical, and professional skills for the practice of Mechanical Engineering.
- Our graduates have demonstrated the ability to identify problem causation and have implemented practical, application-oriented solutions.
- Our graduates have demonstrated the ability to find additional knowledge necessary to solve unfamiliar problems.

### Professional

- Our graduates have exhibited excellent two-way communication skills (written, oral, visual, and graphical) with a wide variety of audiences.
- Our graduates have demonstrated ethical professional behavior and a comprehension of the breadth of the Engineer's professional roles and responsibilities.

### Societal

- Our graduates have adapted to an ever-changing world by engaging in life-long learning and professional development activities.
- Our graduates have contributed to their region's economic development through their professional practice.

## Department of Geography and Geology

Programs offered by the Department of Geography and Geology are designed to meet the career goals of students in a wide variety of geoscience areas. Over the past twenty years, most of our program graduates have found employment in their preferred professions.

Geography courses provide a scientific foundation for the investigation and understanding of the physical and biological environments, the nature of social, political and economic activity, and the interaction between humans and the environment. Collectively, these courses offer basic professional training for geographers and planners, as well as providing geographic training for prospective elementary, middle, and high school teachers. They are also an essential component of international programs offered by the university in Latin American, Asian, African, and Canadian studies, and in International business. Geography is considered an essential life skill.

Geography prepares students for service as water and environmental resource managers, city and regional planners, industrial and commercial consultants, meteorologists and climatologists, cartographers, G.I.S. analysts, educators, and government employees in a wide range of national, state, and local agencies. Environmental Planning, Resource Management, and Sustainable Development are interdisciplinary specialties of the Department and many graduates work for the National Park Service, National Forest Service, and other management agencies. Majors in Meteorology and Geographic Information Science (GIS) prepare students for professional careers in the atmospheric sciences and in positions that demand sophisticated spatial analytical techniques.

Geology courses provide the basic professional foundation for the scientific investigation of the Earth as well as geological education for the prospective teacher. Geology majors may enter positions in industry and government agencies. Many geologists work in interdisciplinary fields such as hydrology, energy, environmental and engineering geology, geophysics, and geochemistry. Geologists are needed in many areas for basic Earth research, for exploration and development of natural resources, and to address various environmental problems. Students are prepared for a variety of interesting and important career positions in federal and state agencies, engineering and environmental firms, and other areas of private industry, including oil, gas, and coal companies. In addition to the traditional BS degree in geology, majors may also select A.B. options in earth and space science or general geoscience. The geology program also prepares students for eventual certification as a Professional Geologist.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter, "Academic Information." Specific attention should be given to the subsections in the chapters entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

The four-year plan for timely completion of a geography, meteorology, GIS, or geology major appears on the departmental website at: [www.wku.edu/geoweb/aboutgeo.php](http://www.wku.edu/geoweb/aboutgeo.php). A five-year bachelors/masters in geography, geology, meteorology, or GIS and geoscience is in development so that motivated students can focus their research interests

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and gain a Master's degree in an expedited timeframe. Five-year bachelors/masters programs can be tailored to meet other research interests for motivated students.

### **Major in Geographic Information Science**

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The major in geographic information science (reference number 576) focuses on the concepts and principles of GISystems, along with its four components: (1) input, corrections, and collection of geospatial data; (2) storage and retrieval of geospatial data; (3) manipulation and analysis of geospatial data; and (4) maps and other forms of presentation of geospatial data. The major in geographic information science (reference number 576) requires a minimum of 58 semester hours of GIS courses. The following 22 hours are foundation requirements: AMS 163, CS 145, 146, GEOG 100 or GEOL 102, GEOG 110, GEOG 475 or 495, and GEOG 499. The following 14 hours are technique requirements: GEOG 300, 316, 317, and 391. The following 22 hours are professional requirements: GEOG 414, 417, 418, 419, 443, 477, and 492. Required support courses are CE 160-161, CS 240, ENG 307, MATH 118 (or MATH 116 or 117) and MATH 136. Qualified students may omit MATH 118 and start with MATH 136. GIS courses require a course fee.

### **Major in Meteorology**

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The major in meteorology (reference number 578) leads to a Bachelor of Science in Meteorology and requires a minimum of 49.5 semester hours of meteorology, geography, and computer science. A minor program is not required. Other required courses in physics and mathematics total an additional 26 semester hours. Students majoring in meteorology will learn the key concepts and skills necessary to qualify as a meteorologist for the National Weather Service, and to meet the standards of the American Meteorological Society. The following 10 hours are foundation requirements: GEOG 100 or GEOL 102 or GEOL 111, GEOG 110, 121, and 499. The following 10 hours are technique requirements: GEOG 300, 316, 391. The following 10 hours are thematic requirements: GEOG 422, 424, and CS 240. The following 19.5 hours are professional requirements: GEOG 325, 431, 432, 433, 437, 438, CS 245. The following are additional courses required outside of the major: PHYS 255/256, 265/266, MATH 136, 137, 237, and 331.

### **Major in Geography**

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The major in geography (reference number 674) requires a minimum of 36 semester hours and leads to a Bachelor of Science degree. A minor or second major is required. Required courses totaling 30 - 32 hours are required for each area of concentration, with an additional 3-6 hours chosen from specified electives. Incoming freshmen are encouraged to take GEOG 175 (University Experience) as preparation for the major.

Students majoring in geography will develop, with their advisor, a group of courses designed to meet their specific needs within the framework of departmental offerings.

At present, the department offers six specific areas of concentration with a required course of study. These areas of concentration with their specific curricula are as follows:

#### **Environmental Planning and Resource Management**

- Foundation Requirements (13 hours): GEOG 100 or GEOL 102, GEOG 110, 280, 475 or 495, 499.
- Thematic Requirements (9 hours): GEOG 328, 471, 474.
- Technique Requirements (10 hours): GEOG 300, 316, 391.
- General Electives (4 hours): GEOG 208, 209, 310, 317, 350, 380, 414, 417, 419, 444, 452, 455, 459, 461, 487, or GEOL 415.
- Program Total: 36 hours
- Additional requirements: MATH 118 (or MATH 116 and MATH 117) and one Ethics course: PHIL 320 or GEOG 444.

#### **Planning and GIS**

- Foundation Requirements (13 hours): GEOG 100 or GEOL 102, GEOG 110, 240, 475 or 495, 499.
- Thematic Requirements (10 hours): GEOG 317, 474, 484.
- Technique Requirements (10 hours): GEOG 300, 316, 391.
- General Electives (3 hours): GEOG 350, 360, 414, 416, 417, 419, 423, 451, 477, 480, 487, 488, 497.
- Program Total: 36 hours
- Additional Requirements: MATH 118 (or MATH 116 and 117), AMS 163, CIS/CS 226 or CS 146.

### **Land, Weather, and Climate**

- Foundation Requirements (13 hours): GEOG 100 or GEOL 102 or GEOL 111, GEOG 110, 121, 475 or 495, 499.
- Thematic Requirements (7 hours): GEOG 322, 424 or 426.
- Technique Requirements (10 hours): GEOG 300, 316, 391.
- General Electives (6 hours): GEOG 122, 222, 310, 325, 328, 414, 420, 424 or 426, 482, 455, 459, 461, 471, GEOL 311, 325.
- Program Total: 36 hours
- Additional Requirements: MATH 118 (or 116/117), PHYS 201

### **Karst Geosciences**

- Foundation Requirements (13 hours): GEOG 100 or GEOL 102 or GEOL 111, GEOG 110, GEOG 280, GEOG 475, GEOG 499
- Thematic Requirements (9-10 hours): GEOG 310 or 459, GEOG 461, 420 or 475
- Technique Requirements (10 hours): GEOG 300, 316, 391
- Approved Electives (3-4) hours): GEOG 208, 209, 317, 414, 417, 419, 444, 452, 455, 471, 474, 489, GEOL 415, 445
- Program Total: 36 hours
- Additional Requirements: MATH 136, CHEM 120, and BIOL 120 or PHYS 201

### **Cultural Geography**

- Foundation Requirements (14 hours): GEOG 100 or GEOL 102, GEOG 110, 330, 430, 475 or 495, 499.
- Regional Requirements (6 hours): Choose two courses from GEOG 200, 360, 451, 454, 462, 464, 465, 466, 467.
- Thematic Requirements (6 hours): Choose two courses from: GEOG 350, 378, 480, 481.
- Technique Requirements (10 hours): GEOG 300, 316, 391.
- Program Total: 36 hours
- Additional requirement: MATH 118 (or MATH 116 and MATH 117)

### **Geography Honors**

- Program Requirements (30 hours): GEOG 100 (Honors), 110 (Honors), 300, 316, 391, HONS 300, HONS 301, Honors Enriched Embedded Courses (10 hours), 499
- Program Electives (6 hours): HONS 403 Thesis for 6 hours, or 475 or 495
- Program Total 36 Hours
- Additional Requirements: MATH 118 (or MATH 116 and 117), one Ethics course: PHIL 320 or GEOG 444.

## **Four-Year Degree Program**

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By taking the courses required of all majors during the freshman, sophomore, and junior years and the courses required for the specific concentrations during the sophomore, junior, and senior years, a student may graduate in four years. Recommended semester-by-semester schedules can be obtained from advisors, the department office, or the department website: [www.wku.edu/geoweb/aboutgeo.php](http://www.wku.edu/geoweb/aboutgeo.php).

### **Major in Geology**

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The geology program offers four distinct major concentrations, depending on the career goals of the student.

The professional major in geology (reference number 677) is for students seeking careers as a professional geologist and requires a minimum of 40 semester hours and leads to a Bachelor of Science degree. A minor or second major is required. This major provides students with a solid background in all traditional areas of geology for entry-level employment or graduate school. Incoming freshmen are encouraged to take GEOG 175 (University Experience) as preparation for the major.

#### **Professional Major (reference number 677)**

- Program Requirements - 31 hours
- GEOL 111, 112, 113, 114, 270, 308, 330, 350, 380, 460, 499
- Program Electives - 9 hours
- Any 9 hours of approved geology electives

Additional requirements include: MATH 136, BIOL 122-123, CHEM 120-121, CS 146, GEOG 316, 317, 391, and an approved geology field camp or completion of the WKU certificate in Geographic Information Systems (GIS).

The professional extended major in geology (reference number 577) is for students seeking a comprehensive background in the essential content areas within the discipline of geology as defined by the Association of State Boards of Geology. Students who complete this program will be prepared to pass the nationally standardized ASBOG examination, which is one step in the process of achieving professional registration and becoming practicing, professional geologists.

**Professional Extended Major (reference number 577)**

- Program Requirements - 40 hours
- GEOL 111, 112, 113, 114, 270, 308, 310 (or GEOG 310), 330, 350, 380, 415, 460, 485, 499
- Program Electives - 12 hours
- Any 12 hours of approved geology electives

Additional requirements include: MATH 136, BIOL 122-123, CHEM 120-121, CS 146, GEOG 316, 317, 391, and an approved geology field camp or completion of the WKU certificate in Geographic Information Systems (GIS).

The earth and space science and general geoscience concentrations in geology (reference number 676) are for students who either seek the content knowledge needed to qualify for teacher certification in Kentucky in Earth and Space Science or who do not intend to practice professional geology. This major leads to a Bachelor of Arts degree.

**Earth and Space Science Concentration (reference number 676)**

- Program Requirements - 26 hours
- GEOL 111, 112, 113, 114, 308, 311, 325, 380, 460, 499
- Program Electives - 6 hours
- Any 6 hours of approved geology electives

Additional requirements include: MATH 116, PHYS 201, CS 145, GEOG 121, ASTR 104, 106, 405, and a minor field.

**General Geoscience Concentration (reference number 676)**

- Program Requirements - 26 hours
- GEOL 111, 112, 113, 114, 308, 311, 325, 380, 460, 499
- Program Electives - 6 hours
- Any 6 hours of approved geology electives

Additional requirements include: MATH 116, CHEM 105/106, PHYS 201, CS 146, GEOG 121, GEOG 316, and a minor field.

**Minor in Geography**

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The minor in geography (reference number 374) requires a minimum of 21 semester hours. Required courses are GEOG 100, 110, 330, one technique course selected from 300, 316, 317, 391, 417, 419, and 452, and 9 hours of upper-division electives chosen in consultation with your advisor.

Department advisors should be contacted to develop a course of study compatible with the department's philosophy and the student's needs.

**Minor in Geology**

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The minor in geology (reference number 377) requires a minimum of 21 semester hours. Required courses are GEOL 111, 112, 113, and 114. Two additional courses must be selected from GEOL 308, 330, 350, 380, 405, 460. Additional geology courses, to total a minimum of 5 hours, are to be chosen in consultation with a geology advisor.

**Minor in Earth Science**

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The minor in earth science (reference number 353) is for prospective earth science teachers and requires a minimum of 21 semester hours. Required courses are GEOL 111, 112, 113, 114, GEOG 121, and ASTR 214. Courses to total seven additional hours must be elected from GEOL 308, 330, 370, 405, 420, and GEOG 328 and 420. A minor in earth science must be taken in conjunction with a major or minor in another science or in mathematics.

**Minor in City and Regional Planning**

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The minor in city and regional planning (reference number 339) is designed to develop an academic foundation for students interested in pursuing careers in planning agencies, Geographic Information Sciences, and other

government public-service organizations. This minor, in conjunction with an appropriate major, provides a basic foundation for students seeking to pursue graduate or professional studies in the field of city and regional planning.

Two tracks are available in this minor. The Management Track requires GEOG 240, 484, one technique course chosen from GEOG 316, 300, 317, 391, 414, 417, 419, and 452; six hours chosen from GEOG 423, 434, 474, 480, 488, and 495; and six elective hours selected in consultation with the advisor. The GIS Analysis Track requires GEOG 240, 484, and 317; six hours chosen from GEOG 417, 474, 488, and 495; and 6 hours of electives chosen from GEOG 316, 419, 423, and 480 in consultation with your advisor. A minimum of 21 semester hours is required for completion of the minor.

### **Minor in Water Resources**

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This 22-hour minor program (reference number 491) provides a foundation in the physical and social science aspects of water resource management and policy. The minor is appropriate for students interested in careers in applied hydrology and/or water resources management and policy. Required courses (16 hours) include GEOL 111/113 and GEOG 121, 310, 427, and 474. Restricted elective courses (6 hours) include GEOL 415, 440, 445, GEOG 422, 426, 428, and 487.

### **Minor in Geographic Information Systems**

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This 23-hour minor program (reference number 366) provides a foundation in Geographic Information Systems (GIS). The minor is appropriate for students interested in careers utilizing GIS as a tool in areas such as geography, geology, biology, political science, business, journalism and broadcasting, engineering, and public health, or for students pursuing GIS as a profession in a related discipline such as Computer Science or Computer Information Systems. Required courses (23 hours) include GEOG 100 or GEOL 111, GEOG 110, 316, 317, 417, 419, and GEOG 414 or 477 (Remote Sensing or GIS Special Topics).

### **Minor in Environmental Studies**

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The environmental studies minor (reference number 363) is designed to provide a broad-based intellectual foundation for students interested in pursuing careers in environmental management and related areas. The minor is intended for natural science majors, as well as for students majoring in business, psychology, journalism, and other social science and humanities disciplines.

**Requirements:** The environmental studies minor requires 25 semester hours, including a 13-hour core and 12 hours of electives. Students must have at least 12 hours of coursework from outside their major program. Half of the hours in the minor must be at the 300- or 400-level.

#### **Core Courses (13 hours):**

**A.** Introduction to Environmental Science (3 hours): ENV 280, PH 280, CHEM 280, or GEOG 280. These courses present basic environmental concepts and their applications but with different emphases, allowing a student to select that which most closely parallels his/her individual interests.

**B.** Biological Concepts: Evolution, Diversity, Ecology (4 hours): BIOL 122/123.

The selected courses above should be taken during the sophomore year and no later than the fall semester of the third year.

**C.** Earth Science course (3 hours): GEOG 100 or GEOG 121 or GEOL 102, or GEOL 111. These courses present a common body of basic earth science but with different emphases.

**D.** Practicum Experience (3 hours): BIOL 369 or 389 or GEOG 495, or CHEM 489, or ENV 475 or 491. An approved capstone project, supervised practicum, or cooperative education experience in the senior year.

**Elective Courses (12 hours):** The remaining 12 hours of the minor are to be selected from the list of courses identified from the offerings of several departments. The specific courses to be taken will be determined after consultation with one of the environmental studies minor advisors. A sufficient number of offerings has been identified to allow the selection of a sequence that corresponds closely to the students interests. At least two departments must be represented in the 12 hours of elective coursework.

Department of Agriculture: AGRO 350/351, 454

Department of Architectural and Manufacturing Sciences: AMS 470

Department of Biology: BIOL 207/208, 315, 420, 446

#### **Advisors:**

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Department of Chemistry: CHEM 314, 446

Department of Engineering: CE 351

Department of Geography and Geology: GEOG 328, 427, 455, 474; GEOG/GEOL 310; GEOL 415

Department of Public Health: ENV 375, 460, 480, PH 385

Department of Philosophy and Religion: RELS 408

### **Minor in Sustainability**

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The minor in sustainability (reference number 475) requires 21 semester hours. The minor provides students with the environmental science knowledge and the theoretical foundation to approach decision making in a way that is sustainable for the long term. They will understand how both individual and societal decision-making impacts the environment. Completion of the minor will enable students to examine objectively the impact of specific human activities on the environment and how to mitigate the negative ramifications.

The following courses are required for the 21 hours in the minor (12 hours must be upper-level):

- Three courses in the foundation and capstone areas (9 hours total): GEOG 280, 380, and GEOG 495 or 489.
- At least one course from each of the following four clusters (12 hours total). Note—No more than 6 hours of cluster courses can be taken from any single discipline:
  - Cluster A: Ethics and Human Behavior—ANTH 442, GEOG 444, SOCL 470
  - Cluster B: Economics, Law, and Policy—ECON 430, GEOG 471, 487
  - Cluster C: Physical Systems and the Environment—BIOL 315, GEOL 415, GEOG 427, 455, ENV 375, PH 385, PHYS 100.
  - Cluster D: Planning and Land-Use—AGRO 454, AMS 470, CE 351, GEOG 474, ENV 460

### **Geographic Information Systems Certificate (14 hours)**

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Geographic Information Systems technology is widely used in business and industry, government, and education. This certificate (reference number 174) is designed for students in a variety of disciplines that involve the analysis, mapping, and interpretation of geographic data. Students who complete the program will have a solid foundation that spans the collection, management, analysis, interpretation, and display of data using geographic information systems. They will gain practical experience by completing projects that require the use of sophisticated GIS functions. Finally, they will learn how to develop and implement customized GIS applications.

The program is housed in the Department of Geography and Geology. It consists of a series of four courses taken for a total of 14 credit hours. The courses are GEOG 316, 317, 417, and 419.

### **Graduate Degree Programs**

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The Master of Science in geoscience programs are designed to provide advanced training for those students pursuing administrative and other higher level employment or who plan to continue their graduate education at other universities offering Ph.D. degrees. Undergraduate students who plan early can continue their education and receive a bachelors and masters within five years in the department. While the specializations in geography and geology are similar to those offered at the undergraduate level, emphasis is placed on independent research under the guidance of a graduate advisor. There are many funded research projects within the Department for qualified students. Graduate students are required to write a Master's thesis that derives from independent research in a topic of their choosing, .

The department also cooperates with the College of Education in offering a Master of Arts in Education – Geography Education for Teacher Leaders degree with emphases on cultural geography for social studies teachers and earth science for STEM teachers .

A number of assistantships are available to outstanding graduate students. For further information see the Graduate Studies Catalog or contact the Office of Graduate Studies.



Department of Mathematics and Computer Science

Mathematics and computer science courses at the University are designed with the interests and needs of varying groups of students in mind.

Mathematics majors are available to those planning to pursue careers in secondary and middle grades education as well as to those whose preparation is being directed toward positions in business and industry or toward further work in mathematics at the graduate level. In addition, several courses are offered to meet the demands for the mathematical training of students whose major educational objectives are not directly related to mathematics. Mathematics majors are assigned advisors from among the departmental faculty and are required to consult with these advisors before each registration period.

Computer science remains one of the most exciting and most rapidly growing professions worldwide. The supply of graduates with CS degrees is far exceeded by the demand for professionals at all levels. Such positions include applications programming, systems programming, software and network management, field maintenance and sales, research, and teaching. Many new areas of interest continue to emerge, such as animation, games, and simulation. Computer scientists offer expertise in the effective and efficient use of computers for industry, business, government, research and education.

Recent studies have estimated that the field continues to be among the top two or three in demand. For the last several years, Computer Science graduates with a bachelor's degree currently have commanded the second-highest starting salary for all undergraduate disciplines, according to the College Placement Council Survey.

According to a report from the Kentucky Department for Employment Services, Computer Support Specialists, Computer Software Engineers and Computer Systems Analysts are the three projected fastest growing occupations.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the sub-sections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations.

Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

This department offers the following majors and minors:

- **Major:** Non-teacher certifiable major in mathematics (reference number 728)
- **Major:** Mathematics extended major for employment in industry and/or graduate studies in mathematics (reference number 528)
- **Major:** Mathematics major certifiable for teaching secondary level mathematics (reference number 728)
- **Major:** Middle grades mathematics (reference number 730)
- **Major:** Mathematical Economics (reference number 731)
- **Major:** Computer Science with concentration in Systems/Scientific Applications (reference number 629)
- **Major:** Computer Science with Specialty concentration (reference number 629)
- **Major:** Computer Science with any minor (reference number 629)

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**Professor Mark Robinson, Assistant Department Head (Mathematics)**

**Professor David Neal, Lead Advisor (Mathematics)**

**Associate Professor James Gary, Lead Advisor (Computer Science)**

**Professors:** F. Atici, M. Atici, R. Crawford, D. Erbach, C. Ernst, P. Hamburger, N. Iraniparast, B. Kessler, D. Neal, T. Richmond, M. Robinson, A. Shindhelm, J. Spraker, W. Weidemann, U. Ziegler

**Associate Professors:** J. Gary, D. Lanphier, V. Moody, L. Nguyen, Z. Xia, G. Xing

**Assistant Professors:** M. Autin, S. Bateiha, T. Bhattacharya, M. Dunkum, J. Gishe, M. Kenner, Q. Li, H. Marchionda, S. Munasinghe, N. Nguyen, A. Por, J. Quiton, R. Schugart, H. Wang, D. Wu, R. Yang

**Instructors:** R. Ayers, J. Curtis, L. Fitzpatrick, T. Harris, L. Plumlee, L. Rogers, C. Shen, L. Wells

**Transitional Retirees:** J. Brantley, B. Brunson, J. Thornton

- **Minor:** Mathematics (reference number 417)
- **Minor:** Computer Science (reference number 341)
- **Minor:** Applied Statistics (reference number 313)

### Admission Requirements

To be admitted to the major in mathematics (reference numbers 728 and 528) students must complete the following admission requirements:

- Earn a C or better in each of the following courses: MATH 136, 137, and 307 (or 310).
- Have an overall GPA of at least 2.4 in the mathematics program courses completed prior to admission (MATH 136, 137, and 307 (or 310)).
- Note: If a course is repeated, then the second grade is used to compute the GPA. If a course is repeated multiple times, then the average of all grades after the first attempt is used to compute the GPA.

### Major in Mathematics

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A major in mathematics provides a Bachelor of Arts degree and requires either a minimum of 36-39 semester hours for a general major with a minor or second major (reference number 728) or a minimum of 51 semester hours for an extended major (reference number 528). Note: All mathematics courses listed as prerequisites for other courses must have been completed with a grade of C or better.

Students who wish to declare a 728 or 528 mathematics major will initially be designated as “seeking admission” until the following requirements have been satisfied:

- Complete MATH 136, 137, and 307 or 310, with a grade of C or better in each course.
- Have an overall GPA of at least 2.4 in mathematics program courses (MATH 136 and above) completed prior to admission.

The general major (728) offers two options: (1) Non-teacher certifiable Major in Mathematics; (2) Major Certifiable for Teaching Secondary Level Mathematics. The extended major (528) offers only the first option. Option 1 students are required to complete both CS 180 and 181. Option 2 students are required to complete either CS 170 or 180.

#### Option 1: Non-Teacher Certifiable Major in Mathematics

**(A) General Major (728):** To prepare for employment in industry, the student must complete a minimum of 39 hours of mathematics with a minor or second major giving a total of at least 59 hours (53 unduplicated) with the following requirements:

1. MATH 136, 137, 237, 307, 310, 317, 337, 498.
2. Two courses from: MATH 405, 406, 415, 417, 423, 431, 432, 435, 439, 450, 470, 473, 482.
3. Six elective hours from: MATH 275 (up to 3 hours), STAT 301, MATH 305, 315, 323, 331, 370, 382, 398 (up to 3 hours), 405, 406, 415, 417, 423, 432, 435, 439, 450, 470, 475 (up to 6 hours), 482.
4. Students may take certain 500-level mathematics courses for undergraduate credit with the approval of the Dept. Head in place of courses listed in items 2 or 3.
5. In addition, 12 credit hours of supporting courses from the Ogden College of Science and Engineering or Gordon Ford College of Business (courses such as mathematics, statistics, sciences, engineering, economics, finance and accounting) are required. These courses must be approved by the mathematics and computer science department head. These hours will not count toward a first minor nor usually toward a second major.
6. Also required is PHIL 215 or EE 180.
7. Note: This major is not intended to prepare students adequately for graduate mathematics. Students intending to seek a graduate degree should pursue major 528.

**(B) Extended Major (528):** To prepare for graduate study in mathematics, the student must complete a minimum of 51 hours of mathematics with the following requirements:

1. MATH 136, 137, 237, 307, 310, 317, 337, 431, 498.
2. Have a concentration in one of the following areas: B1, B2, or B3.

B1: Fundamentals of Analysis and Discrete Mathematics:

- i. MATH 417, 439, 450
- ii. Two courses from: MATH 315, 323, 415, 423, 432, 473
- iii. Six additional elective hours from: MATH 275 (up to 3 hours), STAT 301, MATH 305, 315, 323, 331, 370, 382, 398 (up to 3 hours), 405, 406, 409, 415, 423, 432, 435, 470, 473, 475 (up to 6 hours), 482.

B2: Fundamentals of Applied Mathematics

- i. MATH 331, 370, 382, 405.
- ii. Two courses from: MATH 305, 406, 435, 470, 482
- iii. Three credit hours from MATH 275, STAT 301, MATH 305, 315, 323, 398, 406, 409, 415, 417, 423, 432, 435, 439, 450, 470, 473, 475, 482.

B3: Fundamentals of Mathematical Studies

- i. Math 450
- ii. Two courses from: MATH 405, 406, 409, 415, 417, 423, 432, 435, 439, 470, 473, 482.
- iii. Twelve additional elective hours from MATH 275 (up to 3 hours), STAT 301, MATH 305, 315, 323, 331, 370, 382, 398 (up to 3 hours), 405, 406, 409, 415, 423, 432, 435, 470, 473, 475 (up to 6 hours), 482.

3. Students may take certain 500-level mathematics courses for undergraduate credit in place of courses listed in items B1i, B1ii, B2i, B2ii, B3i, or B3ii with the approval of the mathematics and computer science department head. No minor or second major for the extended major is required.

**Option 2: Major Certifiable for Teaching Secondary Level Mathematics**

**General Certifiable Major (reference number 728):** The student must complete a minimum of 36 hours of mathematics with a second major in Science and Mathematics Education (SMED) and with the following requirements:

1. MATH 136, 137, 237, 304, 307, 310, 317, 323, 498; STAT 301. Before the “professional semester,” the student must complete each of these courses with a grade of “C” or better and achieve a GPA of at least 2.5 in required mathematics courses.
2. At least 3 hours of 400-level mathematics from the following list: MATH 405, 406, 409, 415, 417, 421, 423, 431, 432, 435, 439, 450, 470, 482.
3. Also required is PHIL 215 or EE 180.

Students in this option must have a second major in science and mathematics education (SMED). In addition, students must attain a grade of “C” or better in each required mathematics course and a 2.5 GPA for all required mathematics courses.

**Major in Middle Grades Mathematics**

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A major in middle grades mathematics (reference number 730) is for students who plan to teach mathematics in grades 5-9 only. The degree requires a second major in science and mathematics education (SMED). Upon successful completion of both majors, the student will receive a Bachelor of Science degree.

Students who wish to declare a 730 middle grades mathematics major will initially be designated as “seeking admission” until the following requirements have been satisfied:

- Complete MATH 117 and MATH 136, or MATH 136 and MATH 137; and MATH 205, with a grade of C or better in each course.
- Have an overall GPA of at least 2.4 in all middle grades mathematics program courses (MATH 117 and above) completed prior to admission.

(If a course is repeated, then the second grade is used to compute the GPA. If a course is repeated multiple times, then the average of all grades after the first attempt is used to compute the GPA.)

The student must complete a minimum of 32 hours in mathematics by taking the following required courses: MATH 117 and 136 OR MATH 136 and 137; MATH 183 or STAT 301; MATH 205, 206, 304, 308, 403 or 323, 411 or 421, 413, 490.

Students must attain a grade of “C” or better in each required course and must have a 2.5 GPA overall in required mathematics courses.

### Major in Mathematical Economics

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The major in Mathematical Economics (reference number 731) requires 27 hours in Economics, 21 hours in Mathematics, and 1 hour of an interdisciplinary senior seminar course. This major leads to a Bachelor of Science degree intended for students interested in graduate studies in economics, public policy, or business, as well as those students seeking analytical careers that will require extensive mathematics backgrounds.

The program of study requires completion of a second major or a minor. The second major may not be economics, business economics, or mathematics. The minor may not be economics or mathematics.

All majors must complete a 40-hour core consisting of ECON 202, 203, 206 (or STAT 301), 302, 303, 306 or 307, 464, 465; MATH 136, 137, 237, 307; and ECON 497 or MATH 497. Additionally, either MATH 331 or 310 must be completed, and students must take three additional hours from either MATH 331, 310, 305, 382, 435, or 405. The remaining 3 hours in economics for completion may be selected from other 300 and 400 level economics courses.

Admission to the mathematical economics major requires (1) the completion of MATH 136, ECON 202 and 203, and ECON 206 or STAT 301 with a minimum GPA of 2.0 in the courses listed; and (2) completion of a minimum of 60 hours with a minimum GPA of 2.0 overall; and (3) completion of a minimum of 12 hours at Western Kentucky University with a minimum WKU GPA of 2.0. All mathematical economics majors will be required to enroll in an interdisciplinary senior seminar course prior to graduation (ECON 497 or MATH 497, 1 hour).

**NOTE:** A suggested Program of Study to complete each of the above in four years can be found on the Internet at: <http://www.wku.edu/~david.neal/advising/>.

### Minor in Mathematics (Minor for Employment in Industry and/or Graduate Studies in Mathematics)

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A minor in mathematics (reference number 417) requires a minimum of 24 semester hours. In addition to the foundational sequence (MATH 136, 137, 237, and either 307 or 370), the student is required to select at least nine hours from MATH 3XX\*, MATH 4XX\*, or STAT 301\*\*.

\*Students may not count MATH 304, 308, 403, 411, 413, 421, or 490 toward the minor. MATH 398 may count toward the minor only if the student completes MATH 498.

\*\* Students may not count both MATH 382 and STAT 301 in the minor.

### Minor in Applied Statistics

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A minor in applied statistics (reference number 313) requires a minimum of 19 semester hours. This program is designed for a student seeking a career as a statistical programmer/analyst/consultant in a knowledge-based industry or in a research institution.

The student who elects a minor in applied statistics must complete a minimum of 13 credit hours, as follows: MATH 136 or 142; STAT 301, 330, and 401.

In addition, the student is required to take relevant elective courses to total at least 6 credit hours from the following: (1) any 300-level or 400-level STAT course other than STAT 301, 330, and 401; (2) MATH 382, 482, or 470; (3) at most 3 credit hours of 300-400 level statistical coursework relevant to the student's area of study (with prior approval from the Statistics Education Committee of the Department of Mathematics and Computer Science).

### Grades K-5 Certification

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All students seeking grades K-5 certification must satisfy the general education requirement in mathematics prior to enrolling in the required courses: MATH 205-206-308.

### Certificate in Data Analysis using SAS®

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The Certificate in Data Analysis using SAS (reference number 1716) requires a minimum of 15 semester hours. This certificate is designed for a student seeking a career as a statistical programmer/analyst/consultant in a knowledge-based industry or in a research institution.

To be eligible for the program, the student must have completed MATH 136 (formerly MATH 126) or MATH 142 (or equivalent) with a grade of C or better. The student pursuing a Certificate in Data Analysis using SAS must complete a minimum of 12 credit hours of core statistics courses as follows: STAT 301, 330, 401, 402. In addition, this student is required to take at least 3 credit hours of courses using SAS, selected from the following courses:

- Any 300-level or higher STAT course using SAS, other than STAT 301, 330, 401, and 402.

- MATH 498. Students are required to provide an electronic copy of their paper to the Statistics Education Committee of the Department of Mathematics and Computer Science to verify the use of SAS software.
- Any 300-level or higher course using SAS in another department, with prior approval from the Statistics Education Committee of the Department of Mathematics and Computer Science.

### **Computer Science Curriculum and Career Objectives**

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Courses in the computer science curriculum develop students' knowledge in both theory and applications. Where appropriate, they will discuss contributions from and to other disciplines such as mathematics, statistics, the sciences, engineering, management, etc.

The Systems/Scientific Concentration, Specialty Concentration, and Any Minor option, prepare students for a career in the research and development of computers and their applications. The computer science minor provides a valuable complement to almost any career objective. The graduate degree offers advanced work beyond the undergraduate computer science major. (See the section on Requirements for Computer Science Degree Options for specific course information.)

Student organizations complement the formal coursework. The student chapter of the Association for Computing Machinery (ACM) invites guest speakers, organizes a programming contest for students, and hosts social events throughout the year. The Department maintains a student chapter of Upsilon Pi Epsilon (UPE), the computer science honor society. Other more informal groups bring together students interested in specific areas, such as Linux and its applications, or computer game programming.

The University provides numerous computing laboratories across the campus to which all students have access. In addition, the computer science department has its own laboratories in the new Snell Hall. Some courses are taught in a laboratory environment.

### **Major in Computer Science**

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The major in computer science (reference number 629) requires a minimum of 44 semester hours. All CS courses counting toward the CS program major must be completed with a grade of "C" or better. Computer Science electives may include from 0-6 hours of 200-level courses. Adherence to all University Policies as indicated in the WKU catalog section "Academic Information." Additional requirements are as follows:

#### **Systems/Scientific Applications Concentration**

1. 47 hours of computer science courses are required.
2. ENG 307, MATH 136, STAT 301, and PHIL 215 are required.
3. Completion of these 11 CS core courses (35 credit hours): CS 180, 181, 251, 280, 325, 360, 380, 382, 396, 425, and 496.
4. Completion of 12 hours of CS electives from the following courses: CS 370, 381, 443, 445, 446, 450, and 456.
5. Completion of 2 courses from the following list: MATH 127, 137, 305, 307, 331, 405, 406, 470 and 473.
6. Completion of one year of a laboratory science (a two semester sequence of the same science) and one additional science course (all must be designed for Science/Engineering majors).
7. One additional course from the above list of MATH courses (this course may not be used to satisfy any other CS major degree requirement) or one additional science course designed for science/engineering majors.

#### **Any Minor Option**

1. 44 hours of computer science courses are required.
2. ENG 307, MATH 136, STAT 301, and PHIL 215 are required.
3. Completion of these 11 CS core courses (35 credit hours): CS 180, 181, 251, 280, 325, 360, 380, 382, 396, 425, and 496.
4. Completion of an additional 9 hours of CS electives at the 200-level or above (excluding CS 226 and 257) including 3 hours at the 400-level and another 3 hours at the 300-level or higher. Note; At most 1.5 hours of credit for CS 239 may count towards the major. At most 3 hours of credit for CS 239 and 245 (only for languages for which credit is not received through another course) may count towards the major.
5. Completion of any additional minor/major.

### Specialty Concentration

1. 50 hours of computer science courses are required.
2. ENG 307, MATH 136, STAT 301, and PHIL 215 are required.
3. Completion of these 13 CS core courses (41 credit hours): CS 180, 181, 251, 280, 325, 360, 380, 381, 382, 396, 425, 443, and 496.
4. An additional 18 hours of specialty courses, selected in consultation with a CS advisor, not used to satisfy specific other graduation requirements for the CS major or for general education, including 9 hours of which are at the 300 level or above.
5. Completion of an additional 9 hours of CS electives at the 200-level or above (excluding CS 226 and 257) including 3 hours at the 400-level and another 3 hours at the 300-level or higher. Note: At most 1.5 hours of credit for CS 239 may count towards the major. At most 3 hours of credit for CS 239 and 245 (only for languages for which credit is not received through another course) may count towards the major.
6. **NOTE:** A suggested Program of Study to complete each of the above in four years can be found on the Internet at: <http://www.wku.edu/cs/undergraduate.php>.

### Minor in Computer Science

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The following 23 credit-hour program leads to a minor in computer science (reference number 341). All CS courses counting toward the CS program minor must be completed with a grade of "C" or better:

1. Completion of the following 11 credit hours: CS 180, 181, and 251 or 280.
2. Completion of at least 12 hours of CS courses at the 300-level or higher.
3. Completion of: MATH 119, MATH 122 or MATH 136, and PHIL 215.

### Graduate Degree Programs

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The Department of Mathematics and Computer Science offers graduate courses for the Master of Arts and Master of Science in mathematics and the Master of Science in computer science. Mathematics coursework is also provided for those seeking graduate degrees in elementary or middle grades education.

Several assistantships are available for qualified graduate students.

Additional information on admissions and graduate assistantships for the graduate programs in Mathematics can be obtained from:

**Dr. Claus Ernst**  
**Director of Graduate Studies in Mathematics**  
**Phone: (270) 745-6224**

The Master of Science in Computer Science is a 33 credit hour program. There are thesis and non-thesis options.

Additional information on admissions and graduate assistantships for the Master of Science in Computer Science can be obtained from:

**Dr. Guangming Xing**  
**Graduate Admission Advisor, Computer Science**  
**Phone: (270) 745-8848**

## Department of Physics and Astronomy

The Department of Physics and Astronomy provides a multidimensional framework to support a variety of professional goals and interests of students. The curriculum available within the departmental program affords preparation for careers as physicists in government or industrial laboratories, for teaching in public schools or junior colleges, for entering advanced programs at the graduate level, or as a basis for studies leading to careers in engineering and other professional fields. Fundamental to the program are scientific facilities and faculty providing opportunities for practicing scientific inquiry, which is the basis for understanding the operation of the physical universe, from the smallest to the largest components.

Modern facilities and equipment enhance the instructional program of the department. Space on the first three floors of the Thompson Science Complex Central Wing provides classroom, laboratory, shop, research, and computing accommodations, as well as convenient access to the facilities of Academic Computing Services. The adjacent Hardin Planetarium supports astronomy laboratories and demonstrations for classes, as well as focused presentations of astronomy and the physical universe for school groups and the general public. A roof-top astronomical observatory provides students with convenient access to the department's 12.5 inch Cassegrain reflector and several smaller telescopes. The University Physics laboratories are equipped with modern laboratory equipment and data acquisition interfaces using software that is standard in the physics community. The Applied Physics Institute houses an X-ray diffractometer, neutron generator, Beowulf Computer Cluster and a Large Chamber Scanning Electron Microscope. From the beginning of their careers our students are exposed to modern laboratory methods.

The diversity of our faculty is a major strength of our undergraduate program, allowing students to benefit from a breadth of available interest and specializations. Undergraduate students are encouraged, in the course of their studies, to participate in a variety of research opportunities with faculty members. Individual student research projects may start as early as the sophomore year, supported in some cases by available assistantships or formal course credit. Descriptions of current research studies by faculty members and specific research opportunities available to undergraduate students are outlined on the department's website.

The department sponsors a local chapter of the nationally affiliated Society of Physics Students (SPS) for students interested in physics, as well as a section of the Sigma Pi Sigma honor society. The local SPS chapter sponsors or participates in a variety of social and service activities related to physics, including field trips, trips to scientific meetings, tutoring, and interacting with students from area schools.

The Hilltopper Astronomy Club provides support for students interested in astronomy both as a hobby and a science. Regular observing sessions, informal meetings, and various projects are some of the benefits available to members.

Physics is the basic science, and all of the programs outlined below are designed to provide a sound knowledge of physical principles. The programs are also flexible to the extent that the student can select related courses in biology, chemistry, geology or astronomy to prepare for a career in interdisciplinary areas such as biophysics, geophysics, environmental science or chemical physics.

When planning a program of study in this department, each student should be aware of the University academic requirements and regulations contained in this catalog in the chapter, "Academic Information." Specific attention should be given to the sub-sections in the chapter entitled (a) Academic Programs, (b) General Requirements, and (c) Academic Requirements and Regulations.

### Major in Middle School Science

The middle school science education major (MSSE, reference number 734) is for students who plan to teach science in grades 5 through 9. The MSSE major requires completion of the science and mathematics education (SMED) program also. Upon successful completion of both majors, the student will earn a Bachelor of Science degree and will qualify for an institutional recommendation for a Kentucky Provisional Certificate for teaching in the middle grades (5-9) science field.

**Dr. Keith Andrew, Head**

**Thompson Complex, Central Wing**

**Office 246, Phone: (270) 745-4357**

**Fax: (270) 745-2014**

**e-mail: [Physics.Astronomy@wku.edu](mailto:Physics.Astronomy@wku.edu)**

**website: [www.wku.edu/physics](http://www.wku.edu/physics)**

**William McCormack Professor of Physics:**

*Charles H. McGruder, III*

**Madole Professor of Physics:**

*Douglas Harper*

**Professors:** *K. Andrew, M. Carini, G. Emslie,  
R. Gelderman, R. Scott, W. Van der Meer,  
P. Womble*

**Associate Professors:** *A. Barzilov,*

*S. Bonham, I. Novikov, L. Strolger*

**Assistant Professors:** *V. Dobrokhотов,  
S. Gibson, E. Kintzel*

**Professors Emeriti:** *D. Bryant, K. Hackney, D.  
Humphrey*

To earn the MSSE major, the student must earn a grade of “C” or better in each of the required core courses (33 semester credit hours) and in each of the minimum of 15 semester credit hours of courses selected from the list of restricted electives. MSSE majors must earn a grade of “C” or better in a mathematics course chosen from MATH 117, 118, or 126. Students must have an overall grade point average of at least 2.5 for all completed science courses. Students who complete this major will receive a 6 hour waiver of the university requirement that at least half the minimum hours in the major be at the 300- or 400-level.

Students seeking academic advising with regard to preparation as a mathematics or science teacher should contact the SKyTeach office, TCCW 102, (270) 745-3900, or refer to the SKyTeach website – <http://www.wku.edu/skyteach> for additional information.

Upon completing the appropriate certification requirements (including attaining a 2.5 GPA in both majors and overall and the minimum required scores on the appropriate PRAXIS II examinations) the student will be eligible to apply for Kentucky certification for Middle Grades Science, grades 5-9.

**Required courses:** ASTR 104 or 106; GEOL 111/113, 112/114; BIOL 120/121, 122/123; CHEM 105/106 or 120/121; PHYS 105, 201 or 231/232; SMED 360.

**Restricted Electives** (Minimum of 15 semester credit hours required, representing at least three of the five science disciplines. Asterisk indicates that another restricted elective is a prerequisite): ASTR 405; GEOL 308, 310, 311, 325, 380, 405; GEOG 427\*, 471; BIOL 325, 326, 327, 334, 319/322, 348, 350\*, 407, 411/412\*, 430\*; PHYS 410.

### Major in Physics

The major in physics (reference number 754) requires a minimum of 35 semester hours and leads to a Bachelor of Science degree. A minor or second major is required. The foundation for the undergraduate major is provided by a core sequence of six lecture and five laboratory courses, requiring a total of 26 semester hours. This core sequence consists of the following:

- PHYS 180 /181 (4) Introductory Modern Physics and Lab
- PHYS 255/256 (5) University Physics I and Lab
- PHYS 265/266 (5) University Physics II and Lab
- PHYS 301 (1) Electrical Measurements Lab
- PHYS 302 (1) Atomic Lab
- PHYS 321 (3) Introductory Modern Physics II
- PHYS 350 (3) Classical Mechanics I
- PHYS 398 (.5) Junior Seminar
- PHYS 440 (3) Electricity and Magnetism I
- PHYS 498 (.5) Senior Seminar

The student majoring in physics must complete, in addition to this core, a minimum of 9 semester hours of selected upper division departmental courses. The selection is determined by the student’s career aspirations, subject to approval by the student’s departmental advisor. The upper division electives must be chosen from the courses listed for departmental majors and minors, excluding PHYS 389, 399, and 489. No more than 3 hours of PHYS 475 may be counted toward the 35 hour minimum requirement for the major. Support requirements include MATH 136, 137, 307 or 370, 237, and 331, 3 semester hours of CS 146 or higher, and CHEM

Suggested Program of Study: General Physics Track #1			
Fall (freshman year)	Hrs.	Spring (freshman year)	Hrs.
MATH 136	4	MATH 137	4
ENG 100	3	PHYS 255	4
PHYS 180	3	PHYS 256	1
PHYS 181	1	CHEM 120	4
COMM 145 or 161	3	CHEM 121	1
Gen. Ed.	3	HIST 119 or 120	3
<b>Total Hours</b>	<b>17</b>	<b>Total Hours</b>	<b>17</b>
Fall (sophomore year)	Hrs.	Spring (sophomore year)	Hrs.
MATH 310	3	PHYS 321	3
MATH 307 or 370	3	PHYS 301	1
PHYS 265	4	MATH 237	4
PHYS 266	1	CS 240	3
ENG 200	3	CS 244	1
Gen. Ed.	3	Gen. Ed.	3
		Foreign Language-Gen Ed.	3
<b>Total Hours</b>	<b>17</b>	<b>Total Hours</b>	<b>18</b>
Fall (junior year)	Hrs.	Spring (junior year)	Hrs.
MATH 382	3	PHYS 440	3
PHYS 350	3	PHYS 316 or 318	3
PHYS 330	3	PHYS 470	3
PHYS 302	1	PHYS 407	1
MATH 331	3	PHYS 398	0.5
Gen. Ed.	2	MATH 435	3
Gen. Ed.	3	ENG 300	3
<b>Total Hours</b>	<b>18</b>	<b>Total Hours</b>	<b>16.5</b>
Fall (senior year)	Hrs.	Spring (senior year)	Hrs.
PHYS 460	3	PHYS 450	3
PHYS 406	1	PHYS 445	3
PHYS 441	3	MATH 429	3
PHYS 404	1	MATH 450	3
PHYS 480	3	MATH 498	1
PHYS 498	0.5	Gen. Ed.	3
MATH 317	3		
Gen. Ed.	3		
<b>Total Hours</b>	<b>17.5</b>	<b>Total Hours</b>	<b>16</b>



120/121. (Support requirements differ for teacher certification; see below.) The department has prepared several career-oriented tracks, which detail relevant departmental electives and additional or departmentally-approved substitute support courses. Advising tracks currently defined within the Bachelor of Science in physics program include the following:

1. The general physics track is designed for those students who wish to pursue careers as physicists or are preparing for graduate study in physics.
2. The applied physics track combines extensive technical knowledge, related problem-solving skills, and computer techniques to prepare students for positions in industrial and governmental laboratories.
3. The physics and astronomy track prepares students for careers in astronomy/space science and for graduate study in these areas.
4. The teacher certification track prepares students for careers teaching physics at the secondary school level. The student must also complete professional education requirements as specified by the School of Integrative Studies in Teacher Education.
5. Dual-degree - physics/applied science/engineering (see below).
6. Other - There are some specified programs such as a suggested pre-medicine curriculum for students wishing to major in physics. Course recommendations for these tracks are available from the departmental office. In all cases, the student must work closely with the departmental advisor from the beginning to plan a program of study that meets departmental and University requirements and that maximizes preparation to meet career goals.

### **Dual-Degree Option (Physics/Applied Sciences/Engineering)**

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This is a 3/2 option that requires three years of study at Western Kentucky University and two years at a science/engineering school, leading to two degrees, one in physics and astronomy at Western Kentucky University and one in engineering or applied science. Western Kentucky University has cooperative agreements with a number of partner institutions. Under these agreements a student can pursue his/her studies

at Western Kentucky University for three years, taking courses in general education, mathematics, chemistry, and physics as required for a major in physics. The student then transfers to one of the partner schools for an additional two years of study in an engineering or applied science area of his/her choice. By transfer of credit from the partner school to Western Kentucky University and upon completion of the graduation requirements at Western Kentucky University, the student receives a Bachelor of Science degree in physics from Western Kentucky University. At the end of the fifth year and upon completion of the graduation requirements at the partner school, the student receives a Bachelor of Science degree from the cooperating school.

### **Minor in Astronomy**

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The minor in astronomy (reference number 318) requires a minimum of 20 semester hours and is designed to provide a background in astronomy, astrophysics, and planetary science for students from a wide range of backgrounds. Students who intend to undertake graduate work in astronomy should complete a major in physics with a minor in mathematics. A minor in astronomy consists of at least 16 credit hours of required core courses and at least 4 credit hours from the list of restricted electives. The core requirements are ASTR 214 (4 hrs); ASTR 314 (4 hrs); and an introductory sequence of classical physics: PHYS 255/256 and PHYS 265/266 (10 hours); or PHYS 201 and PHYS 202 (8 hours); or PHYS 231/232 and PHYS 332/233 (8 hours). Physics majors must substitute GEOL 111/113 for PHYS 255-256. The actual elective credit hours required for an astronomy minor is dependent upon satisfaction of the university requirement that at least one-half of the credits required for each major or minor be earned in courses numbered 300 and above. The list of restricted electives includes: ASTR 305, 414, PHYS 316, 441/404, 445, 450, 465, GEOL 325, 330, 350, 370, 420 or 465.

### **Minor in Biophysics**

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The minor in biophysics (reference number 329) requires a minimum of 18 semester hours. This course sequence is intended to serve students of the life sciences, that is, students of biology, pre-medicine and pre-dental, agriculture, environmental health, psychology, science teaching, environmental engineering, pre-veterinary, pre-pharmacy and pre-optometry. In general, this curriculum treats the physics of life processes and various applications of physics to biology and medicine. (See the Biophysics section in this catalog.)

Required courses: PHYS 231/232, 332/233, and 335 or 337 or 431; and at least 6 hours selected from appropriate physics and/or biology courses approved by a biophysics advisor.

## Minor in Physics

The minor in Physics (reference number 435) requires a minimum of 23 semester hours and the following courses: PHYS 180, 255, 265, 321, and a minimum of 9 semester hours selected from the lecture courses under the bulletin heading DEPARTMENTAL MAJORS AND MINORS.

### Course Categories

The courses offered by the Department of Physics and Astronomy belong to four categories according to clientele:

1. **Non-Science Majors**  
General courses treating a selection of coordinated topics in sufficient depth to be beneficial to the non-science students; 100-level.
2. **Science and Math Majors and Minors**  
Introductory courses for science and math students; mainly 200-level.
3. **Education Majors and Minors**  
Upper division courses for prospective teachers; 300- and 400-level.
4. **Department Majors and Minors**  
Upper division courses for students following the program options of physics, physics education, dual-degree: 300- and 400-level.

### Graduate Degree Programs

The Department of Physics and Astronomy offers courses leading to the Master of Arts in Education (physics minor) and Master of Science in Homeland Security Sciences.

## Pre-Professional and Interdisciplinary Programs

### Pre-Chiropractic

WKU has a 3-year (90 semester hours) curriculum designed to prepare potential candidates for entry into a professional chiropractic college. Prior to application at a chiropractic college, candidates must have earned a minimum of 90 semester hours (including at least 48 semester hours in the courses listed below). The candidate is responsible for ensuring that he or she has met those specific and elective requirements of the school(s) to which they are applying. WKU has an articulation agreement with Palmer College, Davenport, Iowa for preferred admission pending:

1. Application six months in advance of the intended start date
2. Maintenance of a minimum GPA of 2.50 on a 4.0 scale
3. Completion of at least eight courses at WKU and
4. Satisfaction of all other requirements for admission as prescribed in the Palmer College of Chiropractic catalog.

**Advisor: Mr. Wayne Mason**

**Thompson Complex North Wing  
Office 225, Phone: (270) 745-6013 (or 3696)**

Although the following requirements will meet current admission guidelines for Palmer, most chiropractic programs possess uniform pre-requisites that mirror these requirements. Completion of these pre-requisites will allow you to compete for available spaces in chiropractic programs, but will not guarantee admission into a professional chiropractic college:

- ENG 100 and 300
- BIOL 120/121; and 122/123 or 131
- CHEM 120/121; and CHEM 222/223
- CHEM 340/341; and CHEM 342/343
- MATH 118 (or MATH 116 and 117)
- PSY 100
- PHYS 231/232; II 332/233 [or PHYS 201; PHYS 202/208]

Humanities and Social Sciences: 15 hours of electives selected from literature, sociology, psychology, art, theatre, etc..., in conjunction with your advisor.

### Pre-Dentistry

Students planning a career in dentistry should follow the pre-dentistry curriculum at WKU that is basically the same as that outlined for pre-medicine students. All applicants to dental school must take the Dental Admission Test.

It is recommended that students planning a dental career complete the entire four-year curriculum and receive the baccalaureate degree before entering a dental college. A few dental schools will accept students after three years of undergraduate work. One year of satisfactory work in dental school can then be transferred to WKU in order to receive the Bachelor of Science degree.

Students accepted after three years who entered WKU as degree-seeking students prior to the 2005 fall semester or who are pursuing a second baccalaureate degree should file an undergraduate degree program before leaving WKU. All requirements for general education and the core courses for a major and minor must be completed. Courses taken in dental school may then (at the discretion of the department head) be accepted by the major and/or minor departments at WKU allowing the student to receive the bachelor's degree.

**Advisor: Dr. Kenneth Crawford**

**Website: <http://bioweb.wku.edu/preprof.htm>  
Thompson Complex, North Wing  
Office 211, Phone: (270) 745-6005 or 745-3696**

### Pre-Forestry

Students interested in forestry as a career may enter Western Kentucky University and complete a plan of study comparable to the first two years of a four-year forestry degree program. The program outlined is designed to qualify students to transfer into the forestry program at the University of Kentucky. This program will permit students with grades of "C" or better to transfer to the degree program of Bachelor of Science in Forestry without loss of credits. Students desiring to attend schools other than the University of Kentucky should contact the pre-forestry advisor for specific requirements.

Required courses are: CHEM 105/106, 107/108 or 120/121, 222/223; ENG 100, 300, BIOL 120/121, 222/223, 348; PHYS 101; MATH 116, 117, 119; COMM 145; AGRO 110, 350; SFTY 171; SPAN 101, GEOG 210; CE 160/161; AGECE 360; AGRI 291 and restricted electives.

**Advisor: Dr. Martin Stone**

**Environmental Sciences & Technology Building  
Office 258, Phone: (270) 745-5963**

### Pre-Medicine

The pre-medicine curriculum has been developed with two objectives in mind. The first objective is to provide the undergraduate student with an academic background that will enable him/her to succeed in the medical school of his/her choice. The second objective is to provide the academic credits to earn the Bachelor of Science degree after four years of study.

During the first two years of undergraduate work, the pre-medicine student should complete the majority of the basic science courses that constitute the minimal prerequisites for entrance into medical school. All science courses require laboratories and are as follows: BIOL 120, 122, 224; CHEM 120, 222, 340, 342; MATH 118 (or MATH 116 and 117), 142; PHYS 231 and 332, or 255 and 265. In addition to the basic science courses, classes should be taken from the University general education requirements.

During the junior and senior years students, with direction from their pre-medicine advisor, should complete courses to constitute a major and a minor in addition to completing the general education requirements for a degree. All applicants to medical school must take the Medical College Admission Test.

It is required that students planning a medical career complete the entire four-year curriculum and receive the Bachelor of Science degree before entering a medical college.

**Advisor: Dr. Kenneth Crawford**

**Website: <http://bioweb.wku.edu/preprof.htm>**

**Thompson Complex, North Wing  
Office 211, Phone: (270) 745-6005 or 745-3696**

### Pre-Optometry

Students may fulfill pre-optometry requirements at Western Kentucky University and become eligible to submit applications for admission to any of the twenty optometry schools within the United States. These schools vary slightly in their pre-optometry requirements. Students should decide on the college(s) of optometry to which they plan to submit an application for admission and

**Advisor: Dr. Kenneth Crawford**

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Office 211, Phone: (270) 745-6005 or 745-3696**

arrange their schedules in accordance with the requirements of that particular school. This information is available from the pre-optometry curriculum advisor. The professional optometric program requires four years of study in a school of optometry. This is in addition to the three or more years of pre-optometry requirements. Applicants to all of the optometry schools are required to take the Optometry Admission Test.

The Kentucky Council on Postsecondary Education, through an agreement with the Southern Regional Education Board (SREB) sponsors a contractual optometric training program at the School of Optometry, Indiana University; the School of Optometry, University of Alabama at Birmingham; and Southern College of Optometry, Memphis, Tennessee. The program is open only to students who are legal residents of Kentucky and have completed the pre-optometry curriculum. The financial aid to students consists of the approximate difference in the cost of in-state and out-of-state tuition at the optometry schools for not more than four academic years. Once approved, the student must exhibit satisfactory progress toward completion of the prescribed four-year curriculum and apply to the Council each year for continuation in the SREB program. However, an approved student making normal academic progress is re-certified annually upon application. This program provides for not more than three new students each year at the University of Alabama at Birmingham, three at the Indiana University and eight at Southern College of Optometry.

At the time they apply to optometry school, students should also file an application with the Council on Postsecondary Education for certification to participate in the SREB program. Both acceptance for admission by the college of optometry and certification by the Council are required for Kentucky student aid in the program. The optometry schools reserve the right to select students acceptable to the program. Since the program is designed to provide funds (or financial support) for a limited number of students each year at the three schools of optometry and is funded accordingly by the General Assembly, Kentucky students planning careers in optometry should not limit their plans for training to these institutions. Kentucky students in optometry are presently enrolled and will continue to enroll at several excellent schools and colleges other than Indiana University, the University of Alabama and Southern College of Optometry. This program of student assistance, however, is limited to these three institutions.

The courses listed below are required as prerequisites for all optometry schools. Each science course must be accompanied by its appropriate laboratory: BIOL 120, 122, 224; CHEM 120, 222, 340; PHYS 231, 332 or 255, 265; MATH 118 (or MATH 116 and 117), 142; ENG 100, 300; PSY 100 and a course in statistics. There are additional course requirements that vary with each optometry school. All students in the curriculum are strongly encouraged to work toward a Bachelor of Science degree, even though a degree is not required for admission to most optometry schools.

### Pre-Pharmacy

Students planning a career in pharmacy may follow a pre-pharmacy curriculum at WKU for two years, then transfer to a school of pharmacy for the remaining four years of training.

The following curriculum contains courses required for admission to the University of Kentucky College of Pharmacy. The courses required by other schools of pharmacy are much the same; however, the student should investigate the requirements of the school to which that student plans to transfer in order that every requirement may be included in the pre-pharmacy program.

Freshman year: BIOL 120, 121, 131; CHEM 120, 121, 222, 223; ENG 100; MATH 136; electives.

Sophomore year: BIOL 207, 208; CHEM 340, 341, 342, 343; ECON 202; ENG 300; PHYS 231, 232, 332, 233; MATH 183; electives.

Electives should include one course in either geography, psychology or sociology. COMM 145, HIST 119 or 120 is also recommended.

The Carpenter-Dent Trust Fund offers scholarships to eligible pre-pharmacy students who are residents of Allen, Simpson or Warren County.

### Pre-Podiatric Medicine

Students planning a career in podiatry should follow the pre-podiatric curriculum at Western Kentucky University that is basically the same as that outlined for pre-medicine students. All applicants to podiatry school must take the Medical College Admission Test.

Three years of undergraduate academic study are required;

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**Advisor: Dr. Kenneth Crawford**

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however, it is recommended that students planning a career in podiatry complete the entire four-year curriculum and receive the Bachelor of Science degree before entering a college of podiatric medicine.

### **Pre-Physical Therapy**

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The pre-physical therapy program at Western Kentucky University is designed to prepare students for application to accredited programs in physical therapy exist.

Currently, it is recommended that the student complete a baccalaureate degree while completing the pre-requisite requirements of the physical therapy schools to which they plan to apply. It should be noted that most physical therapy schools have switched to Doctorate/PhD level programs, and as a result, the pre-requisites may be slightly different from what is listed below. Although the program was originally established to follow the prerequisite guidelines for physical therapy schools in Kentucky, enough flexibility exists to allow modification of the curriculum to meet the requirements of physical therapy programs in other states. Completion of the following prerequisites does not guarantee admission into a physical therapy school; it merely places the candidate into a competitive pool of applicants from which the successful candidates will be selected and interviewed.

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Application to the physical therapy schools at WKU, the University of Kentucky (a doctoral program) and Bellarmine University (a doctorate level program) requires applicants to have earned a bachelor's degree by the time they enter the program. A grade of "C" or better is required in all prerequisite courses. Applicants must also show evidence of having completed at least 50 hours of physical therapy observation and/or volunteer experience at 2 or more health care facilities. The following requirements must be completed by the time the successful applicant enters the professional program:

#### *I. General Education Requirements*

- 2 semesters of English composition: ENG 100 & 300
- 1 semester of Literature: ENG 200
- 1 semester of Humanities (fine or performing arts): ART 100; or THEA 151; or MUS 120
- 1 semester of Speech Communication (COMM 145 or 161)
- 2 semesters of Psychology: PSY 100 & PSY 199
- 1 semester of History (Western Civilization): HIST 119 or 120
- 1 semester of cross-cultural studies (ANTH 120 or 200; FLK 350; or HIST 110 or 360; or RELS 320)
- 1 semester of introductory philosophy; PHIL 110
- 1 semester of ethics: PHIL 320 or 322
- 1 semester of health and safety: SFTY 171
- 2 semesters of Foreign Language

#### *II. Math/Science requirements*

- BIOL 120/121; 122/123; [BIOL 224/225; 321 and 330/331 are strongly recommended for UK applicants)
- BIOL 131 and 231 (recommended for Bellarmine University, but not required for UK)
- CHEM 120/121; 222/223
- PHYS 231/232; 332/233 [or 201/207; 202/208]
- MATH 118 or (116 and 117) (MATH 136 is recommended for the University of Kentucky)
- Statistics: BIOL 283 or [any one of the following: PH 383 or MATH 183]
- Medical terminology: AH 290

The GRE is also required and should be completed by mid-April of the application year for UK; by mid-October for Bellarmine. It is also strongly recommended that professional certification in first aid by the American Red Cross and in CPR by the American Heart Association be completed prior to entrance into the program. The community CPR course offered by the American Red Cross is NOT acceptable.

Minimum overall GPA should be 2.75; minimum science core GPA should be 3.0 (4.0 scale). However, the competitive nature of the application process over the last several years indicates that overall and science GPA's should both be 3.4 or higher to seriously contend for entrance.

## Pre-Veterinary Medicine

Kentucky students have the opportunity to enter veterinary medical school at Auburn University, Auburn, Alabama or Tuskegee Institute, Tuskegee, Alabama. The Commonwealth of Kentucky has made this possible through its participation in the Southern Regional Education Program. The State of Kentucky pays approximately \$22,400 annually for each student at Auburn or Tuskegee. Each year the School of Veterinary Medicine at Auburn reserves 34-40 positions for entering students from Kentucky who meet admission requirements of the school. If admitted, Kentucky students do not pay out-of-state tuition, but pay the same fees as Alabama residents. Two to six positions may also be available each year at Tuskegee Institute on the same basis. The positions at both Auburn and Tuskegee are awarded by the selection committees of the two respective universities.

The minimum education requirement for admission to the School of Veterinary Medicine, Auburn University, is the satisfactory completion of an approved curriculum at an accredited college or university. A minimum grade point average of 2.50 is required overall and for the required courses.

Students may apply to one or both institutions as they near completion of the pre-veterinary requirements. The GRE is required for both Auburn University and Tuskegee.

The following courses have been approved by Auburn University; ENG 100, 200, and 300; MATH 116 and 117 or higher level; HIST 119 and 120; CHEM 120/121 and 222/223, 340 and 341, 342 and 343; PHYS 231 and 232, 332 and 233; BIOL 120 and 121, 122 and 123; ANSC 345; BIOL/CHEM 446; ART 100, MUS 120, or THEA 151; COMM 161; and 6 hours of 300-400 level science selectives; 6 hours social science elective; and 6 hours of humanities/fine arts electives. This curriculum is planned for completion in three years. It is possible to complete requirements in less time by attending summer school sessions, but due to difficulty of the curriculum, it is not normally advisable. By choosing the correct electives in the pre-veterinary program and transferring credits for the first year of veterinary school to Western Kentucky University, students may receive the bachelor of science degree in agriculture from Western Kentucky University. This is a suggested curriculum; the sequence of courses may be varied to suit individual situations. Every effort is made to advise each student based upon the individual's background and academic capability.

Approved curricula for other Schools of Veterinary Medicine are also available.

## Biochemistry

Biochemistry is the study of the chemical basis of living organisms. The subject includes the investigation of the various classes of biomolecules (proteins, nucleic acids, lipids, and carbohydrates) and their metabolic interactions.

Training in biochemistry offers many exciting opportunities in teaching, research and public service. It provides excellent preparation for students intending to enter professional programs such as Dentistry and Medicine as well as graduate study in Biochemistry, Chemistry or Biology. The Biochemistry program is the only stand-alone degree program (B.S.) in Biochemistry at public institutions in the Commonwealth. It is administered jointly through the Departments of Biology and Chemistry. Students may enroll for biochemistry courses through either the Department of Biology or the Department of Chemistry depending upon their major emphasis.

Biochemistry I (BIOL/CHEM 446) is strongly recommended for pre-medicine and pre-dentistry students as well as for chemistry and biology majors.

### Major in Biochemistry

The major in biochemistry (reference number 519) requires a minimum of 60 semester hours and leads to a Bachelor of Science degree. This sequence of required chemistry and biology courses along with elective courses from biology, chemistry, agriculture, and physics offer the student a unique opportunity for interdisciplinary training.

Required courses are CHEM 120, 121, 222, 223, 330, 340, 341, 342, 343; BIOL 120, 121, 122, 123, 319, 322, 411; BIOL/CHEM 446, 447, 467.

**Advisor: Dr. Fred DeGraves**

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### Advisors:

**Dr. Sigrid Jacobshagen, Department of Biology  
Thompson Complex, North Wing, Office 111  
Phone: (270) 745-5994**

**Dr. Kevin Williams, Department of Chemistry  
Thompson Complex, North Wing, Office 329  
Phone: (270) 745-8899**

**Dr. Rajalingam Dakshinamurthy  
Thompson Complex, Central Wing, Office 353  
Phone: (270) 745-2136**

### Faculty:

**Department of Chemistry:** L. Byrd,  
R. Dakshinamurthy, K. Williams

**Department of Biology:** S. Jacobshagen, N. Rice,  
C. Rinehart

In addition to the required courses, students are expected to complete elective courses to total a minimum of 60 semester hours.

Electives: BIOL 222, 223, 224, 225, 226, 227, 327, 328, 330, 331, 350, 399, 400, 404, 407, 412, 420, 430, 440, 450, 475, 495, 496

Electives: CHEM 320, 399, 420, 430, 435, 412 or (450, 451, 452, 453), 462, 475.

Electives: Agriculture courses 320, 344, 345, 350, 351, 352, 399, 409, 410, 437, 438, 448, 452, 455, 456.

Electives: PHYS 335, 431

In addition to the above 60 semester hours, the student is required to take PHYS (231, 232, 233, 332) or (255, 256, 265, 266) and MATH 136.

### Minor in Biochemistry

The minor in biochemistry (reference number 324) requires a minimum of 18 semester hours and a major in either chemistry or biology. Required courses are BIOL 411; BIOL/CHEM 446, 447, 467.

Electives: BIOL 120, 121, 226, 227, 319, 322, 327, 330, 331, 400; CHEM 120, 314 or (340, 341, 342, 343), 420, 462, 435; Agriculture 437, 438, 448.

Any course used in the student's major cannot be counted toward the biochemistry minor.

### Biophysics

Biophysics deals with the physics of life processes and treats various applications of physics to biology and medicine. It combines a working knowledge of physical theory with an appreciation of the complexities of biological processes. Although only recently established as a separate discipline, it has rapidly taken position alongside those fields that are advancing the frontiers of scientific knowledge.

The minor in biophysics (reference number 329) serves students of the life sciences: agriculture, biology, environmental engineering, environmental health, medical technology, pre-dentistry, pre-medicine, pre-optometry, pre-pharmacy, pre-veterinary and psychology.

**Goals of the biophysics minor:** The purpose of the biophysics minor is to prepare students to meet the career goals listed below. It is expected that a student completing this minor will be proficient in the use of biological instruments and will understand the underlying physical theory. In addition, the student will be exposed to two fundamental ways of looking at biology; first, from the point of view of the biologist who understands the complexity of life processes and second, from the point of view of the physicist who appreciates the basic simplicity of all the laws of nature.

**Career Opportunities:** The applicability of biophysics is so widespread that we can only outline some of the career opportunities. Medical doctors, dentists, pharmacists, optometrists, veterinarians, many researchers in the life sciences, physical therapists and nurses require an understanding of the principles and techniques involved in the use of modern instruments. Radiation treatment, CAT scanning, genetic engineering, nanodevices, laminar flow rooms, cryosurgery and artificial organs have all been made possible due to rapid advances in biophysics.

Biophysics provides a helpful background for students interested in professional training in health related fields. It is also a valuable area for students interested in teaching biology or health at any level. Industrial, government or university laboratory work requires a thorough knowledge of both the theory and application of modern instrumentation. The federal government is currently funding training programs that combine biology and physics. Job opportunities are available for students with such a background and these openings are expected to increase over the next few decades.

**Requirements:** Students will be admitted into the program by the biophysics advisor. Individual counseling will guide the students to a proper choice of courses consistent with previous experience. Introductory Biophysics (PHYS 231, 332) requires high school algebra and geometry. The more advanced courses will require knowledge of 231 and 332. Additional mathematical training is encouraged.

The biophysics minor consists of a minimum of 18 credit hours. Required courses are PHYS 231/232 Introduction to Physics and Biophysics I with laboratory, 4 hours; PHYS 332/233 Introduction to Physics and Biophysics II with laboratory, 4 hours; PHYS 335 General Biophysics, PHYS 337 Medical Imaging, or PHYS 431 Radiation Biophysics, 4 hours, or another upper level Biophysics course. Optional courses (minimum of 6 hours required) include but are

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**Faculty:**

**Department of Physics and Astronomy:**  
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W. Van der Meer

**Department of Biology:** K. Crawford,  
S. Jacobshagen

**Department of Chemistry:** K. Williams

not limited to the following: BIOL or PHYS 399 Research Problems, 1-3 hours; BIOL 330 Animal Physiology, 3 hours; BIOL 331 Animal Physiology Laboratory, 1 hour; BIOL 404 Electron Microscopy, 3 hours; BIOL 411 Cell Biology, 3 hours. Each student will meet with the biophysics advisor to determine which of these or additional courses should be taken to complete a minor. Descriptions of biology and physics courses are found elsewhere in this catalog.

### Medical Technology

With the aging of our population, it is estimated that health care will be a major service industry in our country. An important part of health care is medical technology or clinical laboratory scientists, a profession that includes well-trained, highly educated individuals who are the fact-

finders of the medical world. Medical technologists (Clinical Laboratory Scientists) typically analyze body fluids, examine tissues, and identify specific microorganisms to find evidence for and the cause of specific diseases such as AIDS, Diabetes, and Cancer. Some of the exciting new demands of the profession include tissue typing for organ transplantation, chromosomal studies as a basis for genetic counseling, identification of environmental

pollutants, and screening tests for accidental poisoning and drug abuse. The demand for Medical Technologists is very high. The U.S. Bureau of Labor Statistics continues to project a need for new Medical Technologists to meet medical demands of an aging population.

Although two-thirds of medical technologists work in hospital laboratories, new sources of employment include laboratories in physician's offices, research facilities in universities and industries, public health centers and in veterinary clinics.

The medical technology program (reference number 582) combines a minimum of three years (96 semester hours) of college courses at Western Kentucky University with a minimum of 12 calendar months (36 semester hours) of satisfactory clinical training in a school of medical technology. This school must be approved by the Committee on Allied Health Education and Accreditation of the American Medical Association and by the medical technology coordinator at Western Kentucky University.

Coursework for this major requires a minimum of 60 hours in Biology (36 of which are completed at a Medical Technology school and transferred back to the Department of Biology), 20 hours of Chemistry, and 5 hours of Mathematics which leads to a B.S. degree in Medical Technology. No minor is required. A student must meet all of the general education requirements for the bachelor's degree at Western Kentucky University before admission to the school of medical technology. Upon satisfactory completion of the course requirements in medical technology, the Bachelor of Science degree will be awarded by Western Kentucky University. Graduates of the medical technology program are eligible to take national credentialing examinations for medical technologists which result in membership in the American Society of Clinical Pathologists (A.S.C.P.). The program is affiliated with the following schools of medical technology: Bellarmine University, Louisville, KY; Owensboro-Daviess Co. Hospital, Owensboro, KY; Vanderbilt Medical Center, Nashville, TN; and St. Elizabeth Medical Center, Covington, KY.

**Advisor: Dr. Kerrie McDaniel**

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Suggested Program of Study for Medical Technology										
	Semester	Biology Courses	Chemistry Courses	Category A	Category B	Category C	Category D	Category E	Category F	Total
Freshman Year	1 <sup>st</sup> semester	120/121 And/Or 122/123		ENG 100		HIST 119/120	MATH 118 or higher			16
	2 <sup>nd</sup> semester	120/121 Or 122/123 Or 224/225	120/121	Foreign Language		3 hrs	BIOL and CHEM Courses fulfill this require- ment		Elective 1 hr*	16
Sophomore Year	3 <sup>rd</sup> semester	224/225 Or 226/227	222/223	Public Speaking	Literature (Eng 200)					16
	4 <sup>th</sup> semester	226/227 Or 319/322	314						Elective 1 hr*	12
Junior Year	5 <sup>th</sup> semester		330	ENG 300	3 hrs			Elective 3 hrs.		14
	6 <sup>th</sup> semester	328			3 hrs	3 hrs				9
Senior Year	7 <sup>th</sup> and 8 <sup>th</sup> semester	Semester hours transferred to WKU from Affiliated School of Medical Technology								36
	Semester hours	24	20	12	9-12	12	12	3	2-3	119**

\* Two 1 hr electives or PH 100 or 165 (3 hrs)

\*\* A total of 120 semester hours are required for graduation. It is highly suggested you pick the remaining electives from the suggested elective course list.



Course requirements at Western Kentucky University include BIOL 120-121, 122-123, 224-225, 226-227, 319-322, BIOL 328; CHEM 120-121, 222-223, 314, 330, CS 145 or 146 and MATH 118 or MATH 116 and 117.

More detailed information including general education requirements can be obtained from the coordinator. Students must consult the coordinator regarding applying for admission to the medical technology schools. Application is made 9 to 12 months in advance of the beginning date for the medical technology school. Admission to these schools is on a competitive basis, and maintenance of a good academic standing is required. Students are required to have liability insurance for their clinical years.

### **Aerospace Studies (AFROTC)**

The Air Force Reserve Officers Training Corps (AFROTC) provides precommission training for college men and women who desire to serve as commissioned officers in the United States Air Force. When combined with the academic disciplines offered at the college level, the program provides the student a broad-based knowledge of management, leadership, and technical skills required for a commission and subsequent active duty service in the Air Force. A minor in aerospace studies (reference number 304) is now available to students. Contact the aerospace studies advisor for course requirements.

**Advisor: Dr. Andrew Ernest**  
**e-mail: [Andrew.Ernest@wku.edu](mailto:Andrew.Ernest@wku.edu)**

Graduates are commissioned as Second Lieutenants and are called to active duty within 60 days. Educational delays may be granted for non-flying graduates who desire to pursue advanced degrees prior to entry on active duty. The main objectives of producing officers through the AFROTC program are:

1. To procure officers with a broad educational base.
2. To provide a basic military education for college students.
3. To teach fundamentals and techniques of leadership, management and decision-making.
4. To develop, in conjunction with other academic disciplines, individual character and attributes required of a commissioned officer in the United States Air Force.

### **Air Force ROTC Program**

#### ***How do I enroll?***

In cooperation with Tennessee State University, located in Nashville, TN, an opportunity is available for Western Kentucky University (WKU) students to participate in the Air Force ROTC Program. Simply call the detachment (615.963.5931) and ask for a Cross-Town Application. Mail this short application and your unofficial transcripts with your immunization records back to Detachment 790. The program provides training and education that will develop skills and attitudes vital to the professional Air Force Officer. In this program students are eligible to compete for scholarships (2.5+ GPA) and receive the same benefits and privileges as full-time students enrolled at TSU. In addition to the above, Western Kentucky University grants two room and board scholarships each year to winners of four-year or three and one-half year AFROTC scholarships.

Curriculum - The General Military Course (GMC) is 1 credit hr and is composed of the first four semesters of aerospace studies (AERO) and is for freshmen and sophomores. The Professional Officer Course (POC) is 3 credit hrs and constitutes the final four semesters of AFROTC study and enrolls juniors and seniors.

Civil Air Patrol Squadron - A centralized flying program for AFROTC cadets conducted at any time while they are enrolled in AFROTC. Training consists of eight hours of flying instruction in a light, single-engine aircraft. Objectives of the program are to train and motivate qualified cadets toward a rated (flying) career, and to introduce the cadets to the aviation career field.

Students who participate in the Air Force ROTC program must be enrolled as a student at WKU (or other cross-town college). The student is also jointly enrolled as a TSU student and participates in Aerospace Studies at TSU. For more information, contact the Unit Admissions Officer at (615) 963-5977 or check the website at [www.tnstate.edu/rotc](http://www.tnstate.edu/rotc) or [www.afrotc.com](http://www.afrotc.com).

#### ***Field Training***

Six-week Field Training Course: This course is designed to qualify the student who has not had GMC courses for enrollment into the POC (AERO 351). Primarily, it enables students who are unable to enroll in the GMC an opportunity to pursue the advanced course and thereby receive a commission in two years of study, coincident with the conferral of the baccalaureate degree.

Four-week Field Training Course: This course is designed for the cadet who has completed the entire GMC coursework and Leadership Lab. The four-week Field Training Course prepares the cadet for enrollment into the POC. This would include prior enlisted members.

Both: These courses constitute the cadets first extended exposure to an actual Air Force environment. Activities include survival training, junior officer training, aircraft and aircrew indoctrination, physical training, career orientation,

small arms familiarization, first aid training and a first-hand look at the organization and functions of an active Air Force base.

**POC Eligibility**

The following are prerequisites for entry into the AFROTC Professional Officers Course (POC). The student must:

1. Have either completed the General Military Course (GMC) or the six-week Field Training Course. The GMC may be accredited for certain prior military service applicants who meet specific criteria.
2. Have two academic years of college remaining (either undergraduate, working on second degree, or graduate degree) as a full-time student.
3. Have achieved a qualifying score on the AFOQT.
4. Execute a written agreement to complete the program and successfully complete the applicable Field Training Course and accept an Air Force Reserve Commission, when tendered.
5. Be selected by the Professor of Aerospace Studies (PAS).
6. Meet certain specified age requirements.

**General Benefits**

All students enrolled in the AFROTC programs are provided textbooks and uniforms at no expense. POC students (juniors and seniors) and all scholarship students receive a monthly subsistence allowance of up to \$400 tax-free. Those cadets who attend Field Training are also paid air travel to and from the encampment, plus a stipend based on current active duty pay scales (approximately \$450-\$650).

**Sponsored Activities**

**Arnold Air Society** - A national society of AFROTC cadets who excel in character, academics, and exhibit interests in the study of aerospace technology meets at TSU.

### Pre-Dentistry

Students planning a career in dentistry should follow the pre-dentistry curriculum at WKU that is basically the same as that outlined for pre-medicine students. All applicants to dental school must take the Dental Admission Test.

It is recommended that students planning a dental career complete the entire four-year curriculum and receive the baccalaureate degree before entering a dental college. A few dental schools will accept students after three years of undergraduate work. One year of satisfactory work in dental school can then be transferred to WKU in order to receive the Bachelor of Science degree.

Students accepted after three years who entered WKU as degree-seeking students prior to the 2005 fall semester or who are pursuing a second baccalaureate degree should file an undergraduate degree program before leaving WKU. All requirements for general education and the core courses for a major and minor must be completed. Courses taken in dental school may then (at the discretion of the department head) be accepted by the major and/or minor departments at WKU allowing the student to receive the bachelor's degree.

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### Pre-Forestry

Students interested in forestry as a career may enter Western Kentucky University and complete a plan of study comparable to the first two years of a four-year forestry degree program. The program outlined is designed to qualify students to transfer into the forestry program at the University of Kentucky. This program will permit students with grades of "C" or better to transfer to the degree program of Bachelor of Science in Forestry without loss of credits. Students desiring to attend schools other than the University of Kentucky should contact the pre-forestry advisor for specific requirements.

Required courses are: CHEM 105/106, 107/108 or 120/121, 222/223; ENG 100, 300, BIOL 120/121, 222/223, 348; PHYS 101; MATH 116, 117, 119; COMM 145; AGRO 110, 350; SFTY 171; SPAN 101, GEOG 210; CE 160/161; AGECE 360; AGRI 291 and restricted electives.

**Advisor: Dr. Martin Stone**

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### Pre-Medicine

The pre-medicine curriculum has been developed with two objectives in mind. The first objective is to provide the undergraduate student with an academic background that will enable him/her to succeed in the medical school of his/her choice. The second objective is to provide the academic credits to earn the Bachelor of Science degree after four years of study.

During the first two years of undergraduate work, the pre-medicine student should complete the majority of the basic science courses that constitute the minimal prerequisites for entrance into medical school. All science courses require laboratories and are as follows: BIOL 120, 122, 224; CHEM 120, 222, 340, 342; MATH 118 (or MATH 116 and 117), 142; PHYS 231 and 332, or 255 and 265. In addition to the basic science courses, classes should be taken from the University general education requirements.

During the junior and senior years students, with direction from their pre-medicine advisor, should complete courses to constitute a major and a minor in addition to completing the general education requirements for a degree. All applicants to medical school must take the Medical College Admission Test.

It is required that students planning a medical career complete the entire four-year curriculum and receive the Bachelor of Science degree before entering a medical college.

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### Pre-Optometry

Students may fulfill pre-optometry requirements at Western Kentucky University and become eligible to submit applications for admission to any of the twenty optometry schools within the United States. These schools vary slightly in their pre-optometry requirements. Students should decide on the college(s) of optometry to which they plan to submit an application for admission and

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arrange their schedules in accordance with the requirements of that particular school. This information is available from the pre-optometry curriculum advisor. The professional optometric program requires four years of study in a school of optometry. This is in addition to the three or more years of pre-optometry requirements. Applicants to all of the optometry schools are required to take the Optometry Admission Test.

The Kentucky Council on Postsecondary Education, through an agreement with the Southern Regional Education Board (SREB) sponsors a contractual optometric training program at the School of Optometry, Indiana University; the School of Optometry, University of Alabama at Birmingham; and Southern College of Optometry, Memphis, Tennessee. The program is open only to students who are legal residents of Kentucky and have completed the pre-optometry curriculum. The financial aid to students consists of the approximate difference in the cost of in-state and out-of-state tuition at the optometry schools for not more than four academic years. Once approved, the student must exhibit satisfactory progress toward completion of the prescribed four-year curriculum and apply to the Council each year for continuation in the SREB program. However, an approved student making normal academic progress is re-certified annually upon application. This program provides for not more than three new students each year at the University of Alabama at Birmingham, three at the Indiana University and eight at Southern College of Optometry.

At the time they apply to optometry school, students should also file an application with the Council on Postsecondary Education for certification to participate in the SREB program. Both acceptance for admission by the college of optometry and certification by the Council are required for Kentucky student aid in the program. The optometry schools reserve the right to select students acceptable to the program. Since the program is designed to provide funds (or financial support) for a limited number of students each year at the three schools of optometry and is funded accordingly by the General Assembly, Kentucky students planning careers in optometry should not limit their plans for training to these institutions. Kentucky students in optometry are presently enrolled and will continue to enroll at several excellent schools and colleges other than Indiana University, the University of Alabama and Southern College of Optometry. This program of student assistance, however, is limited to these three institutions.

The courses listed below are required as prerequisites for all optometry schools. Each science course must be accompanied by its appropriate laboratory: BIOL 120, 122, 224; CHEM 120, 222, 340; PHYS 231, 332 or 255, 265; MATH 118 (or MATH 116 and 117), 142; ENG 100, 300; PSY 100 and a course in statistics. There are additional course requirements that vary with each optometry school. All students in the curriculum are strongly encouraged to work toward a Bachelor of Science degree, even though a degree is not required for admission to most optometry schools.

### Pre-Pharmacy

Students planning a career in pharmacy may follow a pre-pharmacy curriculum at WKU for two years, then transfer to a school of pharmacy for the remaining four years of training.

The following curriculum contains courses required for admission to the University of Kentucky College of Pharmacy. The courses required by other schools of pharmacy are much the same; however, the student should investigate the requirements of the school to which that student plans to transfer in order that every requirement may be included in the pre-pharmacy program.

Freshman year: BIOL 120, 121, 131; CHEM 120, 121, 222, 223; ENG 100; MATH 136; electives.

Sophomore year: BIOL 207, 208; CHEM 340, 341, 342, 343; ECON 202; ENG 300; PHYS 231, 232, 332, 233; MATH 183; electives.

Electives should include one course in either geography, psychology or sociology. COMM 145, HIST 119 or 120 is also recommended.

The Carpenter-Dent Trust Fund offers scholarships to eligible pre-pharmacy students who are residents of Allen, Simpson or Warren County.

### Pre-Podiatric Medicine

Students planning a career in podiatry should follow the pre-podiatric curriculum at Western Kentucky University that is basically the same as that outlined for pre-medicine students. All applicants to podiatry school must take the Medical College Admission Test.

Three years of undergraduate academic study are required;

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Fax: (270) 745-6293

**Advisor: Dr. Kenneth Crawford**

**Website:** <http://bioweb.wku.edu/preprof.htm>  
**Thompson Complex, North Wing**  
Office 211. Phone: (270) 745-6005 or 745-3696

however, it is recommended that students planning a career in podiatry complete the entire four-year curriculum and receive the Bachelor of Science degree before entering a college of podiatric medicine.

### **Pre-Physical Therapy**

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The pre-physical therapy program at Western Kentucky University is designed to prepare students for application to accredited programs in physical therapy exist.

Currently, it is recommended that the student complete a baccalaureate degree while completing the pre-requisite requirements of the physical therapy schools to which they plan to apply. It should be noted that most physical therapy schools have switched to Doctorate/PhD level programs, and as a result, the pre-requisites may be slightly different from what is listed below. Although the program was originally established to follow the prerequisite guidelines for physical therapy schools in Kentucky, enough flexibility exists to allow modification of the curriculum to meet the requirements of physical therapy programs in other states. Completion of the following prerequisites does not guarantee admission into a physical therapy school; it merely places the candidate into a competitive pool of applicants from which the successful candidates will be selected and interviewed.

**Advisor: Mr. Wayne Mason**

**Thompson Complex, North Wing  
Office 225. Phone: (270) 745-6013 (or 3696)**

Application to the physical therapy schools at WKU (a doctoral program admitting its first class in 2012), the University of Kentucky (a doctoral program) and Bellarmine University (a doctorate level program) requires applicants to have earned a bachelor's degree by the time they enter the program. A grade of "C" or better is required in all prerequisite courses. Applicants must also show evidence of having completed at least 50 hours of physical therapy observation and/or volunteer experience at 2 or more health care facilities. The following requirements must be completed by the time the successful applicant enters the professional program:

#### *I. General Education Requirements*

- 2 semesters of English composition: ENG 100 & 300
- 1 semester of Literature: ENG 200
- 1 semester of Humanities (fine or performing arts): ART 100; or THEA 151; or MUS 120
- 1 semester of Speech Communication (COMM 145 or 161)
- 2 semesters of Psychology: PSY 100 & PSY 199
- 1 semester of History (Western Civilization): HIST 119 or 120
- 1 semester of cross-cultural studies (ANTH 120 or 200; FLK 350; or HIST 110 or 360; or RELS 320)
- 1 semester of introductory philosophy; PHIL 110
- 1 semester of ethics: PHIL 320 or 322
- 1 semester of health and safety: SFTY 171
- 2 semesters of Foreign Language

#### *II. Math/Science requirements*

- BIOL 120/121; 122/123; [BIOL 224/225; 321 and 330/331 are strongly recommended for UK applicants)
- BIOL 131 and 231 (recommended for Bellarmine University, but not required for UK)
- CHEM 120/121; 222/223
- PHYS 231/232; 332/233 [or 201/207; 202/208]
- MATH 118 or (116 and 117) (MATH 136 is recommended for the University of Kentucky)
- Statistics: BIOL 283 or [any one of the following: PH 383 or MATH 183]
- Medical terminology: AH 290

The GRE is also required and should be completed by mid-April of the application year for UK; by mid-October for Bellarmine. It is also strongly recommended that professional certification in first aid by the American Red Cross and in CPR by the American Heart Association be completed prior to entrance into the program. The community CPR course offered by the American Red Cross is NOT acceptable.

Minimum overall GPA should be 2.75; minimum science core GPA should be 3.0 (4.0 scale). However, the competitive nature of the application process over the last several years indicates that overall and science GPA's should both be 3.4 or higher to seriously contend for entrance.

## Pre-Veterinary Medicine

Kentucky students have the opportunity to enter veterinary medical school at Auburn University, Auburn, Alabama or Tuskegee Institute, Tuskegee, Alabama. The Commonwealth of Kentucky has made this possible through its participation in the Southern Regional Education Program. The State of Kentucky pays approximately \$22,400 annually for each student at Auburn or Tuskegee. Each year the School of Veterinary Medicine at Auburn reserves 34-40 positions for entering students from Kentucky who meet admission requirements of the school. If admitted, Kentucky students do not pay out-of-state tuition, but pay the same fees as Alabama residents. Two to six positions may also be available each year at Tuskegee Institute on the same basis. The positions at both Auburn and Tuskegee are awarded by the selection committees of the two respective universities.

The minimum education requirement for admission to the School of Veterinary Medicine, Auburn University, is the satisfactory completion of an approved curriculum at an accredited college or university. A minimum grade point average of 2.50 is required overall and for the required courses.

Students may apply to one or both institutions as they near completion of the pre-veterinary requirements. The GRE is required for both Auburn University and Tuskegee.

The following courses have been approved by Auburn University; ENG 100, 200, and 300; MATH 116 and 117 or higher level; HIST 119 and 120; CHEM 120/121 and 222/223, 340 and 341, 342 and 343; PHYS 231 and 232, 332 and 233; BIOL 120 and 121, 122 and 123; ANSC 345; BIOL/CHEM 446; ART 100, MUS 120, or THEA 151; COMM 161; and 6 hours of 300-400 level science selectives; 6 hours social science elective; and 6 hours of humanities/fine arts electives. This curriculum is planned for completion in three years. It is possible to complete requirements in less time by attending summer school sessions, but due to difficulty of the curriculum, it is not normally advisable. By choosing the correct electives in the pre-veterinary program and transferring credits for the first year of veterinary school to Western Kentucky University, students may receive the bachelor of science degree in agriculture from Western Kentucky University. This is a suggested curriculum; the sequence of courses may be varied to suit individual situations. Every effort is made to advise each student based upon the individual's background and academic capability.

Approved curricula for other Schools of Veterinary Medicine are also available.

## Biochemistry

Biochemistry is the study of the chemical basis of living organisms. The subject includes the investigation of the various classes of biomolecules (proteins, nucleic acids, lipids, and carbohydrates) and their metabolic interactions.

Training in biochemistry offers many exciting opportunities in teaching, research and public service. It provides excellent preparation for students intending to enter professional programs such as Dentistry and Medicine as well as graduate study in Biochemistry, Chemistry or Biology. The Biochemistry program is the only stand-alone degree program (B.S.) in Biochemistry at public institutions in the Commonwealth. It is administered jointly through the Departments of Biology and Chemistry. Students may enroll for biochemistry courses through either the Department of Biology or the Department of Chemistry depending upon their major emphasis.

Biochemistry I (BIOL/CHEM 446) is strongly recommended for pre-medicine and pre-dentistry students as well as for chemistry and biology majors.

### Major in Biochemistry

The major in biochemistry (reference number 519) requires a minimum of 60 semester hours and leads to a Bachelor of Science degree. This sequence of required chemistry and biology courses along with elective courses from biology, chemistry, agriculture, and physics offer the student a unique opportunity for interdisciplinary training.

Required courses are CHEM 120, 121, 222, 223, 330, 340, 341, 342, 343; BIOL 120, 121, 122, 123, 319, 322, 411; BIOL/CHEM 446, 447, 467.

**Advisor: Dr. Fred DeGraves**

**Environmental Sciences & Technology Building  
Office 235, Phone: (270) 745-5960**

### Advisors:

**Dr. Sigrid Jacobshagen, Department of Biology  
Thompson Complex, North Wing, Office 111  
Phone: (270) 745-5994**

**Dr. Kevin Williams, Department of Chemistry  
Thompson Complex, North Wing, Office 329  
Phone: (270) 745-8899**

**Dr. Rajalingam Dakshinamurthy  
Thompson Complex, Central Wing, Office 353  
Phone: (270) 745-2136**

### Faculty:

**Department of Chemistry:** L. Byrd,  
R. Dakshinamurthy, K. Williams

**Department of Biology:** S. Jacobshagen, N. Rice,  
C. Rinehart

In addition to the required courses, students are expected to complete elective courses to total a minimum of 60 semester hours.

Electives: BIOL 222, 223, 224, 225, 226, 227, 327, 328, 330, 331, 350, 399, 400, 404, 407, 412, 420, 430, 440, 450, 475, 495, 496

Electives: CHEM 320, 399, 420, 430, 435, 412 or (450, 451, 452, 453), 462, 475.

Electives: Agriculture courses 320, 344, 345, 350, 351, 352, 399, 409, 410, 437, 438, 448, 452, 455, 456.

Electives: PHYS 335, 431

In addition to the above 60 semester hours, the student is required to take PHYS (231, 232, 233, 332) or (255, 256, 265, 266) and MATH 136.

### **Minor in Biochemistry**

The minor in biochemistry (reference number 324) requires a minimum of 18 semester hours and a major in either chemistry or biology. Required courses are BIOL 411; BIOL/CHEM 446, 447, 467.

Electives: BIOL 120, 121, 226, 227, 319, 322, 327, 330, 331, 400; CHEM 120, 314 or (340, 341, 342, 343), 420, 462, 435; Agriculture 437, 438, 448.

Any course used in the student's major cannot be counted toward the biochemistry minor.

### **Biophysics**

Biophysics deals with the physics of life processes and treats various applications of physics to biology and medicine. It combines a working knowledge of physical theory with an appreciation of the complexities of biological processes. Although only recently established as a separate discipline, it has rapidly taken position alongside those fields that are advancing the frontiers of scientific knowledge.

The minor in biophysics (reference number 329) serves students of the life sciences: agriculture, biology, environmental engineering, environmental health, medical technology, pre-dentistry, pre-medicine, pre-optometry, pre-pharmacy, pre-veterinary and psychology.

**Goals of the biophysics minor:** The purpose of the biophysics minor is to prepare students to meet the career goals listed below. It is expected that a student completing this minor will be proficient in the use of biological instruments and will understand the underlying physical theory. In addition, the student will be exposed to two fundamental ways of looking at biology; first, from the point of view of the biologist who understands the complexity of life processes and second, from the point of view of the physicist who appreciates the basic simplicity of all the laws of nature.

**Career Opportunities:** The applicability of biophysics is so widespread that we can only outline some of the career opportunities. Medical doctors, dentists, pharmacists, optometrists, veterinarians, many researchers in the life sciences, physical therapists and nurses require an understanding of the principles and techniques involved in the use of modern instruments. Radiation treatment, CAT scanning, genetic engineering, nanodevices, laminar flow rooms, cryosurgery and artificial organs have all been made possible due to rapid advances in biophysics.

Biophysics provides a helpful background for students interested in professional training in health related fields. It is also a valuable area for students interested in teaching biology or health at any level. Industrial, government or university laboratory work requires a thorough knowledge of both the theory and application of modern instrumentation. The federal government is currently funding training programs that combine biology and physics. Job opportunities are available for students with such a background and these openings are expected to increase over the next few decades.

**Requirements:** Students will be admitted into the program by the biophysics advisor. Individual counseling will guide the students to a proper choice of courses consistent with previous experience. Introductory Biophysics (PHYS 231, 332) requires high school algebra and geometry. The more advanced courses will require knowledge of 231 and 332. Additional mathematical training is encouraged.

The biophysics minor consists of a minimum of 18 credit hours. Required courses are PHYS 231/232 Introduction to Physics and Biophysics I with laboratory, 4 hours; PHYS 332/233 Introduction to Physics and Biophysics II with laboratory, 4 hours; PHYS 335 General Biophysics, PHYS 337 Medical Imaging, or PHYS 431 Radiation Biophysics, 4 hours, or another upper level Biophysics course. Optional courses (minimum of 6 hours required) include but are

**Advisor: Dr. Wieb van der Meer**

**Thompson Complex, Center Wing  
Office 227, Phone: (270) 745-6205**

**Faculty:**

**Department of Physics and Astronomy:**  
V. Dobrokhotov, I. Novikov, E. Kintzel,  
W. Van der Meer

**Department of Biology:** K. Crawford,  
S. Jacobshagen

**Department of Chemistry:** K. Williams

not limited to the following: BIOL or PHYS 399 Research Problems, 1-3 hours; BIOL 330 Animal Physiology, 3 hours; BIOL 331 Animal Physiology Laboratory, 1 hour; BIOL 404 Electron Microscopy, 3 hours; BIOL 411 Cell Biology, 3 hours. Each student will meet with the biophysics advisor to determine which of these or additional courses should be taken to complete a minor. Descriptions of biology and physics courses are found elsewhere in this catalog.

### Medical Technology

With the aging of our population, it is estimated that health care will be a major service industry in our country. An important part of health care is medical technology or clinical laboratory scientists, a profession that includes well-trained, highly educated individuals who are the fact-finders of the medical world.

Medical technologists (Clinical Laboratory Scientists) typically analyze body fluids, examine tissues, and identify specific microorganisms to find evidence for and the cause of specific diseases such as AIDS, Diabetes, and Cancer. Some of the exciting new demands of the profession include tissue typing for organ transplantation, chromosomal studies as a basis for genetic counseling, identification of environmental

pollutants, and screening tests for accidental poisoning and drug abuse. The demand for Medical Technologists is very high. The U.S. Bureau of Labor Statistics continues to project a need for new Medical Technologists to meet medical demands of an aging population.

Although two-thirds of medical technologists work in hospital laboratories, new sources of employment include laboratories in physician's offices, research facilities in universities and industries, public health centers and in veterinary clinics.

The medical technology program (reference number 582) combines a minimum of three years (96 semester hours) of college courses at Western Kentucky University with a minimum of 12 calendar months (36 semester hours) of satisfactory clinical training in a school of medical technology. This school must be approved by the Committee on Allied Health Education and Accreditation of the American Medical Association and by the medical technology coordinator at Western Kentucky University.

Coursework for this major requires a minimum of 60 hours in Biology (36 of which are completed at a Medical Technology school and transferred back to the Department of Biology), 20 hours of Chemistry, and 5 hours of Mathematics which leads to a B.S. degree in Medical Technology. No minor is required. A student must meet all of the general education requirements for the bachelor's degree at Western Kentucky University before admission to the school of medical technology. Upon satisfactory completion of the course requirements in medical technology, the Bachelor of Science degree will be awarded by Western Kentucky University. Graduates of the medical technology program are eligible to take national credentialing examinations for medical technologists which result in membership in the American Society of Clinical Pathologists (A.S.C.P.). The program is affiliated with the following schools of medical technology: Bellarmine University, Louisville, KY; Owensboro-Daviess Co. Hospital, Owensboro, KY; Vanderbilt Medical Center, Nashville, TN; and St. Elizabeth Medical Center, Covington, KY.

**Advisor: Dr. Kerrie McDaniel**

**Thompson Complex, North Wing  
Office 228C, Phone: (270) 745-6845**

Suggested Program of Study for Medical Technology										
	Semester	Biology Courses	Chemistry Courses	Category A	Category B	Category C	Category D	Category E	Category F	Total
Freshman Year	1 <sup>st</sup> semester	120/121 And/Or 122/123		ENG 100		HIST 119/120	MATH 118 or higher			16
	2 <sup>nd</sup> semester	120/121 Or 122/123 Or 224/225	120/121	Foreign Language		3 hrs	BIOL and CHEM Courses fulfill this require- ment		Elective 1 hr*	16
Sophomore Year	3 <sup>rd</sup> semester	224/225 Or 226/227	222/223	Public Speaking	Literature (Eng 200)					16
	4 <sup>th</sup> semester	226/227 Or 319/322	314						Elective 1 hr*	12
Junior Year	5 <sup>th</sup> semester		330	ENG 300	3 hrs			Elective 3 hrs.		14
	6 <sup>th</sup> semester	328			3 hrs	3 hrs				9
Senior Year	7 <sup>th</sup> and 8 <sup>th</sup> semester	Semester hours transferred to WKU from Affiliated School of Medical Technology								36
	Semester hours	24	20	12	9-12	12	12	3	2-3	119**

\* Two 1 hr electives or PH 100 or 165 (3 hrs)

\*\* A total of 120 semester hours are required for graduation. It is highly suggested you pick the remaining electives from the suggested elective course list.



Course requirements at Western Kentucky University include BIOL 120-121, 122-123, 224-225, 226-227, 319-322, BIOL 328; CHEM 120-121, 222-223, 314, 330, CS 145 or 230 and MATH 118 or MATH 116 and 117.

More detailed information including general education requirements can be obtained from the coordinator. Students must consult the coordinator regarding applying for admission to the medical technology schools. Application is made 9 to 12 months in advance of the beginning date for the medical technology school. Admission to these schools is on a competitive basis, and maintenance of a good academic standing is required. Students are required to have liability insurance for their clinical years.

### **Aerospace Studies (AFROTC)**

The Air Force Reserve Officers Training Corps (AFROTC) provides precommission training for college men and women who desire to serve as commissioned officers in the United States Air Force. When combined with the academic disciplines offered at the college level, the program provides the student a broad-based knowledge of management, leadership, and technical skills required for a commission and subsequent active duty service in the Air Force. A minor in aerospace studies (reference number 304) is now available to students. Contact the aerospace studies advisor for course requirements.

**Advisor: Dr. Andrew Ernest**  
**e-mail: [Andrew.Ernest@wku.edu](mailto:Andrew.Ernest@wku.edu)**

Graduates are commissioned as Second Lieutenants and are called to active duty within 60 days. Educational delays may be granted for non-flying graduates who desire to pursue advanced degrees prior to entry on active duty. The main objectives of producing officers through the AFROTC program are:

1. To procure officers with a broad educational base.
2. To provide a basic military education for college students.
3. To teach fundamentals and techniques of leadership, management and decision-making.
4. To develop, in conjunction with other academic disciplines, individual character and attributes required of a commissioned officer in the United States Air Force.

### **Air Force ROTC Program**

#### ***How do I enroll?***

In cooperation with Tennessee State University, located in Nashville, TN, an opportunity is available for Western Kentucky University (WKU) students to participate in the Air Force ROTC Program. Simply call the detachment (615.963.5931) and ask for a Cross-Town Application. Mail this short application and your unofficial transcripts with your immunization records back to Detachment 790. The program provides training and education that will develop skills and attitudes vital to the professional Air Force Officer. In this program students are eligible to compete for scholarships (2.5+ GPA) and receive the same benefits and privileges as full-time students enrolled at TSU. In addition to the above, Western Kentucky University grants two room and board scholarships each year to winners of four-year or three and one-half year AFROTC scholarships.

Curriculum - The General Military Course (GMC) is 1 credit hr and is composed of the first four semesters of aerospace studies (AERO) and is for freshmen and sophomores. The Professional Officer Course (POC) is 3 credit hrs and constitutes the final four semesters of AFROTC study and enrolls juniors and seniors.

Civil Air Patrol Squadron - A centralized flying program for AFROTC cadets conducted at any time while they are enrolled in AFROTC. Training consists of eight hours of flying instruction in a light, single-engine aircraft. Objectives of the program are to train and motivate qualified cadets toward a rated (flying) career, and to introduce the cadets to the aviation career field.

Students who participate in the Air Force ROTC program must be enrolled as a student at WKU (or other cross-town college). The student is also jointly enrolled as a TSU student and participates in Aerospace Studies at TSU. For more information, contact the Unit Admissions Officer at (615) 963-5977 or check the website at [www.tnstate.edu/rotc](http://www.tnstate.edu/rotc) or [www.afrotc.com](http://www.afrotc.com).

#### ***Field Training***

Six-week Field Training Course: This course is designed to qualify the student who has not had GMC courses for enrollment into the POC (AERO 351). Primarily, it enables students who are unable to enroll in the GMC an opportunity to pursue the advanced course and thereby receive a commission in two years of study, coincident with the conferral of the baccalaureate degree.

Four-week Field Training Course: This course is designed for the cadet who has completed the entire GMC coursework and Leadership Lab. The four-week Field Training Course prepares the cadet for enrollment into the POC. This would include prior enlisted members.

Both: These courses constitute the cadets first extended exposure to an actual Air Force environment. Activities include survival training, junior officer training, aircraft and aircrew indoctrination, physical training, career orientation,

small arms familiarization, first aid training and a first-hand look at the organization and functions of an active Air Force base.

**POC Eligibility**

The following are prerequisites for entry into the AFROTC Professional Officers Course (POC). The student must:

1. Have either completed the General Military Course (GMC) or the six-week Field Training Course. The GMC may be accredited for certain prior military service applicants who meet specific criteria.
2. Have two academic years of college remaining (either undergraduate, working on second degree, or graduate degree) as a full-time student.
3. Have achieved a qualifying score on the AFOQT.
4. Execute a written agreement to complete the program and successfully complete the applicable Field Training Course and accept an Air Force Reserve Commission, when tendered.
5. Be selected by the Professor of Aerospace Studies (PAS).
6. Meet certain specified age requirements.

**General Benefits**

All students enrolled in the AFROTC programs are provided textbooks and uniforms at no expense. POC students (juniors and seniors) and all scholarship students receive a monthly subsistence allowance of up to \$400 tax-free. Those cadets who attend Field Training are also paid air travel to and from the encampment, plus a stipend based on current active duty pay scales (approximately \$450-\$650).

**Sponsored Activities**

**Arnold Air Society** - A national society of AFROTC cadets who excel in character, academics, and exhibit interests in the study of aerospace technology meets at TSU.

# College of Health and Human Services



## **Vision**

To be recognized nationally as a college that offers exemplary programs in Health and Human Services.

## **Mission**

The College provides diverse educational opportunities leading to excellence in Health and Human Services for a global community.

The College of Health and Human Services (CHHS) is the newest college at Western Kentucky University, established by the Board of Regents in August 2002 to bring together all health and human services programs under one administration unit. One of our strengths is the breadth and depth of the diverse disciplines within the College. The College consists of seven departments that represent an array of disciplines, and offers degrees at the associate, baccalaureate, masters, and doctoral degree levels. The College also offers a collaborative doctorate in Rehabilitation Sciences with the University of Kentucky. Academic units include Allied Health; Communication Disorders; Consumer and Family Sciences; Nursing; Kinesiology, Recreation, and Sport; Public Health; and Social Work. The College also oversees the CHHS Academic Center for Excellence, Institute for Rural Health Development and Research, the Kentucky Emergency Medical Services Academy, and the South Central Kentucky Area Health Education Center.

The focus of CHHS is to provide the highest possible quality of education to prepare our students to become leaders in careers related to health and human services. First year students have the opportunity to enroll directly in a specific career or to enroll in our “exploratory” program and explore the many career options available to them in health and human services. The faculty are highly qualified in their respective disciplines and utilize innovative teaching strategies along with state of the art instructional technology, including ITV, web enhanced and web based instruction.

The disciplines in the college have their roots in outreach to the community. Disciplines in CHHS prepare students for their professions by engaging them in activities within the community that apply the theories and concepts discussed in the classroom for a more comprehensive understanding of the issues, while providing a valuable service to the communities in which we reside. Students are required to complete clinical experiences, field work, or internships through one of the many affiliation agreements at a myriad of health and human services facilities, agencies and organizations. Two nationally recognized mobile health and wellness units provide opportunities for students to apply skills learned in the classroom in the provision of prevention services to residents in our region.

Due to the nature of these experiences, students are required to meet various departmental academic requirements and federal and/or state mandates. Departments may require the successful completion of specific courses or maintaining a certain GPA in order to be placed in clinical or internship experiences. Some students may be required to undergo criminal background checks and drug testing and to provide proof of health insurance, liability insurance, and/or immunization records prior to participating in any required experiences at selected on or off-campus facilities/agencies. Additionally, there may be certifications, training seminars, or other requirements specified by the facility/agency that a student must meet in order to be eligible for field or practical experiences at the facility. It is the responsibility of the student to ensure that all institutional and/or facility requirements are met as a condition of participating in the on or off-campus experiences; students may be responsible in part or in full for any costs incurred to meet such requirements. Students are also responsible for transportation to and from off-campus experiences. In some CHHS programs, the students are responsible for rental fees for clinical instruments and supplies, purchasing uniforms, equipment, and possible course and program fees above the regular tuition. At the completion of the program, students may also be responsible for fees related to national and regional licensing exams.

CHHS is dedicated to improving the quality of life in the community through education, service, collaboration, leadership, and scholarship. This is accomplished in the various centers and programs in the college that provide for a vibrant and relevant university experience. The following is a brief description of these organizational units:

**Dr. John A. Bonaguro, Dean**  
**Dr. Danita Kelley, Associate Dean**  
**Dr. Christine Nagy, Assistant Dean**  
**Dr. Randy Deere, Assistant Dean**

**Academic Complex, Office 208**  
**Phone: (270) 745-2425**  
**FAX: (270) 745-7073**

**e-mail: [chhs@wku.edu](mailto:chhs@wku.edu)**  
**Website: [www.wku.edu/chhs](http://www.wku.edu/chhs)**

### Academic Center for Excellence (ACE)

The Academic Center for Excellence (ACE) is the student success center for the College of Health and Human Service. ACE provides a comprehensive array of programs and services to support academic success among the CHHS students. The Center provides academic advising, assistance with degree program completion, and career exploration/planning. It also houses a computer lab with software programs available specifically for our majors.

**Lynn Hazlett-Sherry, Coordinator**  
e-mail: [ace-in-chhs@wku.edu](mailto:ace-in-chhs@wku.edu)

**Academic Complex 411**  
**Phone: 745-5027**  
**Website: [www.wku.edu/ace](http://www.wku.edu/ace)**

The College's Learning Community (LC) is coordinated through ACE and is supported by Greenview Regional Hospital. The program emphasizes various aspects of health and human services such as dental hygiene, nursing, communication disorders, kinesiology, recreation, sport, public health, health care administration, social work, family and child studies, and dietetics, while creating activities and opportunities that support academic success.

#### Unique Features of the CHHS Learning Community

- Corporate sponsored for community engagement and professional networking opportunities
- Peer advising from the College of Health and Human Services
- Discussion series hosted by faculty members and corporate professionals

#### Community Goals

The Health and Human Services Learning Community is dedicated to students in or considering a program in the health and human services professions arena. In order to maintain a community that supports learning, participants are involved in several important areas:

- Share and learn from students with similar interests and experiences
- Participate in activities that broaden their academic experiences
- Build professional relationships with faculty members and professionals in the field
- Establish lasting friendships with fellow community members

More information about the CHHS Learning Community is available at: [www.wku.edu/chhs/ace/lc.php](http://www.wku.edu/chhs/ace/lc.php).

### Institute for Rural Health Development and Research (IRHDR)

The purpose of Western Kentucky University's Institute for Rural Health Development and Research is to identify rural health and human service needs and facilitate collaborative arrangements engaging WKU students and faculty with community agencies in addressing these needs. The Institute works closely with all departments within the College of Health and Human Services. Programs include the WKU Mobile Health and Wellness Unit and a school based dental sealant program. Services include grant writing, program evaluation, health education and wellness interventions, health/oral screenings, dental services, environmental and occupational health and safety services, and social services. The institute plays a major role in assisting CHHS in maintaining the focus of student engagement and community service.

**Dr. Gary English, Director**

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Phone: 745-6948  
Website: [www.wku.edu/irhdr/index.php](http://www.wku.edu/irhdr/index.php)

The mission of the WKU Mobile Health and Wellness Unit is to provide preventative services and health promotion activities to the medically under-served and uninsured of rural Kentucky. Students and faculty within the College of Health and Human Services provide the services which include oral cleanings, screenings, sealants and oral radiology services, health education/promotion, and health screenings. The target area to provide these services is the ten-county Barren River District Development area.

### Kentucky Emergency Medical Services Academy (KEMSA)

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The Kentucky Emergency Medical Services Academy (KEMSA) was established on December 16, 1998, when Dr. Gary A. Ransdell, President of Western Kentucky University, publicly announced its creation at a news conference attended by the media, regional politicians, and Emergency Medical Services leaders.

The Mission of the Kentucky Emergency Medical Services Academy covers several important areas:

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**Phone: 745-5865**  
**Website: [www.wku.edu/kemsa/](http://www.wku.edu/kemsa/)**

- Support and provide high quality standardized education, training, and continuing education opportunities for out of hospital (EMS) personnel throughout the Commonwealth and region;
- Plan, coordinate, and conduct special workshops, conferences, seminars, and other unique education/training programs to enhance the skill, knowledge, and ability of EMS professionals engaged in the delivery of out of hospital services;
- Develop long-range plans and programs for the education and training of the EMS workforce in cooperation with governmental agencies, professional associations, and academic institutions;
- Conduct research and provide data for policy planning involving Emergency Medical Services;
- Provide availability to serve as liaison or coordinating agency for the boards, associations, and groups involved in the delivery of emergency medical services.

### South Central Kentucky Area Health Education Center (AHEC)

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*...Promoting the CommonHealth throughout the Commonwealth*

The mission of the Kentucky AHEC is to promote healthy communities through innovative partnerships. This is accomplished by providing the following:

- educational support services to health professions, students, and health care providers.
- community health education.
- programs that encourage health professions as a career choice.

**Lucy Juett, Director**  
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**Phone: 745-3325**  
**Website: [www.wku.edu/scahec](http://www.wku.edu/scahec)**

The South Central AHEC is affiliated with the University of Louisville School of Medicine in cooperation with WKU's College of Health and Human Services. AHEC programs of particular interest to WKU students include the following:

- GEAR-UP is awarded to South Central Area Health Education Center at WKU
- Opportunities to enhance their cross-cultural communication skills with two unique populations - an Old Order Mennonite community and a large Hispanic community.
- Health Occupations Students of America (HOSA) – collegiate chapter of HOSA is sponsored by the South Central AHEC. This student organization provides students with an opportunity to develop leadership skills, team building skills, and interdisciplinary student projects. Students are eligible to compete at the state and national HOSA conferences in numerous categories.
- Oral health education, team building skills, farm safety programs, and an interdisciplinary student organization.
- Child Passenger Safety (CPS) Technician training program is offered in May and is available as an independent study class. This 32-hour program trains students to be Certified CPS Technicians who can inspect child car seats to determine if they are installed properly. Nationally, 90% of all child car seats are not installed properly.
- MCAT Prep – a 12-week preparation program for students planning to take the Medical College Admission Test offered every spring for WKU students.
- Mock Interviews – are offered to any student applying for admission to a professional school in which an interview is required, such as, schools of medicine, dental, physical therapy, etc.
- Volunteer opportunities and student internships are available through the South Central AHEC.

*Connecting Students to Careers....Professionals to Communities....Communities to Better Health*

## Department of Allied Health

**Program Accreditation:** Commission on Dental Accreditation (Program of Dental Hygiene) and Commission on Accreditation for Health Informatics and Information Management Education (Program of Health Information Management)

Allied health is defined as all the professional, technical and supportive workers in patient care, public health and health research. Allied health professions encompass a wide distribution of personnel with various levels of health education and training, which enables them to function as a member of the health care team.

The Department of Allied Health offers an Associate of Science degree in dental hygiene, a Bachelor of Science degree in dental hygiene, a Bachelor of Science degree in health sciences, an Associate of Science degree in Health Information Management, and an Associate of Applied Science degree in Paramedicine (completion degree).

### Programs of Dental Hygiene

Students with an interest in the program of dental hygiene may contact the Department of Allied Health. When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements and (c) Academic Requirements and Regulations. Students should be aware that this academic program might require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department.

Enrollment in the program of dental hygiene is limited and special admission information and other special rules, standards and requirements should be obtained directly from the department office (Academic Complex, Room 235) or from the departmental website (<http://www.wku.edu/alliedhealth/index.php>).

The baccalaureate degree curriculum is designed to prepare dental hygienists with a background for teaching, for organization and management, for research, as well as for clinical dental hygiene.

The dental hygiene associate degree curriculum is designed primarily to prepare the graduate hygienist to effectively practice as a respected member of the dental hygiene profession. The education also provides the student with knowledge, skills and attitudes that will enable him or her to serve as a community resource in matters of dental disease prevention and sound dental health practices.

The educational experience offered prepares the graduate hygienist to effectively carry out the duties as prescribed by licensure. Hygienists are prepared for varied career opportunities, which include general practice dentistry, specialty practices, public health, military installations, hospitals or clinics, research facilities or public school dental hygiene.

Although 12-15 hours of general education courses (including Anatomy and Physiology and Microbiology) are required, most beginning dental hygiene students will have successfully completed one or more years of college.

Transfer students with an associate degree from a dental hygiene program accredited through the American Dental Association's Commission on Dental Accreditation receive a 16-hour waiver in the overall upper-division hour requirement and a 16-hour waiver in the major upper-division hour requirement.

### Major in Dental Hygiene with Education Track

A major in dental hygiene (reference number 524) leads to a Bachelor of Science degree. The curriculum may be completed in eight semesters and one summer term within four years. Requirements are outlined below:

- **Prerequisites (for admission into the program):** BIOL 131, BIOL 207/208, ENG 100, and PSY 100
- **Freshman year:** MATH 109/116/118, AH 290, HIST 119/120, CHHS 175, COMM 145 (or 161), BIOL 131, BIOL 131 Lab, Elective Category BII.
- **Sophomore year:** DH 111, DH 112, DH 201, ENG 200, FACS 111, DH 121, DH 122, DH 130, DH 204, DH 210, DH 206, DH 226, CHEM 109.
- **Summer school:** DH 309

**Dr. Lynn Austin, Head**

**Academic Complex**  
**Office 235, Phone: (270) 745-2427**  
**Fax: (270) 745-6869**  
**Website: [www.wku.edu/alliedhealth/index.php](http://www.wku.edu/alliedhealth/index.php)**

**Professor: H. Wallmann**

**Associate Professors: L. Austin, B. Bush,**  
**T. Dean, K. Sansom, R. Tabor**

**Assistant Professors: J. Evans,**  
**J. Hunt-Shepherd**

**Instructors: G. Bomar, W. Hulsey, K. Whitley**

- **Junior year:** FACS 381, DH 202, DH 206, DH 303, DH 304, DH 307, DH 211, SOCL 100, DH 321, DH 323, DH 324.
- **Senior year:** ENG 300, PH 383, DH 330, DH 340, DH 350, Foreign Language, Elective Category B-II, Elective Category E.

### **Major in Dental Hygiene without Education Track**

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A major in dental hygiene (reference number 524) requires a minimum of 122 semester hours and leads to a Bachelor of Science degree. The curriculum may be completed in eight semesters and one summer term within four years. Requirements are outlined below:

- **Prerequisites (for admission into the program):** BIOL 131, BIOL 207/208, ENG 100, and PSY 100
- **Freshman year (in addition to prerequisite classes):** MATH 109/116/118, AH 290, HIST 119/120, COMM 145 (or 161), Elective Category BII.
- **Sophomore year:** DH 111, DH 112, DH 201, ENG 200, FACS 111, DH 121, DH 122, DH 130, DH 204, DH 210, DH 226, DH 206, CHEM 109.
- **Summer school:** DH 309.
- **Junior year:** PH 383, DH 202, DH 206, DH 303, DH 304, DH 307, DH 211, SOCL 100, DH 321, DH 323, DH 324.
- **Senior year:** ENG 300, CHEM 304, HCA 340, PSY 350, Foreign Language Elective Category BII, Elective Category E.

### **Major in Health Sciences**

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The major in Health Sciences (reference number 564), requires 65-67 core health sciences credit hours, including a required concentration ranging from 21-22 hours. The Bachelor of Science in Health Sciences is designed for students who are interested in pursuing a health and human sciences related career. The program is an interdisciplinary program with three primary purposes:

1. Allowing students with a general interest in Health Sciences to pursue a B.S. while obtaining a concentration in a specific area of Health and Human Services.
2. Providing an option for students with a health-related associate's degree who wish to continue their education.
3. Permitting students to prepare for post-graduate or professional health sciences programs.

Students pursuing the major are required to select one of the following concentrations: Environmental Health Science, General Wellness Studies, Gerontology, Health Promotions, Health Services, Social Services, or an Associate's Degree in a health field (approved by the health science advisor). Transfer students with an associate degree from a health-related program receive a 19-hour waiver in the upper-division hour requirement for the health science major.

Required courses for the Health Sciences core are: FACS 111, PSY 199, BIOL 120/121, BIOL 131, CHEM 304, AH 190, 290, PHYS 231/232, PE 311, PH 381, PH 383 OR SOCL 300, PH 447 OR PHIL 322, HCA 340, HCA 446/447 OR CIS 243.

One of the below-mentioned concentrations is required:

- Environmental Health Science – (22 hours) Required courses include: ENV 280, 375, 380, 480 or 460, PH 385 and 7 hours of electives.
- General Wellness Studies – (22 hours) Required courses include: PE 122, 211, 212, 221, 222, 310, 312, 313, 324. At least two credit hours of the open electives need to be upper-division.
- Gerontology – (21 hours) Required courses include: BIOL 344, PSY 423, PH 443, SOC 342. In addition, 9 hours of electives must be chosen with approval of the academic advisor from the following (6 credit hours of electives must be upper-division): GERO 100, FACS 311, FACS 495, ECON 365, CD 489, FIN 161, HCA 345, HCA 440, HCA 471, PH 444, PH 463, PH 464, PHIL 426 OR SWRK 326.
- Health Promotions – (22 hours) Required courses are: SFTY 171, PH 261, 365, 384, 402, 461, 467, and 469.
- Health Services - (21 hours) Required courses are: HCA 344, 440, 441, 442, HCA 345 or 346, MGMT 210 and ECON 202.
- Social Services – (21 hours) Required courses are: SWRK 101, 205, 330, 331, and 395. Students are also required to take 2 social work electives (6 hours) in consultation with their social work advisor.

An associate degree in a focused health area would also be acceptable and needs to be approved by an academic advisor. Students with a completed A.A. or A.S. degree from a KCTCS college have completed WKU general education requirements. All other students need to meet with an advisor.

\* Students must earn a "C" or better in each course in the major. Additionally, in accordance with university policy, an overall grade point average of 2.0 or better must be attained upon completion of required curriculum.

### **Associate of Science Degree in Dental Hygiene**

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The associate degree in dental hygiene (reference number 226) requires a minimum of 78 semester hours and leads to an Associate of Science degree. The curriculum may be completed in five semesters and one summer term. Requirements are outlined below:

Prerequisites (prior to fall semester first year): 12-16 hours including the following BIOL 131 and BIOL 207/208, ENG 100, and PSY 100. First semester students take FACS 111, CHEM 109, DH 111, 112, 201, 210. Second semester students take DH 121, 122, 130, 204, 206 and 226. Summer school students take DH 309. Third semester students take COMM 145, DH 211, 302, 303, and 307. Fourth semester students take any General Education Category B-I or B-II course, SOCL 100 and DH 321, 324.

### **Associate of Science Degree in Health Information Management**

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#### **Health Information Management**

**Room C139, South Campus**

**Phone: (270) 780-2567**

**Fax: (270) 780-9419**

The Health Information Management curriculum is an associate degree program accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)\*. Graduates of the program are eligible to apply to take the American Health Information Management Association's ([www.ahima.org](http://www.ahima.org)) certification examination for the designation of Registered Health Information Technician (RHIT). The health information technician is the professional responsible for maintaining components of health information systems consistent with the medical, administrative, ethical, legal, accreditation, and regulatory requirements of the health care delivery system. In all types of facilities, and in various locations within a facility, the health information technician possesses the technical knowledge and skills necessary to process, maintain, compile, and report health information data for reimbursement, facility planning, marketing, risk management, utilization management, quality assessment and research; abstract and code clinical data using appropriate classification systems; and analyze health records according to standards. The health information technician may be responsible for functional supervision of the various components of the health information system.

Enrollment in the program is limited; a student's application to the program will be considered following successful completion of the introductory course, HIM 100: Health Data Content and Structure. Students are required to have professional liability insurance coverage during their program of study.

A student who makes below "C" in any Health Information Management course is required to repeat the course. Any student whose cumulative GPA for one semester is 1.8 or below is encouraged to change into another field of study, or continue in the program for a semester on a probationary basis. If the student chooses to continue and completes another semester with a cumulative GPA of 1.8 or below, he/she will not be permitted to continue in the program. The student may apply for readmission once the cumulative GPA is 2.0 or above. In keeping with University policy, graduation from the program requires a minimum cumulative GPA of 2.0 and a minimum GPA of 2.0 in Health Information Management courses.

Students also may be required to have criminal background checks, proof of health insurance, liability insurance, immunization records and drug testing prior to participating in any professional practice at selected health care institutions. Additionally, there may be certifications, training seminars, or other requirements by the health care institution that a student must meet in order to be eligible for training at the chosen facility. It is the responsibility of the student to ensure that all institutional requirements are met prior to participation in the professional practice. Students may be responsible in part or in full for any costs incurred to meet such requirements. Rules, standards and requirements should be obtained directly from the program office or at [www.wku.edu/healthinformationmanagement](http://www.wku.edu/healthinformationmanagement).

\* CAHIIM

233 North Michigan Avenue, 21<sup>st</sup> Floor

Chicago IL 60601-5800

(312) 233-1183

[www.cahiim.org](http://www.cahiim.org)

The associate degree in Health Information Management (reference number 243) requires a minimum of 62 semester hours and leads to an Associate of Science degree.



Students must take the following general education courses: ENG 100, MATH 109 or MATH 116, BIOL 131, a three-hour category B elective, and six hours of category C electives. The following 37 hours are required HIM courses: AH/HIM courses: AH 290, HIM 100, 220, 221, 225, 230, 250, 251, 252, 291, 292, and 295. Students must also select a restricted elective from the following courses: CIS 243, INS 272, CS 157, or BIO 275. In addition, students must take CS 145 as an elective.

**Associate of Applied Science Degree in Paramedicine (Completion Degree)**

Phone: 270-745-3891

e-mail: [lee.brown@wku.edu](mailto:lee.brown@wku.edu)

For those with National certification as a Paramedic WKU will award the student 40 block semester hours for current National Certification as a Paramedic after completion of 25 semester hours of specified general education classes. Most of the required general education courses can be taken either through correspondence or the Internet. The objective of the associate degree completion in paramedicine is to afford paramedics the opportunity to increase their professional qualifications through acquiring the general education background. The paramedic student will bring the occupational or career competencies with them through the certification process. Academic subjects necessary to complete the general education requirements include standard liberal arts courses and course work useful to health care providers. This combination will provide the degree candidate a solid educational foundation compatible with and complementary to their occupational skills and status. The associate degree completion in paramedicine is valued as a means of increasing general knowledge, critical thinking skills, and professionalism within the career field.

If not certified as a Paramedic, then the AH courses must be taken in order to be eligible to sit for the certification exam for Kentucky.

The degree requires a minimum of 65 semester hours for completion.

Suggested Program of Study	
Fall	Hrs
AH 101 – Paramedicine I	9
AH 102 – Paramedicine I Lab	1
<b>Spring</b>	
AH 103 – Paramedicine II	9
AH 104 – Paramedicine II Lab	1
<b>Summer</b>	
AH 105 – Paramedicine III	5
AH 106 – Paramedicine III Lab	1
AH 107 – Paramedicine IV	1
AH 108 – Paramedicine IV Lab	1
<b>Fall</b>	
AH 109 – Paramedicine V	9
AH 110 – Paramedicine V Lab	1
<b>Spring</b>	
AH 111 – Paramedicine Lab VI	2
The 25 required semester hours of general education classes are required for both certified Paramedics (degree completion) as well as those NOT certified: ENGL 100C, BIO 131C, PSYC 100C, SOC 100C, COMN 145C or COMN 161C, MA 109C or MA 116C, HED 247C, and a 3-hour Category B elective.	25

## Department of Communication Disorders

**Program Accreditation:** Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association

### Major in Communication Disorders

The major for clinicians of speech and communication disorders (reference number 595P prior to being accepted to the program and reference number 595 after being officially accepted to the undergraduate program) requires 120 hours and leads to a Bachelor of Science degree. The program includes approximately 44 hours of general education courses, 55 hours in the specialization areas-speech pathology and audiology, 9 hours of professional preparation for teacher certification, and 3 hours of related studies. No minor or second major is necessary. All courses follow guidelines recommended by the American Speech Language and Hearing Association.

Prior to selecting general education courses, you must obtain approval from your communication disorders department academic advisor.

Those interested should have sophomore status, a 3.2 GPA or better, and apply for official admission to the program. A cumulative GPA of 3.0 or better must be maintained throughout matriculation.

Applications for admission are accepted until February 15. Students admitted during March of any given year may begin major coursework during the Fall semester following admission. Due to the clinical practicum component of this major, enrollment to the undergraduate program is limited.

Students may obtain an application for admission from the department. At the time of application, students will complete a one page application form and submit a transcript verifying a cumulative grade point average of at least 3.20.

Required courses for the major are:

1. **Specialization Areas** - CD 280, 290, 347, 405, 478, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, and 495.
2. **Related Requirements** - EDU 250; EXED 330; PSY 310, Related Studies: PSY 423 (or faculty approved substitution). Students should consult the department regarding specific requirements for Category D of general education, Natural Sciences and Mathematics.

All undergraduate students are also required to complete up to a maximum of 50 supervised clinical clock hours working with people having communication disorders. The undergraduate program prepares students academically for graduate study in Communication Disorders and Audiology. A master's degree is needed for national certification in speech-language pathology or audiology. Licensure is also necessary in Kentucky but other states have various mandates for practicing professionals.

When planning a program of study, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head.

Students will be required to undergo criminal background checks and provide proof of a recent physical examination, professional liability insurance, and a Tuberculin Skin Test prior to beginning any clinical experiences, which must be updated annually. It is the responsibility of the student to ensure that all University requirements are met as a condition of participating in clinical experiences. Students may be responsible in part or in full for any costs incurred to meet such requirements.

**Dr. Joseph Etienne, Head**

**Location:** Tate Page Hall 111

**Phone:** (270) 745-4541

**Fax:** (270) 745-3441

**Website:** [www.wku.edu/communicationdisorders](http://www.wku.edu/communicationdisorders)

**Associate Professors:** L. Bland, B. Brindle,  
R. Dressler, J. Etienne

**Assistant Professor:** A. Chance-Fox

**Instructors:** J. Barefoot, K. Green, L. Hutchison,  
M. L. Moore, D. Parsley, J. Shackelford, J. Smith

**Professor Emeritus:** S. Cooke

**Transitional Retiree:** F. Kersting

### American Sign Language Studies Certificate

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The American Sign Language Studies certificate (reference number 1706) broadens the student's knowledge of Deaf and Hard of Hearing individuals, with an emphasis on culture and communication. The ASL studies certificate will not qualify students to become licensed interpreters. A minimum of 12 semester hours, with a grade of "C" or better must be obtained to successfully complete the certificate. The required courses are: CD 101, 102, 401. In addition, students must take three hours chosen from: CD 201, 301, 402, or 403.

### Cross Cultural Communication in Health Care Certificate

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The certificate program in Cross Cultural Communication in Health Care (reference number 1709) requires 15 credit hours. It is designed to meet the needs of both bilingual and monolingual students. Bilingual students will receive preparation for certification as medical interpreters. The program will prepare non-bilingual students to develop and administer language access programs in health care facilities. The required courses include: AH 290, CD 200, PH 447, PHIL 322, CD 210, COMM 440 and either CD 220 or 230. As a prerequisite, bilingual students in the medical interpreting track must pass the American Council on Teaching Foreign Language (ACTFL) Language Proficiency Interview with a score of "intermediate-high" or above, in both English and the target language. Information regarding this test and associated fees can be found at [www.actfl.org](http://www.actfl.org).

## Department of Family and Consumer Sciences

The Department of Family and Consumer Sciences offers Bachelor of Science degrees in design, merchandising and textiles; family and consumer sciences; and hospitality management and dietetics and an Associate of Arts degree in Early Childhood Education and an Associate of Science degree in Hospitality Management. All FACS majors are required to take nine hours of core courses which include FACS 311 Family Relations plus six credit hours of core course work selected from the pool of approved courses with major advisor approval. The pool of approved courses include: DMT 110 Design Concepts; FACS 111 Human Nutrition; DMT 221 Creative Problem Solving in Design and Merchandising; FACS 310 Management of Family Resources; FACS 351 Human Resource Management; DMT 421 Professional Ethics and Issues Seminar, and DMT 431 Clothing and Human Behavior.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department head or their advisor.

Suggested programs of study are available on the departmental website ([www.wku.edu/chhs/cfs](http://www.wku.edu/chhs/cfs)), or in the department office.

In several of the department's programs, students may be required to undergo criminal background checks and drug testing and to provide proof of health insurance, liability insurance, and/or immunization records prior to participating in any required experiences at selected off-campus facilities/agencies. Additionally, there may be certifications, training seminars, or other requirements specified by the facility/agency that a student must meet in order to be eligible for field or practical experiences at the facility. It is the responsibility of the student to ensure that all institutional and/or facility requirements are met as a condition of participating in the off-campus experiences; students may be responsible in part or in full for any costs incurred to meet such requirements. Students are also responsible for transportation to and from off-campus experiences. Additional policies, requirements, and costs for concentrations are specified at the departmental website, [www.wku.edu/Dept/Academic/chhs/cfs](http://www.wku.edu/Dept/Academic/chhs/cfs).

#### *Dr. Doris Sikora, Head*

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**Website: [www.wku.edu/facs](http://www.wku.edu/facs)**

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**Professor: S. Gaiko**

**Associate Professors: D. Haynes-Lawrence,  
D. Kelley, K. Mason, R. Patterson, D. Sikora  
T. Wilson**

**Assistant Professors: K. Croxall, D. Dixon,  
J. Shim, A. West, W. Yen**

**Instructors: S. Flener, K. Goff, C. Jones, J. Lee,  
D. Shivel, P. Silfies, J. Simmons**

**Professor Emeritus: L. Fong**

## Major in Family and Consumer Sciences

This program (reference number 563) offers four concentrations which lead to a Bachelor of Science degree: (1) Child Studies, which provides a program of study for those who wish to work in a child-focused environment but do not want teacher certification; (2) Family and Consumer Sciences Education, which leads to teacher certification; and (3) Family Studies, which provides a program of study for those who wish to work in a family-focused environment. The concentration in Child Studies requires a minimum of 51 hours in consumer and family sciences and related courses. A grade of "C" or above must be earned in the following courses required for this concentration: FACS 111, 180, 191, 192, 292, 294, 299, 310, 311, 380, 399, 410, 492, 493, 494, 499 and SOCL 300. A minor or second major is required.

The concentration in Family and Consumer Sciences Education requires a minimum of 51 hours in consumer and family sciences, and 31 hours in professional education for a total of 82 semester hours and leads to a Bachelor of Science degree. A grade of "C" or above must be earned in the following courses required for this major: FACS 111, 151, 180, 191, 310, 311, 380, 381, 481, 492, 493, 494, DMT 100, 110, 131, 223, CS 145 or CIS 141. Professional education courses required are: EDU 250, 489, SEC 351, 352, 490, MGE 275, 490, LTCY 444, and PSY 310. No minor is required.

The concentration in Family Studies requires a minimum of 51 hours in consumer and family sciences and related courses. A grade of "C" or above must be earned in the following courses required for this major: FACS 111, 180, 191, 310, 311, 380, 399, 410, 492, 493, 494, 495, 499, SOC 300, PSY 423 or SOC 342, PSY 430 or SOC 466 or 355, SOC 359 or PH 365. A minor or second major is required.

## Major in Hospitality Management and Dietetics

The major in hospitality management and dietetics (reference number 707) requires a minimum of 67-68 semester hours and leads to a Bachelor of Science degree. The program offers three distinct concentrations: (1) hotel, restaurant, and tourism management, (2) nutrition and dietetics and (3) food, nutrition, and wellness. Common core courses for all concentrations include: FACS 111, 151, 152, 251, 252, 311, 351, 353, 354, 452, 459, ACCT 200, and MGT 210. A grade of "C" or above must be earned in all courses required for these majors. No minor or second major is required.

### Hotel, Restaurant and Tourism Management Concentration

The hotel, restaurant, and tourism management concentration requires 68 semester hours. This concentration helps prepare students for careers in hotel and resort management, restaurant management, hospital and school food service, meeting and convention planning, sales and marketing, business and industry food service, catering, and tourism. In addition to the common core courses indicated for the major, this concentration requires FACS 171, 271, 275, 276, 313, 373, 378, 410, 470, 471, and 472.

### Nutrition and Dietetics Concentration

The nutrition and dietetics concentration requires 67 semester hours. This concentration meets requirements of the Commission on Accreditation of Dietetics Education of the American Dietetic Association and fulfills one of the steps necessary to become a Registered Dietitian. A grade point average of 3.0 on at least 30 credit hours is required for admission to the nutrition and dietetics concentration; specific courses, including human nutrition (FACS 111), chemistry (CHEM 105), biology (BIOL 131), and mathematics (MATH 116), require a minimum grade of "C" or higher and should be a part of these 30 credit hours. Students must have an ACT composite score of  $\geq 20$  or SAT (CR+M) of  $\geq 950$ . Additional information on the admission process and becoming a Registered Dietitian is available on the program website ([www.wku.edu/dietetics](http://www.wku.edu/dietetics)). This concentration helps prepare students for careers in medical nutrition therapy, sports nutrition and wellness, hospital and school food service, public health nutrition, extension services, research, pharmaceutical sales, and private practice. In addition to the common core courses indicated for the major, this concentration requires FACS 261, 361, 362, 365, 461, 462, 464, AH 290, CHEM 304, and one elective selected with the advisor. General education courses in support of this concentration include ECON 150, PSY 100, SOCL 100, MATH 116, CHEM 105, 106, 107, 108, BIOL 131, 207 and 208.

### Food, Nutrition and Wellness Concentration

The food, nutrition and wellness concentration requires 67 semester hours. This concentration does not meet requirements of the American Dietetic Association leading to status as a registered dietitian. This concentration helps prepare students for careers in extension services, community food programs, food service management, wellness programs, pharmaceutical sales, and quality control or public relations for the food industry. In addition to the common core courses indicated for the major, this concentration requires FACS 261, 361, 362, 364 or 368, 365, 461, 462, MKT 220, PE 311 or PE 325, and PH 390. General education courses in support of this concentration include CHEM 109 and BIOL 131.

## Major in Design, Merchandising and Textiles

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The major in design, merchandising and textiles (reference number 536) requires a minimum of 76-81 semester hours and leads to a Bachelor of Science degree. The program offers two concentrations: interior design, and textiles and apparel merchandising. A grade of "C" or above must be earned in the required major/support courses. No minor or second major is required.

### Interior Design Concentration

The interior design concentration requires 81 semester hours. Courses required for this concentration are: DMT 120, DMT 151, 152, 201, 221, 222, 223, 243, 300, 301, 302, 304, 321, 322, 401, 402, 403, 410, 421, 422, 427, FACS 310, 311, MKT 220, and an elective selected with the advisor.

### Textiles and Apparel Merchandising Concentration

The textiles and apparel merchandising concentration requires 76 semester hours. Courses required for this concentration are: DMT 110, 120, 131, 132, 221, 222 or AMS 163, DMT 223, 231, FACS 310, 311, DMT 321, 322, 332, 333, 334, FACS 410, DMT 421, 422, 431, 432, 433, 435, TAM elective course, MGT 210 and MKT 220.

## Minor in Child Life

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The minor in child life (reference number 345) requires a minimum of 21 semester hours. A grade of "C" or above must be earned in the following courses: FACS 191, 391, 393, 395, 494, PHIL 322, and a 3-hours of restricted electives chosen in consultation with a departmental advisor. This minor is specifically for students who want a career as a child life specialist.

## Minor in Child Studies

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The minor in child studies (reference number 336) requires a minimum of 21 semester hours. A grade of "C" or above must be earned in the following FACS/support courses required for the minor: FACS 191, 297, 395, 492, 494, and 6 hours of approved electives chosen in consultation with departmental advisor. Students majoring in the child studies concentration may not minor in child studies.

## Minor in Consumer and Family Sciences

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The minor in consumer and family sciences (reference number 371) requires a minimum of 21 semester hours. A grade of "C" or above must be earned in the following FACS/support courses required for this minor: FACS 111, 310, 311, DMT 110, 431 and 6 hours of restricted electives chosen in consultation with departmental advisor.

## Minor in Family Studies

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The minor in family studies (reference number 338) requires a minimum of 21 semester hours. A grade of "C" or above must be earned in the following FACS/support courses required for this minor: FACS 191, 310, 311, 494, 495 and 6 hours of restricted electives chosen in consultation with departmental advisor. Students majoring in the family studies concentration may not minor in family studies.

## Minor in Food Service Management

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The minor in food management (reference number 364) requires a minimum of 24 semester hours. A grade of "C" or above must be earned in the following FACS courses required for this minor: FACS 151, 171, 251, 275, 313, 351, 353, and 452.

## Minor in Interior Design

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The minor in interior design (reference number 398) requires 22 semester hours. A grade of "C" or above must be earned in the following FACS/support courses required for this minor: DMT 110, 120, 201 and 11 hours of restricted electives chosen in consultation with departmental advisor.

## Minor in Lodging Management

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The minor in lodging management (reference number 412) requires a minimum of 24 semester hours. A grade of "C" or above must be earned in the following FACS/support courses required for this minor: FACS 171, 271, 276, 313, 351, 452, 470 and ACCT 200.

## Minor in Nutrition

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The minor in nutrition (reference number 425) consists of 22-23 hours. A grade of "C" or above must be earned in the following FACS/support courses required for the minor: FACS 111, 261 and CHEM 109 and at least 12 hours from the following elective courses: FACS 361, 364, 365, 367, 368 or CHEM 304. Required prerequisites must be met for all courses.

### **Minor in Meeting, Convention and Exposition Planning**

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The minor in meeting, convention and exposition planning (reference number 418) provides students with the range of interdisciplinary skills necessary for success as a meeting, convention, and/or exposition manager in a variety of planning settings to include education, government, private industry, associations and other non-profit organizations. The minor requires a minimum of 21 semester hours. Students must complete the following 15 hours of core courses: FACS 171, 313, 375, MKT 325, and REC 306. In addition, students must complete at least 6 hours of electives from the following list: FACS 351, 373, 378, COMM 240, 345, 346, HORT 209, 309, 409, MGT 311, 312, 333, 365, MKT 323, 328, 425, 427, PSY 370, REC 424, 426. When selecting electives, a maximum of two courses in this minor may be duplicated in the student's major or another minor (not including the practicum).

### **Minor in Textiles and Apparel Merchandising**

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The minor in textiles and apparel merchandising (reference number 485) requires 24 semester hours. A grade of "C" or above must be earned in the following DMT/support courses required for this minor: DMT 132, 223, 231, 333, and 12 hours of restricted electives chosen in consultation with departmental advisor.

### **Minor in Tourism**

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The minor in tourism (reference number 445) is an interdisciplinary program between the departments of Family and Consumer Sciences and Kinesiology, Recreation and Sport. The minor in tourism requires a minimum of 21 hours. Students must complete the following courses: FACS 271, MKT 220, REC 420, and REC 493 or FACS 313. Students must also complete a minimum of 9 elective hours from the following list: FACS 171, 373, 375, REC 302, 306, 404. Elective hours must be selected in such a manner that a total of nine hours in the minor come from Recreation and 9 hours from Consumer and Family Sciences courses.

### **Family Home Visiting Certificate**

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The family home visiting certificate (reference number 1701) will prepare students to provide home visiting services. Potential clients include those needing parenting skills, those at risk for abusing and neglecting their children, and/or those who need other support services. A grade of "C" or above must be earned in the following FACS/support courses required for this minor: FACS 395, 494, 497, and 3 hours of electives chosen in consultation with departmental advisor.

### **Associate Degree Programs**

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The department offers two associate degree programs. They are an Associate of Arts degree in Early Childhood Education (reference number 249) and the Associate of Science degree in Hospitality Management (reference number 245). Please see a departmental advisor for details about each program.

The associate of arts degree in Early Childhood Education requires 67 semester hours. The required courses are FACS 111, 180, 191, 192, 198, 292, 294, 295, 296, 297, 299, 311 or SOCL 220, FACS 313 SFTY 171, SWRK 101, LME 318. In addition, students must take the following general education courses: COMM 145 or 161, PSY 100, ENG 100, ENG 200, MATH 109 or 116, HIST 119 or 120 and a GEN ED CAT D elective.

The associate of science degree in Hospitality Management requires 61 semester hours. The required courses are FACS 151, 152, 171, 251, 252, 271, 275, 276, ACC 200C, BUS 248C, 210C, 212C. In addition, students must take the following general education courses: ENGL 100C, COMN 161C, ENGL 200C, a category B elective, FINC 161C, a category D science elective, MA 109C or 116C, FACS 111C.

### **Graduate Degree Programs**

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Students may pursue a concentration in family and consumer sciences education through either a Master of Arts in Education (general) or a Master of Arts in Education (secondary education). Specific information about graduate courses can be obtained from the Graduate Studies Catalog and from the department office.

## Department of Kinesiology, Recreation and Sport

The function of the Department of Kinesiology, Recreation and Sport at Western Kentucky University is twofold: (a) serves the needs of the University at large by providing courses devoted to the study of movement, physical skill development and fitness; and (b) provides an opportunity for specialized study in Physical Education, Recreation Administration, Sport Management, and Exercise Science.

### Major in Physical Education (Teacher Education)

The major in Physical Education (reference number 587) is designed to develop positive teaching skills in physical activity and to meet the needs for the development of qualified teachers in public/private schools or business settings or community agencies. The major requires 73 semester hours leading to a Bachelor of Science in Physical Education. Students, who complete the professional education requirements with the physical education teacher education concentration, may be certified in the teacher education program. Students in the physical education major must complete the following core courses: PE 111, 121, 122, 123, 211, 212, 220, 222, 223, 300, 310, 311, 314, 319, 320, 322, 324, 325, 415, and 416. BIOL 131 is a prerequisite for PE 310 and 311.

Students need to select one of the two concentrations: 1) Physical Education Teacher Education, or 2) Physical Education Movement Studies (non-certification). The Physical Education Teacher Education concentration requires the following 25 hours: EDU 250, EXED 330, PSY 310, SEC 478, SEC 489, ELED 490, and SEC 490. The Physical Education Movement Studies (Non-Certification) concentration requires 25 total hours (half of which must be at the 300- or 400-level) with 12 hours of advisor approved electives and 13 hours from the following: SFTY 171, FACS 111, PH 381, PH 467, PH 385, PH 390, and PH 456.

Students majoring in physical education are required to meet with their advisor before enrolling for the next semester. A health education minor is recommended for all physical education teacher education majors.

Students must maintain a "C" or better in all coursework for this major.

### Major in Exercise Science

The major in exercise science (reference number 554) requires 55 semester hours and leads to a Bachelor of Science degree. Exercise science includes extensive study in various areas of exercise physiology, kinesiology, and biomechanics. Students who complete this degree will be prepared for certifications from organizations such as the American College of Sports Medicine (ACSM) and the National Strength and Conditioning Association (NSCA), and may pursue careers in such fields as fitness management, corporate fitness and health promotion, medically-based fitness, and strength coaching, among others. The exercise science degree also prepares students for further post-graduate study in areas such as physical therapy, occupational therapy, medicine, nutrition, and research. Students must maintain a "C" or better in each course in the major. Additionally, in accordance with university policy, an overall grade point average of 2.0 or better must be attained upon on the completion of required curriculum.

Students must complete the following courses: EXS 223, 296, 311, 313, 324, 325, 412, 420, 436, 446, 496, PE 122, 312, FACS 111, SFTY 171, 6 credit hours of approved upper-level electives from EXS 455, 425, 485, PE 456, FACS 364, 368, PSY 340, PH 383, PHIL 322, or electives as approved in consultation with department advisor.

### Major in Recreation Administration

The major in recreation administration (reference number 589) requires a minimum of 48 semester hours and leads to a Bachelor of Science degree. Students must complete the following recreation courses: REC 200, 302, 304, 306, 320, 402, 404, 406, and 490. In addition, students must choose 12 hours of electives from: REC 220, 235, 322, 326, 328, 330, 332, 335, 337, 420, 422, 424, 426, 428, 430, 434, 435, 437, 439, 482, 484, 494, or 496.

**Dr. Bruce A. Larson, Interim Head**

**L.T. Smith Stadium East**

**Phone: (270) 745-3347, Fax: (270) 745-6043**

**Website: <http://www.wku.edu/krs>**

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**Associate Professors: F. Gibson, B. Larson, S. Lyons, J. Navalta, R. Poff, R. Ramsing, T. Stenger-Ramsey**

**Assistant Professors: S. Arnett, K. Esslinger, B. Pyle, A. Ramos, M. Schafer, D. Smith, P. Upright, S. Whitlock**

**Instructors: J. Cottrell, B. Edwards, T. Lane, T. Nixon**

**Transitional Retirees: M. Cobb, T. Crews**

### **Major in Sport Management**

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The Bachelor of Science degree in sport management (reference number 572P/572) is a program which prepares students for successful careers within the sport industry. To be admitted to the program, students must obtain a minimum of a overall WKU GPA of 2.5 and complete ENG 100, COMM 145 or 161, ECON 202, MKT 220, SPM 200, and MATH 109 or higher with a minimum of a grade of C in each course. Students must complete 51 hours of the following courses for the major: SPM 200, 404, 402, 450, 452, 454, 490, ECON 323, SOCL 324, ACCT 200, ECON 202, MKT 220, MKT 326 and MGT 210 and then use the remaining 25 hours to either: 1) take other electives of interest to the student or 2) select a minor that best prepares them for entry level positions related to their interest within the sport industry. Complementary minors include but are not limited to: athletic coaching, broadcasting, business administration, and facility and event management.

### **Minor in Athletic Coaching**

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The minor in athletic coaching (reference number 320) requires 21 to 24 semester hours. Students must complete the following courses: SPM 200, PE 310, 311, 312, and 493. In addition to these core courses, students shall select eight (8) to nine (9) hours from the following coaching courses: PE 333, 340, 341, 342, or 343. The minor is designed for those persons who want to enter a teaching and coaching career and who do not desire to major in physical education.

### **Minor in Community Recreation**

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The minor in community recreation (reference number 346) requires a minimum of 24 semester hours. Students must complete the following courses: REC 200, 302, 306, 328, 420, and 493. In addition, students must complete 6 hours of electives from the following list: REC 220, 222, 326, 332, 422, 424, 426, 428, 430, 482.

### **Minor in Facility and Event Management**

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The facility and event management minor (reference number 367) provides students with practical knowledge and skills for the effective management of facilities and events. The minor requires a minimum of 21 semester hours. Students must complete the following courses: REC 306, REC 404, REC 426, SPM 450, REC 493, and six hours of advisor approved electives.

### **Minor in Nonprofit Administration**

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The minor in nonprofit administration (reference number 422) prepares students for careers in, and service to, the nonprofit sector. Students take courses from several departments and programs of study to gain needed nonprofit competencies and experiences. This minor consists of 21-24 hours including the following required courses: REC 220, MGT 333, ACCT 200 or REC 402 or SPM 402, REC 460, and REC 496 (150-300 hours of internship experience for 3-6 credit hours). Students are required to take 6 hours of electives chosen from the following list or other courses as approved by the program coordinator: ACCT 420, BA 110, FACS 271, 375, COMM 240, 345, 348, 349, 362, 460, 463, ECON 202, ENG 301, 306, 307, 415, FIN 330, ICSR 300, 301, LEAD 200, 325, 330, 395, MGT 210, 311, MKT 220, PERF 423, PHIL 320, 323, RELS 323, PS 250, 338, 440, PSY 199, 321, 350, 422, 442, REC 302, 306, 328, 404, 424, 494, SOCL 100, 210, 240, 300, 360, 362, 375, 410, SPM 200, 452, SWRK 101, 205, 330, 344, 379. No more than 12 hours from any prefix may be used to fulfill the minor requirements. Some courses have prerequisites. Visit [www.wku.edu/nonprofit](http://www.wku.edu/nonprofit) for more information.

### **Minor in Outdoor Leadership**

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The outdoor leadership minor (reference number 426) consists of 24 hours that is designed to provide students with the theoretical and practical skills necessary to become outdoor professionals and to lead groups responsibly in the backcountry. The following courses are required for the minor: REC 330, 332, 335, 337, 435, 437. In addition, students must choose six hours of electives from: REC 235, 328, 422, 424, 430, 434, 439, or 482.

### **Minor in Physical Education**

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The minor in physical education (reference number 432) requires a minimum of 25 semester hours. This minor is not a certifiable teaching field in Kentucky. The courses required are: PE 122, 211, 212, 221, 222, 310, 311, 312, 313 and 324.



## Minor in Tourism

The minor in tourism (reference number 445) is an interdisciplinary program between the Departments of Consumer and Family Sciences and Kinesiology, Recreation and Sport. The minor in tourism requires a minimum of 21 hours. Students must complete the following courses: FACS 271, MKT 220, REC 420, and REC 490 or FACS 313. Students must complete a minimum of 9 hours from a list of restricted electives in consumer and family science and recreation administration.

**Requirements (12 hours)** FACS 271, MKT 220, REC 420, REC 490 or FACS 313

**Restricted Electives (9 hours)** REC 302, REC 322, REC/SPM 404, FACS 171, FACS 373, FACS 375

## Graduate Degree Programs

The department offers courses and programs leading to the Master of Science in Physical Education and the Master of Science in Recreation and Sport Administration. See the Graduate Studies Catalog for further details or visit the department website at <http://www.wku.edu>.

### School of Nursing

**Program Accreditation:** Commission on Collegiate Nursing Education of the American Association of Colleges of Nursing, Kentucky State Board of Nursing, Member of the National League for Nursing, National League for Nursing Accrediting Commission.

The School of Nursing offers the following programs: an Associate of Science in Nursing, a Bachelor of Science in Nursing (prelicensure and RN to BSN Completion) a Master of Science in Nursing (MSN) and a Doctor of Nursing Practice (DNP).

The Associate of Science program is accredited by the National League for Nursing Accrediting Commission (NLNAC). The Baccalaureate and MSN programs are accredited by the Commission on Collegiate Nursing Education (CCNE).

The Associate of Science in Nursing program prepares the graduate as a generalist to give nursing care in a variety of health care settings and provides the knowledge base for career mobility. The graduate with a Bachelor of Science in Nursing degree is prepared to be a professional nurse who is a generalist and who has the knowledge base for graduate study in nursing. The baccalaureate degree nurse is prepared to practice nursing in a variety of health care settings with emphasis on comprehensive nursing care including prevention of illness, health promotion, restoration and rehabilitation. The graduate is prepared to function in the leadership roles of the professional nurse.

Enrollment in the nursing program is limited and based on student qualifications. There are no restrictions regarding age, sex, race or religious persuasion. Additional information on admission requirements and school policies are located on the School website. When planning a program of study in the School of Nursing, each student should be aware of the University's academic requirements contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections regarding (a) Academic Programs, (b) General Education Requirements and (c) Academic Requirements and Regulations. For the most current curriculum requirements, please review the program curriculum information located on the School of Nursing website at [www.wku.edu/nursing](http://www.wku.edu/nursing).

Upon acceptance into each program, students will be required to provide the following information/documentation:

- Professional Liability Insurance
- Immunization records
- Annual Tuberculin (TB) skin test
- Completed medical exam

**Director: Dr. Mary Bennett**  
**Academic Complex, Office 104**

**Phone: 270-745-3391**

**Fax: 270-745-3392**

**Website: <http://www.wku.edu/nursing>**

**Professors:** M Bennett, D. Blackburn,  
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C. Evans, D. Garrett-Wright, D. Goodrich,  
K. Green, S. House, L. Jagers,  
T. Paver, L. Proctor, S. Redick,  
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**Instructors:** K. Botner, L. Bormann,  
L. Branstetter, L. Diehl, D. Hanson,  
B. Jackson, T. Jepson, N. McClure,  
K. Morris, L. Stewart, K. Vickous,  
M. Wilson

**Transitional Retirees:** S. Jones, K. Shindhelm  
**Professional Staff:** M. Clemons, R. Collins,  
R. Kilgore

- Current medical history
- Cardiopulmonary Resuscitation Certification (CPR)
- Health Insurance
- Annual Influenza Vaccination

The Kentucky Board of Nursing (KBN) requires a criminal background check when applying for a Registered Nurse (RN) license and rejects candidates with some types of misdemeanors and any felony conviction. Therefore, students will be required to disclose any felony or misdemeanor convictions at the time of application to the nursing program and have a criminal background check and drug screen upon acceptance into the program and at random intervals throughout the program. Additionally, there may be certifications, training seminars, or other requirements specified by the program, facility, or agency that students must meet in order to be eligible for a clinical experience. Students will be responsible for purchasing uniforms as described in the student handbook and any necessary supplies. Students are responsible for program, testing and course fees each semester in addition to the regular tuition. See the School of Nursing website for most current fee information. Students are responsible for providing transportation to and from off-campus experiences. It is expected that prospective students review the School of Nursing Student Handbook for additional information on policies, regulations, and requirements. A link to the student handbook is located on the School of Nursing website at [www.wku.edu/nursing](http://www.wku.edu/nursing).

### **Associate Degree in Nursing (273)**

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**Room C109, South Campus**

**Phone: (270) 780-2506**

**Fax: (270) 780-9419**

The faculty of the Associate Degree Nursing Program of Western Kentucky University (reference number 273) ascribe to the University's commitment to produce nationally and globally competitive graduates and to provide continuing education opportunities for lifelong learning to our constituents. The mission of the Associate Degree in Nursing program is to provide the educational resources to meet the regional needs for registered nurses. The program prepares the graduate as a generalist to give nursing care in a variety of health care settings and provides the knowledge base for career mobility.

The nursing program has been accredited since 1966 by the National League for Nursing Accrediting Commission (NLNAC), 3343 Peachtree Road NE, Suite 500, Atlanta, GA 30326, 404.975.5000, [www.nlnac.org](http://www.nlnac.org). The program also has full approval from the Kentucky Board of Nursing. The Kentucky Board of Nursing determines eligibility for licensure. Applicants for licensure must provide necessary information regarding drug, alcohol, or conviction history for determination of licensure eligibility. The Kentucky Board of Nursing has the power to deny a nursing graduate the right to take the NCLEX-RN.

#### *Admission Information*

Admission to the program is competitive and requires a separate application. Enrollment in the program is limited and based on the availability of faculty and clinical resources. There are no restrictions regarding age, sex, race, religious persuasion, marital status, or qualified person with disability. Application deadlines are January 15 for admission into the fall and July 15 for admission into the spring semester. Students are admitted to the South Campus program in both the fall and spring semesters. Students are admitted to the program on the Glasgow campus in the fall semester only.

The Associate Degree in Nursing Program consists of course work in nursing, supportive sciences and general education. The program requires a minimum of 69 semester hours including 43 semester hours in Nursing plus 26 hours in general education courses which include BIO 131C, BIO 207C, CHM 109C, MA 109C or MA 116C, PSYC 199C, ENGL 100C, SOC 100C, and one 3 hour Category B – Humanities course. Admission to the program is limited and admission is selective and competitive. Persons desiring to enter the Associate Degree in Nursing Program must fulfill the following requirements:

1. Complete applications for admission to both Western Kentucky University and the Associate Degree Nursing Program.
2. Applicants must be admitted to Western Kentucky University School before enrolling in Nursing courses.
3. ADN Program application must be received by January 15 for fall semester and July 15 for spring admission.
4. The applicant must take a required admission assessment test in order to be considered for admission.
5. The applicant must have 10 or more earned university credits and must have a cumulative grade point average of 2.75 in order to be considered for admission.
6. The applicant with 10 or less earned university credits must submit ACT examination results with application. Consideration for admission cannot be given until these scores are available in the department.

7. The applicant may be asked to participate in an admission interview.
8. Grade point average for the applicant with an earned bachelor's degree or higher will be calculated using only the nursing program's required non-nursing courses.
9. The program's required science courses must have been taken within 5 years of admission or student must successfully pass a challenge exam for each required science course.

**Admission Information: Licensed Practical Nurses Application**

Upon admission to the associate degree nursing program and after successful completion of NUR 150, PSY 199/ PSYC 199C, and BIOL 131/BIO 131C, the licensed practical nurse will submit proof of current LPN license to the ADN program director for the awarding of nine hours credit for NUR 104, 105, and 106.

LPNs may receive credit on the basis of departmental examinations for NUR 165, 215, and 254. LPNs must contact the ADN program office for examination details. Additionally, LPNs may receive experiential credit for the following courses: NUR 166, 209, 216 after successful completion of each clinical course's didactic component.

**Required Curriculum For Associate of Science Degree in Nursing**

Students are required to take: BIO 131C, PSYC 199C, NUR 104, 105, 106, CHM 109C, NUR 155, 156, 165, 166, ENG 100C, BIO 207C, NUR 208, 209, 215, 216, SOC 100C, MA 109C or 116C, NUR 254, 255, 256, 257, and a category B - humanities elective for a total of 69 semester hours.

**Bachelor of Science in Nursing - Prelicensure Program (586)**

Academic Complex, Room 112 D  
Phone (270) 745-3391  
Fax (270) 745-3392

The Bachelor of Science in nursing program (reference 586) is designed to prepare the student to write the National Council Licensure Exam to become a registered nurse. The program consists of eight semesters of course work in sciences, general education and nursing totaling 125 credit hours. Clinical hours are scheduled to meet clinical agency needs. Therefore, to avoid scheduling issues, it is required that students complete all non-nursing courses prior to entry into the nursing program. Students must progress as a cohort once admitted to the nursing program. Part-time progression is not currently available in the BSN program.

**Pre-Nursing (586P)**

Prior to admission into the nursing program, students are required to meet the university general education requirements and a set of prerequisite courses required of all nursing students. Students who want to declare as a nursing major prior to admission into the nursing program are designated as Pre-Nursing students (reference 586P) and are assigned an advisor in CHHS. Pre-Nursing students will meet during orientation to discuss their academic preparation and determine the appropriate courses for registration. Pre-Nursing students must maintain a GPA of 2.75 or above to remain in the pre-nursing program. For more details and frequently asked questions about preparation for admission into nursing, please see the School of Nursing website. Support services in CHHS Academic Center for Excellence are available to students who decide to change from Pre-Nursing to another health related career.

Admission to the nursing program is limited and based on selection of the most qualified applicants who meet all admission requirements. The program can be completed in 4 years if the student completes all prerequisite courses, is admitted to the nursing program in the junior year and successfully completes all nursing courses in sequence.

Required Sequence of Courses for BSN Students (586 Officially Admitted)			
1st Semester Nursing	Hrs.	2nd Semester Nursing	Hrs.
NURS 324 (Patho)	3	NURS 329 (Pharm. I)	2
NURS 335 (Assessment)	3	NURS 338 (Culture)	2
NURS 336 (Assessment Lab)	1	NURS 341 (Med-Surg I)	3
NURS 333 (Fundamentals)	3	NURS 342 (MS I Clinical)	3
NURS 334 (Fund. Clinical)	2	NURS 343 (Psych Nursing)	2
NURS 337 (Health Promotion)	3	NURS 344 (Psych Clinical)	1
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>13</b>
3rd Semester Nursing	Hrs.	4th Semester Nursing	Hrs.
NURS 429 (Pharm II)	2	NURS Elective	3
NURS 413 (Evidence Based Practice)	3	NURS 403 (Prof Issues/Leadership)	4
NURS 432 (Med-Surg II)	3	NURS 421 (Complex Nursing)	3
NURS 433 (MS II Clinical)	2	NURS 422 (Senior Practicum)	3
NURS 444 (OB-Peds)	4	NURS 448 (Community Health)	3
NURS 445 (OB-Peds Clinical)	2	NURS 449 (Com Health Clinical)	2
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>18</b>

**Required Pre-Nursing Curriculum for Bachelor of Science in Nursing Degree**

AH 290, Nursing 102, FACS 111, MATH 116, Statistics Course, CHEM 109, BIOL 207, BIOL 208, BIOL131, BIOL 231, PSY 199, PHIL 322, ENG 100, ENG 200, ENG 300, Foreign Language (102 Level), Public Speaking (COMM 145 or 161), Category BII (cannot be PHIL), Category C (cannot be PSY), Category E, \*CHHS 175 or UC 175.

\*Indicates course is recommended but not required for admission.

Applicants seeking admission to the prelicensure baccalaureate program must:

1. Be admitted to Western Kentucky University.
2. Complete all designated prerequisite courses.
3. Have a cumulative grade point average of 2.75 or above for college level courses.
4. Have attained a minimum of a "C" in all required science courses. Anatomy and Physiology must have been completed no more than 5 years prior to application to the nursing program. Students who have obtained a minimum grade of "C" in Anatomy and Physiology more than 5 years prior to application to the nursing program must either retake the courses, or demonstrate current competency by passing a challenge exam prior to application to the nursing program.
5. Submit application to the School of Nursing by January 15 for fall semester admission or July 15 for spring semester admission.
6. Students may be asked to participate in a preadmission interview and/or testing.

**Bachelor of Science in Nursing - RN to BSN Program (596)**

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The Bachelor of Science in Nursing – RN to BSN program (reference 596) is designed for students who are registered nurses (RN). RNs seeking admission to the RN to BSN program must:

1. Be admitted to Western Kentucky University
2. Have an associate degree in Nursing or if the applicant is a diploma graduate, he/she is required to pass the NLN Acceleration Challenge Exams (ACE) to validate prior course work. Students who successfully pass the exams will have 31 lower division nursing credits accepted toward their baccalaureate degree in nursing.
3. Documentation on transcript of completion of the following courses or equivalent courses: CHEM 109; BIOL 131, 207, 208; PSY 199; and FACS 111.
4. Have a minimum of "C" in all science courses.
5. Each semester, two (2) cohorts of students will be admitted, a part-time and full-time cohort. When accepted for admission, students must choose which cohort they would like. The students in each of these cohorts will progress through the curriculum as a group and must take courses as noted in planned schedule for the designated cohort. The full-time cohort is reserved for students who have completed all general education and statistics requirements.
6. Students admitted pending NCLEX will be permitted to enroll in the part-time cohort. If unsuccessful on the NCLEX, the student will not be allowed to progress in the nursing cohort courses.

Curriculum requirements for the RN to BSN program include completion of:

1. 36 hours of upper division nursing credit. (A registered nurse (RN) with an associate degree in nursing receives a 6-hour waiver in the upper-division hour requirement.)
2. University general education requirements
3. A three-credit hour statistics course.
4. Chemistry 109, Biology 131 (Anatomy and Physiology), Biology 207, 208 (Microbiology), Psychology 199 (Developmental Psychology), and FACS 111 (Human Nutrition).

## Department of Public Health

The Department of Public Health offers academic programs which prepare students for a wide variety of health careers. In addition, the department provides a service to the University's general education program through instruction to improve the health knowledge, attitudes and behavior of students. An equally important responsibility is to carry out research and other scholarly activities which provide opportunities for student engagement, maintain the academic strength of the faculty, and expand knowledge in various fields. The department also provides service to multiple agencies, institutions, and organizations in the Commonwealth of Kentucky and across the nation.

Students may pursue one of several major or minor programs. Specialized programs prepare individuals for careers in public health, health care administration, environmental health science and related areas.

All majors and minors are expected to work closely with their academic advisors in planning their courses of study. Special interests and abilities will be considered in planning the individual course of study. More information about the department is available at: [www.wku.edu/publichealth](http://www.wku.edu/publichealth).

### Departmental Academic Regulations

Students who have completed a minimum of 30 semester hours, including the courses required for seeking admission status, with an overall GPA of 2.3 (an overall GPA of 2.5 for Health Care Administration majors), qualify for admission into a program in the Department of Public Health.

Students whose grade point average falls below 2.3 for two successive semesters will be dropped from the program. Students who receive a grade below a "C" in two or more courses required in a major or minor will be dropped from the program. A student may be reinstated in the program when the overall grade point average is elevated to at least 2.3 and all courses in which a grade of less than "C" has been earned have been repeated and a grade of "C" or better was earned. Students must have an overall grade point average of at least 2.5 before enrolling in the internship. Grades below "C" in major or minor courses will not be counted toward meeting graduation requirements.

### Internships/Off-Campus Experiences

Students may be required to undergo criminal background checks and drug testing, and to provide proof of health insurance, liability insurance, and/or immunization records prior to participating in any required experiences at selected off-campus facilities/agencies. Additionally, there may be certifications, training seminars, or other requirements specified by the facility/agency that a student must meet in order to be eligible for field or practical experiences at the facility. It is the responsibility of the student to ensure that all institutional and/or facility requirements are met as a condition of participating in the off-campus experiences; students may be responsible in part or in full for any costs incurred to meet such requirements. Students are also responsible for transportation to and from off-campus experiences.

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Mkanta, D. Shearer, F. Wensheng

**Instructor:** J. Kim

**Professor Emeritus:** D. Dunn

### Major in Environmental Health Science

The major in environmental health science (reference number 548) requires a minimum of 70 semester hours and leads to a Bachelor of Science degree. No minor or second major is required. A total of 120 semester hours are required for graduation.

The undergraduate degree program in environmental health science prepares the graduating student for careers as an environmental health scientist with government agencies, environmental consulting firms, industries, local governments, and non-profit organizations. By focusing on the application of basic scientific principles to the solution of environmental health science and protection challenges, students are prepared for diverse career opportunities. Required courses in the major are ENV 120, 280, 321, 323, 360, 365, 375, 380, 410, 411, 460, 474, 480, 486, 490, 491; PH 383, 384, 385 and six-nine hours of electives.

In addition to meeting the general education requirements of the university, students pursuing the Environmental Health Science curriculum must take the following: COMM 145; ECON 202, PSY 100, BIOL 131, 207, 208; MATH 116, 117; CHEM 105, 106, 107, 108; PHYS 231, 232; ENG 307; PH 100 AND CHHS 175. Some of these required courses fulfill general education subject area requirements.

All courses listed above require a minimum grade of "C."

<b>Suggested Program of Study</b>			
<b>Department of Public Health Environmental Health Science Major 548</b>			
<b>Freshman Year Fall Semester</b>	<b>Hrs.</b>	<b>Freshman Year Spring Semester</b>	<b>Hrs.</b>
BIOL 207	3	BIOL 131	4
BIOL 208	1	ENG 200	3
ENG 100	3	Category F (PH 100)	3
Category A (COMM 145)	3	Category B (Elective)	3
Category A (Foreign Language)	3	Category C (HIST 119 or 120)	3
Category B (Elective)	3		
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>
<b>Sophomore Year Fall Semester</b>	<b>Hrs.</b>	<b>Sophomore Year Spring Semester</b>	<b>Hrs.</b>
CHEM 105	3	CHEM 107	3
CHEM 106	1	CHEM 108	1
MATH 116	3	ENG 300	3
Category C (PSY 100)	3	MATH 117	3
ENV 280	3	Category C (ECON 202)	3
Category E Elective	3	ENV 120	3
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>
<b>Junior Year Fall Semester</b>	<b>Hrs.</b>	<b>Junior Year Spring Semester</b>	<b>Hrs.</b>
PHYS 231	3	PH 383	3
PHYS 232	1	ENV 321	3
PH 385	3	ENV 323	1
ENV 375	3	ENV 380	3
ENG 307	3	ENV 410	3
ENV Elective	3	ENV 411	1
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>14</b>
<b>Senior Year Fall Semester</b>	<b>Hrs.</b>	<b>Senior Year Spring Semester</b>	<b>Hrs.</b>
PH 384	3	ENV 474	3
ENV 360	3	ENV 490	3
ENV 365	1	ENV Elective	3
ENV 460	3	ENV 491	3
ENV 480	3		
ENV 486	1		
<b>Total Hours</b>	<b>14</b>	<b>Total Hours</b>	<b>12</b>
<b>Total Hours: 120</b>			

**Major in Health Care Administration  
(no minor or second major required)**

The major in health care administration (reference number 559) requires a minimum of 73 semester hours and leads to a Bachelor of Science degree. No minor or second major is required. This program has full membership in the Association of University Programs in Health Administration (AUPHA).

The undergraduate degree program in health care administration prepares the student for administrative positions in various types of health care facilities and agencies, such as acute care, long term care, group medical practices, managed care organizations, health insurance agencies, public health agencies, clinics, and health related organizations such as manufacturing, marketing and consulting.

The required courses in the major are ACCT 200 and ACCT 201; MGT 210; FIN 330; AH 290; PH 383, 384, and 447; HCA 340, 342, 343, 344, 345, 346, 383, 440, 441, 442, 445, 446, 447, 448, 449 and two 3-hour HCA elective selected with permission of advisor. Additionally, ENG 306 is required prior to obtaining the healthcare administration degree.

In addition to meeting the general education requirements of the university, students pursuing the health care administration curriculum must take the following: ECON 202; BIOL 131; MATH 116 and COMM 145 or 161. The required courses must be completed prior to completing 15 hours of health courses.

Requirements for seeking admission (reference number 559P): 24 hours including MATH 116 (or higher); PH 100 with an overall GPA of 2.0 or better.

Requirements for admission (reference number 559): 30 hours including above courses plus BIOL 131 and ECON 202 with overall GPA of 2.5 or better.

All courses listed above require a minimum grade of "C" (both prerequisites and core courses).

Students will not be allowed to enroll in 400-level HCA classes until they are fully admitted into the HCA program.

Requirements for degree completion: 73 hours of program courses with an overall GPA of 2.5 or better.

Suggested Program of Study			
Department of Public Health Health Care Administration 559			
<b>Freshman Year Fall Semester</b>	<b>Hrs.</b>	<b>Freshman Year Spring Semester</b>	<b>Hrs.</b>
ENG 100 (A)	3	HIST 119/120 (C)	3
COMM 161/145 (A)	3	BIOL 131 (D)	4
PH 100 (F)	3	Language (A)	3
MATH 116 (D)	3	Social/Behavior (C)	3
		Humanities (B)	3
<b>Total Hours</b>	<b>12</b>	<b>Total Hours</b>	<b>16</b>
<b>Sophomore Year Fall Semester</b>	<b>Hrs.</b>	<b>Sophomore Year Spring Semester</b>	<b>Hrs.</b>
ENG 200 (B)	3	AH 290	2
ECON 202 (C)	3	Humanities (B)	3
Natural Science (D)	3	World Cultures (E)	3
ENG 300	3	ENG 306	3
ACCT 200	3	ACCT 201	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>14</b>
<b>Junior Year Fall Semester</b>	<b>Hrs.</b>	<b>Junior Year Spring Semester</b>	<b>Hrs.</b>
MGT 210	3	FIN 330	3
HCA 340	3	HCA 345	3
HCA 342	3	HCA 344	3
PH 383	3	HCA Elective	3
HCA 383	1	HCA 446	3
		HCA 447	1
<b>Total Hours</b>	<b>13</b>	<b>Total Hours</b>	<b>16</b>
<b>Senior Year Fall Semester</b>	<b>Hrs.</b>	<b>Senior Year Spring Semester</b>	<b>Hrs.</b>
HCA 343	3	HCA 445	3
HCA 441	3	PH 384	3
HCA 346	3	PH 447	3
HCA 440	3	HCA 442	3
# HCA Elective	3	HCA 448	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Summer Term</b>	<b>Hrs.</b>		
HCA 449	6		
# Elective is labeled to be used to satisfy minor requirement, general education requirement, or HCA program courses as needed. Total – 122 semester hours excludes the optional business minor (332). Healthcare Administration major does not require a minor. However, students who select to add any minor may graduate with more than 128 hours. <i>Electives</i> HCA 347 (3), HCA 401 (3), PH 381 (3), PH 443 (3), HCIS 252C (3.)			
<b>Total Hours: 122</b> (A-F) denotes General Education Category			

### Major in Public Health (no minor or second major required)

The program in public health (reference number 521) leads to the Bachelor of Science degree. The curriculum consists of a core of 40-44 credit hours of course work and either one of two concentrations consisting of 26 to 30 credit hours of course work. Students pursuing this major are required to select one of the following concentrations: environmental health, or public health education.

#### Core Requirements (40-44 hours)

**Required courses in the core are:** BIOL 131, 207, & 208; CHEM 109; MATH 116 or higher; PH 100, SFTY 171, PH 381, 383, 384, 490 or ENV 367; PSY 100; and COMM 145.

#### Requirements for Seeking Admission

**(reference number 521P):** 24 hours including COMM 145, PH 100 and PSY 100 with an overall GPA of 2.0 or better.

**Requirements for Admission (reference number 521):** 30 hours including the above courses plus BIOL 131 and CHEM 109 with an overall GPA of 2.3 or better.

#### Environmental Health Concentration (26 hours)

Required courses for the environmental health concentration are: BIOL 472; ENV 460, 486 & 495; and PH 280 & 385. In addition, nine hours must be chosen with approval of the academic advisor from the following: BIOL 315; CHEM 314, 330, & 432; ENV 321, 360, 410, 415, 430, 440, & 480; GEOG 474 & 487; GEOL 310, 375 & 487. Students completing this option are prepared for careers as environmental specialists in public health departments; other local, state and national governmental regulatory agencies; and non-governmental agencies.

#### Public Health Education Concentration (30 hours)

Required courses for the public health education concentration are PH 261, 385, 461, 483, 484 & 485. In addition, 12 hours must be chosen with approval of the academic advisor from the following: HCIS 290; FACS 111; HCA 340; SFTY 270, PH 365, 382, 390, 402, 443, 444, 447, 460, 464, 467 & 468. Students completing this option are prepared for careers as public health educators, health promotion specialists and wellness program directors in public health departments; voluntary and private health agencies; industry; health care facilities; professional health associations; and consulting firms. This program is approved by the Society for Public Health Education and the American Association for Health Education (SOPHE/AAHE). All courses listed above require a minimum grade of "C."

Suggested Program of Study			
Department of Public Health Public Health Major 521 - Environmental Health Concentration			
<b>Freshman Year Fall Semester</b>	<b>Hrs.</b>	<b>Freshman Year Spring Semester</b>	<b>Hrs.</b>
ENG 100 (A)	3	PSY 100 (C)	3
CHHS 175 (Recommended)	3	COMM 145	3
PH 100 (F)	3	MATH 116 (D)	3
General Education Elective (B)	3	General Elective	3
BIOL 131 (D)	4	CHEM 109 (D)	4
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>
<b>Sophomore Year Fall Semester</b>	<b>Hrs.</b>	<b>Sophomore Year Spring Semester</b>	<b>Hrs.</b>
ENV 280 (D)	3	PH 381	3
BIOL 207/208 (D)	4	ENG 200 (B)	3
Foreign Language Course (A)	3	General Elective (CS 145 Suggested)	3
General Education Elective (B)	3	General Education Elective (C)	3
HIST 119/120 (C)	3	General Elective	1
		SFTY 171 (F)	1
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>
<b>Junior Year Fall Semester</b>	<b>Hrs.</b>	<b>Junior Year Spring Semester</b>	<b>Hrs.</b>
ENG 300 (A)	3	PH 384	3
PH 385	3	Env. Health Elective	3
PH 383	3	General Education Elective (E)	3
General Elective	3	General Elective	3
General Elective	3	General Elective	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Senior Year Fall Semester</b>	<b>Hrs.</b>	<b>Senior Year Spring Semester</b>	<b>Hrs.</b>
ENV 460	3	ENV 486	1
BIOL 472	4	ENV 495	3
Env. Health Elective	3	PH 490	6
General Elective	3		
General Elective	3		
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>10</b>
<b>Total Hours: 120</b>			
<i>(A-F) denotes General Education Category</i>			



### Minor in Health Education

The minor in health education (reference number 389) requires a minimum of 23 semester hours. This minor provides a basic foundation for students desiring preparation in health promotion and disease prevention. The minor in health education may be used in combination with many majors to enhance student's career opportunities and as preparation for graduate study in a variety of health disciplines. Completion of the minor along with a teaching certifiable major leads to certification in health education. Required courses are BIOL 131; SFTY 171; PH 261, 365, 381, 461, and 467. Three credit hours of electives must be selected from the following courses with approval of the academic advisor: PH 385, 456, 463, 465, 385; or FACS 111.

Students utilizing the minor in health education for teacher certification must complete SEC 483, Teaching Health, as a required support course. All courses in the minor must be completed with a minimum grade of "C."

### Minor in Health Care Administration

The minor in health care administration (reference number 386) requires a minimum of 23 semester hours. This minor is compatible with various majors such as business, social and behavioral sciences, allied health, nursing, communication, journalism, public health, and etc.

Requirements are HCA 340, 344, 440, 441, and 442; AH 290; and HCA 345 or 346; and PH 447. In addition, students must complete MGT 210 and ECON 202, as prerequisites to the above required courses. All courses in the minor (including MGT 210 and ECON 202) must be completed with a minimum grade of "C." Students pursuing this minor must have approval from a health care administration advisor.

### Minor in Occupational Safety and Health

The minor in occupational safety and health (reference number 427) requires a minimum of 24 semester hours. Requirements are ENV 120, 221, 321, 322, 327, 331, 367, and 423. In addition, the student must complete supporting courses as follows: SFTY 171, CHEM 109, and ENG 307.

### Minor in Environmental Studies

(See Environmental Studies under Pre-professional and Interdisciplinary Programs in Ogden College of Science and Engineering.)

### Minor in Worksite Health Promotion

The minor in Worksite Health Promotion (reference number 495) requires a minimum of 18 semester hours. The minor will enable students to merge worksite health promotion with physical education, nutrition, health education or business management courses in their professional preparation. Required courses are: ENV 120; PH 261, 381, 390, 402; PE 100. All courses in the minor must be completed with a minimum grade of a "C."

Suggested Program of Study			
Department of Public Health Public Health Major 521 - Public Health Education Concentration			
<b>Freshman Year Fall Semester</b>	<b>Hrs.</b>	<b>Freshman Year Spring Semester</b>	<b>Hrs.</b>
ENG 100 (A)	3	PSY 100 (C)	3
CHHS 175 (Recommended)	3	COMM 145/161 (A)	3
PH 100 (F)	3	MATH 116 (D)	3
General Education Elective (B)	3	General Education Elective (C)	3
BIOL 131 (D)	4	CHEM 109 (D)	4
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>
<b>Sophomore Year Fall Semester</b>	<b>Hrs.</b>	<b>Sophomore Year Spring Semester</b>	<b>Hrs.</b>
PH 261	3	PH 381	3
BIOL 207/208 (D)	4	ENG 200 (B)	3
Foreign Language Course (A)	3	General Elective (CS 145 Suggested)	3
General Education Elective (B)	3	General Elective	3
HIST 119/120 (C)	3	General Elective SFTY 171 (F)	1
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>
<b>Junior Year Fall Semester</b>	<b>Hrs.</b>	<b>Junior Year Spring Semester</b>	<b>Hrs.</b>
ENG 300 (A)	3	PH 384	3
General Elective	3	PH 385	3
PH 383	3	Public Health Ed. Elective	3
Public Health Ed. Elective	3	General Elective	3
PH 461	3	General Elective	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
<b>Senior Year Fall Semester</b>	<b>Hrs.</b>	<b>Senior Year Spring Semester</b>	<b>Hrs.</b>
PH 483	3	PH 484	3
PH 485	3	Public Health Ed. Elective	3
Public Health Ed. Elective	3	PH 490	6
General Education Elective (E)	3		
General Elective	2		
<b>Total Hours</b>	<b>14</b>	<b>Total Hours</b>	<b>12</b>
<b>Total Hours: 120</b>			
<i>(A-F) denotes General Education Category</i>			

### Long-Term Care Administration

The long-term care administration certificate (reference number 1717) requires 15 semester hours, and in conjunction with a bachelor's degree, prepares students for careers in both long-term care administration and other adult care services. It follows a cohort model with students being enrolled every Fall term. This certificate requires the following courses: HCA 345, 355, 353, GERO 100, and PH 443.

### Occupational Safety & Health Certificate

The certificate program in Occupational Safety & Health (reference number 1705) requires 15 hours and is designed to provide training for careers focused on the protection of human health from occupational hazards in the built and natural environments. Courses will require application of basic Occupational Safety and Health Administration (OSHA) principles and challenges, which will prepare students for diverse opportunities in safety and health, environmental management, and business careers. The required courses are: ENV 120, 221, 321, 322, and 423.

### Worksite Health Promotion Certificate

The certificate program in Worksite Health Promotion (reference number 1707) requires 18 semester hours and is designed to provide training for students and professionals who have an interest in developing worksite health promotion programs in the private sector. This certificate program will provide a comprehensive skill base for assessment, planning, implementation and evaluation of health promotion programs in a worksite environment. The required courses are PE 100, ENV 120, FACS 111, PH 100, 261, 402.

### Graduate Degree Programs

Graduate study in the health discipline is available in three degree plans: (1) the Master of Arts in Education (M.A. Ed.), with minor in health education, (2) the Master of Public Health (MPH) with concentrations in health education and environmental health, and (3) Master of Health Administration (MHA). For more detailed information, consult the Graduate Studies Catalog.

### Department of Social Work

The undergraduate social work program is fully accredited by the Council on Social Work Education.

The social work profession grew out of societal concerns about individual and social problems associated with the distribution of resources and opportunities. Today's social workers address social issues related to stresses on individuals, families, groups, organizations and communities. As professionals, social workers give their attention to inequities in the distribution of resources and opportunities and other factors interfering with persons' ability to reach their full potential.

The undergraduate social work program depends on a strong liberal arts base and a generalist practice foundation to achieve its mission and goals. The mission of the BSW program at WKU is to prepare culturally competent social workers for practice with diverse communities and client systems. The program promotes a commitment to professional ethics, leadership, professionalism, social justice, and lifelong learning in order for graduates to practice effectively in a global community. For more information regarding the BSW program and its goals, please visit the departmental webpage: <http://www.wku.edu/socialwork>.

When planning a program of study in this department, each student should be aware of the University's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Specific attention should be given to the subsections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations. Students should be aware that some academic programs may require additional scholastic regulations and standards not specified in the catalog. To obtain a copy of these regulations, students should contact the department or visit the departmental webpage.

Students may be required to undergo criminal background checks and drug testing and to provide proof of health insurance, liability insurance, and/or immunization records prior to participating in any required experiences at selected off-campus facilities/agencies. Additionally, there may be certifications, training seminars, or other

**Dr. Dean May, Head**

**Academic Complex**

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**Professor: J. D. May**

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G. Villereal, S. Wesley**

**Assistant Professors: A. Cappiccie,  
P. Desrosiers, R. Korang-Okrah,  
G. Mallinger, L. Owens, T. Peterson,  
C. Robey, D. Sullivan**

**Instructors: E. Arnold, V. Hurt, J. Peeler**

**Transitional Retirees: J. Chadha, D. Smith**

requirements specified by the facility/agency that a student must meet in order to be eligible for field or practical experiences at the facility. It is the responsibility of the student to ensure that all institutional and/or facility requirements are met as a condition of participating in the off-campus experiences; students may be responsible in part or in full for any costs incurred to meet such requirements. Students are also responsible for transportation to and from off-campus experiences.

### Major in Social Work

The social work major (reference number 594/594P) consists of 54 semester hours, 45 hours in social work and 9 hours in supportive courses. It is not necessary to have a minor for graduation. Students interested in selecting social work as their major program of study should make an appointment with the BSW Program Director, Academic Complex, Room 211.

Consistent with the program's emphasis on a liberal arts foundation, during the freshman and sophomore years, students will take courses in English, political science, economics, math, biology, sociology, psychology, and also public speaking and history. These courses will also fulfill several of the general education requirements. A list of the required liberal arts and sciences courses that must be taken as prerequisites for applying to the social work major is available on the departmental webpage or can be obtained from the department.

Requirements for the social work major are: 45 semester hours in social work - SWRK 101, 205, 330, 331, 344, 345, 375, 378, 379, 381, 395, 480, 481, 482, 483, and a minimum of nine hours of electives approved by the advisor.

Admission to the major: The academic advisor reviews the student's academic status. If necessary, students are advised to fulfill prerequisites for admission to the program. Upon completion of prerequisite courses, including SWRK 101 and 205, students must complete an application process for formal admission to the social work program. The BSW Admissions and Retention Committee reviews each application. Students must have attained a cumulative grade point average of 2.5 and sophomore status in order to be admitted. Guidelines for admission and retention are stated in the BSW Student Handbook, which is available in the departmental office or on the departmental webpage.

### Minor in Social Work

The social work minor (reference number 459) consists of 21 semester hours. Required courses are SWRK 101, 205, 330, 331, and 395. Students are also required to take two social work electives in consultation with their social work advisor. Only the major prepares the student for beginning professional social work practice. Social work practice courses and the social work practicum are not available to minors.

Suggested Program of Study			
Department of Social Work Bachelor of Science - Social Work 594/594P			
First Year			
Fall Semester	Hrs.	Spring Semester	Hrs.
ENG 100*	3	ENG 200*	3
CHHS 175	3	General Education Course	3
SWRK 101*	3	PS 110*	3
MATH 116	3	General Education Course	3
General Education Course	3	PSY 100*	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
Second Year			
BIOL 113*	3	SOCL 100	3
ECON 150*	3	HIST 119 or 120	3
SWRK 205*	3	COMM 145 or 161	3
General Education Course	3	General Education Course	3
General Elective	3	General Education Course	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
Third Year			
ENG 300	3	SWRK 331	3
SWRK 330	3	SWRK 345	3
SWRK 344	3	SWRK 379	3
SWRK 375	3	SWRK 395 or SWRK 378	3
General elective	3	Advisor Consent Elective+	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
Fourth Year			
SWRK 381	3	SWRK 480	3
SWRK 378 or SWRK 395	3	SWRK 481	3
Advisor Consent Elective+	3	SWRK Elective+	3
General Elective	3	General Elective	3
<b>Total Hours</b>	<b>12</b>	<b>Total Hours</b>	<b>12</b>
<b>Summer Session</b>	<b>Hrs.</b>		
SWRK 482	3		
SWRK 483	3		
<b>Total Hours</b>	<b>6</b>		
<b>Grand Total Hours: 120</b>			
* Required prerequisite for major. + See social work faculty advisor. Students should also see their social work faculty advisor in order to discuss suggested general electives. The above plan is a sample. There is some flexibility with the social work course plan, however, students need to work closely with their advisors regarding admission to the social work program, completion of general education requirements, as well as following the appropriate course sequence for the major. Interested students are encouraged to contact the program director for further information.			

The University College is committed to integrating disciplines through high quality academic and service programs. The College facilitates collaborative learning and research that address significant world issues and foster adaptability, critical inquiry, creativity, and synthesis. The College promotes social responsibility while expanding collaborative opportunities for all students, faculty, and external constituents.

## Department of Interdisciplinary Studies

The Department of Interdisciplinary Studies offers a bachelors degree and houses the University Experience program.

### Bachelor of Interdisciplinary Studies

The Bachelor of Interdisciplinary Studies (BIS) degree provides a four-year program for students who do not need or desire the academic specialization involved in traditional major or major/minor programs. This degree program allows considerable latitude and flexibility to satisfy individual interests and needs. In lieu of the major/minor required by traditional degree programs, the student must complete a broad area of emphasis (complementary courses from different academic disciplines) of at least 36 semester hours of course work approved by the interdisciplinary studies degree advisor.

The broad areas of emphasis listed below are available for the interdisciplinary studies degree program:

- Arts
- Humanities
- Science
- Business
- Education
- Technology
- Health
- Organization and Communication of Ideas
- Social and Behavioral Science
- Social Justice and Equity Studies

Students also have the option of requesting a broad area of emphasis not listed above. The written request, based on specific individual objectives, must be made by the student and approved by his or her advisor and Dean of University College.

### Minimum Academic Requirements for the Bachelor of Interdisciplinary Studies

- Grade point average of at least 2.0 in the following three areas: Emphasis Hours, WKU Hours, and Overall Cumulative Hours
- 36 hours in the Area of Emphasis
- 42 hours of upper-level credits, including 12 upper-level hours in the Area of Emphasis
- No more than 24 semester hours in a single academic discipline, nor more than 24 semester hours from the School of Journalism & Broadcasting, no more than 30 semester hours in courses administered by the Gordon Ford College of Business, no more than 12 upper-level semester hours from the Gordon Ford College of Business.
- IDST 495 (Interdisciplinary Studies Capstone) is a required course.

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<http://www.wku.edu/idst/universityexperience/index.php>

**Sara McCaslin: U.E. Coordinator**

**Kim Cunningham: U.E. Coordinator, South Campus**

**James Fulkerson: Coordinator, Peer Mentoring Program**

**Leisha Carr (745-3576): BIS Advisor**

**Chonda White (745-3572): BIS Advisor**

**Professor:** K. Kuehn

**Associate Professor:** M. Price

**Visiting Assistant Professor:** S. Northerner

**Assistant Professor:** C. Voorhees

**Instructors:** C. Basham, J. Fulkerson, S. McCaslin, S. Pulliam, P. Trafton

## University Experience

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Academic achievement and student success are top priorities at Western Kentucky University. Recognizing the importance of the first year in the overall undergraduate experience, University Experience provides academic support for first-year students and students in transition. This unit provides courses of instruction and programming to help students adjust to the college environment, improve their critical thinking, research, and learning skills, enhance their library and information literacy, and build a solid foundation for their academic and career endeavors.

**SEEK Learning Community:** Students Engaged to Encounter Knowledge offers approximately 25 exploratory students extra emphasis on career exploration. Students in this community enroll in 3 classes together so they can benefit from peer support. Other special programming is provided to bolster academic skills as well as the community's social life. See the UE or the AARC website for further details.

### The Peer Mentoring Program

The Peer Mentoring Program teaches upper class students the leadership and teaching skills that are necessary to mentor college students enrolled in the University Experience courses or in other support programs. Students who are admitted to the program enroll in IDST 375 (3 credit hours) in the spring of their sophomore year in preparation for mentoring in the fall.

## Department of Academic Support

One of the missions of South Campus is to serve students who lack adequate preparation for college-level work in one or more areas or who need review because they have been out of school for a number of years. The Academic Support Division offers courses which build the knowledge and skills necessary for academic success. Preparatory courses in English and algebra enable students to fulfill pre-college curriculum requirements and prepare students for sequential 100-level courses. Reading improvement, vocabulary development, and college study skills courses build comprehension and methodologies which assist students in all academic areas. University Experience courses facilitate development of academic and leadership skills.

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M. Hollis, M. Jackson, J. Nehm

**Assistant Professors:** J. Brockman,  
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J. Thompson, M. Thompson

**Instructors:** E. Billingsley, R. Davis, J. Howard,  
L. Liebhart, P. Jagers, J. Kimeu, B. Miller,  
J. Prerost, L. Sparks

## Department of Professional Studies

### Department of Professional Studies

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1. **Business (reference number 288) with concentrations in:**
  - Business Management
  - Business Management Preparation
  - Management Information Systems
  - Manufacturing Management
  - Office Management
  - Real Estate
  - Water Utilities Management
2. **Information Systems (reference number 223)**
3. **Office Systems Technology (reference number 291)**
4. **Paralegal Studies (reference number 276)**
5. **Real Estate Certificate (reference number 195)**

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**Professor:** J. Shadoan

**Associate Professors:** G. Kontos,  
F. Mays, R. Mitchell, A. Peters,  
M. Staynings, L. Todd,

**Assistant Professor:** S. Ghezal

### Business

The Business degree program (reference number 288) contains a general education requirement of 18 credit hours, academic core of 18 credit hours and a business core of 21 credit hours in one specialized area of concentration from the following: Business Management, Management Information Systems, Manufacturing Management, Office Management, Real Estate, or Water Utilities Management. There are admission requirements for the various concentrations in the business division. Please check with your academic advisor or chair of the division for the specific requirements.

The 24 credit-hour core required of all Business students includes: ACC 200C, ACC 201C, CSCI 145C, BUS 100C, BUS 160C, BUS 210C, BUS 212C, BUS 253C. The academic core includes 18 General Education hours: ENGL 100C, COMN 161C, Category B Humanities Elective, ECO 202C, ECO 203C and MA 116C.

The Business program prepares students academically in a core of courses focused on common business skills and specific course concentrations. The Business program is designed to prepare terminal-degree students for successful business careers after graduation, to provide job enhancement opportunities for non-degree seeking students, and to allow students to pursue business course interests at the 100- or 200-level of course offerings.

*Business Management Concentration of the Business Degree*

The Business Management Concentration of the Business Degree requires the following courses in addition to the core courses and general education courses required of all business students: BUS 214C, BUS 248C, BUS 250C, BUS 257C, BUS 270C, and a 3 hour Business Elective. (Internship strongly recommended.)

*Business Management Preparation Concentration of the Business Degree*

The Business Management Preparation Concentration of the Business Degree requires the following courses in addition to the core courses and general education courses required of all business students: BUS 214C, ENT 312, BUS 257C, MGT 416, MGMT 200C, and ECON 206.

*Management Information Systems Concentration of the Business Degree*

The Management Information Systems Concentration of the Business Degree requires the following courses in addition to the core courses and general education courses required of all business students: INS 181C, INS 182C, INS 270C, INS 272C, INS 275C, and an advisor-approved INS elective. (Internship strongly recommended.)

*Manufacturing Management Concentration of the Business Degree*

The Manufacturing Management Concentration of the Business Degree requires the following courses in addition to the core courses and general education courses required of all Business students. 21 hours in BUS 210C, MFG 240C, MFG 245C, MFG 265C, and six hours of advisor approved electives.

*Office Management Concentration of the Business Degree*

The Office Management Concentration of the Business Degree requires the following courses in addition to the core courses and general education courses required of all Business students: BUS 214C, OST 217C or INS 270C, OST 225C, OST 255C, two of the following: OST 220C, OST 221, OST 222C. (Internship strongly recommended.)

*Real Estate Concentration of the Business Degree*

The Real Estate Concentration of the Business Degree requires the following courses in addition to the core courses and general education courses required of all Business students: RE 170C, RE 171C, RE 272C, RE 273C, RE 274C, RE elective and a 3 hour Business elective. (Internship strongly recommended.)

*Water Utilities Management Concentration of the Business Degree*

The Utilities Management Concentration of the Business Degree requires the following courses in addition to the core courses and general education courses required of all Business students: UM 101C, UM 205C, UM 215C, UM 225C, UM 235C, UM 245C.

**Office Systems Technologies**

The two-year Associate of Arts degree program in Office Systems Technologies (reference number 291) requires a total of 60 semester credit hours. The curriculum is designed to develop appropriate knowledge, skills, and attitudes needed by office professionals to integrate the office resources of people and technology.

Required courses are three off the following: OST 101C, OST 220C, OST 221C, OST 222C. The following courses are required: OST 217C, OST 225C, OST 255C, CSCI 145C, BUS 110C or ACC 200C, BUS 214C, BUS 248C, INS 270C; 6 hours approved business electives; ENGL 100C; COMN 161C; Category B Humanities elective; ECO 150C; MA 109C or MA 116C; 3 hours electives. (UCC 175C recommended for all first-time, full-time freshmen.)

**Information Systems**

The Associate of Arts degree program in Information Systems (reference number 223) has been developed in response to a growing need for qualified personnel in the field of information systems. Thus, the course offerings are intended for those with a specific interest in practical business applications. Information Systems is aimed at improving the qualifications of students seeking employment in many phases of business computing. The program offers up-to-date preparation for positions in business or industrial computing environments. It also offers a base upon which to build a more advanced educational background in preparation for middle management positions.

The Information Systems program requires 60 credit hours or the equivalent of two years of full-time study. This program is also attractive to those individuals already employed and who wish to take advantage of the night course offerings on a part-time basis.

Required courses are ACC 200C, CSCI 145C, BUS 248C, INS 181C, 182C, 270C, 272C, 275C, 281C, 285C, 288C, 290C; 6 hours approved business elective; ENGL 100C; COMN 161C or 145C; Category B Humanities elective; ECO 150C; Category C Elective; and MA 116C.

### **Paralegal Studies**

The Associate of Arts degree in Paralegal Studies (reference number 276) is approved by the American Bar Association and requires a minimum of 64 - 66 credit hours. It is designed to be completed in four or five semesters. Students must fulfill the stated requirements to declare a Paralegal major and must follow the curriculum guidelines and course prerequisites to graduate. Paralegal degrees will be awarded to those students who complete all requirements with an overall grade point average of 2.0 (out of 4.0) and receive a grade of "C" or better in all legal-specialty courses.

Credits from other accredited institutions of higher education may be transferred and applied toward the degree. An official transcript from each such college or university attended is required as a part of the admission process. Post-secondary credit will be evaluated on a course-by-course basis for acceptance and applicability to the Program. General law and legal-specialty course credits will be accepted only from paralegal programs approved by the American Bar Association or programs in substantial compliance with the ABA guidelines.

The objectives of the Paralegal Studies Program are: (1) to create, implement, and maintain a strong, flexible program directed to the quality education of occupationally-competent paralegals; (2) to provide a paralegal education program that leads to employment of its graduates by a wide range of employers; (3) to provide paralegals with a well-rounded, balanced education founded on a beneficial mix of general education, theory, and practical courses stressing understanding and reasoning rather than rote learning of facts; (4) to support federal, Kentucky and local Rules of Procedure and general principles of ethical legal practice, professional responsibility, the prohibitions against the unauthorized practice of law by non-lawyers and the use and supervision of paralegals by lawyers; (5) to provide an educational program which is responsive to the varied needs of the Commonwealth of Kentucky and the region and contributes to the overall advancement of the legal profession; (6) to provide a program which instills respect for the legal profession and its foundations, institutions, and quest for justice; (7) to maintain equality of opportunity in the educational program without discrimination or segregation on the grounds of race, color, religion, natural origin, gender, age, disability or economic need.

Paralegals, also called Legal Assistants, work with lawyers in a wide range of professional settings and perform tasks that include legal research, legal writing and document preparation, , information gathering, litigation support, legal technology support and office management. Paralegals shall not engage in the unauthorized practice of law as proscribed by Kentucky law and the Supreme Court Rules (SCR 3.130 [5.5]) and must be appropriately supervised by a lawyer to ensure the paralegal's conduct is compatible with the professional and ethical standards of the practice (SCR 3.130 (5.3)). Students will obtain practical experience working in a legal setting through the internship required prior to graduation.

The course prerequisites for admission to the program are ENGL 100C, POLS 110C, OST 220C and PLS 190C. General Education and other courses include: BUS 214C, BUS 110C/ACC 200C, COMM 145C/ COMM 161C, Category B Humanities Elective, MA 109C/116C, BIO 110C/113C, and 1 to 3 hours General Education Elective. The courses in the major – otherwise known as legal specialty courses - are as follows: PLS 195C, PLS 283C, PLS 291C, PLS 292C, PLS 293C, PLS 294C, PLS 295C, PLS 296C, PLS 298C, PLS 299C.

#### *Admissions and Minimum Grade Requirements:*

1. Student must be admitted to the University College WKU pursuant to the policies of Western Kentucky University, and students who have not met the pre-college curriculum requirements must complete these.
2. Student will enter the University College as a Paralegal major seeking admission to the Paralegal Studies Program.
3. Before being admitted to the Paralegal Studies Program, students must complete these courses with a grade point average of at least 2.0:
  - o PLS 190C Introduction to the Paralegal Profession
  - o ENGL 100C Introduction to College Writing
  - o OST 220C Word Processing
  - o POLS 110C American National Government
4. Student must take PLS 195C (Legal Research and Writing) prior to or concurrent with all other legal specialty courses.
5. Student must complete the Paralegal Studies Program course requirements.
6. Student must maintain an overall grade point average of at least a 2.0 and receive no grade less than a "C" in legal specialty courses to complete the Program.

**Computer Literacy Certificate**

This computer literacy certificate (reference number 1713) provides the necessary skills for software use and the Internet. Students will gain the knowledge and skills that will help them become confident computer users. The emphasis will be on practical application of computers. Students should take the following four courses: CSCI 145C; OST 220C, INS 270C, INS 272C or INS 275C; INS 285C; and any advisor approved upper-division elective.

**Information Systems Certificate**

The information system certificate (reference number 1714) requires 18 hours and provides necessary skills for entry level positions in computer-related fields such as computer support specialist, information technology specialist, and network support specialist. Students should take the following courses in the recommended order: INS 181C, 275C, 281C, 285C, 288C, and any advisor approved upper-division elective.

**Real Estate Certificate**

The one-year program in Real Estate (reference number 195) requires a minimum of 27 credit hours and leads to a certificate. Required courses are RE 170C, 171C, 172C, 272C, 273C, 274C, 275C, 276C, and 280C.

**Human Resources Management Certificate**

The certificate in human resources management (reference number 1703) provides students with a content specific certificate in the area of Human Resources. This certificate is designed for students wanting to increase their knowledge in the HR area to either locate an initial position or to increase their upward mobility in a current HR position.

Housed at South Campus, this certificate program consists of 22 credit hours of the following required courses: BUS 102C, BUS 210C, BUS 248C, BUS 249C, BUS 257C, BUS 270C, BUS 245C, MGMT 200C, and BUS 244C.

**Department of Liberal Arts and Sciences****Associate of Interdisciplinary Studies Degree**

The Associate of Interdisciplinary Studies degree (reference number 246) is designed for those who need or desire a flexible degree program. Within the limits specified for the degree, students, with their advisors, may design programs to suit their personal needs and educational objectives.

This program requires 60 credit hours of course work. Students who have previously earned 60 hours of credit with a 2.0 cumulative grade point average or above in all higher education course work including all course work completed at Western Kentucky University and have met all other requirements for the degree, may apply as candidates for the AIS degree. If, upon evaluation of their transcripts, such students meet all the requirements for the degree, the degree will be awarded at the next graduation ceremony.

*Opportunities*

The Associate of Interdisciplinary Studies degree has become more attractive with the growth of business and industry in the area and with the increase of minimum educational requirements for employment or promotion. In addition to those wishing to enhance their employability, several other groups of students will find the program suits their needs. These include those who are seeking a degree for their personal satisfaction; those who plan eventually to move on to the University, but wish to have a degree at the two-year level; and those who wish to consolidate previously earned credits into a degree program.

*Program Requirements*

Minimum requirements for the AIS degree are 60 semester hours distributed among the WKU General Education Requirements and two "areas of emphasis." A total of 30 hours of General Education hours, 27 hours in the areas of emphasis, and 4 hours of electives is required. A student must obtain a 2.0 grade point average in both areas of emphasis. An overall 2.0 grade point average is required to be awarded the AIS degree.

The General Education Requirements include:

1. *Category A: Organization and Communication of Ideas (6 hours)*
  - ENGL 100C- Fundamentals of College Writing (3 hours)
  - COMN 145C/161C-Fundamentals of Public Speaking/Business and Professional Speaking or a foreign language (any level) (3 hours)

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**Assistant Professors:** J. Brown,  
D. Emberton-Tinius, C. Haynes,  
J. McMahon, R. Patterson,  
C. Skipworth, H. Strode, F. Sunkin



2. *Category B: Humanities (6 hours)*
  - ENGL 200C-Introduction to Literature (3 hours)
  - Category B Elective (3 hours)
3. *Category C: Social and Behavioral Sciences (6 hours)*
  - HIS 119C/120C-Western Civilization to 1648/Western Civilization Since 1648 (3 hours)
  - Category C Elective (3 hours)
4. *Category D: Natural Sciences/Mathematics (6 hours)*
  - MA 109C/116C, or other general education math (3 hours)
  - Category D1 Elective (3 hours)
5. *Category E: World Cultures/American Diversity (3 hours)*
  - Category E Elective (3 hours)
6. *Category F: Health and Wellness (2-3 hours)*
  - Category F Elective

Students seeking the AIS degree must complete a minimum of 25% of their degree program in residence at Western Kentucky University. A minimum of 12 hours of residence credit must be earned during the last half of the program. Courses taken at WKU off-campus locations through extended campus offerings or through REACHU@WKU.EDU are considered as having been taken in residence.

The Associate of Interdisciplinary Studies degree cannot be filed as a second degree program; as a result, students applying for concurrent or secondary associate degrees must file the associate of interdisciplinary studies as their primary degree program. The areas of emphasis must total 27 hours with a minimum of 9 hours in each area. One-third of the areas of emphasis must be earned at WKU. Areas of emphasis include: Arts, Humanities, Behavioral Science, Science, Social Science, Business, Education, Technology, Health, Social and Behavioral Science, and Organization and Communication of Ideas.

Electives are in addition to the General Education courses and the areas of emphasis. They may come from General Education categories, or from courses that do not fall into any of the above General Education areas or the areas of emphasis.

## Interdisciplinary Programs

### Major in Computer Information Technology

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The CIT major (reference number 555) requires 128 credit hours and leads to a Bachelor of Science degree. No minor or second major is required. Enrollment in the CIT program is limited and based on student qualifications. All CIT courses must be completed with a grade of "C" or better. The program requires 60 hours of upper-division CIT coursework. Electives should be selected consistent with WKU's degree requirements including:

- 36 hours minimum in courses earned at WKU
- 42 hours in upper-division credit (Transfer students with an AS or AAS degree in technology and majoring in computer information technology receive a 6-hour waiver.)
- 120 hours minimum overall
- General education categorical requirements
- MATH 116 or equivalent

### Major in Systems Management

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Systems Management (SM) is an interdisciplinary major offered through the University College. Systems Management applies an informatics perspective to the management of people, information, processes and systems within the organization. The SM major offers an interdisciplinary approach to the design, application, use and management of information and communication technologies and systems. Courses in the SM program emphasize the human, technological, and organizational perspective. Students also take elective courses in various applied technologies or allied disciplines that are major information systems users. In a knowledge-oriented economy, organizations succeed on the basis of their innovation and management of information. The SM major is designed to help students prepare for a rewarding career in this dynamic field.

The SM major (reference number 729) requires 120 credit hours and leads to a Bachelor of Science degree. No minor or second major is required. All SM courses must be completed with a grade of "C" or better. Enrollment in the SM program is limited and based on student qualifications.

All students complete the eight-course (24-hour) core curriculum consisting of SM 300, 346, 347, 348, 443, 444, 446, and 447. Each student also completes at least one five-course (15-hour) concentration. Students must also

complete 9 hours of relevant electives to be selected in consultation with the advisor. Students must earn a “C” or better in all SM courses.

Transfer students who have completed relevant coursework should petition the department with information about courses taken and what substitutions are being sought. Petitions will be reviewed by a faculty committee and recommendations approved by the department chair and dean of the college in a manner consistent with WKU guidelines.

Transfer students with an associate degree who major in systems management receive a 15-hour waiver of the overall upper-division hour requirement.

**Core Requirement completed by all majors:** 24 hours—SM 300, 346, 347, 348, 443, 444, 446, and 447

**Program Electives:** 24 hours

Electives include 9 hours of relevant electives completed in consultation with advisor, and a 15-hour concentration from one of the following areas:

**Administrative Systems**—COMM 346, 349, 460, 461, ENG 306, JOUR 341, 344, PHIL 321, BE 350, 362, PSY 370, 371; additionally, any course that may be used to satisfy the minor in business administration (see GFCOB minor).  
Note: No more than 12 hours of upper-division electives may be taken from the College of Business course offerings.

**Criminology Systems**—SOCL 232, 330, 332, 433, PS 328

**Digital Media Technologies**—CIS 320, BCOM 264, 366, 367, 480

**Fire/Rescue Administration**—(the following courses are offered through KCTCS) FRS 104, 105, 201, 1027, 1047, 2016, 2026, 2051, 2071

**Geographic Information Systems**—GEOG 316, 317, 417, 419, 443, 477

**Government Systems**—PS 110, 210, 314, 338, 355, 412, 440, ECON 420

**Health-Care Informatics**—HCA 340, 342, 343, 344, 346, 347, 442, 445, 446

**Human Resource Development**—AMS 310, COMM 460, JOUR 355, MGT 311, 400, 411, 414, 416, 473, PSY 410, SOCL 312 Note: No more than 12 hours of upper-division electives may be taken from the College of Business course offerings.

**Industrial/Manufacturing Systems**—AMS 310, 342, 356, 371, 392, 394, 396, 430

**Information Systems**—310, 330 (or CIS 226), CIT 350, 370, CIS 243, 320, 321

**Law Enforcement Administration**— (the following courses are offered through KCTCS) CJ 201, 204, 210, 215, 216, 217, 222

**Leadership** —LEAD 200, 325, 330, 395, 400

**Military Systems (Civilian Career Option)**—MIL 301, 302, 401, LEAD 200, 475, (ROTC students may take MIL 402)

**Occupational Safety and Health**—ENV 120, 221, 321, 322, 367, 375, 380, 410, 423, 460, 474, 480, PH 385

**Technical Sales**—MKT 325, 328, 424, 425, PSY 371, JOUR 341

**Technical Training**—MGT 473, COMM 345, 346, 349, PSY 410

**Technical Writing**—ENG 301, 306, 307, 401, 415

### **Major in Organizational Leadership**

The Bachelor of Science in Organizational Leadership (reference number 545) is an interdisciplinary degree providing an academic foundation for the professional and career-focused study of leadership. It is specifically designed to advance the professional objectives of adults already in the work force who desire to complete a baccalaureate degree for career advancement and expanded job opportunities. The combination of leadership, management, and global and social-cultural perspectives, combined with a specific group of electives provides graduates with the knowledge and skills necessary to provide effective leadership at various levels and in a variety of occupational settings.

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This degree program requires a minimum of 48 semester hours: 30 hours in a common leadership, management, psychology, and sociology core plus 18 hours in identified electives. Students must meet all University requirements for admission, continuance in the program, and graduation, including general education requirements. Students admitted to the Bachelor of Science in Organizational Leadership must have previously earned an associate's degree from a regionally-accredited program.

Students must complete the following courses for the organizational leadership core: 15 hours of leadership courses chosen from LEAD 200, 325, 330, 395, and 400; nine hours of management courses including MGT 210 and six additional hours chosen from MGT 314, 417, or 419; and six hours of global and social-cultural perspective courses chosen from PSY 350, 355, 370, SOCL 360, 362, or 375.

In addition, students must choose 18 hours from the following list of electives: GEOG 280, 316, 317, 380 417, 419, 474, 487, PS 110, 211, 314, 338, 440, 441, PSY 350, 355, 370, SOCL 360, 362, 375.

The following restrictions apply to this major: no more than 24 semester hours from the School of Journalism and Broadcasting; no more than 30 hours in courses administered by the Gordon Ford College of Business; no more than 12 upper-level semester hours from the Gordon Ford College of Business.

## Gender & Women's Studies Program

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### Mission Statement

The Gender & Women's Studies Program broadens women's and men's knowledge of gender dynamics, globally and historically, with an emphasis on issues central to women's lives. Through an interdisciplinary classroom experience, community outreach, and special events, the Gender & Women's Studies Program advances understanding of the social and cultural institutions and practices that affect us.

### Goals:

- sharpen ability to critically analyze gender issues
- encourage the practice of feminist scholarship
- enhance intellectual and personal growth
- foster an atmosphere in which diversity and sustainability are valued
- advocate ethical conduct, social justice, and responsible global citizenship

The interdisciplinary minor in Gender & Women's Studies (reference number 378) requires 21 semester hours. Course requirements include a 6-hour core composed of Introduction to Gender & Women's Studies (GWS 200) and Western Feminist Thought (GWS 400) and fifteen hours of electives in the humanities, the sciences, or social sciences. Students select an area of concentration by taking nine hours in Category A or B; the remaining six are then taken from the other category. No more than six hours may be taken in any one department. Because new courses are added and occasionally dropped from the categories below, students should consult the latest information, on the website ([www.wku.edu/womensstudies](http://www.wku.edu/womensstudies)) or in the Women's Studies Center.

**Category A (Sciences and Social Sciences):** FACS 495, PS 373, 374, PH 365, 464, PSY 345, 355, 430, SOCL 353, 355, 359, 362, 435, 446, 466, GWS 421.

**Category B (Humanities):** ANTH 343; DANC 360; ENG 360, 387, 497; FLK 280, 371, 480; HIST 335, 420, 446, 453; PHIL 201, 212; RELS 333, 408, GWS 321.

**Category A or B:** GWS 375

Additional offerings include special topics courses in various disciplines.

## Center for Gerontology

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*Healthy Communities, Healthy Lifestyles, Healthy Ages*

The Center for Gerontology is guided by the belief that healthy aging is attainable on both the individual and community level and requires implementing holistic strategies. Keys to successful healthy aging are increasing physical activity, improving eating habits, preventing disease, injury and disability, maximizing financial and physical independence and maintaining active participation with the community. Located within a historically rural environment, the Center recognizes the value of interdisciplinary and intergenerational collaboration in developing approaches that respect the needs of older adults and the rural

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communities that support them. Committed to balancing gerontological theory with practice, the Center nurtures dynamic partnerships between agencies working on aging issues, Western Kentucky University, and the international community.

The Center focuses on three strategic areas:

1. Prepare new generations of aging advocates to work with older adults, their families, and their communities.
2. Contribute to new knowledge on aging populations, cohorts, and communities through the conduct of applied aging research.
3. Enhance local capacity for older adults and the communities in which they live through the dissemination of community based research, best practices, and sponsorship of programmatic activities. The gerontology minor is coordinated through the Center for Gerontology.

The Center oversees mini-grants that promote gerontology by engaging students and faculty in aging research. The Center houses the international journal, *Journal of Aging, Humanities & the Arts*, an official publication of the Gerontological Society of America (<http://www.tandf.co.uk/journals/titles/19325614.asp>). Excellence in aging is nurtured by a chapter, Phi Sigma Omega, the national honor society for aging, an annual “celebration of lives and older adults” and ongoing research with community partners.

### Gerontology Minor

The mission of the gerontology minor (reference number 381) is to engage students through multidisciplinary education in partnership with the community, and to enhance the lives of a diverse aging population. Gerontology is the multidisciplinary study of the natural process of aging that occurs in the later stages of life. Gerontology is concerned with both successful aging and problems of aging.

One in eight Americans is now age 65 or older and the number of older persons will continue to increase into the future. Persons with knowledge and expertise in aging will be in demand in a variety of settings, including health care and long-term care facilities, adult day centers, specialized housing units, retirement communities, hospices, fitness and recreation centers, social service agencies, and academic and research settings. The Association for Gerontology in Higher Education has additional information on careers in aging ([www.careersinaging.com](http://www.careersinaging.com)).

The multidisciplinary minor in gerontology is intended to complement traditional programs of study such as Biology, Communication Disorders, Economics, Exercise Science, Family & Consumer Science, Health Care Administration, Nursing, Nutrition, Psychology, Public Health, Recreation, Social Work, and Sociology. The minor program attracts both traditional students interested in pursuing careers in aging and non-traditional students who are working in the aging field. The minor prepares students to live and work in an aging society or to pursue graduate training in gerontology.

The minor consists of 19 hours to be selected from core and elective courses. The 4 hours of core courses are GERO 100 and 485. In addition, 6 hours of primary electives must be chosen from BIOL 344, PH 443, SOCL 342, or PSY 423. Nine hours of secondary electives must be chosen from CD 489, ECON 365, FIN 161, 444, HCA 345, 471, PH 444, 464, PHIL 322, 426, SWRK 326, FACS 367, EXS 455, GERO 490, 495. The gerontology coordinator should be consulted for assistance in selecting the most appropriate primary and secondary electives and in determining a field or research experience to be taken toward the end of the coursework in the minor.

### Certificate in Leadership Studies

This program is designed for students who want to enhance their leadership knowledge and skills for current or future activities in a broad range of organizations. Various disciplines have addressed leadership and developed a substantial body of related literature. The introductory course (LEAD 200) will give students a systematic introduction to these various perspectives and theories of leadership. In the categorical courses in the program, a total of 9 hours from approved courses, students will explore leadership perspectives and implications in conjunction with their specific area(s) of study. In the capstone course, students will be challenged to synthesize their understandings of leadership, articulate those understandings, and apply them in a demonstrable way that enhances their education and relates to their career and life goals.

The Leadership Studies Program will provide special lectures, workshops, seminars, and interactions with visiting guest leaders who are renown in their fields. In addition, the Leadership Studies Program will work with certificate-seekers to identify opportunities for leadership participation and practice in their own professional or occupational fields.

**Director: Dr. Cecile Garmon**

**Building: Tate Page Hall 230**

**Phone: (270) 745-8973**

**Fax: (270) 745-5150**

**e-mail: [lead.stu@wku.edu](mailto:lead.stu@wku.edu)**

**Website: [www.wku.edu/leadership](http://www.wku.edu/leadership)**

### Institute for Citizenship and Social Responsibility

The Institute for Citizenship and Social Responsibility is an organization of administrators, faculty, students, and staff committed to promoting careful reflection on civic values; engaging in critical analysis of contemporary social, economic, and political problems; and developing the capacities and skills of community organizing, citizenship, and civic engagement as ways of achieving social change and the common good.

In fulfilling its mission, the ICSR will offer multiple sections of ICSR 301 each semester.

#### Certificate in Citizenship and Social Responsibility

The certificate in citizenship and social responsibility (reference number 1710) is an 18 credit hour interdisciplinary program focusing on contemporary social issues that prepares students to be effective citizens—civic agents of change for the common good. The certificate program includes both coursework and co-curricular public work.

Students must take five credit hours of courses from ICSR coursework including ICSR 300 and 301. In addition, students must take six credit hours of government and ethics courses including one political science course and one philosophy and religion course selected from: PS 110 or PS 338 and PHIL 103 or PHIL/RELS 323. Six hours of electives may be chosen from the major or minor coursework upon consultation with an ICSR advisor, or students may use a course applied toward a major or minor and another government and ethics course upon consultation with an ICSR advisor. A one credit hour public work capstone is required of all students.

**Co-Directors:** *Saundra Ardrey, Eric Bain-Selbo, and Paul Markham*

**Phone:** (270) 745-3218

**e-mail:** [icsr@wku.edu](mailto:icsr@wku.edu)

**Website:** [www.wku.edu/icsr](http://www.wku.edu/icsr)

### ALIVE Center for Community Partnerships

The ALIVE CCP is committed to bringing campus and community together for the enrichment of both higher education and public life.

We facilitate collaborative efforts that address local, regional, and global needs while enhancing the level of student learning and educational experience. We are dedicated to providing WKU students with opportunities that cultivate personal growth, ethical values, and public action for the common good. The ALIVE CCP supports service-learning and community-based research as part of the WKU curriculum. We also provide numerous opportunities for volunteerism and ongoing community service.

The mission of the Western Kentucky University ALIVE Center for Community Partnerships is to support community development locally and abroad through campus and community partnerships. The ALIVE CCP connects students, faculty, staff, and community members to resources and opportunities for meaningful service and engaged scholarship.

Our vision is that campus and community members, from all sectors and backgrounds, will engage in successful applied-learning opportunities and work together to improve quality of life by acting as public problem-solvers and effective community builders.

We carry out our mission by:

- Facilitating campus and community partnerships to address local and regional needs
- Providing training for and assistance with service-learning and community-based research
- Providing meeting space for the campus and community free of charge
- Maintaining an online list of volunteer opportunities
- Matching WKU faculty, staff and student interests with service projects
- Coordinating volunteer placement
- Maintaining a comprehensive directory of Bowling Green-Warren County service organizations and support groups
- Responding to inquiries regarding childcare, health, education, recreation, housing, monetary needs and other services
- Maintaining an ongoing list of community events

**Director:** *Leah Ashwill*

**Phone:** (270) 782-0082

**Fax:** (270) 782-0922

**e-mail:** [alivebg@wku.edu](mailto:alivebg@wku.edu)

**Website:** [www.wku.edu/alive](http://www.wku.edu/alive)

## WKU REAL

**Mission:** To reach each adult learner by providing opportunities and support for educational success.

At Western Kentucky University, we are actively addressing the needs of adult learners through a variety of strategies and services. *WKU REAL* (Reaching Each Adult Learner) is a cross-campus initiative to address the needs of adult learners through a variety of strategies and services.

**Tate Page Hall, Office 249**  
**Phone:** (270) 745-3575  
**Fax:** (270) 745-3574  
**Website:** <http://www.wku.edu/real>

**Adult Learner Counselors:** *Tim Benningfield and Rebekah Phillips*

## Regional Campuses

Western Kentucky University is designated by the Kentucky Council on Postsecondary Education as a regional university that is responsible for the needs of students in the designated service area (DSA) which consists of 27 counties.

Undergraduate and graduate courses are offered each semester through regional campus centers and other special locations. Students who commute may find enrollment in classes at the regional campuses to be especially convenient. For information call or visit the nearest campus of your choice or log on to the regional campus website.

Classes are provided to regional campus students via various modalities, including traditional face-to-face instruction, interactive video classes, web classes, and blended formats. Courses at the graduate and undergraduate level are provided each semester. For information about programs and classes offered, contact the regional campus nearest you.

### WKU Glasgow Regional Center

500 Hilltopper Way  
 Glasgow, KY 42141  
 Phone: 270-659-6900 or 270-745-5096  
[www.wku.edu/glasgow](http://www.wku.edu/glasgow)

### WKU Owensboro Regional Campus

4800 New Hartford Road  
 Owensboro, KY 42303  
 Phone: 270-684-9797 or 270-745-5095  
[www.wku.edu/owensboro](http://www.wku.edu/owensboro)

### Elizabethtown/Radcliff/Ft. Knox Campuses

610 College Street, Room 401  
 Elizabethtown, KY 42701  
 Phone: 270-769-1614 or 270-745-5895  
[www.wku.edu/etown-ftknox](http://www.wku.edu/etown-ftknox)

### Ft. Knox Campus

P.O. Box 571  
 Fort Knox, KY 40121  
 Phone: 270-351-1192 or 270-745-5079  
[www.wku.edu/etown-ftknox](http://www.wku.edu/etown-ftknox)

## SOCAD and GoArmyEd

WKU is a member of the Servicemembers Opportunity Colleges (SOC) Consortium and the SOC Degree Network System. The program is available for active duty and reserve military personnel, and military family members. This program provides credit for certain military training and experience, and also provides for degree completion with the university should the servicemember relocate.

WKU also participates in GoArmyEd, an Army tuition assistance program for active duty Army personnel. Through this program, military personnel receive a substantially reduced tuition rate and can work directly with a military admissions counselor to plan their Bachelor or Masters Degree program. WKU offers many flexible options for military personnel such as traditional face-to-face and Interactive Video courses at the Ft. Knox campus. Online and Independent Learning courses are also convenient options.

Bachelor degree programs include the following: Psychology, Interdisciplinary Studies with emphasis in Business, Education, Technology, or Social & Behavioral Sciences. Other Bachelor programs are also available. Masters Degree programs include Technology Management, Public Administration, Business Administration, Adult Education, Criminology, History, Math, Exceptional Education, Library Media Education, Physical Education, and Athletic Administration. For more information visit [www.wku.edu/etown-ftknox](http://www.wku.edu/etown-ftknox) and click on U S Military.

Coordination of these programs is provided by WKU's Ft. Knox office. For more information go online or call (270) 745-5079 or (502) 942- 8381.

# Course Descriptions



## Course Numbering System

**0-49** Courses carrying continuing education unit credit.

**50-99** Developmental courses; grades earned in these courses will not count toward the student's GPA, but may be considered in making university business decisions. Hours earned in these courses are not degree applicable.

**100-299** Primarily for freshmen and sophomores; such courses generally contain introductory, elementary or basic level content.

**300-499** Primarily for juniors and seniors; courses contain advanced undergraduate level content.

**400G-499G** May be taken by graduate students.

## Course Descriptions

*Note: Any course approved for general education credit is designated at the end of the description. For details refer to the section of the catalog titled "General Education Requirements."*

### ACC- ACCOUNTING DEPARTMENT OF LIBERAL ARTS AND SCIENCES

**ACC 200C. INTRODUCTORY ACCOUNTING—FINANCIAL. (3)**  
See ACCT 200.

**ACC 201C. INTRODUCTORY ACCOUNTING-MANAGERIAL. (3)**  
See ACCT 201.

### ACCT – ACCOUNTING DEPARTMENT OF ACCOUNTING

**ACCT 200. INTRODUCTORY ACCOUNTING—FINANCIAL. (3)** *Prerequisite:* Sophomore standing and completion of general education mathematics requirement. Introduction to the basic accounting theories, concepts and principles used in gathering and reporting financial data of a business organization. Course focuses on the information provided to external users through financial statements. Emphasis is placed on preparing the statements, examining the statements' components, and interpreting the information reported.

**ACCT 201. INTRODUCTORY ACCOUNTING-MANAGERIAL. (3)** *Prerequisite:* ACCT 200; accounting majors must have earned a "C" or better. Introduces accounting concepts, practices, and tools for managerial decision making. This course is designed to provide an understanding of how financial and non-financial data are used in decision making and control. Topics typically include activity-based costing, cost behavior, job-order costing, process costing, cost-volume-profit analysis, flexible budgeting, relevancy costing, departmental cost allocation, and profit planning.

**ACCT 300. INTERMEDIATE FINANCIAL ACCOUNTING I. (4)** *Prerequisite:* Cumulative 2.5 GPA in ACCT 200 and ACCT 201 combined, with a minimum grade of "C" or higher in each course. A review of the financial accounting concepts, relationships, and procedures involved with preparing and interpreting financial statements. Includes an in-depth coverage of the valuation, measurement, and financial reporting issues associated with ASSETS and LIABILITIES.

**ACCT 301. INTERMEDIATE FINANCIAL ACCOUNTING II. (3)** *Prerequisite:* ACCT 300, with a grade of "C" or better. A continuation of Intermediate Financial Accounting I with emphasis placed on certain specialized accounting subjects. Topics typically covered include revenue recognition, stockholders' equity, earnings per share, pensions, leases, accounting changes and error analysis, the statement of cash flows, and accounting for income taxes.

**ACCT 310. MANAGERIAL COST ACCOUNTING. (3)** *Prerequisite:* Cumulative 2.5 GPA in ACCT 200 and ACCT 201 combined, with a minimum grade of "C" or higher in each course. An in-depth study of cost accounting practices, including job order, process, normal, activity-based, and standard costing. Also examines accounting tools such as budgeting, cost-volume-profit analysis, relevant costing, and responsibility accounting that provide organizational managers with information for planning, decision-making, and control.

**ACCT 312. ACCOUNTING INFORMATION SYSTEMS. (3)** *Prerequisites:* ACCT 300 and ACCT 310 (or concurrent) with grades of "C" or better; CIS 243 (or concurrent). A study of accounting information systems, traditional and contemporary, with hands-on experience with a manual accounting system and a computerized accounting system. Emphasis is on the transformation of data to information and the internal controls necessary in each environment. (course fee)

**ACCT 315. MANAGEMENT ACCOUNTING. (3)** *For non-accounting majors - may not be taken by accounting majors. Prerequisites:* ACCT 200 and 201; MGT 210 or permission of instructor. The use of cost, revenue, and other economic data in the management processes of measurement, analysis, decision making, and planning for profit-seeking entities. Includes readings, exercises, problems, and cases emphasizing use of accounting data for problem solving in modern manufacturing, distribution, and service industries.

**ACCT 330. TAX PLANNING FOR INVESTMENTS. (3)** *For non-accounting majors - may not be taken by accounting majors. Prerequisite:* FIN 330. An explanation of the federal income tax structure and the role taxes play in decision making. The tax effects on personal investments and the tax factors in personal financial planning are given special emphasis.

**ACCT 390. INTERNSHIP IN ACCOUNTING. (3)** *Prerequisites:* ACCT 300 or equivalent, a minimum of six hours of upper-level accounting courses at WKU, a 2.75 GPA overall, a 2.5 GPA in upper-level accounting courses, and permission of the Chair of Accounting. Relevant and meaningful full-time accounting-related work experience outside the classroom in a supervised setting with a cooperating business or not-for-profit organization. (Grading: Pass/Fail)

**ACCT 401. BUSINESS COMBINATIONS AND RELATED TOPICS. (3)** *Prerequisite:* ACCT 301 with a grade of "C" or better. Emphasis is placed on the issues involved in business combinations, including the preparation of consolidated financial statements. Other topics typically covered include partnerships, interim and segment reporting, international accounting, and foreign currency transactions and translations.

**ACCT 402. CONTEMPORARY ACCOUNTING ISSUES. (3)** *Prerequisites:* ACCT 301 and ACCT 310 with grades of "C" or better and senior standing; expected graduation date within 12 months of enrollment. A study of contemporary problems in financial accounting. Emphasis placed on the study and evaluation of pronouncements of various organizations concerned with the development of accounting principles and practices. Helps broaden the student's concept and understanding of accounting into a meaningful discipline.

**ACCT 410. ADVANCED MANAGERIAL COST ACCOUNTING. (3)** *Prerequisite:* ACCT 310 with a grade of "C" or better. Examines advanced theories and concepts in the field of managerial cost accounting, including transfer pricing, capital budgeting, inventory planning, cost estimation, non-financial performance measures, and quality costs.

**ACCT 420. GOVERNMENTAL AND NOT FOR PROFIT ACCOUNTING. (3)** *Prerequisite:* ACCT 301 with a grade of "C" or better. Provides a broad understanding of fund accounting and financial reporting for various types of governmental and not for profit organizations. Examines the similarities and differences among the fund structures and financial reporting requirement of the two categories of organizations. Types of organizations typically studied include: all governmental organizations, health care organizations, colleges and universities, and voluntary health and welfare organizations.

**ACCT 430. FEDERAL TAXATION – INDIVIDUALS. (3)** *Prerequisite:* ACCT 300 with a grade of "C" or better and senior standing, or consent of instructor. Provides a comprehensive explanation of the federal tax structure. Primary emphasis is placed on the federal income tax as it applies to individuals. Provides the student with an opportunity to apply tax principles to specific problems.

**ACCT 431. FEDERAL TAXATION – BUSINESS ENTITIES. (3)** *Prerequisite:* ACCT 430 with a grade of "C" or better. Furthers the student's understanding and knowledge of the federal income tax structure as it applies to partnerships and corporations. Other specialized areas of taxation are also covered. Emphasis is placed on the use of tax services in researching tax problems.

**ACCT 440. BUSINESS LAW FOR THE ACCOUNTING PROFESSIONAL. (3)** *Prerequisites:* MGT 200 and ACCT 402 (or concurrently) or ACCT 450 (or concurrently). Contracts, Uniform Commercial Code, sales, debtor-creditor relationships, security regulation, property, estates, and trusts and other topics pertinent to the legal portion of the CPA Examination are covered.

**ACCT 450. AUDITING AND ASSURANCE SERVICES. (3)** *Prerequisites:* ACCT 301 and 312 with grades of "C" or better, and senior standing. Emphasizes the work of public accountants. Topics covered include auditing standards, professional ethics, legal liabilities, auditing objectives and procedures, preparation of audit working papers, reporting considerations when rendering an opinion on financial statements, and other services provided by accountants. Internal auditing, including the concepts of operational and compliance auditing, are also considered.

**ACCT 451. ADVANCED AUDITING AND ASSURANCE SERVICES. (3)** *Prerequisite:* ACCT 450 with a grade of "C" or better. Further develop auditing skills introduced in ACCT 450. Impact legislation on auditing, the presentation and detection of fraud, ethics and independence and international auditing standards. In-depth examination of auditing cycles, reporting on internal control, corporate governance, internal audit and sampling.

**ACCT 460. CPA PROBLEMS. (3)** *Prerequisite:* ACCT 402 (or concurrent) with a grade of "C" or better; expected graduation date within 12 months of enrollment. The course is designed to assist the student in preparing for the uniform CPA examination. Passing this examination is one of the requirements for becoming a certified public accountant. NOTE: This course is an elective but will not count as part of the 6 hours of required accounting electives.

**ACCT 470. SENIOR SEMINAR IN ACCOUNTING. (1-3)** *Prerequisite:* Senior standing. Investigation into current accounting developments. The course is designed to give seniors an opportunity for in-depth study of important accounting developments.

**ACCT 499. SENIOR ASSESSMENT IN ACCOUNTING. (1)** *Prerequisites:* Senior standing, enrolled in last regular semester of course work. (Summer graduates would take this course in the spring semester prior to completion.) This course is designed to be a tool in the senior assessment process. It is designed to provide a means of conducting assessment of accounting majors. The course will seek to measure knowledge of basic accounting ideas and concepts. Students will also be introduced to the professional certification programs and career opportunities available in the accounting profession. Required for all accounting majors.

**ACMS**  
**CAROL MARTIN GATTON ACADEMY OF MATHEMATICS AND SCIENCE**

**ACMS 175. ACADEMY SEMINAR EXPERIENCE. (1)** Restricted to Gatton Academy students. Taken during the first three semesters for Gatton Academy students. Addresses study skills, leadership, social and emotional intelligence, and critical thinking skills. May be repeated up to three hours credit.

**AERO- AEROSPACE STUDIES**  
**OGDEN COLLEGE OF SCIENCE AND ENGINEERING**

**AERO 151/153. THE U.S. AIR FORCE TODAY. (1)** Freshman year. A survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and an introduction to communication skills.

**AERO 251/253. THE DEVELOPMENT OF AIR POWER. (1)** Sophomore year. This course examines the development of air power over the past 80 years. It traces the evolution of various concepts of air power employment and focuses upon tactics that have promoted research and technological change. A variety of events and elements in the history of air power are stressed, particularly where these events provide a significant example of the impacts of air power on strategic and tactical thought.

**AERO 351/353. AIR FORCE LEADERSHIP AND MANAGEMENT-THE PROFESSIONAL OFFICER. (3)** Junior year. These courses are designed to further develop the students managerial and leadership abilities. Emphasis is placed on group discussions, seminars, writing and speaking assignments, and appropriate lectures. A detailed examination of the meanings of professionalism and integrity are discussed and exercised through practical experiences. Courses include problem solving exercises and theories of leadership and management.

**AERO 451/453. NATIONAL SECURITY AFFAIRS/PREPARATION FOR ACTIVE DUTY. (3)** Senior year. These courses are designed to improve the cadet's ability to speak and write with stylistic accuracy, clarity and dignity. They focus on the Armed Forces as an integral element of society and include an examination of the broad range of American civil-military relations and the environmental context in which defense policy is formulated. Special themes include the role of the professional officer in a democratic society, socialization process within the armed services, requisites for maintaining adequate national security forces, political, economic, and social constraints upon the national defense structure, and the impact of technological and international developments upon strategic preparedness and the overall defense policy-making process.

**AFAM / AFA - AFRICAN AMERICAN STUDIES**  
**AFRICAN AMERICAN STUDIES (AFAM)**  
**DEPARTMENT OF LIBERAL ARTS AND SCIENCES (AFA)**

**AFAM 190 / AFA 190C. AFRICAN AMERICAN EXPERIENCE. (3)** African American life and experiences in the United States viewed from a cross-disciplinary perspective. Seven core subjects are surveyed: African American history, religion, politics, creative productions (music, dance, theatre), economics, social organizations and psychology. [GEN ED E]

**AFAM 350. PEOPLES AND CULTURES OF AFRICA. (3)** Survey of the cultures of Africa, with emphasis on historical development and contemporary cultural diversity. Equivalent to ANTH/FLK 350. [GEN ED E]

**AFAM 358. BLACKS IN AMERICAN HISTORY TO 1877. (3)** A chronological study of African American history and culture from 1619 to 1877 with an emphasis on African American contributions to American life and thought. Equivalent to HIST 358. [GEN ED E]

**AFAM 359. BLACKS IN AMERICAN HISTORY SINCE 1877. (3)** A chronological study of African American history and culture from 1877 to the present with an emphasis on African American contributions to American life and thought. Equivalent to HIST 359. [GEN ED E]

**AFAM 360. HISTORY OF AFRICA. (3)** A survey of the history of sub-Saharan Africa from the earliest times to the present. Equivalent to HIST 360. [GEN ED E]

**AFAM 368. AFRICAN GOVERNMENTS & POLITICS. (3)** *Prerequisites:* PS 250, PS 260 or permission of the instructor. Examines sub-Saharan African political and economic development. Focuses on several selected countries and explores the common political and economic problems and opportunities confronting African states. [GEN ED E]

**AFAM 377. AFRICAN AMERICAN FOLKLIFF. (3)** Oral, written, and material folk traditions of African Americans, with emphasis on the United States and the Caribbean. Equivalent to FLK 377. [GEN ED E]

**AFAM 393. AFRICAN AMERICAN LITERATURE. (3)** *Prerequisite:* ENG 200 or permission of instructor. A critical study of the contributions of African American writers to American literature. Equivalent to ENG 393. [GEN ED E]

**AFAM 410. AFRICAN AMERICAN MUSIC. (3)** A survey of selected musical styles created and developed by African Americans from the 17th to the 20th century: spirituals, blues, popular music forms (e.g., soul, reggae, rap music). Emphasis will be placed on the historical factors and sociocultural trends that influenced the development of African American music. Equivalent to FLK 410. [GEN ED E]

**AFAM 466. GEOGRAPHY OF AFRICA. (3)** *Prerequisite:* Permission of instructor. A geographic survey assessing the relationships of the physical and cultural patterns to actual and potential economic development. Equivalent to GEOG 466.

**AFAM 480. DIRECTED INDEPENDENT STUDY IN AFRICAN AMERICAN TOPICS. (1-3)** *Prerequisite:* AFAM 190 or permission of instructor. Designed primarily for advanced students. This course will permit students to pursue selected topics dealing with the life and times of the people of African ancestry in Africa and America.

**AFAM 490. AFRICAN AMERICAN SEMINAR. (3)** *Prerequisite:* AFAM 190 or permission of instructor. Designed primarily for advanced students. This seminar will include topics dealing with the African American, present or past.

**AGEC - AGRICULTURAL ECONOMICS**  
**DEPARTMENT OF AGRICULTURE**

**AGEC 260. GOLF COURSE MANAGEMENT. (3)** An introductory course on the organization and operation of a golf course business. Topics include planning, implementation and control of the physical facilities and financial aspects.

**AGEC 360. AGRICULTURAL ECONOMICS. (3)** An introduction to the private and public sector of the United States economy. Identification of the resources used in agriculture. Elementary application of economic principles to resource use in agriculture.

**AGEC 361. FARM MANAGEMENT. (3)** *Prerequisite:* AGEC 360. Organizing and managing farms; factors affecting farm earnings; resource allocation; combining farm enterprises; individual farm organization and farm management problem assignments and application of the principles of business to farming are stressed.

**AGEC 362. AGRICULTURAL MARKETING. (3)** *Prerequisite:* AGEC 360. Included are principles and methods of marketing farm products; institutions performing the various functions in marketing specific commodities; market prices; marketing costs; elementary treatment of cooperative marketing.

**AGEC 365. COMPUTER APPLICATIONS IN AGRICULTURE. (2)** *Prerequisite:* CS 145 or permission of the instructor. Instruction in the use of microcomputers in agriculture. Included will be word processing, spreadsheets, data files, presentations, and other software used in agriculture.

**AGEC 366. AGRICULTURAL SALES AND SERVICES. (3)** *Prerequisite:* Senior standing or consent of instructor. Exploration, investigation and application of principles and concepts of sales and service applied to agriculture. A credit and personal improvement course designed for agri-business and educators working with sales and service of agricultural inputs and products.



## Course Descriptions

### **AGEC 391. SURVEY OF COMMODITY FUTURES AND OPTIONS. (3)**

*Prerequisites:* AGEC 360 and AGRI 291. Introductory overview of physical commodity features and options markets including history, function, analysis, trends and strategies, with specific focus on agricultural and food industry applications.

**AGEC 460. AGRICULTURAL POLICY. (3)** *Prerequisite:* AGEC 360. Principles underlying agricultural policy; the role of agriculture in the national economy; objectives of agricultural policy and the means of reaching them; appraisal of current and proposed agricultural programs; and legislation for remedial economic action are presented.

**AGEC 461. ADVANCED FARM MANAGEMENT. (3)** *Prerequisite:* AGEC 361 or instructor's consent. Identification, analysis and solution of problems of farm organization and operation; how to evaluate and incorporate innovations into new or ongoing operation, case studies and field trips to situation farms in South Central Kentucky are emphasized.

**AGEC 463. AGRICULTURE FINANCE. (3)** *Prerequisite:* AGEC 361 or instructor's consent. Farm finance problems, credit institutions, capital requirements, investment decisions, budgeting techniques, operation of lending agencies and alternative means of acquiring capital are studied.

**AGEC 468. WORLD FOOD DEVELOPMENT. (3)** *Prerequisite:* AGEC 360 or instructor's consent. Study of world food production problems and opportunities in feeding an ever-increasing population. Assessment of world food production, poverty, government policies, multi-national businesses and cultures. Investigates methods of increasing production.

### **AGEC 475. SPECIAL TOPICS IN AGRICULTURE ECONOMICS. (1-3)**

*Prerequisite:* Consent of instructor. Special topics acquaint advanced undergraduate students with scientific developments of current interest in agriculture. Appropriate topic titles are assigned. Lecture and assignments vary with credit. May be repeated with change in content.

**AGEC 482. DEVELOPMENT OF AGRICULTURAL RESOURCES FOR RECREATION. (3)** *Prerequisite:* Upper division or instructor's consent. Principles in developing physical facilities for various rural recreational enterprises are studied. Topics include enterprise selection, program planning, site selection, promotion financing, management and construction of facilities.

## **AGED— AGRICULTURAL EDUCATION DEPARTMENT OF AGRICULTURE**

**AGED 250 (EDU 250). INTRODUCTION TO TEACHER EDUCATION IN AGRICULTURE. (3)** An analysis of the philosophical, psychological, and sociological foundations of education in American academic and career-technical public education. Qualification, performance and general expectation of the agriculture teacher are stressed. Students must complete a 25-hour pre-student teaching experience in the public schools. Periodic class trips are taken to observe various agriculture education departments. This course may be taken instead of EDU 250.

**AGED 470. METHODS OF TEACHING IN AGRICULTURAL EDUCATION. (3)** *Prerequisites:* AGED 250 (EDU 250), EXED 330, AGRI 398, PSY 310, and admission to student teaching. Experiences related to the teaching of agriculture education, further preparing the prospective teacher in supervised occupational experience programs. FFA activities, classroom management, and general teaching techniques. Departments are occasionally visited.

**AGED 471. ORGANIZATION AND PLANNING IN AGRICULTURAL EDUCATION. (3)** *Prerequisites:* AGED 250 (EDU 250), EXED 330, AGRI 398, PYS 310, and admission to student teaching. A teacher preparation course designed to prepare pre-service teachers for the student teaching experience and for a full-time teaching position. Unit planning, lesson preparation, and delivery comprise the major portion of this course.

**AGED 475. SELECTED TOPICS IN AGRICULTURE. (1-3)** *Prerequisite:* Consent of instructor. Special topics acquaint advanced undergraduate students with scientific developments of current interest in agriculture. Appropriate topic titles are assigned. Lecture and assignments vary with credit. May be repeated with change in content.

**AGED 489. SPECIAL PROBLEMS IN AGRICULTURAL EDUCATION. (1-3)** *Prerequisite:* Instructor's consent and 3.0 grade point average required. May be repeated to a maximum of six credits.

## **AGMC— AGRICULTURAL MECHANICS DEPARTMENT OF AGRICULTURE**

**AGMC 170. INTRODUCTION TO AGRICULTURAL MECHANIZATION. (2)** *Corequisite:* AGMC 171. The topics studied in this course will be electrical power, land surveying and building construction.

**AGMC 171. INTRODUCTION TO AGRICULTURAL MECHANIZATION LABORATORY. (1)** *Corequisite:* AGMC 170. A laboratory course correlated with AGMC 170.

**AGMC 172. LAWN AND GARDEN EQUIPMENT. (2)** *Corequisite:* AGMC 173. The student will study equipment used in the lawn and garden industry. Primary study will involve the engine and its accessories.

**AGMC 173. LAWN AND GARDEN EQUIPMENT LABORATORY. (1)** *Corequisite:* AGMC 172. The student will disassemble and repair engines and other components by following manufacturer's specification, using measuring devices, and other recommended procedures.

**AGMC 177. FARM EQUIPMENT SAFETY. (1)** *Prerequisite:* AGMC 100 or 170 or consent of instructor. Safe use and handling of hand tools, power tools, pesticides, fertilizers and agricultural equipment.

**AGMC 270. TURF MOWING EQUIPMENT MAINTENANCE. (2)** *Corequisite:* AGMC 271. Instruction in the use of modern machines and techniques to maintain cutting equipment used in the turf industry. Techniques for precision maintenance are studied.

**AGMC 271. TURF MOWING EQUIPMENT MAINTENANCE LABORATORY. (1)** *Corequisite:* AGMC 270. A laboratory course correlated with AGMC 270.

**AGMC 272. TURF EQUIPMENT MANAGEMENT AND OPERATION. (2)** Instruction in the selection, economic management and operation of turf equipment. Included are safety, pesticide certification, adjustments, basic operation, and cost analysis.

**AGMC 273. TURF EQUIPMENT MANAGEMENT AND OPERATION LABORATORY. (1)** *Corequisite:* AGMC 272. A laboratory course correlated with AGMC 272.

**AGMC 371. AGRICULTURAL MECHANICS. (2)** *Corequisite:* AGMC 372. The major focus of this course will be metal work, welding and basic metallurgy.

**AGMC 372. AGRICULTURAL MECHANICS LABORATORY. (1)** *Corequisite:* AGMC 371. A laboratory course correlated with AGMC 371. (course fee)

**AGMC 373. FARM POWER—MECHANICAL AND MACHINERY. (2)** *Corequisite:* AGMC 374. *Prerequisites:* AGMC 170, 371 or permission of instructor. The student will learn basic engine principles used on farm equipment and accessory systems. Basic principles of machinery management as applied toward proper machinery use and adjustment in the field will be addressed.

**AGMC 374. FARM POWER—MECHANICAL AND MACHINERY LABORATORY. (1)** *Corequisite:* AGMC 373. The student will disassemble and reassemble engines and machinery components.

**AGMC 377. FARM MACHINERY. (2)** *Corequisite:* AGMC 378. *Prerequisites:* AGMC 170, 371 or permission of instructor. The design principles, operation, selection and management of agricultural tillage, forage and harvesting equipment are studied. Field trips as needed.

**AGMC 378. FARM MACHINERY LABORATORY. (1)** *Corequisite:* AGMC 377. A laboratory course correlated with AGMC 377.

**AGMC 390. FARM STRUCTURES AND ENVIRONMENT. (2)** *Corequisite:* AGMC 391. *Prerequisites:* AGMC 170, 371 or permission of instructor. The basic concepts of structural and environmental problems as they relate to agricultural buildings, analysis of materials and their selection for agriculture buildings are presented. Design of light-framed structures and the use of environmental controls in livestock and product storage buildings, building codes and their effects on farm structures are reviewed. Field trips as needed.

**AGMC 391. FARM STRUCTURES AND ENVIRONMENT LABORATORY. (1)** *Corequisite:* AGMC 390. A laboratory course correlated with AGMC 390.

**AGMC 392. TURF IRRIGATION. (2)** *Corequisite:* AGMC 393. *Prerequisites:* MATH 116 and AGRO 110. Instruction in the selection, care, operation and management of irrigation systems specifically designed for commercial, industrial and residential turf settings. Special emphasis given to the unique circumstance of golf courses. Field trips required.

**AGMC 393. TURF IRRIGATION LABORATORY. (1)** *Corequisite:* AGMC 392. A laboratory course correlated with AGMC 392.

**AGMC 475. SELECTED TOPICS IN AGRICULTURE. (1-3)** *Prerequisite:* Consent of instructor. Special topics acquaint advanced undergraduate students with scientific developments of current interest in agriculture. Appropriate topic titles are assigned. Lecture and assignments vary with credit. May be repeated with change in content.

**AGRI – AGRICULTURE**  
**DEPARTMENT OF AGRICULTURE**

**AGRI 101. THE SCIENCE OF AGRICULTURE. (3)** Biological, chemical, and earth science concepts are related to agriculture. Intended for non-majors. Does not count toward agriculture major credit. [GEN ED D-I]

**AGRI 108. RURAL SOCIOLOGY. (3)** The study of rural social groups and interaction in rural and suburban America as well as in rural areas of the world. The influences of basic concepts of society and culture and the relationship of rural population, class, social institutions, and groups on rural social change. [GEN ED C]

**AGRI 175. UNIVERSITY EXPERIENCE – AGRICULTURE. (2)** *Prerequisite: For beginning college freshmen or transfer students with fewer than 24 semester hours of credit.* Transition to university experience. Topics include study skills, critical thinking skills, library education, exploration of majors and careers, degree programs, campus resources, and personal development. Agricultural issues, degree requirements, specializations with agriculture, career trends, and resources are addressed.

**AGRI 269. COOPERATIVE EDUCATION IN AGRICULTURE I. (1 – 4)**  
*Prerequisite: Sophomore standing.* Practical out-of-the classroom experience in a supervised work situation with a cooperating business, industry or governmental agency, emphasizing application of knowledge and skills in specified areas of agriculture. A maximum of 8 hours of cooperative education may apply toward a major in agriculture. Does not count toward agriculture minor credit. (Grading: Pass/Fail)

**AGRI 280. INTRODUCTION TO ENVIRONMENTAL SCIENCE. (3)** An introductory course devoted to the study of environmental issues. A general understanding of application of science to solution of contemporary environmental problems. [GEN ED D-I]

**AGRI 291. INTRODUCTION TO DATA ANALYSIS AND INTERPRETATION. (3)**  
*Prerequisites: Six hours of natural and/or social science and MATH 116.* Application of scientific method in acquiring new knowledge, interpretation of statistical research data; application of statistical concepts. Lecture and laboratory.

**AGRI 315. WATER IN FOOD PRODUCTION. (3)** *Prerequisite/Corequisite: Junior standing with a minimum of 12 hours of agriculture or other sciences, or combination thereof.* A study of the role of water in food production, including availability and distribution, economics, droughts and floods, pollution, waste disposal, sustainability, political rights and regulations, and ethics.

**AGRI 369. COOPERATIVE EDUCATION IN AGRICULTURE II. (1-4)**  
*Prerequisite: Junior standing.* Practical out-of-the classroom experience in a supervised work situation with a cooperating business, industry or government agency, emphasizing application of knowledge and skills in specified areas of agriculture. A maximum of 8 hours of cooperative education may apply toward a major in agriculture. Does not count toward agriculture minor credit. (Grading: Pass/Fail)

**AGRI 398. SEMINAR. (1)** *Prerequisites: Senior standing in agriculture or instructors consent.* Current literature from representative journals in the field of agricultural research is reviewed orally by students. Discussion, one hour. A general and specific track seminar are required.

**AGRI 399. RESEARCH PROBLEMS IN AGRICULTURE. (1-3)** *Prerequisites: 3.0 and senior standing and instructor's consent.* Gives students an opportunity to pursue a thorough study of some particular phase of agriculture. Credit to be arranged. (Grading: Pass/Fail)

**AGRI 450. RURAL HEALTH AND SAFETY. (3)** Students will explore a variety of health and safety issues unique to rural populations. The interdisciplinary team concept will be used throughout the course to foster collaboration that facilitates sharing of the expertise of students and faculty.

**AGRI 469. COOPERATIVE EDUCATION IN AGRICULTURE III. (1-4)**  
*Prerequisite: Senior standing.* Practical out-of-the classroom experience in a supervised work situation with a cooperating business, industry or governmental agency, emphasizing application of knowledge and skills in specified areas of agriculture. A maximum of 8 hours of cooperative education may apply toward a major in agriculture. Does not count toward agriculture minor credit. (Grading: Pass/Fail)

**AGRI 473. INTERACTIONS IN THE CAVE AND KARST ENVIRONMENT. (3)**  
*Prerequisite: BIOL 120/121 or equivalent.* Discussion of biological diversity, groundwater and humanity's role in utilizing and conserving the unique features of karst areas and use of these areas in teaching. Not applicable to a major or minor in biology or geography and geology. Equivalent to GEOG 473.

**AGRI 475. SELECTED TOPICS IN AGRICULTURE. (1-3)** *Prerequisite: Consent of instructor.* Special topics acquaint advanced undergraduate students with scientific developments of current interest in agriculture. Appropriate topic titles are assigned. Lecture and assignments vary with credit. May be repeated with change in content.

**AGRI 491. DATA ANALYSIS AND INTERPRETATION. (3)** *Prerequisites: AGRI 291; or MATH 116, senior standing, and 3.0 cumulative GPA.* Basic concepts of statistical models and use of samples. Variation, statistical measures, distribution, tests of significance, analysis of variance and elementary experimental design, regression and correlation as related to interpretation and use of scientific data are discussed.

**AGRI 493. SUSTAINABLE AGRICULTURE. (3)** *Prerequisites: Upper division standing, minimum of 18 hours in agriculture and related areas, including at least 12 hours of plant and animal production, soils, crop protection, crop improvement, economics, or ecology; or permission of instructor.* Effect of diminishing resources, environmental pollution, and short-term economics on the sustainability of productive agriculture. Emphasis on managing crops, livestock, and other farm resources in providing an ecological-economical balance in agricultural production.

**AGRI 494. CONTEMPORARY AGRICULTURAL ISSUES. (3)** *Prerequisite: Senior standing.* An analysis of contemporary agricultural ethical issues as viewed by consumers, advocacy groups and producers. While issues may vary, topics may include: animal welfare, biotechnology, environmental protection, food quality, food policy, land use, and tobacco.

**AGRO – AGRONOMY**  
**DEPARTMENT OF AGRICULTURE**
**PLANT SCIENCE**

**AGRO 110. INTRODUCTION TO PLANT SCIENCE. (3)** Principles of plant growth and development are applied to agriculture.

**AGRO 111. PLANT SCIENCE LABORATORY. (1)** *Corequisite: AGRO 110.* A laboratory course correlated with AGRO 110. Laboratories coincide with lecture topics. Lab is strongly encouraged for students in the plant sciences. Lab fee required.

**AGRO 310. PEST MANAGEMENT. (3)** *Prerequisites: AGRO 110 and CHEM 105 or equivalent.* Identification and management of insects, diseases and weeds of major importance in agronomic crops, turfgrasses and landscape plantings.

**AGRO 311. AGRONOMY. (3)** *Prerequisite: AGRO 110.* Principles of growth and development of agronomic plants and their management. Special consideration is given to Kentucky's major agronomic crops.

**AGRO 320. CROP PHYSIOLOGY. (3)** *Prerequisites: AGRO 110, BIOL 120 and CHEM 105 or equivalent.* Effects of various physiological and environmental factors on crop production are discussed.

**AGRO 409. WEED SCIENCE. (2)** *Prerequisites: BIOL 120 or AGRO 110; CHEM 105 and 107 or equivalent, Corequisite: AGRO 410.* Identification of prominent weed species; relationship of weeds to crop production problems; control measures, both physical and chemical, are presented.

**AGRO 410. WEED SCIENCE LABORATORY. (1)** *Corequisite: AGRO 409.* A laboratory course correlated with AGRO 409.

**AGRO 414. CROP IMPROVEMENT. (3)** *Prerequisites: Six hours of plant science plus upper division standing.* Identification, development, and utilization of genetic differences in the improvement of cultivated plants.

**AGRO 420. FORAGE CROPS. (2)** *Prerequisites: AGRO 110, 350 and BIOL 120. Corequisite: AGRO 421.* Distribution, improvement, morphology, culture, harvesting and utilization of forage crops are presented.

**AGRO 421. FORAGE CROPS LABORATORY. (1)** *Corequisite: AGRO 420.* A laboratory course correlated with AGRO 420.

**AGRO 422. FIELD CROPS. (3)** *Prerequisites: AGRO 110, and 350, BIOL 120 or consent of instructor.* Distribution, improvement, morphology, culture, harvesting and utilization of field crops are presented.

**SOIL SCIENCE**

**AGRO 350. SOILS. (3)** *Prerequisites: CHEM 105 and 106 or equivalent.* A basic study of soil properties and processes emphasizing soil management and its application to agriculture.

**AGRO 351. SOILS LABORATORY. (1)** *Pre/Corequisite: AGRO 350.* A laboratory course correlated with AGRO 350. Laboratory exercises and experiences to supplement lecture topics.

## Course Descriptions

**AGRO 352. SOIL FERTILITY AND FERTILIZERS. (3)** *Prerequisite:* AGRO 350 and AGRO 110. Soil reactions of elements essential for plant growth and development, sources and manufacture of fertilizer materials, use of fertilizers and lime, use of sound management practices are stressed.

**AGRO 452. SOIL MICROBIOLOGY. (3)** *Prerequisite:* AGRO 350. Soil microbial populations and systems and their influence on plant nutrition, soil organic matter, its decomposition and other soil microbial biochemical processes are presented.

**AGRO 454. SOIL MANAGEMENT AND CONSERVATION. (3)** *Prerequisite:* AGRO 350. Economic utilization of land for agricultural, recreation and public purposes based on location and capability characteristics; interpretation and application of soil survey information for best interests in crop production, conservation, public and industrial use; practice in designing land use maps are stressed.

**AGRO 455. SOIL CHEMISTRY. (2)** *Corequisite:* AGRO 456. *Prerequisite:* AGRO 350. Analytical techniques used in soil chemistry and soil fertility; studies nutrient determination, colloidal systems, chemical properties related to plant nutrition.

**AGRO 456. SOIL CHEMISTRY LABORATORY. (1)** *Corequisite:* AGRO 455. A laboratory course correlated with AGRO 455.

**AGRO 457. SOIL FORMATION, CLASSIFICATION AND MAPPING. (2)** *Corequisite:* AGRO 458. *Prerequisite:* AGRO 350 and permission of instructor. Soil origin; classification schemes; profile description, mapping and interpretation of soil survey information emphasizing Kentucky soils, are discussed.

**AGRO 458. SOIL FORMATION, CLASSIFICATION AND MAPPING LABORATORY. (1)** *Corequisite:* AGRO 457. A laboratory course correlated with AGRO 457.

**AGRO 475. SELECTED TOPICS IN AGRICULTURE. (1-3)** *Prerequisite:* Consent of instructor. Special topics acquaint advanced undergraduate students with scientific developments of current interest in agriculture. Appropriate topic titles are assigned. Lecture and assignments vary with credit. May be repeated with change in content.

### AH – ALLIED HEALTH DEPARTMENT OF ALLIED HEALTH

**AH 101. INTRODUCTION TO PARAMEDICINE I. (9)** *Prerequisite:* EMT-B Certification. *Corequisite:* AH 102. Concepts, roles and responsibilities as related to paramedicine; will cover assessment, communication, pharmacology/medicine administration, and advanced airway.

**AH 102. INTRODUCTION TO PARAMEDICINE I. (1)** *Prerequisite:* EMT-B Certification. *Corequisite:* AH 101. Concepts, roles and responsibilities as related to paramedicine; will cover assessment, communication, pharmacology/medicine administration, and advanced airway. Students are responsible for arranging own transportation to assigned sites. (course fee) (Grading: Pass/Fail)

**AH 103. INTRODUCTION TO PARAMEDICINE II. (9)** *Prerequisite:* AH 101. *Corequisite:* AH 104. Patient assessment, trauma management, and cardiology/pulmonology management.

**AH 104. INTRODUCTION TO PARAMEDICINE LAB II. (1)** *Prerequisite:* AH 102. *Corequisite:* AH 103. Patient assessment, trauma management, and cardiology/pulmonology management. Students are responsible for arranging own transportation to assigned sites. (course fee) (Grading: Pass/Fail)

**AH 105. INTRODUCTION TO PARAMEDICINE III. (5)** *Prerequisite:* AH 103. *Corequisite:* AH 106. Neurology, immune system, gastroenterology/intestinal/renal, toxicology, and psychiatric emergencies.

**AH 106. INTRODUCTION TO PARAMEDICINE LAB III. (1)** *Prerequisite:* AH 104. *Corequisite:* AH 105. Neurology, immune system, gastroenterology/intestinal/renal, toxicology, and psychiatric emergencies. Students are responsible for arranging own transportation to assigned sites. (course fee) (Grading: Pass/Fail)

**AH 107. INTRODUCTION TO PARAMEDICINE IV. (1)** *Prerequisite:* AH 105. *Corequisite:* AH 108. OB/GYN emergencies.

**AH 108. PARAMEDICINE LAB IV. (1)** *Prerequisite:* AH 104. *Corequisite:* AH 105. OB/GYN emergencies. Students are responsible for arranging own transportation to assigned sites. (course fee) (Grading: Pass/Fail)

**AH 109. PARAMEDICINE V. (9)** *Prerequisite:* AH 104. *Corequisite:* AH 110. Pediatrics, geriatrics, patients with special challenges, rescue, hazardous materials/biochemical scenes, and determination of death.

**AH 110. PARAMEDICINE LAB V. (1)** *Prerequisite:* AH 108. *Corequisite:* AH 109. Pediatrics, geriatrics, patients with special challenges, rescue, hazardous materials/biochemical scenes, and determination of death. Students are responsible for arranging own transportation to assigned sites. (course fee) (Grading: Pass/Fail)

**AH 111. PARAMEDICINE LAB VI. (2)** *Prerequisites:* AH 109, 110. Application/integration of paramedicine concepts in the field environment through a 500 hour internship. Students are responsible for arranging own transportation to assigned sites. (course fee) (Grading: Pass/Fail)

**AH 190. INTRODUCTION TO ALLIED HEALTH PROFESSIONALS. (2)** This course provides an overview of the history, current practice, and wellness issues, and future potential for allied health professionals. Legal, ethical, and interpersonal aspects of patient care are introduced. Educational requirements, credentialing procedures and career opportunities are outlined. Observation of an allied health professional is required.

**AH 290. MEDICAL TERMINOLOGY. (2)** A course designed to acquaint the student with the specialized language of medicine and to develop communication skills in areas where use of medical terms is necessary and appropriate. Equivalent to HIM 290.

### AMS – ARCHITECTURAL MANUFACTURING SCIENCES DEPARTMENT OF ARCHITECTURAL AND MANUFACTURING SCIENCES

**AMS 102. TECHNICAL GRAPHICS. (1)** An introduction to the basic skills and applications of drawing techniques. Sketching and instrument drafting with emphasis on line weights, lettering, equipment, use, geometric construction and pictorial drawings.

**AMS 103. INTRODUCTION TO WOOD PRODUCTS TECHNOLOGY. (3)** A beginning wood-working course dealing with both hand and machine tool processes. Students are required to plan, construct and finish a furniture item. (course fee)

**AMS 105. SURVEY OF DRAFTING. (3)** A survey of basic techniques and practices in several areas of mechanical and architectural drafting. Major areas covered are lettering, dimensioning, floor planning, perspectives, pictorial drawing, three view drawing and other mechanical drafting practices. This course may not be used by industrial education or technology majors to meet program requirements.

**AMS 120. BASIC ELECTRICITY. (3)** *Co-requisite:* MATH 118 or equivalent. Basic concepts of AC and DC current, various types of circuits, electron theory and electrical laws. (course fee)

**AMS 140. INTRODUCTION TO OCCUPATIONAL SAFETY. (1)** An introduction to workplace safety, health, and environmental issues in manufacturing and construction organizations. (course fee)

**AMS 151. ARCHITECTURAL GRAPHICS. (3)** An introduction to the basic skills and applications of drawing and modeling techniques. Sketching and drafting with emphasis on line weights, lettering, equipment, geometric construction and pictorial drawings. Conventional modeling and an introduction to software applications with emphasis on 3D form, context, and material delineation. (course fee)

**AMS 163. ARCHITECTURAL DRAFTING. (3)** An introductory course using sketching and CADD software to teach orthographic projection, isometric projection, sections, dimensioning, and 3D modeling. This course designed for majors in the Architectural Sciences Concentration, Interior Design, Civil Engineering, Geography and Textiles. (course fee)

**AMS 175. UNIVERSITY EXPERIENCE-AMS. (2)** *Prerequisite:* For beginning college freshmen or transfer students with fewer than 24 semester hours of credit. Transition to university experience. Topics include study skills, critical thinking skills, library education, exploration of majors and careers, degree programs, campus resources and personal development. Special attention is given to educational requirements, careers and resources in the fields of construction management, manufacturing and industrial distribution, architectural sciences, technology management and technology education. (course fee)

**AMS 180. INTRODUCTION TO ARCHITECTURAL PRACTICES. (3)** *Prerequisite – Corequisite:* HIST 119 or 120. Survey of the history of architectural theory and application from antiquity to today. The primary vehicle of investigation will be the architectural artifacts of the built environment and the philosophical rationale behind the motivation for their creation. [GEN ED B-II] (course fee)

**AMS 205. CADD FOR MANUFACTURING. (3)** A solids modeling course designed to develop skills on the use of a PC based mechanical design software to build feature-based, parametric solid models of parts and assemblies. Manufacturing drawings – orthographics – of those parts and assemblies are produced. (course fee)

**AMS 210. INTRODUCTION TO TECHNOLOGY. (3)** A study of technology and ethics in technology with laboratory activities in manufacturing, construction, communication, power and transportation. (course fee) [GEN ED D-I]

**AMS 213. ELECTRICAL DRAFTING. (3)** For students majoring in programs related to electricity and/or electronics. It includes interactive computer graphics, dimensioning, electrical symbols, orthographic projection and electrical and/or electronic diagrams.

**AMS 217. INDUSTRIAL MATERIALS. (3)** Survey of materials concepts and their applications to the production of manufactured items. Included will be basic procedures for testing manufacturing materials and discussions of materials processing concepts and cautions. (course fee)

**AMS 227. INTRODUCTION TO MANUFACTURING METHODS. (3)** A descriptive study of manufacturing processes using production equipment with laboratory experiences in forming and separating processes. (course fee)

**AMS 251. 3D MODELING AND IMAGING. (3)** *Prerequisites:* AMS 151, 163. Introduction to 3D modeling, animation and visualization techniques. Topics include, 3D solids, perspective projection, lighting, cameras, texturing, walk-through and fly-by animations using current industry software. (course fee)

**AMS 261. CONSTRUCTION METHODS AND MATERIALS. (3)** *Corequisite:* AMS 262. Survey of the basic methods and materials used for light commercial and residential construction applications. Addresses general requirements and site work, along with primary materials and techniques of regional construction practices. (course fee)

**AMS 262. CONSTRUCTION LABORATORY. (1)** *Corequisite:* AMS 261. The laboratory to accompany AMS 261. Hands-on experience with basic construction methods and materials used in light commercial and residential construction, including framing, concrete, masonry, and miscellaneous metals. (course fee)

**AMS 263. ARCHITECTURE DOCUMENTATION I. (3)** *Prerequisites:* AMS 163 with a grade of C or higher; AMS 261. Planning and producing residential construction drawings. Residential construction standards and codes; building materials research and specification. (course fee)

**AMS 271. INDUSTRIAL STATISTICS. (3)** *Prerequisite:* MATH 116 or equivalent. A study of statistical techniques typically used in industry for purposes of Statistical Process Control, material science research, and system planning and operation. (course fee)

**AMS 273. ARCHITECTURAL DETAILING. (3)** *Prerequisite:* AMS 320. Architectural detailing in terms of function, contractibility, and aesthetics. A transition from architectural ideas to built reality. Detailing as a means of controlling: water, air heat flow, sound, aging, and load transfer. Detailing with respect to economics, ease of assembly, efficiency, and problem solving. Lecture and laboratory. (course fee)

**AMS 282. ARCHITECTURAL STRUCTURES. (3)** *Prerequisites:* AMS 261, MATH 117 (or equivalent), PHYS 201. Survey of concepts, knowledge, and methods of statics and strength of materials with emphasis on factors that influence the development of architectural space and form. Includes qualitative and quantitative solution methods, focusing on application versus theoretical principles. (course fee)

**AMS 300. WOOD FINISHING PROCESSES. (3)** *Prerequisite:* Junior standing. A survey of industrial finishing materials, equipment and processes. (course fee)

**AMS 301. SCIENCE OF FOOD PROCESSING. (3)** *Prerequisite:* CHEM 105; BIOL 207/208. Basic concepts of transport and storage of liquids and solids, and heating and cooling of food ingredients and food products. (course fee)

**AMS 303. FOOD LAWS AND REGULATIONS. (3)** *Prerequisite:* AMS 301. History, development, and enforcement of major federal food statutes and regulations, with emphasis on the Federal Food, Drug, and Cosmetic Act (FDCA), the Food and Drug Administration (FDA) and the US Department of Agriculture (USDA) regulations. (course fee)

**AMS 305. BUILDING CODES. (3)** *Prerequisites:* AMS 261, 263. Introduction to format and content of current building codes, including interpretation and code research for application to residential and commercial projects, with emphasis on building design. (course fee)

**AMS 308. GRAPHIC COMMUNICATION. (3)** *Prerequisite:* AMS 163 or AMS 205 or JOUR 231. Includes preparation of camera copy, line copy, photography, halftone photography, making color separations, and offset platemaking. Students explore offset printing and photographic screen printing of half-tone images.

**AMS 310. WORK DESIGN/ERGONOMICS. (3)** *Prerequisite:* MATH 116. Design for people-machine interaction, including an introduction to the relevant underlying human sciences. Theory, data, and measurement problems in human information processing, training and industrial safety. (course fee)

**AMS 311. DIGITAL SYSTEMS SIMULATION. (3)** *Prerequisite:* AMS 271. Analysis of systems using both analytic methods and computer simulation. Empirical and theoretical models of arrival and service processes. State spaces and state transition probabilities. Simulation of queuing and manufacturing systems. Continuous time analysis of manufacturing systems. (course fee)

**AMS 314. ADVANCED CADD FOR MANUFACTURING. (3)** *Prerequisite:* AMS 205. Study of 2D and 3D CADD applications, related assembly and working drawings, tolerancing, geometric dimensioning and tolerancing (GD&T) and quality issues. A team approach will be used in class. (course fee)

**AMS 320. ARCHITECTURAL DOCUMENTATION. (4)** *Prerequisites:* AMS 163; AMS 261. Planning and drawing a complete set of construction documents with specifications. Construction standards & codes; residential and light commercial construction; structural details and sections; building materials specifications and source, and sizing of structural components. (course fee)

**AMS 325. SURVEY OF BUILDING SYSTEMS. (3)** *Prerequisites:* AMS 163, 261 and MATH 118 or equivalent. A study of National Electric Code, BOCA National Building Code, Standard Building Code, Local Building Code, structural systems, egress system, residential and commercial wiring, blueprint reading, HVAC, and energy conservation techniques. (course fee)

**AMS 328. ROBOTICS AND MACHINE VISION. (3)** *Prerequisite:* AMS 227. Introduction to capabilities and limitations of robotic and machine vision systems, as well as fundamentals of programming. Laboratory activities are focused toward manufacturing applications. (course fee)

**AMS 330. INVESTIGATION IN SECONDARY EDUCATION. (1, 2, OR 3)** *Prerequisite:* Junior standing or permission of the department head. Individual investigations of methods and materials, curriculum problems, the secondary school, and other areas of need or interest related to secondary education. (course fee)

**AMS 332. SOLAR TECHNOLOGY APPLICATIONS. (3)** *Prerequisite:* MATH 118 or MATH 117. Practical applications of basic laws of physics governing behavior of mechanical and electrical components to convert solar energy to electricity. Discussion of passive and active utilization of solar energy to provide domestic hot water and space heating. Solar geometry and system design with emphasis on efficiency. Laboratory fee and travel to WKU Center for Research and Development required.

**AMS 331. METHODS IN VOCATIONAL EDUCATION. (3)** The preparation and application of instructional materials, methods, techniques, and technology relevant to teaching vocational, industrial, and technical subjects.

**AMS 332. FOUNDATIONS OF INDUSTRIAL, VOCATIONAL, AND CAREER EDUCATION. (3)** The characteristics and purposes of American public education with emphasis on vocational, career, and general education; the place of relationships and differences in preparing people for occupational careers.

**AMS 333. INSTRUCTIONAL MEDIA AND CURRICULUM IN INDUSTRIAL, VOCATIONAL, AND CAREER EDUCATION. (3)** Curriculum review/development and the selection, sources, and use of technology suitable for industrial, vocational, and technical education.

**AMS 334. WORKSHOP IN VOCATIONAL EDUCATION CLASSROOM/ LABORATORY MANAGEMENT. (3)** *Prerequisite:* Permission of the instructor. A study of the theory and principles related to classroom/laboratory management and their application in planning, organizing, and managing a vocational technical learning environment. Emphasis is given to the management of facilities, instructional areas, and work/storage areas, as well as safety and discipline.

**AMS 340. MANUFACTURING OPERATIONS I. (3)** *Prerequisites:* AMS 327; AMS 371; AMS 311 AND AMS 205. Survey of methods for designing products for improved quality and manufacturability in industry, and designing processes for improved reliability. Includes "concurrent design of products and processes" and rapid introduction of new products to markets, rapid prototyping methods and applications, process optimization, testing and production planning. Note: AMS 340 and 341 must be taken in consecutive semesters. (course fee)

**AMS 341. MANUFACTURING OPERATIONS II. (3)** *Prerequisite:* AMS 340. Survey of methods for testing and production planning, pilot production runs, production cost estimating. Includes introduction of new products to production, planning for quality, measurement of associated costs, process development and optimization. Lecture and laboratory. Note: AMS 341 must be preceded by AMS 340 in the previous semester. (course fee)

**AMS 342. MANUFACTURING OPERATIONS. (3)** *Prerequisite:* AMS 271 or consent of the instructor. Survey of methods for designing products for improved quality and manufacturability in industry and designing manufacturing processes for improved reliability. (course fee)

## Course Descriptions

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**AMS 343. AUTOMATED SYSTEMS. (3)** *Prerequisite: AMS 120 or approval of instructor.* Techniques of automated systems dealing with material handling, PLC and off-the-shelf computer control systems. Programming the microprocessor for control applications may be included. Lecture and laboratory. (course fee)

**AMS 351. BUILDING INFORMATION MODELING. (3)** *Prerequisites: AMS 251; AMS 363 with a grade of "C" or higher.* Advanced course in architectural modeling, focusing on the concepts and processes of creating object-oriented databases by embedding relevant building information into parametric modeling systems, and extracting building data using standard industry software applications. (course fee)

**AMS 352. FOOD PROCESSING: UNIT OPERATIONS. (3)** *Prerequisite: AMS 301.* An overview of unit operations and processing techniques used in food processing industry. Topics include thermal processing, low temperature preservation, dehydration, irradiation, enzyme technology, separation and concentration, evaporation and distillation, and high-pressure and minimal processing methods.

**AMS 355. SYSTEMS DESIGN. (3)** *Prerequisite: MATH 116.* A comprehensive study of manufacturing organizations and their administration involving facilities layout, design of work systems, forecasting and decision making, planning for facilities and equipment. (Note: This course is for the Technology Management major or non-AMS majors.)

**AMS 356. SYSTEMS DESIGN AND OPERATION. (3)** *Prerequisites: Junior standing, MATH 118 or 116 and 117, AMS 271.* A study of manufacturing organizations and their administration, facilities layout, work systems, forecasting and decision making. Applications of resource planning determining product demand, controlling inventory, goods and services. Lecture. (course fee)

**AMS 363. ARCHITECTURE DOCUMENTATION II. (3)** *Prerequisites: AMS 263 with grade of "C" or higher; AMS 273 (formerly AMS 373).* Planning and producing commercial construction drawings. Commercial construction standards and codes; building materials research and specification. (course fee)

**AMS 365. SYSTEMS OPERATIONS. (3)** *Prerequisite: AMS 355.* Practical application of time study, predetermined time systems, incentive payment plans, and contemporary methods for controlling industrial inventory, goods, and services along with manufacturing processes. (Note: This course is for the Technology Management or non-AMS Majors.)

**AMS 367. SUPERVISED WORK EXPERIENCE IN INDUSTRY. (1-6)** Advisor approval required. Supervised employment in industry. Written reports required. (course fee)

**AMS 368. PROBLEM SOLVING/RESEARCH. (3)** *Prerequisite: AMS 271.* An application oriented introduction to basic analytical tools for the solution of practical industrial problems. Focusing on developing qualitative and quantitative literacy and analytic skills, the emphasis will be on data analysis, graphics and simple experiments applied to typical problems encountered in architectural and manufacturing practice. (course fee)

**AMS 369. ARCHITECTURAL DESIGN STUDIO I. (4)** *Prerequisites: AMS 263.* Design processes using architectural projects as case studies, design experience includes schematic design, program development, design methodologies, graphic and verbal communication skills, and environmental influences on building design: geographic location, daylighting, natural ventilation, size and shape. Lecture and laboratory. (course fee)

**AMS 370. COMPUTER NUMERICAL CONTROL. (3)** *Prerequisite: AMS 227 or consent of the instructor.* Computer-aided manufacturing techniques including manual and computer-assisted numerical control. Students program and operate CNC machining centers. Lecture and laboratory. (course fee)

**AMS 371. QUALITY ASSURANCE. (3)** *Prerequisite: MATH 183 or AMS 271.* A study of quality assurance techniques. Application of Statistical Process Control (SPC), acceptance sampling, military standards 105D & 414. Quality organizations and standards. (course fee)

**AMS 372. COMMERCIAL ARCHITECTURAL FLOOR PLANNING. (3)** *Prerequisite: AMS 320.* Planning and drawing small commercial buildings with CAD and conventional techniques, study of specifications, identification of sources of materials, acceptable design and drafting techniques emphasized. Lecture and Laboratory. (course fee)

**AMS 375. SPECIAL ARCHITECTURAL PROBLEMS. (3)** *Prerequisite: AMS 320.* A research project is required that includes a written report and an innovative design of a non-standard dwelling done on CAD or with conventional drafting tools. Lecture and laboratory. (course fee)

**AMS 378. ARCHITECTURAL/ PROFESSIONAL PRESENTATION. (3)** *Prerequisites: AMS 320; AMS 360.* Techniques to present an idea, concept, architectural design, and individual talents. Techniques include architectural modeling, both physical and virtual; presentation graphics; virtual walk-through and fly-by; portfolio design; and web page development. Lecture and laboratory. (course fee)

**AMS 380. INDEPENDENT STUDY IN INDUSTRIAL SCIENCES. (3)** *Prerequisite: Junior standing. Special permission required prior to enrollment.* This course is designed for the undergraduate student who would like to study different aspects of technology that may or may not be included in existing formal courses of instruction. Both the theoretical and empirical parts of the investigation will be reported in a formal document. (course fee)

**AMS 381. FOOD QUALITY ASSURANCE. (3)** *Prerequisite: AMS 301 or BIOL 207.* Theory and application of quality assurance programs for the food processing industry, with emphasis on good manufacturing practices, sanitation programs, and audits. (course fee)

**AMS 385. FURNITURE DESIGN AND CONSTRUCTION. (3)** *Prerequisite: AMS 103.* The design, fabrication and finishing of a furniture product with emphasis on appropriate joinery, design elements and principles and the appropriate use of wood products. (course fee)

**AMS 389. COOPERATIVE WORK EXPERIENCE. (3)** Co-op credit may be earned in most technology programs. Students must be registered for credit and work with Cooperative Education in the Career Services Center and coordinate plans with their area advisor.

**AMS 390. PROJECT MANAGEMENT. (3)** *Prerequisite: Junior standing or AMS major.* Core concepts of project management based on processes of initiating, planning, executing, controlling, and closing projects. Topics include project proposals, project selection, scope definition, CPM and PERT scheduling, budgeting, control techniques and project manager skills. (course fee)

**AMS 391. RELIABILITY AND PROBABILITY. (3)** *Prerequisite: AMS 371.* Describes how reliability is defined and specified, defines methods of designing reliability, and includes methods of improving reliability of a piece of equipment or a system. (course fee)

**AMS 392. QUALITY MANAGEMENT. (3)** *Prerequisite: AMS 343.* Survey of the quality management system; includes organizational structure, responsibilities, procedures and resources. Content covers ISO 9000 and QS 9000 series standard compliance to performance for product improvement and applications. Students may be expected to provide own transportation to field sites. (course fee)

**AMS 394. LEAN MANUFACTURING. (3)** *Prerequisite: AMS 356.* Introduction to the production system and the role of inventory, market characterization, aggregate planning, lean manufacturing and the just-in-time philosophy. (course fee)

**AMS 395. FUNDAMENTALS OF HACCP. (3)** *Prerequisite: AMS 301.* Development and implementation of the Hazard Analysis and Critical Control Point (HACCP) system and its application in the food processing industry.

**AMS 396. INTRODUCTION TO SUPPLY CHAIN MANAGEMENT. (3)** *Prerequisite: AMS 356 or AMS 371.* Introduction to supply chain management and risk pooling, logistics network configuration, the value of information, customer value and decision support systems. Software fee required. (course fee)

**AMS 398. INTERNSHIP I. (1)** *Prerequisite: 15 semester hours in Industrial Sciences or junior standing with permission of the instructor.* Advisor approved, discipline-specific internship requiring 200 hours of work experience in business or industry. (course fee)

**AMS 399. INTERNSHIP II. (1)** *Prerequisite: AMS 398.* Advisor approved, discipline-specific internship requiring 200 hours of work experience in business or industry. (course fee)

**AMS 401. CONTEMPORARY ISSUES IN ARCHITECTURE AND MANUFACTURING. (1)** *Prerequisite: Senior standing.* Contemporary issues reflecting current and emerging technologies, policies and practices in architecture and manufacturing will be studied. Guest presenters from business and industry will be presenting lectures. Students will prepare a series of papers representing their own investigation.

**AMS 410. INDUSTRIAL SCIENCE PROBLEMS. (3)** *Prerequisites: Senior or graduate standing in Industrial Education, and special permission.* This course provides an opportunity for individual study and/or research relative to problems in industrial education. Prior approval necessary before registering for this course.

**AMS 417. ADVANCED MANUFACTURING MATERIALS. (3)** *Prerequisites:* AMS 217, 227, or consent of the instructor. Survey of advanced materials science concepts and their applications to the production of manufacturing materials. Includes the effect of different materials processing techniques on property-microstructure-process interactions, and how they affect the manufacturing concepts. Lecture and laboratory. (course fee)

**AMS 427. ADVANCED MANUFACTURING PROCESSES. (3)** *Prerequisite:* AMS 227. A descriptive study of advanced manufacturing processes and production equipment with laboratory experimentation in forming, solidification and material removal processes. Lecture and laboratory. (course fee)

**AMS 430. TECHNOLOGY MANAGEMENT/SUPERVISION/TEAM BUILDING. (3)** *Prerequisite:* Junior standing. This course will provide an introduction to the fundamentals of industrial supervision. Students will develop the skills, knowledge, and philosophies required to function in a highly technical, industrial environment in a supervisory capacity. Content includes a study of leadership, management, management-labor relations, supervisory intuition, and various legal issues. (course fee)

**AMS 435. SUPERVISED STUDENT TEACHING IN VOCATIONAL, INDUSTRIAL, AND TECHNICAL EDUCATION. (4)** Observation, participation, and supervised teaching in vocational, industrial, and technical education. (course fee)

**AMS 443. FOOD PACKAGING. (3)** *Prerequisite:* AMS 301. Principles of packaging science and technology, packaging materials, machinery and equipment, and packaging requirements applied to preservation and distribution of food products.

**AMS 452. PRODUCTION WOODWORKING. (3)** *Prerequisite:* AMS 103. The design, planning, and tooling for mass production of a moderately complex wood product. Students participate in a group mass production endeavor. Lecture and laboratory. (course fee)

**AMS 462. COMMODITY FOOD PROCESSING. (3)** *Prerequisite:* AMS 352. Principles of food processing, stages and operations, and product formulations for processing and manufacturing different categories of food products such as beverages, cereals, dairy, meats and poultry, and fruits and vegetables. (course fee)

**AMS 463. ARCHITECTURE DOCUMENTATION III. (3)** *Prerequisite:* AMS 282; AMS 363 with a grade of "C" or higher; AMS 325. Advanced planning and producing commercial construction drawings relating to additions, renovations, and demolition. Commercial construction standards and codes; building materials research and specification; systems coordination. (course fee)

**AMS 465. INDUSTRIAL TECHNOLOGY FOR ELEMENTARY TEACHERS. (3)** A course designed for elementary teachers and those preparing to enter the field of elementary education. The course involves a study of the philosophy, purposes, organization and correlation of industrial arts activities as they apply to the elementary school program. Lecture and laboratory.

**AMS 469. ARCHITECTURAL DESIGN STUDIO II. (4)** *Prerequisites:* AMS 273 (formerly AMS 373), 282, 325, 369 (formerly 360). Advanced analysis, synthesis, and appraisal techniques responding to contemporary architectural issues. Theory and practice of architecture as art and science. In-depth studio experience in: schematic design and design development; selection and conceptual design of structural systems; mechanical and electrical systems; materials and connective systems, specifications and building costs with focus on sustainable design. Lecture and laboratory. (Note: Course pass required.) (course fee)

**AMS 470. LAND DEVELOPMENT. (4)** *Prerequisites:* CE 216; AMS 325; AMS 373. Land development in terms of promoting: a community, human well-being, environmental sustainability, green space and economic growth. Site analysis, climatic and regional analysis, cultural and contextual analysis, and human pattern language will be investigated and applied. Lecture and laboratory. (Note: Course pass required.) (course fee)

**AMS 471. DESIGN OF INDUSTRIAL EXPERIMENTS. (3)** *Prerequisites:* AMS 271; AMS 371. Survey of statistical experimentation methods to improve quality of products and processes in industry. Includes the planning for design of experiments and quality tools that will be involved, designing the experiments with an understanding of different types of factors and, important aspects of running the experiments and analysis of data.

**AMS 475. SELECTED TOPICS IN INDUSTRY. (1-3)** *Prerequisite:* Junior standing. Varying topics of significant interest and current developments in manufacturing technology. (course fee)

**AMS 480. INTRO TO COMPUTER INTEGRATED MANUFACTURING. (3)** *Prerequisite:* AMS 370. A survey of automation as it relates to manufacturing including numerical control systems, robotics, computer-assisted production, and other automated systems. (course fee)

**AMS 488. COMPREHENSIVE DESIGN. (3)** *Prerequisite:* Senior standing and consent of instructor. Identification and collaboration with a real world client, architectural proposals, project programmatic requirements, project research, site analysis, building codes and regulations, professional portfolio. (course fee)

**AMS 490. SENIOR RESEARCH. (3)** *Prerequisite:* Completion of a 9/10 cr. hr. specialty area in either Architectural or Manufacturing Sciences. Students work on research projects utilizing skills and knowledge from prior courses in the program. Projects performed, when possible, for local industry or architectural/construction firms. Lecture and laboratory. (course fee)

**AMS 495. ACOUSTIC GUITAR CONSTRUCTION. (4)** *Prerequisite:* AMS 103. Deals with the design and fabrication of a steel string or classical guitar and related tooling using the Haile method of construction. Lecture and laboratory. (course fee)

**AMS 489. COOPERATIVE EDUCATION. (3)** Co-op credit may be earned in most technology programs. Students must be registered for credit and work with Cooperative Education in the Career Services Center and coordinate plans with their area advisor.

**AMS 435. SUPERVISED STUDENT TEACHING IN VOCATIONAL, INDUSTRIAL, AND TECHNICAL EDUCATION. (4)** Observation, participation, and supervised teaching in vocational, industrial, and technical education.

#### ANSC – ANIMAL SCIENCE DEPARTMENT OF AGRICULTURE

**ANSC 140. INTRODUCTION TO ANIMAL SCIENCE. (3)** An introduction to the animal industry on a state, national and global basis, basic principles of reproduction and endocrinology, breeding and genetics, animal products and diseases. Emphasis is placed upon farm animal classification.

**ANSC 141. INTRODUCTION TO ANIMAL SCIENCE LABORATORY. (1)** *Prerequisite or Corequisite:* ANSC 140. A laboratory course correlated with AGRI 140. Laboratories are planned to coincide with lecture topics.

**ANSC 232. BASIC EQUITATION. (2)** For students with little previous experience in horsemanship. Basic disciplines of hunt seat and stock seat horsemanship and selection, care and use of horses and equipment are included. (course fee)  
[GEN ED F]

**ANSC 240. LIVESTOCK MANAGEMENT. (2)** *Corequisite:* ANSC 241. *Prerequisite:* ANSC 140. A general animal science course offering hands on experience in management of beef cattle, dairy cattle, sheep, swine, and horses.

**ANSC 241. LIVESTOCK MANAGEMENT LABORATORY. (1)** *Corequisite:* ANSC 240. A laboratory course correlated with ANSC 240.

**ANSC 330. HORSE PRODUCTION. (2)** *Corequisite:* ANSC 331. *Prerequisites:* ANSC 140 and 345 or approval of instructor. Principles of animal science as they relate to the horse and equine industry, characteristics of breeds, anatomy, nutrition, genetics, reproduction, behavior, training, health, breeding, management, and marketing concepts are presented.

**ANSC 331. HORSE PRODUCTION LABORATORY. (1)** *Corequisite:* ANSC 330. A laboratory course correlated with ANSC 330.

**ANSC 333. HORSE TRAINING. (2)** *Corequisite:* ANSC 334. *Prerequisites:* ANSC 330/331 or approval of instructor. The student is assigned a horse to train. Techniques for halter-breaking, gentling, grooming, lunging, saddling, driving and riding the untrained horse are included.

**ANSC 334. HORSE TRAINING LABORATORY. (1)** *Corequisite:* ANSC 333. A laboratory course correlated with ANSC 333.

**ANSC 336. CONFORMATION AND PERFORMANCE EVALUATION OF HORSES. (2)** *Prerequisite:* Approval of instructor. Evaluation and selection of horses based on conformation and athletic ability, and oral and written defense of evaluations. The importance of environment, records, genetics, and conformation in selection are discussed.

**ANSC 338. INTRODUCTORY LIVESTOCK EVALUATION AND SELECTION. (3)** *Prerequisite:* ANSC 140 or instructor's consent. Fundamental selection criteria utilized in evaluating beef cattle, hogs, sheep, dairy cattle and horses. Oral and written evaluations are included.

**ANSC 340. MEATS AND MEAT PRODUCTS. (3)** *Prerequisite:* ANSC 140 for agriculture majors. A non-technical course designed for the average consumer. The role of meats and meat products in human nutrition; meat substitutes; grading and inspection; identification and selection of wholesale and retail cuts of meat; care and storage of meat products are studied.

## Course Descriptions

### **ANSC 344. PHYSIOLOGY AND ANATOMY OF DOMESTIC ANIMALS. (3)**

*Prerequisites:* BIOL 120 and ANSC 140. Physiology and anatomy as related to livestock production, nutrition and disease emphasizing digestive, reproductive and endocrine systems.

**ANSC 345. PRINCIPLES OF ANIMAL NUTRITION. (3)** *Prerequisite:* ANSC 140, BIOL 120 and CHEM 107 or equivalent. Principles of nutrition basic to animal feeding; chemistry and physiology of nutrition: nutrient requirements for normal body functions.

**ANSC 347. ANIMAL PATHOLOGY. (3)** *Prerequisites:* ANSC 140 and BIOL 120. Distribution, nature, manner of dissemination, methods of control, prevention and eradication of infectious and parasitic diseases of domestic animals are discussed.

**ANSC 431. DAIRY PRODUCTION. (2)** *Corequisite:* ANSC 432. *Prerequisites:* ANSC 140 and 345. Principles of nutrition and management and their practical application to commercial dairy herds are emphasized.

**ANSC 432. DAIRY PRODUCTION LABORATORY. (1)** *Corequisite:* ANSC 431. A laboratory course correlated with ANSC 431.

**ANSC 437. PHYSIOLOGY OF REPRODUCTION IN DOMESTIC ANIMALS. (2)** *Corequisite:* ANSC 438. *Prerequisites:* AGRI 140 and BIOL 120. Endocrinology and physiology of reproductive systems; anatomical, physiological and biochemical bases of reproduction; factors affecting means of improving efficiency of reproduction, artificial insemination, synchronized estrus and related topics are presented.

**ANSC 438. PHYSIOLOGY OF REPRODUCTION IN DOMESTIC ANIMAL LABORATORY. (1)** *Corequisite:* ANSC 437. A laboratory course correlated with ANSC 437.

**ANSC 440. ADVANCED LIVESTOCK EVALUATION AND SELECTION. (3)** *Prerequisite:* ANSC 338 or instructor's consent. Genetic and environmental factors involved in selecting beef cattle, hogs, sheep, dairy cattle and horses. Techniques of evaluating the economically important traits of prospective breeding animals are emphasized. Students will participate in intercollegiate competition.

**ANSC 442. BEEF PRODUCTION. (2)** *Corequisite:* ANSC 443. *Prerequisites:* ANSC 140 and 345. History and importance of the beef cattle industry; programs and areas of production, selection, breeding, feeding and management and common diseases are included.

**ANSC 443. BEEF PRODUCTION LABORATORY. (1)** *Corequisite:* ANSC 442. A laboratory course correlated with ANSC 442.

**ANSC 444. SWINE PRODUCTION. (2)** *Corequisite:* ANSC 445. *Prerequisites:* ANSC 140 and 345. History and importance of the swine industry; programs and areas of production; selection, breeding, feeding and management; and common diseases are stressed.

**ANSC 445. SWINE PRODUCTION LABORATORY. (1)** *Corequisite:* ANSC 444. A laboratory course correlated with ANSC 444.

**ANSC 446. ANIMAL BREEDING. (2)** *Corequisite:* ANSC 447. *Prerequisites:* ANSC 140, AGRI 291 and BIOL 120. Application of genetic and statistical principles to breeding and improvement of farm animals; the role of selection in changing populations; effect of different mating systems upon improvement of farm animals are investigated.

**ANSC 447. ANIMAL BREEDING LABORATORY. (1)** *Corequisite:* ANSC 446. A laboratory course correlated with ANSC 446.

**ANSC 448. ANIMAL FEEDS AND FEEDING PRACTICES. (4)** *Prerequisite:* ANSC 345. Livestock feeds and their nutrients; functions of and requirements for nutrients; evaluation of feeds, feeding practices and formulation of rations for all species of livestock are included; techniques involved in nutrition research; readings in current literature are presented.

**ANSC 449. DOMESTIC ANIMAL NUTRITION: PRINCIPLES AND TECHNIQUES. (3)** *Prerequisites:* ANSC 345, ANSC 448, CHEM 107 or 222 or instructor's consent. Chemistry and physiology of domestic animal nutrition, nutrient metabolism. Techniques involved in nutrition research, readings in current nutrition literature. Demonstration and practical experience in digestion and balance studies with experience in laboratory methods for proximate analysis, minerals and vitamins.

**ANSC 475. SELECTED TOPICS IN AGRICULTURE. (1-3)** *Prerequisite:* Consent of instructor. Special topics acquaint advanced undergraduate students with scientific developments of current interest in agriculture. Appropriate topic titles are assigned. Lecture and assignments vary with credit. May be repeated with change in content.

## **ANTH – ANTHROPOLOGY**

### **DEPARTMENT OF FOLK STUDIES AND ANTHROPOLOGY**

**ANTH 120. INTRODUCTION TO CULTURAL ANTHROPOLOGY. (3)** Introduction to the cross-cultural study of human behavior and society. Topics normally include environment and food, economics, social and political organization, marriage and family, culture and personality, religion, social movements, and social change. [GEN ED E]

**ANTH 125. INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY. (3)** Introduction to primatology, human origins and evolution, modern human biological variation, and other topics of biological anthropology, emphasizing biological adaptations within the framework of evolutionary theory. [GEN ED C]

**ANTH 130. INTRODUCTION TO ARCHAEOLOGY. (3)** Introduction to the scientific study of the archaeological record, emphasizing location methods, recovery methods, dating methods, archaeological classification, and interpretative models. [GEN ED C]

**ANTH 135. INTRODUCTION TO LINGUISTIC ANTHROPOLOGY. (3)** Introduction to the study of the relations among language, culture, and society. Topics include language origins and history, language and gender, multilingualism, verbal art, and applied linguistic anthropology.

**ANTH 277. INTRODUCTION TO WORLD MUSIC. (3)** A cultural and functional analysis of traditional musical genres developed in world areas: Africa, America, Asia, Europe and Oceania. Emphasis will be placed on musical styles, performance practices, aesthetics, and instruments. Equivalent to FLK 277 and MUS 277. [GEN ED E]

**ANTH 300. FORENSIC ANTHROPOLOGY. (3)** *Prerequisite:* ANTH 125 or BIOL 131 or junior standing. Analysis of human skeletal remains and other evidence in a medicolegal context, emphasizing bone identification, race and sex determination, age and stature estimation, trauma and pathology assessment, and taphonomy evaluation.

**ANTH 305. PALEOANTHROPOLOGY: HUMAN ORIGINS AND EVOLUTION. (3)** *Prerequisite:* ANTH 125 or consent of instructor; ANTH 300 recommended but not required. Examines the origin and evolution of humans, emphasizing fundamentals of paleoanthropological research, evidence of human evolution, evolutionary theory, nonhuman primate evolution, trends in human evolution, important fossil finds and sites, and phylogenetic relationships.

**ANTH 335. OLD WORLD PREHISTORY. (3)** A survey of prehistoric indigenous developments in the Old World, focusing on regional adaptations, representative sites and artifacts, food production and complex society, and chronologies. [GEN ED E]

**ANTH 336. NEW WORLD PREHISTORY. (3)** Survey of prehistoric indigenous developments in North, Central and South America, focusing on peopling the New World, regional adaptations, representative sites and artifacts, food production and complex society, and chronologies. [GEN ED E]

**ANTH 340. PEOPLES AND CULTURES OF LATIN AMERICA. (3)** Study of the history and development of present cultures in Latin America with emphasis on economics, politics, religion, folklore and world view of indigenous, peasant and urban peoples. Equivalent to FLK 340.

**ANTH 341. PEOPLE AND CULTURES OF ASIA. (3)** Student of the cultures of South, East, and Southeast Asia with emphasis on origins, prehistoric and historic migrations, ecology, and subsistence patterns, and the origins and evolution of the major civilizations of India, China, Japan, and Vietnam. Topics include kinship and the family, religion, social organization, gender, economy, colonialism and independence, globalization and development, and maintenance of traditions in modern contexts.

**ANTH 342. PEOPLES AND CULTURES OF THE CARIBBEAN. (3)** Examination of the variety of cultural practices and social conditions found in modern-day Caribbean societies with attention to historical roots. Topics include, but are not limited to, definition of the region, religious practices, festivals, musical traditions, migration, and everyday social life and conditions. Equivalent to FLK 342.

**ANTH 343. ANTHROPOLOGY OF GENDER. (3)** A comparative study of the role gender plays in various aspects of culture. Topics include distribution of labor, environmental impact, and ideological constraints on gender constructs in a cross-cultural concept. [GEN ED E]

**ANTH 345. PEOPLES AND CULTURES OF NATIVE NORTH AMERICA. (3)** Survey of the cultures of the original peoples of North America, with emphasis on the ethnographic present. Equivalent to FLK 345.

**ANTH 350. PEOPLES AND CULTURES OF AFRICA. (3)** Survey of the cultures of Africa, with emphasis on historical development and contemporary cultural diversity. Equivalent to FLK 350. [GEN ED E]

**ANTH 366. SPECIAL TOPICS IN ANTHROPOLOGY. (3)** Opportunity for in-depth examination of anthropological topics of current disciplinary and student interest. Repeatable with different course topics for a maximum of 9 hours of credit.

**ANTH 378. SOUTHERN APPALACHIAN FOLKLIFE. (3)** Folklife of southern Appalachia, as reflected in the material folk culture, in traditional folk customs and practices, legends, anecdotes, songs, language, and literature. Equivalent to FLK 378.

**ANTH 382. MEDICAL ANTHROPOLOGY. (3)** Cross-cultural examination of definitions of health and wellness, attitudes towards and cultural construction of illness, treatments for disease and aging. Particular emphasis on examples from non-Western societies.

**ANTH 395. LABORATORY PRACTICUM IN ARCHAEOLOGY OR BIOLOGICAL ANTHROPOLOGY. (3)** *Prerequisites:* ANTH 125 for biological anthropology practicum, ANTH 130 for archaeology practicum, ANTH/FLK 470 for educational displays practicum, or consent of instructor. Course pass required. Practical experience in artifact accession, inventory, curation and documentation or in preparation of educational displays using archaeological and biological collections at the WKU Anthropology Lab. Graded pass-fail. Repeatable for 9 hours, 3 of which may count in the first 30 hours in the major or 21 hours of the minor. (Grading: Pass/Fail)

**ANTH 399. FIELD METHODS IN ETHNOGRAPHY. (3)** An examination of the history, theory, techniques, and ethics of ethnographic fieldwork, including practical fieldwork experience. Equivalent to FLK 399.

**ANTH 400. ETHNOMUSICOLOGY. (3)** Survey of the concepts and methods of ethnomusicology. Topics include history of ethnomusicology, transcription and analysis, musicians, musical instruments, music acculturation, and the function of music in society. Equivalent to FLK 400.

**ANTH 410. AFRICAN-AMERICAN MUSIC. (3)** A survey of selected musical styles created and developed by African-Americans from the 17th to the 20th century: spirituals, blues, popular music forms (e.g. soul, reggae, rap music). Emphasis will be placed on the historical factors and sociocultural trends that influenced the development of African-American music. Equivalent to FLK 410. [GEN ED E]

**ANTH 432. FIELD COURSE IN ARCHAEOLOGY. (1-9)** *Prerequisite:* ANTH 130 or consent of instructor. Includes archaeological survey, site mapping, artifact recovery, recording, and cataloging. Work is usually conducted on prehistoric Indian sites. The number of credit hours will be determined in consultation with instructor. May be repeated for a maximum of nine hours of credit.

**ANTH 434. GRAVEYARD ARCHAEOLOGY. (3)** Application of archaeological methods in the documentation of historic graveyards, emphasizing legal mandates, formation processes, subsurface prospecting, remote sensing, mapping, and headstone recording. Students must arrange own travel to field site(s). May be repeated for a maximum of 6 hours of credit. (course fee)

**ANTH 436. APPLIED ARCHAEOLOGY. (3)** *Prerequisite:* ANTH 130 or consent of instructor. Examines contract archaeology and public archaeology within the context of cultural resource management, emphasizing legal mandates, field methods, public education programs, and ethics.

**ANTH 438. ARCHAEOLOGICAL LAB METHODS. (3)** *Prerequisite:* ANTH 130 or consent of instructor. Provides practical experience in the methods and techniques for classifying and analyzing archaeological materials and interpreting the resulting data.

**ANTH 442. ECOLOGICAL AND ECONOMIC ANTHROPOLOGY. (3)** *Prerequisite:* ANTH 120 or junior standing. Analysis of economic systems and cultural adaptations to the environment of Western and non-Western societies with particular attention paid to the Caribbean and/or Latin America.

**ANTH 446. ANTHROPOLOGY OF RELIGION. (3)** A cross-cultural examination of religious beliefs and practices. Topics include myth, ritual, shamanism and healing, and the role of religion in social control and social change.

**ANTH 448. VISUAL ANTHROPOLOGY. (3)** *Prerequisite:* Junior level or higher. This course examines photography and film as tools and products of cross-cultural research with special emphasis on cultural and political biases presented through visual means.

**ANTH 449. ETHNOGRAPHIC VIDEO PRODUCTION. (3)** *Prerequisite:* ANTH 448 or permission of instructor. Video production as a research methodology in anthropology. Practical exercises and collaborative student projects. Students will produce their own short ethnographic videos. Explores practices of representing cultures through video. This course will have a lab fee.

**ANTH 450. MODERN HUMAN BIOLOGICAL VARIATION. (3)** *Prerequisites:* MATH 109 or MATH 116; and one of the following: ANTH 125, BIOL 327, BIOL 430. Uses evolutionary theory to study biological similarities and differences among living human populations on morphological, skeletal, and molecular levels, emphasizing anthropometry, racial classification, inheritance, population genetics, adaptation, disease, and intelligence.

**ANTH 470. MUSEUM PROCEDURES AND PRESERVATION TECHNIQUES. (3)** Essential aspects of museums and of preservation, i.e. collecting, preserving, researching, exhibiting, and interpreting material culture. Equivalent to FLK 470.

**ANTH 493. ARCHAEOLOGY STEWARDSHIP. (3)** *Prerequisites:* Course pass, ANTH 130, and at least six additional hours in anthropology. Field monitoring, assessment, and documentation of the integrity of local archaeological sites threatened by cultural and natural formation processes. Students must arrange own travel to field sites. May be repeated for a maximum of 6 hours of credit.

**ANTH 495. DIRECTED STUDY. (1-4)** *Prerequisites:* Junior standing and consent of department head. Course pass required. Available to superior students who wish to conduct individual, intensive reading and research in a specific area of anthropology in close cooperation with supervising faculty. Submission of such projects to student sections of regional professional meetings is encouraged. Number of credit hours will be determined in consultation with instructor. May be repeated for a maximum of 8 hours of credit.

#### ARBC - ARABIC DEPARTMENT OF MODERN LANGUAGES

**ARBC 101. ARABIC I. (3)** A study of the basic grammar, syntax and vocabulary of Arabic, concentrating on developing fundamental skills in writing, reading and speaking the language. May be taken either as a foreign language course or as a RELS elective. [GEN ED A-II]

**ARBC 102. INTERMEDIATE ARABIC II. (3)** *Prerequisite:* ARBC 201 or equivalent. Continuation on the development of communication skills on everyday topics and of cultural insights. [GEN ED A-II]

**ARBC 201. INTERMEDIATE ARABIC I. (3)** *Prerequisite:* ARBC 387 or two years of high school Arabic. Expansion of communication skills in increasingly complex and varied situations. Emphasis on conversational speaking, presentational writing and speaking, and understanding culturally specific texts and media. [GEN ED A-II]

**ARBC 202. INTERMEDIATE ARABIC II. (3)** *Prerequisite:* ARBC 201 or equivalent. Continued expansion of interpersonal communication skills at the intermediate level. Emphasis on increasing comprehension, the building of vocabulary, and on presentational modes of speaking and writing. [GEN ED A-II]

#### ARC - ASIAN RELIGIONS AND CULTURES DEPARTMENT OF PHILOSOPHY AND RELIGION

**ARC 401. TOPICS IN ASIAN RELIGIONS AND CULTURES. (3)** A seminar focusing on a specific element of Asian religions or cultures.

**ARC 498. STUDY IN ASIAN RELIGIONS AND CULTURES. (3)** *Prerequisite:* Consent of instructor. Directed study and research in Asian religions and cultures.

**ARC 499. SENIOR SEMINAR. (3)** *Prerequisite:* Senior standing and major in Asian religions and cultures or consent of instructor. A capstone designed for senior Asian religions and cultures majors. Students will complete projects that demonstrate their research, writing, and analytical skills. Content areas of the seminar will vary by semester and instructor.

#### ART / ARTS DEPARTMENT OF ART (ART) DEPARTMENT OF LIBERAL ARTS AND SCIENCES (ARTS)

##### ART HISTORY

**ART 100 / ARTS 100C. ART APPRECIATION. (3)** Partial fulfillment of the humanities requirement for all students. Expressive, formal and technical components are explored in a manner designed to provide the student with a more complete understanding and appreciation of the visual arts. [GEN ED B-II]

**ART 105. HISTORY OF ART TO 1300. (3)** A selective chronological study of the visual arts from prehistoric through gothic times. The course is designed as an introduction to the basic terminology and problems of art history and to methods of analyzing and interpreting individual works of art. [GEN ED B-II]

**ART 106. HISTORY OF ART SINCE 1300. (3)** A selective chronological study of the major visual arts from renaissance through modern times. [GEN ED B-II]

**ART 305. ANCIENT GREEK AND ROMAN ART (3).** *Prerequisite:* ART 105 or permission of the instructor. Investigation of the artistic heritage of Ancient Greece and Rome from the Bronze Age to 476 CE.



## Course Descriptions

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**ART 312. ART OF THE UNITED STATES TO 1865. (3)** *Prerequisite:* ART 106 or permission of the instructor. A survey of art and architecture of the United States from its beginnings to the end of the Civil War.

**ART 313. ART OF THE UNITED STATES SINCE 1865. (3)** *Prerequisite:* ART 106 or permission of the instructor. A survey of art and architecture in the United States from the Civil War to the present day.

**ART 314. SOUTHERN BAROQUE ART. (3)** *Prerequisite:* ART 106 or permission of instructor. A survey of art and architecture of Italy and Spain of the seventeenth century.

**ART 315. NORTHERN BAROQUE ART. (3)** *Prerequisite:* ART 106 or permission of instructor. A survey of art and architecture of northern Europe of the seventeenth century with an emphasis on Dutch, Flemish, and French traditions.

**ART 316. MEDIEVAL ART & ARCHITECTURE. (3)** *Prerequisite:* ART 105 or permission of instructor. A study of the art and architecture of Europe from the early third century through the fourteenth century.

**ART 325. ART OF ASIA, AFRICA, AND THE AMERICAS. (3)** *Prerequisites:* ART 105 and ART 106, or junior standing with permission of instructor. Visual arts of indigenous cultures from four continents: Asia, the Americas and Africa.

**ART 390. CONTEMPORARY ART. (3)** *Prerequisite:* ART 106 or permission of the instructor. Consideration of the diverse influences, developments, and trends in the visual arts since World War II.

**ART 401. ART OF THE ITALIAN RENAISSANCE. (3)** *Prerequisites:* ART 105, 106. This course analyzes the architecture, sculpture and painting of the Italian Renaissance with emphasis on the examination of selected examples.

**ART 403. NORTHERN RENAISSANCE ART. (3)** *Prerequisite:* ART 106 or permission of instructor. A study of Netherlandish, German, and French art from late 14th through 16th centuries. Emphasis is placed upon the work of such major figures as van Eyck, van der Weyden, van der Goes, Bosch, Bruegel, Gruenewald, and Durer.

**ART 405. ART THEORY AND CRITICISM. (3)** *Prerequisites:* ART 105, 106. A study of major theories of art, both historical and contemporary, and of various approaches to making qualitative judgments about individual works of art.

**ART 407. ISLAMIC ART AND ARCHITECTURE. (3)** *Prerequisite:* ART 105, or RELS 305, or RELS 320, or permission of the instructor. A survey of art and architecture in the Islamic world from 622 through the present day.

**ART 408. EUROPEAN ART, 1700-1848. (3)** *Prerequisite:* ART 106 or permission of instructor. Examines the visual arts of eighteenth and early nineteenth century Europe including movements and styles such as Rococo, Neoclassicism, and Romanticism.

**ART 409. EUROPEAN ART, 1848-1900. (3)** *Prerequisites:* ART 106 or permission of instructor. Examines the visual arts of mid to late nineteenth century Europe including movements and styles such as Realism, Impressionism, and Post-Impressionism.

**ART 410. EUROPEAN ART, 1900-1945. (3)** *Prerequisites:* ART 106 or permission of instructor. Examines the visual arts of Europe from the beginning of the twentieth century until the end of World War Two.

**ART 445. AMERICAN ARCHITECTURAL HISTORY. (3)** An interdisciplinary survey of American architectural history, including trends and styles, architect designed and manufactured structures and elements, and the social history of American architecture. (Equivalent to FLK 445, American Architectural History)

**ART 494. SEMINAR IN ART HISTORY. (3)** *Prerequisites:* ART 105, 106, and one other art history courses. An examination of a selected period, movement, or artist which relates historical, formalistic, and theoretical approaches. Emphasis is placed upon accurate observation, critical judgment, and effective communication of ideas.

### ART EDUCATION

**ART 310. ART EDUCATION IN THE ELEMENTARY SCHOOL. (3)** *Prerequisite:* Junior standing. A requirement for elementary education majors, this course studies the materials, methods and functions of art in the elementary curriculum through the use of lectures, readings, observations and selected studio problems.

**ART 311. FOUNDATIONS OF ART EDUCATION AND METHODS I. (3)** *Prerequisites:* EDU 250, ART 105, ART 106, and junior standing; or permission of instructor. An introductory course for theoretical as well as practical foundations of elementary and/or middle school art education methods. Field experience will be required. Students are responsible for arranging their own transportation to designated or assigned sites.

**ART 411. FOUNDATIONS OF ART EDUCATION AND METHODS II. (3)** *Prerequisite:* EDU 250, PSY 310, EXED 330, and ART 311 – each with grades of “C” or higher. This second art education methods course provides diverse experiences related to art education theory and practice in elementary, middle, and high schools. Field experiences in public schools outside the regular class sessions required. Students are responsible for arranging their own transportation to designated or assigned sites.

**ART 413. FOUNDATIONS OF ART EDUCATION AND METHODS III. (3)** *Prerequisites:* ART 411 with a grade of “C” or higher and senior standing; or permission of instructor. Long-term curriculum design assessment and classroom management methods appropriate for visual arts instruction in middle and high schools. Field experience is required. Students are responsible for arranging their own transportation.

### FOUNDATION COURSES

**ART 130. TWO-DIMENSIONAL DESIGN. (3)** This course is an introduction to the elements and principles of design and their creative application in two-dimensional design problems.

**ART 131. THREE-DIMENSIONAL DESIGN. (3)** An introduction to the elements and principles of three-dimensional design through problems using natural and synthetic materials. (course fee)

**ART 230. COLOR CONCEPTS. (3)** *Prerequisites:* ART 140, 130. This course deals with concepts and applications of color in assigned two-dimensional problems.

### DRAWING COURSES

**ART 140. DRAWING. (3)** This course introduces the fundamentals of drawing with emphasis on line, perspective or rendering. Course content is derived from still life, landscape and figure.

**ART 240. DRAWING. (3)** *Prerequisite:* ART 140. This course introduces the student to specific problems in composition. (course fee)

**ART 340. DRAWING. (3)** *Prerequisite:* ART 240. Composition and exploration of different media and techniques are emphasized in drawing from still life arrangements, landscapes or figure. (course fee)

**ART 341. DRAWING. (3)** *Prerequisite:* ART 340. Advanced drawing is provided in this course, with continued emphasis on composition and technique. (course fee)

**ART 440. DRAWING. (3)** *Prerequisite:* ART 341. Advanced drawing explorations through individual problem solving. (course fee)

### CERAMICS COURSES

**ART 220. CERAMICS. (3)** *Prerequisites:* ART 105, 106, 131 and 140 (or concurrently with 105 or 106). An introduction to ceramic art forming and glazing techniques. (course fee)

**ART 321. CERAMICS. (3)** *Prerequisite:* ART 220. This course emphasizes forming techniques that complement the talents and concepts of intermediate level ceramic art students. (course fee)

**ART 420. CERAMICS. (3)** *Prerequisite:* ART 321. A continuation of production in clay form and research in experimental clay and glaze composition. (course fee)

**ART 421. CERAMICS. (3)** *Prerequisite:* ART 420. This course requires advanced individual performance in creative design concepts and in research and recording. (course fee)

**ART 422. CERAMICS. (3)** *Prerequisite:* ART 421. This course is a continuation of ART 421. (course fee)

**ART 423. POTTERY WHEEL TECHNIQUES. (3)** *Prerequisite:* ART 422. Development of wheel-thrown shapes that reflect innovative thinking and mature craftsmanship. (course fee)

**ART 424. CERAMIC GLAZE COMPOSITION. (3)** *Prerequisite:* ART 422. Investigation of the thermal behavior of glaze chemicals and compounds. (course fee)

**ART 425. CERAMIC STUDIO EQUIPMENT DESIGN. (3)** *Prerequisite:* ART 423. Study of the design and construction of basic studio equipment, including kilns, burners, potters wheels, and slab rollers. (course fee)

**ART 426. SPECIAL FIRING TECHNIQUES. (3)** *Prerequisite:* ART 423. Experimentation with oxidation and reduction kiln firing techniques including raku, salt, lustre, and bizen. (course fee)

### GRAPHIC DESIGN COURSES

**ART 231. GRAPHIC DESIGN. (3)** *Prerequisites:* ART 130 and 140. This course teaches the fundamentals of applied visual communication in graphic design projects. (course fee)

**ART 243. DIGITAL MEDIA. (3)** *Prerequisites: ART 130 and ART 140.* Introduction to the use of digital media in the arts through basic investigations of current computer technologies. (course fee)

**ART 330. GRAPHIC DESIGN. (3)** *Prerequisites: ART 231, junior standing.* While the course uses elements to create forms for public viewing and also emphasizes the use of the student's experience gained in other studio areas, its primary concern is to strengthen the student's aesthetic awareness in graphic design. (course fee)

**ART 331. VISUAL THINKING. (3)** *Prerequisite: ART 231.* Focuses on the process of lateral thinking and the visualization of design problems and their solutions. Emphasizes effective research, imagination, originality, and execution in various media. (course fee)

**ART 334. SURVEY OF GRAPHIC DESIGN. (3)** *Prerequisites: ART 105, 106, 231 or approval of instructor.* This course investigates the evolution of graphic design from pre-historic visual communications through the computer graphics revolution.

**ART 343. DIGITAL MEDIA: TIME-BASED. (3)** *Prerequisite: ART 243.* Exploration of time-based and experimental digital art, including computer animation, interactive multimedia, World Wide Web and emerging applications of computer graphics in visual art. (course fee)

**ART 430. GRAPHIC DESIGN. (3)** *Prerequisite: ART 330.* A studio course to synthesize the student's previously acquired technical ability and aesthetic awareness into a finished graphic design comprehensive of professional caliber. (course fee)

**ART 431. ILLUSTRATIONS. (3)** *Prerequisite: ART 231.* This course stresses the application of various graphic media and techniques to solve problems in illustration. (course fee)

**ART 433. PACKAGE DESIGN. (3)** *Prerequisite: ART 131 and 330, or consent of instructor. For graphic design minors (reference number 385).* Techniques and aesthetics of package design. (course fee)

**ART 436. ELECTRONIC ILLUSTRATION. (3)** *Prerequisite: ART 243 or permission of instructor.* This course provides advanced instruction in popular computer illustration programs such as Adobe Illustration and MacroMedia Freehand for students preparing for careers in graphic design. Limited enrollment. (course fee)

**ART 438. ADVANCED COMPUTER GRAPHICS. (3)** *Prerequisites: ART 243 and ART 330 or permission of instructor.* Combines artwork and graphic design using the computer to compose printed matter. (course fee)

#### **PRINTMAKING COURSES**

**ART 250. PRINTMAKING. (3)** *Prerequisites: ART 105, 106, 130, 140 (or concurrently with 105, 106).* This course introduces the student to printmaking through one of the following processes: relief, screenprinting, intaglio, lithography, collagraph or monotype. (course fee)

**ART 350. PRINTMAKING. (3)** *Prerequisite: ART 250.* Emphasizes the development of imagery through one of the following processes: relief, screenprinting, intaglio, lithography, collagraph, monotype or digital. (course fee)

**ART 351. PRINTMAKING. (3)** *Prerequisite: ART 350.* Continues the student's development of personal imagery and technical proficiency through printmaking. (course fee)

**ART 450. PRINTMAKING. (3)** *Prerequisite: ART 351.* Stresses advanced printmaking techniques and requires students to have strong personal imagery. (course fee)

**ART 451. PRINTMAKING. (3)** *Prerequisite: ART 450. Corequisite: ART 452.* Printmaking exploration through research and creative activity. (course fee)

**ART 452. PRINTMAKING. (3)** *Corequisite: ART 451.* This course consists of advanced research problems in printmaking. (course fee)

**ART 453. SENIOR TECHNIQUES IN PRINTMAKING. (3)** *Prerequisite: ART 452.* Develops mastery printmaking skills. (course fee)

**ART 454. SENIOR COMPOSITION IN PRINTMAKING. (3)** *Prerequisite: ART 452.* Exploration of mature personal imagery in printmaking. (course fee)

**ART 455. ADVANCED SENIOR TECHNIQUES IN PRINTMAKING. (3)** *Prerequisites: ART 453, 454.* Continues the development of master printmaking skills. (course fee)

**ART 456. ADVANCED SENIOR COMPOSITION IN PRINTMAKING. (3)** *Prerequisites: ART 453, 454.* Continues the exploration of mature personal imagery in printmaking. (course fee)

#### **PAINTING COURSES**

**ART 260. PAINTING. (3)** *Prerequisites: ART 105 or 106, 130 and 140 (or concurrently with 105 or 106).* The purpose of this course is to acquaint students with the fundamental techniques of painting. (course fee)

**ART 360. PAINTING. (3)** *Prerequisite: ART 260.* This course stresses the creative approach to painting media. Emphasis is placed upon developing and understanding of the materials, principles and techniques inherent in a work of art. Outside reading and pictorial investigations are assigned. (course fee)

**ART 361. PAINTING. (3)** *Prerequisite: ART 360.* This course requires students to apply knowledge, understanding and skills in painting with increased competence and insight. (course fee)

**ART 460. PAINTING. (3)** *Prerequisite: ART 361.* Research problems in selected painting materials are provided in this course. (course fee)

**ART 461. PAINTING. (3)** *Prerequisite: ART 460.* This course consists of advanced individual research problems in painting. (course fee)

**ART 462. PAINTING. (3)** *Prerequisite: ART 461.* This course is a continuation of 461 Painting. (course fee)

**ART 463. SENIOR PAINTING STUDIO I. (3)** *Prerequisite: ART 462. Corequisite: ART 464.* Advanced studio exploration through historical, technical and practical methods. (course fee)

**ART 464. SENIOR PAINTING STUDIO II. (3)** *Prerequisite: ART 462. Corequisite: ART 463.* Advanced studio using historical, technical and practical methods to create a cohesive body of work. (course fee)

**ART 465. ADVANCED SENIOR PAINTING STUDIO I. (3)** *Prerequisites: ART 463, 464. Corequisite: ART 466.* Development of a sustainable studio practice through individual problem solving. (course fee)

**ART 466. ADVANCED SENIOR PAINTING STUDIO II. (3)** *Prerequisites: ART 463, 464. Corequisite: ART 465.* Development of a professional studio practice through individual experimentation and innovation. (course fee)

#### **SCULPTURE COURSES**

**ART 270. SCULPTURE SURVEY I. (3)** *Prerequisites: ART 105, 106, 131 and 140 (or concurrently with 105 or 106).* A survey of sculpture production methods, including modeling, mold making, carving and fabricating in various materials. Students will explore traditional and contemporary techniques that can be used to express their understanding of the human condition by sculptural means. (course fee)

**ART 370. SCULPTURE SURVEY II. (3)** *Prerequisite: ART 270.* Further development of basic sculptural materials and techniques. (course fee)

**ART 371. SCULPTURE METHODS, WELDING I. (3)** *Prerequisite: ART 370.* Advanced work in sculpture composition. Welding is introduced, using oxyacetylene, electric or gas arc. (course fee)

**ART 372. SCULPTURE, FIGURATIVE STUDIES. (3)** *Prerequisite: ART 270.* Focuses on the human figure, its various applications and meanings as a vehicle for aesthetic expression in contemporary sculpture. Course may be repeated once for credit. (course fee)

**ART 470. SCULPTURE. (3)** *Prerequisite: ART 371.* Sculptural problems. Introduction to metal casting using sand molds. (course fee)

**ART 471. SCULPTURE METHODS, FOUNDRY I. (3)** *Prerequisites: ART 371, 372.* Sculptural problems. Introduction to the lost-wax method of casting. (course fee)

**ART 472. SCULPTURE. (3)** *Prerequisite: ART 471.* Experience in solving problems met in professional practice. (course fee)

**ART 474. SCULPTURE METHODS, WOOD. (3)** *Prerequisite: ART 472.* Advanced techniques in wood sculpture. (course fee)

**ART 475. SCULPTURE METHODS, WELDING II. (3)** *Prerequisite: ART 371.* Advanced welding techniques in sculpture. (course fee)

**ART 476. SCULPTURE METHODS, FOUNDRY II. (3)** *Prerequisite: ART 471.* Advanced foundry techniques in sculpture. (course fee)

#### **WEAVING COURSES**

**ART 280. WEAVING. (3)** *Prerequisites: ART 105, 130 and 140 (or concurrently with ART 105, 106).* This course is an introduction to weaving, including rya, flossa, and tapestry rug techniques plus techniques for yardage and wall hanging. (course fee)

**ART 380. WEAVING. (3)** *Prerequisite: ART 280.* In this course, the creative and individual approach is emphasized in weaving full-size items using techniques learned in weaving 280, in addition to other weaving techniques. (course fee)

## Course Descriptions

**ART 381. WEAVING. (3)** *Prerequisite:* ART 380. In this course, the student is expected to investigate one or more selected areas of weaving. (course fee)

**ART 480. WEAVING. (3)** *Prerequisite:* ART 381. This course consists of creative research in the areas of double-weave, ikat, the use of indigenous fibers and other more complicated techniques. (course fee)

**ART 481. WEAVING. (3)** *Prerequisite:* ART 480. This course provides for the development of special creative problems involving techniques investigated in weaving 480. (course fee)

**ART 482. WEAVING. (3)** *Prerequisite:* ART 481. This course involves advanced individual research in weaving. (course fee)

**ART 483. SENIOR FIBER TECHNIQUES. (3)** *Prerequisite:* ART 482. Develops proficiency in weaving or fiber construction through experiments with traditional and innovative techniques. (course fee)

**ART 484. SENIOR FIBER COMPOSITION. (3)** *Prerequisite:* ART 482. Explores and develops mature personal concepts and imagery in fiber art. (course fee)

**ART 485. ADVANCED SENIOR FIBER TECHNIQUES. (3)** *Prerequisites:* ART 483, 484. Continues the development of fiber techniques introduced in ART 483. (course fee)

**ART 486. ADVANCED SENIOR FIBER COMPOSITION. (3)** *Prerequisites:* ART 483, 484. Continues the development of concepts and imagery in fiber art as begun in ART 484. (course fee)

### **SPECIAL TOPICS STUDIO COURSES**

**ART 432. PORTFOLIO. (3)** *Prerequisites:* Junior standing and consent of instructor. This course is designed to inform and to guide the student in assembling a portfolio for professional presentation. (course fee)

**ART 434. CAPSTONE SEMINAR. (1)** *Prerequisite:* ART 432. Seminar workshop with emphasis on presentation and discussion of practices that are appropriate to future professional development. To be taken the last semester of student's program of study. Restricted to BFA and AB, studio concentration students. (Grading: Pass/Fail)

**ART 496. SPECIAL TOPICS IN STUDIO ART. (3)** *Prerequisite:* Permission of instructor. Investigates different topics in art through process or technique in a studio practice. May be repeated for a total of 6 credit hours.

### **INDEPENDENT STUDY**

**ART 490. SPECIAL PROBLEMS. (3-6)**

**ART 491. SPECIAL STUDIES. (3)**

**ART 399. PROFESSIONAL WORK. (3)** *Prerequisite:* Junior standing.

**ART 499. CAREER EXPERIENCE IN ART. (3)** *Prerequisite:* Application for or enrollment in Cooperative Education plan, approval of Co-op Faculty Advisor and of department head and development of written Learning Plan. Practical experience in art in a supervised work situation within a cooperating private enterprise or public agency. Adequately prepared students are placed in a situation in which theoretical knowledge may be applied to actual professional experience. Course may be repeated once for an additional 3 hours.

### **ASTR – ASTRONOMY**

#### **DEPARTMENT OF PHYSICS AND ASTRONOMY**

#### **NON-SCIENCE MAJORS**

**ASTR 104. ASTRONOMY OF THE SOLAR SYSTEM. (3)** An introductory study of that portion of the physical universe extending beyond the earth from the sun to the outer limits of the solar system, including its relationship to the rest of the universe and to the earth. Topics include phenomena visible from earth, the earth's motions and timekeeping, eclipses, motions of planets and satellites, and the historical development of scientific understanding of the solar system. Comparison of physical properties among the sun, planets, and satellites interrelate the earth and its life forms with the extraterrestrial environment that supported the development and continuation of life on earth. This course contains an integral laboratory that includes planetarium exercises and evening observing sessions using telescopes. [GEN ED D-I (DL)]

**ASTR 106. ASTRONOMY OF STELLAR SYSTEMS. (3)** An introductory study of that portion of the physical universe in the space beyond the bounds of the solar system. Topics include the physical properties of stars and stellar systems, stellar formation and evolution, supernovas, pulsars, galaxies, quasars, black-holes, and cosmology—scientific theories of the origin, evolution, and fate of the universe on the grandest scale. Emphasis is given to the significance of these topics to the development and fate of the earth and its star. This course contains an integrated laboratory that includes planetarium exercises and evening observing sessions using telescopes. [GEN ED D-I (DL)]

**ASTR 108. DESCRIPTIVE ASTRONOMY. (3)** Introductory survey of our universe; from observations of the sun, moon and stars in the sky to our understanding of planets, stars, galaxies and the overall characteristics of the cosmos. [GEN ED D-I]

#### **SCIENCE/MATH MAJORS AND MINORS**

**ASTR 214. GENERAL ASTRONOMY. (4)** *Co-requisite:* MATH 136. An introduction to astronomy for science majors. Topics include distances, masses, and luminosities of stars, stellar atmospheres and structure, stellar evolution, star systems, interstellar matter, galaxies, cosmology, the sun, and the solar system. Three hours of lecture and two hours of laboratory per week. [GEN ED D-I (DL)]

#### **EDUCATION MAJORS AND MINORS**

**ASTR 405. ASTRONOMY FOR TEACHERS. (3)** *Prerequisite:* ASTR 104 or ASTR 106 or ASTR 108 or ASTR 214. Selected topics in astronomy for elementary and secondary teachers. Does not count toward physics major credit.

#### **DEPARTMENTAL MAJORS AND MINORS**

**ASTR 298. RESEARCH EXPERIENCES. (1-3)** *Prerequisite:* MATH 117 or equivalent, and ASTR 106 or ASTR 214 or ASTR 275; and permission of instructor. Individual or group research project carried out under direct faculty supervision. An oral presentation or paper, reviewed by a faculty committee, is required. Course may be repeated for a maximum total of 3 credit hours.

**ASTR 305. INTRODUCTION TO ASTROBIOLOGY. (3)** *Prerequisites:* MATH 116, and ASTR 106 or BIOL 120 or CHEM 120 or GEOL 111. Inter-disciplinary study of life on Earth and possible life beyond Earth. Topics include the environments suitable for life, evolution of life forms, and the search for intelligent extraterrestrial life. Integrates concepts and methods from astronomy, biology, chemistry and geology.

**ASTR 314. OBSERVATIONAL ASTRONOMY. (4)** *Prerequisite:* ASTR 214. A study of the techniques of observational astronomy. Topics include imaging techniques, spherical astronomy, magnitude systems, telescope optics, data acquisition, and statistical analysis of astronomical data. Three hours of lecture and two hours of laboratory per week.

**ASTR 414. ASTROPHYSICS. (4)** *Prerequisite:* PHYS 321 and MATH 237. *Corequisite:* MATH 331. Introduction to current astrophysical topics, including radiation theory, the interstellar medium, stellar evolution, galaxies, quasars and cosmology.

#### **BA – BUSINESS ADMINISTRATION**

#### **GORDON FORD COLLEGE OF BUSINESS**

**BA 110. INTRODUCTION TO BUSINESS AND ENTREPRENEURSHIP. (3)** A multi-disciplinary introduction to business and entrepreneurship. Course will provide basic knowledge of each of the major functional global business areas. Ethical issues and consumers' rights will also be integrated into the course.

**BA 175. UNIVERSITY EXPERIENCE-BUSINESS. (3)** *Prerequisite:* For beginning college freshmen or transfer students with fewer than 24 semester hours of credit. A multi-disciplinary introduction to entrepreneurship and the general business environment. Topics include study skills, critical thinking, problem solving and exploration of majors and careers. Special attention is given to educational requirements, careers and resources available in the business arena.

**BA 220. SPECIAL TOPICS IN BUSINESS ADMINISTRATION (LOWER DIVISION). (1-3)** Special topics course covering interdisciplinary topics of current interest in business. Open to all students. May be repeated one time for up to 6 hours of credit.

**BA 420. SPECIAL TOPICS IN BUSINESS ADMINISTRATION (UPPER DIVISION). (1-3)** *Prerequisite:* Junior standing. Special topics course covering interdisciplinary topics of current interest in business administration. May be repeated one time for up to 6 hours of credit.

**BA 490. COLLEGE OF BUSINESS INTERNSHIP. (1-3)** *Prerequisites:* GPA 2.5 overall, ACCT 200, 201; CIS 241; ECON 202, 203, 206, FIN 330; MGT 200, 210; MKT 220; MATH 116. Professional or business opportunities consistent with the mission and objectives of the Ford College of Business. These opportunities will be used to complement and individualize a student's program of study and will be administered on a pass/fail basis.

#### **BCOM – BROADCAST COMMUNICATION**

#### **SCHOOL OF JOURNALISM & BROADCASTING**

**BCOM 185. INTRODUCTION TO BROADCASTING. (3)** A survey of, and introduction to, the foundation, characteristics and current operating practices of broadcasting stations in the United States.

**BCOM 201. PROCESS AND EFFECTS OF MASS COMMUNICATION. (3)** An in-depth study of the theoretical foundations for analyzing mass communication messages, channels, institutions, audiences and salient effects. Provides overview of research-based scholarly conceptions of mass media roles and functions for individuals and groups.

**BCOM 261. BASIC RADIO PRODUCTION. (3)** *Prerequisite: Either BCOM 185 or BCOM 201.* Designed to introduce students to the operation of radio studio equipment and general station operation. Practical experience producing various types of radio broadcast material. Lecture and lab.

**BCOM 264. DIGITAL VIDEO PRODUCTION AND DISTRIBUTION. (3)** Designed for non-broadcasting majors, this course includes the basics needed to shoot, edit and distribute video productions in the digital realm. Acquisition will concentrate on lighting, composition and audio for the digital world. Editing and graphics will be explored using non-linear programs, and distribution will focus on CDs, DVDs and web streaming. (course fee)

**BCOM 265. BASIC BROADCAST NEWS. (3)** *Prerequisite: BCOM 185 or 201 or JOUR 201.* An introduction to the theory and practice of broadcast news writing styles for radio and TV. Includes analyzing and editing news information with initial exposure to broadcast news announcing on the student radio station WWHR-FM. (course fee)

**BCOM 266. BASIC TELEVISION PRODUCTION. (3)** *Prerequisite: BCOM 185 or BCOM 201 or permission of instructor.* Designed to introduce students to the operation of television field and studio equipment and general station operation. Practical experience producing various types of television broadcast and non-broadcast video material. Lecture and lab. (course fee)

**BCOM 300. AMERICAN POPULAR ARTS. (3)** *Prerequisite: BCOM 201 or JOUR 201.* Provides a balanced and comprehensive coverage of the major manifestations of popular mass-mediated arts. Critical examination seeks to reveal the actual and potential values of contemporary "middle culture." Areas to be investigated in detail include movies, popular music, magazines, books, television, radio and related communication channels.

**BCOM 301. MASS COMMUNICATION LAW AND ETHICS. (3)** *Prerequisites: PS 110 and either BCOM 201 or JOUR 201.*

An overview of concepts basic to the freedom of expression. Consideration, through case study and attention to topical problems, of limits on the freedom of expression, including various means of regulation: ethics, law and other social controls. Emphasis on broadcasting applications.

**BCOM 303. ACTING FOR THE CAMERA. (3)** A fundamental approach to auditioning and acting for the camera. (See Theatre Department)

**BCOM 325. SURVEY OF WRITING FOR TELEVISION, RADIO. (3)** *Prerequisite: Either BCOM 185 or BCOM 201.* A survey of television and radio as media for the writer and the forms of writing prevalent in the two media. Survey of, and practice in, techniques for writing commercials, public service, news, sports, interviews and dramatic segments. Introduction to the production elements involved in writing for television and radio. (course fee)

**BCOM 326. TELEVISION AND RADIO PERFORMANCE. (3)** *Prerequisite: BCOM 266.* The fundamentals and principles of communicating as performer on-microphone and on-camera, including voice improvement and image projection as well as exercises in the types of performing prevalent in radio and television. Lecture and lab. (course fee)

**BCOM 328. BROADCAST WEATHER GRAPHICS. (3)** *Prerequisites: BCOM 185, 201, GEOG 121.* Creation and practical use of weather graphics to formulate a forecast, data accumulation and communication of weather events to a radio/television audience. (course fee)

**BCOM 329. BROADCAST WEATHER DATA. (3)** *Prerequisite: BCOM 185, 201, GEOG 121.* The use of broadcast satellite and broadcast radar products in weather prediction, emphasizing image interpretation. Advanced analysis of broadcast meteorological case studies related to broadcast weather forecasting problems and severe weather events. (course fee)

**BCOM 335. NEWS DISCOVERY AND SELECTION. (3)** *Prerequisite: BCOM 265.* Gathering news through active news discovery; advance planning, enterprising and prioritizing stories based on criteria of newsworthiness and consequence. Some off-campus travel. (course fee)

**BCOM 350. SCRIPTWRITING FOR FILM & TELEVISION. (3)** *Prerequisites: FILM 201 or BCOM 325 or permission of instructor.* Story structure, dialogue, characterization and other elements important in scriptwriting for television and motion pictures.

**BCOM 360. ELECTRONIC MEDIA PROGRAMMING/RESEARCH. (3)** *Prerequisite: BCOM 301 or instructor's permission.* Exposure to full range of broadcast programming options and research concerns. Market place and managerial aspects of format design and audience analysis are presented and discussed to reveal the essential nature and role of electronic mass media services.

**BCOM 361. ADVANCED RADIO PERFORMANCE. (3)** *Prerequisite: BCOM 261.* An advanced production course in radio broadcast programming and personality development. Integrated work on WWHR-FM radio. Projects include weekly air shifts, digital production and editing work, remote broadcasts and involvement in overall station operations. Lecture and lab. (course fee)

**BCOM 365. INTERMEDIATE BROADCAST NEWS. (3)** *Prerequisite: BCOM 335.* An intermediate approach to the principles and practice of collecting, writing, editing and announcing the news by means of radio and television. Lecture and lab. (course fee)

**BCOM 366. VIDEO EDITING, AESTHETICS AND TECHNIQUES. (3)** *Prerequisite: BCOM 266 or FILM 201 or permission of the instructor.* Editing as a practical experience and as the final tool for the visual storyteller's message. Editing systems include Avid and Final Cut Pro. Work with original material in editing situations that incorporate computer graphics and 3-D animation. Discussion and analysis of editing decisions considering ethics, philosophy, timing and aesthetics. Lecture and lab. (course fee)

**BCOM 367. FIELD PRODUCTION. (3)** *Prerequisites: BCOM 266 and BCOM 366 for majors in broadcasting, BCOM 366 for majors in film.* Study of, and practical experience in, single-camera field acquisition. Techniques of lighting, audio, talent and environment manipulation, as they apply to both film and video, are examined in the context of shooting for the edit. Employs advanced editing tools in developing skills by students through use of time code, Avid systems and DVE units. (course fee)

**BCOM 368. NEWS VIDEOGRAPHY AND EDITING. (3)** *Prerequisite: BCOM 265 and 266 for majors in Broadcasting; JOUR 261 for majors in News/Editorial Journalism and Photojournalism.* A study of, and practical experience in, field techniques of videography and editing procedures and practices as they pertain to television news and documentaries. Emphasis is on digital video and nonlinear editing for electronic news gathering (ENG) for commercial and noncommercial television news programs. (course fee)

**BCOM 369. COOPERATIVE EDUCATION IN BROADCAST COMMUNICATION. (3)** *Prerequisites: 18 hours in the major, permission of sequence coordinator.* Appropriate supervised work with a cooperating organization, defined as a licensed radio or television station, cable television or production facility.

**BCOM 376. FILM PRODUCTION FOR TELEVISION. (3)** *Prerequisite: BCOM 264 for non-majors or BCOM 367 for Broadcast majors.* Advanced work in the creative and technical aspects of filmmaking for television. Practical applications of cinematography in the professional 16 mm format. Program material will include television commercials, music videos, experimental, documentary and made-for-TV movies. Lecture and lab. (course fee)

**BCOM 378. FILM ANIMATION. (3)** Students learn the basics of producing animated motion pictures by experimenting with a variety of techniques and methods. Also included is a history of the animated film as an art form.

**BCOM 379. PRODUCING FOR VIDEO AND FILM. (3)** *Prerequisite: BCOM 366.* Structured to offer students a strong foundation in producing film and television programs. Includes developing ideas, conceptualizing, script evaluation, proposal writing, fund raising, budgeting, scheduling and business management.

**BCOM 380. POST PRODUCTION. (3)** *Prerequisite: BCOM 366.* Continued instruction in post-production techniques and technologies. Focuses include image manipulation, non-linear editing, audio post, visual effects and compositing, with a strong web component. (course fee)

**BCOM 385. BROADCAST COMMERCIAL SALES. (3)** *Prerequisite: Junior standing.* A study of the marketing principles, problems and techniques of producing revenue for broadcast radio and television through the sale of commercial time. Students are involved in role-playing as well as the preparation and oral presentation of a final marketing project.

**BCOM 401. HISTORY OF BROADCASTING IN AMERICA. (3)** Consolidates and interrelates the major historical factors in the development of broadcast mass communications in America; provides perspective on the creation, adaptation and diffusion of radio and television in relation to other mass media.

## Course Descriptions

**BCOM 429. BROADCAST METEOROLOGY. (3)** *Prerequisites:* BCOM 328, BCOM 329, GEOG 424, GEOG 426. This course teaches the student the intricacies of meteorological forecast elements while completing television studio work, specifically designed to television weather performance. Weather-related features as well as emergency weather broadcasting will be covered. (course fee)

**BCOM 461. RADIO WORKSHOP. (1)** *Prerequisites:* BCOM 361 and instructor's permission. A radio production and management course for students with a continuing desire to contribute to the on-air operation of WWHR or for students involved in WWHR staff/management positions. Course work involves practical application of radio production and management skills in the areas of entertainment and news. (May be repeated twice for additional credit. Lecture and lab.)

**BCOM 465. ADVANCED BROADCAST NEWS. (3)** *Prerequisites:* BCOM 365 and BCOM 368. The capstone course in writing, editing, announcing and producing radio and television news reports. Producing, anchoring and reporting for the student television newscast is required. Students also analyze the job market and produce a resume tape for employment. Lecture and lab. (course fee)

**BCOM 466. DIRECTING TELEVISION AND FILM. (3)** *Prerequisites:* BCOM 367 and 379. Professional level directing course for film/video production majors. Structured to offer students a thorough knowledge of and experience in directing single and multi-camera productions. Emphasis on live, video tape and film programs for broadcast and non-broadcast applications. Lecture and Lab. (course fee)

**BCOM 467. BROADCAST WORKSHOP. (1)** *Prerequisite:* Instructor permission. An intense study of a specific production or news skill generally required of broadcasting personnel. These skills will be identified and studied through discussion and application. Various production-related topics include television lighting, television graphics, electronic news gathering (ENG), commercial spot production, industrial applications, scenic design and construction, radio/TV sports announcing, and others. (May be repeated twice for credit in additional topics.)

**BCOM 480. ADVANCED POST PRODUCTION. (3)** *Prerequisites:* BCOM 380. Advanced instruction in post-production techniques and technologies. Focuses include non-linear editing, advanced visual effects and compositing, DVD authoring, encoding for mobile applications, and web video and animation. (course fee)

**BCOM 481. PROBLEMS IN MASS COMMUNICATION. (3)** *Prerequisite:* Permission of the instructor. Course offers the student the chance to pursue an independent study in a number of areas including radio, television, cinematography and broadcast news.

**BCOM 482. TELEVISION PROGRAM PRODUCTION. (3)** *Prerequisites:* BCOM 367, 380, 466. Capstone of television production sequence. Culminates in portfolio, which entire production faculty evaluates. Projects, accompanied by complete production books, may target commercial and/or non-commercial outlets for both film and video. Program produced should reflect skills acquired in all previous production courses and serve as anchor of student's sample reel. (course fee)

**BCOM 485. BROADCAST OPERATIONS AND MANAGEMENT. (3)** *Prerequisite:* Second semester junior standing or senior standing. A study of the programming, operation and management practices and problems related to broadcast radio and television stations in the United States, as well as industry codes and regulatory requirements from governmental agencies.

**BCOM 491. INTERNSHIP. (3)** *Prerequisites:* 18 hours in the major, permission of sequence coordinator. Professional-quality experience outside or inside the University for a fixed period of time and conforming to minimum standards established by the School. Follow-up will consist of student reports and evaluation.

### BE – BUSINESS AND MARKETING EDUCATION SCHOOL OF TEACHER EDUCATION

**BE 210. COMPUTER APPLICATIONS FOR BUSINESS EDUCATORS. (3)** Fundamentals of integrated desktop computer applications utilized by business and marketing educators. For future Business and Marketing educators with no computer applications experience.

**BE 310. ADVANCED COMPUTER APPLICATIONS FOR BUSINESS EDUCATORS. (3)** *Prerequisite:* BE 210. Fundamentals of advanced integrated desktop computer applications utilized by Business and Marketing educators. For future Business and Marketing educators or students who wish to expand their current skills from the intermediate level to the advanced level.

**BE 350. BUSINESS COMMUNICATION. (3)** A study of the communication process in business as related to managerial and professional communication. Emphasis on the principles of functional communication; correct, forceful language use; and sound management policies and practices, which lead to effective communication.

**BE 362. INTRODUCTION TO OFFICE SYSTEMS. (3)** This course emphasizes the interaction of people, processes, and technologies that form office information systems within contemporary organizations. The integrated office systems concept; major office systems technologies; management decisions and personnel considerations necessitated by office automation; human factors currently at the forefront of office systems planning; and emerging trends in society, organizations, and technology will be discussed.

**BE 410. DIGITAL MEDIA FOR BUSINESS EDUCATORS. (3)** *Prerequisite:* BE 210. Fundamentals of creating documents and web pages via computer media. Emphasis will be placed on computer desktop publishing. For future Business and Marketing educators.

**BE 471. OFFICE INTERNSHIP. (3)** *Prerequisite:* Permission of the coordinator. Office Internship is a business work experience program requiring employment in a business, government, or institutional office environment during the term in which the student is enrolled. This course requires periodic seminars and permission of the employer to declare the work experience as an internship experience.

**BE 485. OFFICE EMPLOYEE TRAINING. (3)** Theories of learning applied to the adult learner in training and development situations; developing, managing, staffing training, development programs, training materials creation, evaluation, facilities, media, applications for administrative, professional, support, and office systems employees.

**BE 486. BUSINESS AND MARKETING EDUCATION SEMINAR. (3)** *Prerequisites:* Senior standing and permission of instructor. *Corequisite:* SEC 473. A capstone course focusing on current trends, problems, and issues in the business world and their effect on business and marketing education.

### BIOL / BIO – BIOLOGY DEPARTMENT OF BIOLOGY (BIOL) DEPARTMENT OF LIBERAL ARTS AND SCIENCES (BIO)

\*Course numbers preceded by an asterisk are not applicable toward a major or minor in biology without prior approval of the department head.

**\*BIOL 113 / BIO 113C. GENERAL BIOLOGY. (3)** An introductory course in biology for the non-science major, which emphasizes the diversity and organization of life integrated with major principles and new discoveries. [GEN ED D-I]

**\*BIOL 114 / BIO 114C. GENERAL BIOLOGY LABORATORY. (1)** A laboratory course correlated with BIOL 113 for non-science majors emphasizing the scientific process, biological concepts and biological organization. (course fee) [GEN ED D-I (DL)]

**BIOL 120. BIOLOGICAL CONCEPTS: CELLS METABOLISM, GENETICS. (3)** *Corequisite:* BIOL 121. Introductory course in biology that emphasizes cellular organization and processes, metabolism, DNA structure and replication, and Mendelian and population genetics. [GEN ED D-I]

**BIOL 121. BIOLOGICAL CONCEPTS: CELLS, METABOLISM, AND GENETICS LAB. (1)** *Corequisite:* BIOL 120. Introductory laboratory in biology that emphasizes the experimental aspects of cellular organization and processes, metabolism, DNA structure and replication, and Mendelian and population genetics. (course fee) [GEN ED D-I (DL)]

**BIOL 122. BIOLOGICAL CONCEPTS: EVOLUTION, DIVERSITY, AND ECOLOGY. (3)** *Corequisite:* BIOL 123. Introductory course in biology that emphasizes evolutionary patterns and processes, diversity of life (bacteria, archaea, protists, plants, fungi, and animals), ecological principles, and conservation and management. [GEN ED D-I]

**BIOL 123. BIOLOGICAL CONCEPTS: EVOLUTION, DIVERSITY, AND ECOLOGY LAB. (1)** *Corequisite:* BIOL 122. Introductory laboratory in biology for science majors that emphasizes the experimental aspects of evolutionary patterns and processes, diversity of life (bacteria, archaea, protists, plants, fungi, and animals), ecological principles, and conservation and management. [GEN ED D-I (DL)] (course fee)

**\*BIOL 131 / BIO 131C. HUMAN ANATOMY AND PHYSIOLOGY. (4)** A basic anatomy and physiology course designed for students in physical education and health science careers. Emphasis is placed upon the concept of homeostasis and relationship of structure and function. (course fee) [GEN ED D-I (DL)]

**BIOL 150. INVESTIGATIVE BIOTECHNOLOGY CORE I. (5)** Student-directed learning emphasizing structure and function of molecules, cells and tissues, basic research skills, basic computing in biology, and history of biology. Lab fee required.

**BIOL 151. INVESTIGATIVE BIOTECHNOLOGY CORE II. (5)** *Prerequisite:* BIOL 150. Student-directed learning emphasizing: origin of life and evolutionary process, genomics and inheritance, bioenergetics and carbon flow, basic research skills, and bioethics. Lab fee required.

**BIOL 153. INVESTIGATIVE BIOTECHNOLOGY MODULE. (1)** *Prerequisite:* *Consent of instructor.* Biotechnology core modules as taught in BIOL 150 and BIOL 151. Lab fee may be required. May be repeated for a total of 10 credits.

**BIOL 175. UNIVERSITY EXPERIENCE – BIOLOGY. (2)** *Prerequisite:* *For beginning freshmen or transfer students with fewer than 24 semester hours of credit.* Transition to university experience. Topics include study skills, critical thinking skills, library education, exploration of majors and careers, degree programs, campus resources, and personal development. Special attention is given to educational requirements, careers, and resources in the field of biology.

**BIOL 199. INTRODUCTION TO RESEARCH EXPERIENCE. (1)** *Prerequisite:* *Restricted to majors in BIOL 714 – Investigative Biotechnology.* Introduces students to research through laboratory rotations. Each student will participate in two different rotations with two different faculty members. (Grading: Pass/Fail)

**\*BIOL 207 / BIO 207C. GENERAL MICROBIOLOGY. (3)** An introduction to microorganisms and their importance to humans (for non-biology majors). Approximately one third of the course is devoted to each of the three major areas of microbiology: organismal, environmental, and medical. (May be taken with or without the correlated laboratory course, BIOL 208, dependent upon the student's curriculum requirements). [GEN ED D-I]

**\*BIOL 208 / BIO 208C. GENERAL MICROBIOLOGY LABORATORY. (1)** *Prerequisite or corequisite:* BIOL 207. A laboratory course correlated with BIOL 207. (course fee) [GEN ED D-I (DL)]

**BIOL 222. PLANT BIOLOGY AND DIVERSITY. (3)** *Prerequisites:* BIOL 120-121 and BIOL 122-123. *Corequisite:* BIOL 223. Survey of cyanobacteria, algae, and plants with an emphasis on anatomy, morphology, development, physiology, and evolutionary adaptations.

**BIOL 223. PLANT BIOLOGY AND DIVERSITY LAB. (1)** *Corequisite:* BIOL 222. A laboratory course correlated with BIOL 222. (course fee)

**BIOL 224. ANIMAL BIOLOGY AND DIVERSITY. (3)** *Prerequisites:* BIOL 120-121 and BIOL 122-123. *Corequisite:* BIOL 225. Survey of animal phyla and major classes with emphasis upon morphological adaptations and biological systems that have evolved to maintain organismal and population homeostasis.

**BIOL 225. ANIMAL BIOLOGY AND DIVERSITY LAB. (1)** *Prerequisite:* BIOL 224. A laboratory course correlated with BIOL 224. (course fee)

**BIOL 226. MICROBIAL BIOLOGY AND DIVERSITY. (3)** *Prerequisites:* BIOL 120-121 and BIOL 122-123 *Corequisite:* BIOL 227. A study of morphological, cultural, and biochemical characteristics of important groups of bacteria.

**BIOL 227. MICROBIAL BIOLOGY AND DIVERSITY LAB. (1)** *Corequisite:* BIOL 226. A laboratory course correlated with BIOL 226. (course fee)

**\*BIOL 231. ADVANCED HUMAN ANATOMY AND PHYSIOLOGY. (4)** *Prerequisites:* BIOL 131 with a grade of "C" or better or equivalent. Human anatomy and physiology for health science career students emphasizing an integrated organ systems approach to body function. (course fee)

**BIOL 232. PRINCIPLES OF WILDLIFE ECOLOGY AND MANAGEMENT. (3)** *Prerequisites:* BIOL 120-121, BIOL 122-123 or permission of instructor. Examination of the principles of wildlife ecology and management, including population regulation, habitat management, wildlife diseases and conservation. Primarily for those interested in a career involving wildlife.

**BIOL 275 / BIO 275C. COLLOQUIA. (1-3)** *Prerequisite:* *Consent of instructor.* Issues of contemporary, historical or intellectual significance in Biology, often with ethical implications will be weighed and debated. May not be used to satisfy the general education requirement in natural sciences. May be repeated with a maximum of (3) counting for the Biology or Investigative Biotechnology major.

**BIOL 283. INTRODUCTORY BIostatISTICS. (4)** *Prerequisites:* BIOL 120-121 and BIOL 122-123; MATH 118. Introduction to statistical techniques and experimental design applied to the biological sciences. Probability and distributions, descriptive statistics, hypothesis testing and statistical inference using t-statistics, regression, ANOVA, chi-square, non-parametric tests. Use of computers and analysis of real data are emphasized.

**\*BIOL 295. INTRODUCTION TO RESEARCH METHODOLOGY. (1)** To familiarize Ogden Research Scholars and other research oriented students with the fundamentals of choosing a research topic, performing a bibliographical search on a subject, classification of instruments, data taking, data reduction, professional ethics and other research oriented topics. The common points of research methodology in the different scientific areas will be accentuated. Examples will be drawn from the various disciplines. Use of computers will be emphasized. (Course does not count towards any major or minor). Equivalent to CHEM 295, CS 295, GEOL 295, MATH 295, and PHYS 295.

**\*BIOL 302. HUMAN BIOLOGY. (3)** A survey of body systems with special emphasis on human reproduction, embryological development and infectious diseases. Designed for non-science majors. [GEN ED D-I]

**BIOL 312. BIOINFORMATICS. (4)** *Prerequisites:* BIOL 150 or 120-121 or 113, and BIOL 283 or MATH 183 or MATH 382 or STAT 301. Presentation of the theoretical underpinnings and the computational methods of nucleic acid and protein sequence analyses used in genomic work. An associated laboratory component will provide project-based application of these methods.

**BIOL 315. ECOLOGY. (4.5)** *Prerequisite:* BIOL 222-223 or BIOL 224-225 or BIOL 226-227. A study of the fundamental principles of ecology. Laboratory work includes field research and computer techniques for analysis and synthesis. A field trip may be required. (course fee)

**\*BIOL 318. BIOLOGICAL SCIENCE LABORATORY FOR ELEMENTARY TEACHERS. (1)** *Prerequisites:* BIOL 113 or equivalent and at least junior standing. A laboratory course for Elementary Education majors emphasizing the scientific process, highlighting classical and current topics of biological importance, and demonstrating relatively simple and economical means to reveal fundamental biological principles to elementary school students.

**BIOL 319. INTRODUCTION TO MOLECULAR AND CELL BIOLOGY. (3)** *Prerequisites:* BIOL 120-121 and BIOL 122-123; CHEM 120-121. *Corequisite:* BIOL 322. Introduction to molecular and cell structure, relating molecular structure and function to cell structure and function. Special emphasis on protein and nucleic acid structure and function and their role in coordinating cellular activities.

**BIOL 321. COMPARATIVE ANATOMY. (4)** *Prerequisites:* BIOL 224-225. A comparative study of the morphology and relationships of the organ systems of some typical vertebrates. (course fee)

**BIOL 322. INTRODUCTION TO MOLECULAR AND CELL BIOLOGY LABORATORY. (1)** *Corequisite:* BIOL 319. Laboratory course presenting fundamental techniques for the isolation and characterization of biological molecules, with an emphasis on proteins and nucleic acids.

**BIOL 324. HISTOLOGY. (4)** *Prerequisites:* BIOL 224-225. A study of the microscopic structure of vertebrate tissues and organs.

**BIOL 325. INSECT BIODIVERSITY. (3)** *Prerequisites:* BIOL 120-121 and BIOL 122-123 or consent of instructor. Study of insects, the most diverse group of animals, including their unusual morphology, behavior, ecology, and evolutionary relationships. Laboratory activities include required off-campus trips to regional habitats and surveys of global insect groups. (course fee)

**BIOL 326. ORNITHOLOGY. (3)** *Prerequisites:* BIOL 120-121 and BIOL 122-123. A study of the general characteristics, economic importance, history, structure, classification, and identification of birds. Lectures and field trips.

**BIOL 327. GENETICS. (4)** *Prerequisites:* BIOL 120-121 and BIOL 122-123. A study of the fundamental principles of heredity in eukaryotic organisms. (course fee)

**BIOL 328. IMMUNOLOGY. (4)** *Prerequisites:* BIOL 319 and 322 or BIOL 327. An introductory study of the vertebrate immune system and its relationship to organismic integrity. (course fee)

**BIOL 330. ANIMAL PHYSIOLOGY. (3)** *Prerequisites:* BIOL 224-225, CHEM 120-121. Examination of the general principles by which animals function. Major organ systems of animals are explored with emphasis on the communication and interactions between them. Numerous vertebrate and invertebrate systems are used to illustrate physiological concepts.

**BIOL 331. ANIMAL PHYSIOLOGY LABORATORY. (1.5)** *Prerequisite or corequisite:* BIOL 330. A laboratory course that emphasizes experimental design and hypothesis testing, along with classic and modern techniques used in animal physiology. (course fee)

**BIOL 334. ANIMAL BEHAVIOR. (3)** *Prerequisites:* BIOL 120-121 and BIOL 122-123. Examination of the evolutionary basis of behavior in animals. Topics include genetic and physiological bases of behavior, communication, animal cognition, migration, foraging, predator avoidance, courtship and mate choice, and sociality.

## Course Descriptions

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**BIOL 335. NEUROBIOLOGY. (3)** *Prerequisite: BIOL 120-121 and BIOL 122-123; or consent of instructor.* The nervous system is described at the molecular, cellular, and systemic level. Topics include the structure of neurons, how neurons transmit signals, sensory systems, brain organization, and neural development, as well as how these principles affect behavior and health.

**\*BIOL 344. BIOLOGY OF AGING. (3)** *Prerequisite: three hours of biology or consent of instructor.* An introductory study of the mechanisms of aging processes with special emphasis on humans. Unfavorable progressive changes in molecules, cells, organs and organ systems will be discussed. Designed for non-biology majors.

**BIOL 348. PLANT TAXONOMY. (4)** *Prerequisites: BIOL 120-121 and BIOL 122-123 or consent of instructor.* Identification of local plant species and survey of major vascular plant families emphasizing morphological diversity, evolutionary relationships and economic uses. Field trips required. (course fee)

**BIOL 350. INTRODUCTION TO RECOMBINANT GENETICS. (3)** *Prerequisites: BIOL 319 and 322.* This course will introduce students to the basic mechanisms of genetic recombination, both in living cells and in vitro. Topics that will be discussed include: genomic organization, genetic recombination, genetic mapping, gene cloning and cloning vectors, and physical mapping of genes. The laboratory will cover methods for the isolation, cloning, labeling, and reintroduction into cells of recombinant vectors. (course fee)

**BIOL 369. COOPERATIVE EDUCATION IN BIOLOGY I. (3)** *Prerequisite: Sophomore or junior standing.* Practical out-of-the-classroom experience in a supervised work situation with a cooperating business, industry, or governmental agency, emphasizing application of knowledge and skills in specific areas of biology.

**BIOL 377. ANIMAL FORM AND FUNCTION. (3)** *Prerequisites: BIOL 120-121 and BIOL 122-123 or consent of instructor.* Mechanistic designs underlying organismal morphology, physiology driving designs, and behaviors that impact function. Topics include comparative anatomy, adaptation, ecomorphology, biological basis of physical principles, and organismal performance. (course fee)

**BIOL 389. COOPERATIVE EDUCATION IN BIOLOGY II. (3)** *Prerequisite: Junior standing.* Practical out-of-the-classroom experience in a supervised work situation with a cooperating business, industry, or governmental agency, emphasizing application of knowledge and skills in specific areas of biology.

**BIOL 399. RESEARCH PROBLEMS IN BIOLOGY. (1-3)** *Prerequisite: Consent of research project director.* A study involving a research project under faculty supervision. May be repeated with a maximum of (3) (ref. 525) or 6 hours (ref. 617) counted toward the major.

**BIOL 400. PLANT PHYSIOLOGY. (4)** *Prerequisites: BIOL 222-223; two semesters of chemistry.* A study of the general principles by which plants function. Three areas discussed are transport and translocation of water and solutes, metabolism with special emphasis on photosynthesis, and plant growth and development.

**BIOL 403. MOLECULAR BASIS OF CANCER. (3)** *Prerequisite: BIOL 319 and BIOL 322 or equivalent.* Biological and molecular features of oncogenesis and clinical cancer, focusing on specific molecular events underlying carcinogenesis, metastasis, and angiogenesis. Case study learning is integrated into the course to help students understand the societal implications of cancer.

**BIOL 404. TECHNIQUES AND THEORY OF ELECTRON MICROSCOPY. (4)** *Prerequisites: BIOL 120-121 and BIOL 122-123 or consent of instructor.* A course in the fundamentals of electron microscopy including basic theory, techniques for specimen preparation and photography, and operation of the electron microscope. (course fee)

**BIOL 405. AQUATIC INSECT DIVERSITY. (3)** *Prerequisites: BIOL 224 and 225 or consent of instructor.* The taxonomy and biology of the insects commonly encountered in freshwater habitats.

**BIOL 407. VIROLOGY. (3)** *Prerequisites: BIOL 150 or BIOL 319 and 322.* Study of bacterial, animal and plant viruses. Emphasis on the molecular aspects of the viral life cycle and pathogenesis.

**BIOL 411. CELL BIOLOGY. (3)** *Prerequisites: BIOL 319 and 322, or BIOL 327.* A lecture series emphasizing the morphological and chemical make-up of cells, the physical and chemical properties of the cell, and modern techniques for investigation of cellular functions.

**BIOL 412. CELL BIOLOGY LABORATORY. (1)** *Prerequisite or corequisite: BIOL 411.* A laboratory course correlated with BIOL 411. (course fee)

**BIOL 415. ECOLOGICAL METHODS. (3)** *Prerequisites: BIOL 315 or consent of instructor.* A course emphasizing the collection, manipulation and analysis of ecological data using a variety of techniques in aquatic and terrestrial habitats.

**BIOL 420. INTRODUCTION TO TOXICOLOGY. (3)** *Prerequisites: BIOL 120-121; CHEM 314 or equivalent.* Toxicology is the study of the adverse affects of inorganic and organic molecules on living organisms. The course will provide an understanding of the basic principles of toxicology for undergraduate majors and minors in the natural sciences.

**BIOL 430. EVOLUTION: THEORY AND PROCESS. (3)** *Prerequisite: BIOL 319 and 322 or BIOL 327.* Study of the genetic, behavioral and ecological mechanisms leading to evolutionary change, and the role of evolutionary theory as a unifying framework in biology.

**BIOL 440. DEVELOPMENTAL GENETICS. (3)** *Prerequisite: BIOL 319 and 322.* A descriptive investigation of the genetic and biochemical processes that regulate development of microbes, plants and animals.

**BIOL 446. BIOCHEMISTRY I. (3)** *Prerequisite: CHEM 314 or 340.* A study of biochemical compounds and their role in intermediary metabolism. Special topics include biochemical energetics and coenzyme mechanisms. Equivalent to CHEM 446.

**BIOL 447. BIOCHEMISTRY LABORATORY. (2)** *Corequisite or prerequisite: BIOL/CHEM 446.* A basic laboratory study involving selected experiments which illustrate biochemical principles including separation, identification and chemical properties of carbohydrates, lipids, proteins and enzymes. Equivalent to CHEM 447. (course fee)

**BIOL 450. RECOMBINANT GENE TECHNOLOGY. (3)** *Prerequisite: BIOL 350.* Discovery-based laboratory emphasizing application of basic techniques to solve student-defined problems. Problems in characterization and expression of genetic material are explored. (course fee)

**BIOL 456. ICHTHYOLOGY. (4)** *Prerequisites: BIOL 224-225 and permission of instructor.* A survey of the fishes of the world, their physiology, structure, behavior, and ecology. Special emphasis will be placed upon the collection and identification of freshwater species of Kentucky.

**BIOL 458. FISHERIES MANAGEMENT. (4)** *Prerequisites: BIOL 224-225.* A study of the factors affecting fish populations. Topics covered include life history traits, sampling techniques, management practices, and policies regulating the management of fish populations. Off-campus and overnight weekend field trips and a course fee are required. (Course fee required.)

**BIOL 459. MAMMALOLOGY. (3)** *Prerequisites: BIOL 224-225.* Taxonomy, life history and ecology of the mammals. Laboratory work includes field studies and collection and study of specimens in the laboratory.

**BIOL 460. PARASITOLOGY. (4)** *Prerequisites: BIOL 224-225.* A study of the morphology, physiology, life histories, control and economic significance of representative species. (course fee)

**BIOL 467. BIOCHEMISTRY II. (3)** *Prerequisite: BIOL/CHEM 446.* A study of the reactions of living systems and an introduction to the mechanisms and energetics of metabolism. Equivalent to CHEM 467.

**BIOL 469. COOPERATIVE EDUCATION IN BIOLOGY III. (3)** *Prerequisite: Senior level.* Practical out-of-the-classroom experience in a supervised work situation with a cooperating business, industry, or governmental agency, emphasizing application of knowledge and skills in specific areas of biology.

**BIOL 470. PATHOGENIC MICROBIOLOGY. (4)** *Prerequisites: BIOL 226-227.* A study of the organisms causing disease with emphasis on bacteria. The course will survey pathogenic bacteria, viruses, fungi, and protozoa.

**BIOL 472. APPLIED AND ENVIRONMENTAL MICROBIOLOGY. (4)** *Prerequisites: BIOL 207-208 or BIOL 226-227.* A study of the roles of microorganisms in food preservation, fermentation, spoilage and food intoxication. Production of microbial products of industrial interest; application of modern microbiological techniques to industrial processes; interrelationships between microorganisms and their environment.

**BIOL 475. SELECTED TOPICS IN BIOLOGY. (1-3)** *Prerequisite: Consent of instructor.* A consideration of special topics to acquaint the advanced student with significant problems and developments of current interest in biology. May be repeated with a maximum of 6 hours counted for graduation.

**BIOL 477. MARINE BIOLOGY. (3)** *Prerequisites: BIOL 224-225 or consent of instructor.* Marine organisms are examined within a framework of basic biological principles and processes that are fundamental to all forms of life in the sea, including evolution, ecology, biodiversity, biogeography, behavior, and physiology.

**BIOL 483. MULTIVARIATE METHODS IN BIOLOGY. (4)** *Prerequisites: Junior standing and a course in statistics, or permission of instructor.* Application of multivariate statistical analysis techniques to problems in the biological sciences. Principal component and factor analysis, canonical discriminant analysis, correspondence analysis, distance metrics and clustering, canonical correlation, repetitive sampling, randomization. Not a course in mathematical statistics; rather, emphasis is on experimental design, selection of appropriate methods for testing a particular hypothesis, and the analysis of real data.

**BIOL 485. FIELD BIOLOGY. (1-4)** *Prerequisites: Major or minor in the life sciences and consent of instructor.* An intensive field experience on a specific biological or ecological topic. (course fee)

**BIOL 490. PLANTS AS ALTERNATIVE THERAPEUTICS. (3)** *Prerequisites: BIOL 120-121 and BIOL 122-123, or BIOL 150 and BIOL 151, or consent of instructor.* Exploration of plants used in traditional medicine with emphasis on pharmacological implications as evidenced in modern clinical research. Examines therapeutic actions of phytochemicals on major human illnesses.

**BIOL 492. CLINICAL INTERNSHIP IN MEDICAL TECHNOLOGY. (8)** *Prerequisites: Student must have completed the course requirements in medical technology and have been accepted to an accredited medical technology school.* An internship in an accredited medical technology school with a curriculum that includes both daily instruction in basic theory and corresponding laboratory experience.

**BIOL 493. CLINICAL INTERNSHIP IN MEDICAL TECHNOLOGY. (14)** *Prerequisites: Student must have completed the course requirements in medical technology and have been accepted to an accredited medical technology school.* An internship in an accredited medical technology school with a curriculum that includes both daily instruction in basic theory and corresponding laboratory experience.

**BIOL 494. CLINICAL INTERNSHIP IN MEDICAL TECHNOLOGY. (14)** *Prerequisites: Student must have completed the course requirements in medical technology and have been accepted to an accredited medical technology school.* An internship in an accredited medical technology school with a curriculum that includes both daily instruction in basic theory and corresponding laboratory experience.

**BIOL 495. MOLECULAR GENETICS. (3)** *Prerequisite: BIOL 312 or BIOL 150 and 151.* A study of the molecular basis of genetics in prokaryotic and eukaryotic organisms.

**BIOL 496. PLANT BIOTECHNOLOGY. (4)** *Prerequisites: BIOL 319 and 322; AGRO 110 or BIOL 222; or permission of instructor.* A course designed to illustrate the current advances in plant biotechnology and their potential application in agriculture, health and environment.

**BIOL 497. AQUATIC FIELD ECOLOGY. (4)** *Prerequisites: BIOL 222-223 or BIOL 224-225 or BIOL 226-227; CHEM 120-121 and junior standing.* An integrated study of aquatic ecosystem structure and function including the physical and chemical properties of water and application of biological field methods. This course requires off-campus and overnight travel. (course fee)

#### BLNG – BIBLICAL LANGUAGES DEPARTMENT OF MODERN LANGUAGES

**BLNG 382. BIBLICAL LANGUAGES I INTRODUCTORY HEBREW. (3)** A study of the vocabulary, grammar, and syntax of Biblical Hebrew. May be taken either as a foreign language course or as a RELS elective. Equivalent to RELS 382.

[GEN ED A-II]

**BLNG 383. BIBLICAL LANGUAGES II INTERMEDIATE HEBREW. (3)** *Prerequisite: RELS 382 or BLNG 382.* Further development of an understanding of the fundamentals of the Hebrew language with special attention to the reading of selected portions of the Old Testament. May be taken either as a foreign language course or as a RELS elective. Equivalent to RELS 383. [GEN ED A-II]

**BLNG 384. BIBLICAL LANGUAGES III INTRODUCTORY GREEK. (3)** A study of the vocabulary, grammar, and syntax of Koine Greek. May be taken either as a foreign language course or as a RELS elective. Equivalent to RELS 384.

[GEN ED A-II]

**BLNG 385. BIBLICAL LANGUAGES IV INTERMEDIATE GREEK. (3)** *Prerequisite: BLNG 384 or equivalent* Further development of an understanding of Koine Greek with readings in the New Testament and Hellenistic literature. May be taken either as a foreign language course or as a RELS elective. Equivalent to RELS 385. [GEN ED A-II]

#### BUS – BUSINESS MANAGEMENT DEPARTMENT OF PROFESSIONAL STUDIES

**BUS 100C. INTRODUCTION TO BUSINESS. (3)** The management process, production, marketing, finance accounting, personnel and other functional activities are discussed.

**BUS 102C. INTRODUCTION TO ETHICAL ISSUES IN BUSINESS. (3)** This course will introduce students to the role of ethics of business in a complex, dynamic, global environment. This course will assist students to recognize, apply and appreciate the role of ethics in business decisions.

**BUS 110C. BASIC ACCOUNTING I. (3)** This course serves as a basic introductory accounting course for students pursuing an associate of arts degree program. It introduces the beginning concepts, principles, and procedures of accounting in a systematic fashion. (NOTE: Will not transfer as ACCT 200 or 201.)

**BUS 111C. BASIC ACCOUNTING II. (3)** This course builds on what was introduced in BUS 110C, further pursuing concepts, principles, and procedures of accounting in a systematic fashion. (NOTE: Will not transfer as ACCT 200 or 201.)

**BUS 160C. FINANCIAL MANAGEMENT. (2-3)** Designed to serve the personal finance needs of students regardless of their major field of study. Practical applications in personal and family financial planning including budgeting, buying, borrowing, banking and home ownership.

**BUS 210C. ORGANIZATION AND MANAGEMENT. (3)** An introduction to organization theory and organizational behavior. The course focuses on managing people and material resources to enhance organizational productivity and effectiveness. Attention is given to the managerial functions of planning, organizing, leading and controlling.

**BUS 212C. PRINCIPLES OF MARKETING. (3)** Presents the problems of marketing and the ways today's marketers solve them. The course focuses on concepts and principles of theory and practice through the use of practical examples and cases. Studies include market planning, research, strategies, distribution, promotion, pricing, market segmentation, and consumer-oriented marketing.

**BUS 214C. BUSINESS COMMUNICATION. (3)** A study of communication processes in business with an emphasis on correct language and grammar. Included is functional correspondence which leads to effective communication, such as letters, reports, memos.

**BUS 226C. INTRODUCTION TO LAW. (3)** Nature of law and the legal process, contract and the Uniform Commercial Code are stressed.

**BUS 230C. INTERNSHIP-BUSINESS. (1-6)** *Prerequisite: Division Chair and instructor's permission and must be a sophomore with a minimum gpa of 2.0.* Provides the advanced student with an opportunity for civic engagement, explore on-site job opportunities, and enhance marketability. The internship includes a project and activities that enhance professional growth and development. (Grading: Pass/Fail)

**BUS 244C. INTRODUCTION TO HUMAN RESOURCES INFORMATION SYSTEMS. (3)** This course will introduce students to the numerous concepts of Human Resources Information Systems, including topics such as hardware and software, database systems, business intelligence, information and decision support systems, and systems development.

**BUS 245C. MANAGING DIVERSITY IN THE WORKPLACE. (3)** This course will introduce students to the concepts of managing/supervising employees from a supervisor's perspective in a work setting for a diverse background.

**BUS 248C. SUPERVISORY MANAGEMENT. (3)** A practical approach to understanding and dealing with the problems faced by first-line supervisors.

**BUS 249C. EMPLOYEE BENEFITS PROGRAMS. (2)** Investigates and surveys employee benefits planning to include selection, cost control and viability of employee benefits programs.

**BUS 250C. BUSINESS ENTREPRENEURSHIP. (3)** A study of small business, emphasizing the development of a written business plan. Includes legal forms of organization, strategic planning, financing, marketing research, taxation, risk management, management principles, and Total Quality Management (TQM).

**BUS 252C. SELLING AND SALES MANAGEMENT. (3)** The role of selling and distribution, basic sales methods and techniques and management of the sales function.



## Course Descriptions

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**BUS 253C. BUSINESS SEMINAR. (3)** This course is designed to explore essential skills that employers want. Includes self-learning, communication and personal effectiveness, problem solving, goal setting, group effectiveness, influencing, managing personal and professional growth, and establishing standards for performance in the workplace. Career development, planning, management, and necessary employability and job search skills will be emphasized.

**BUS 257C. MANAGEMENT OF HUMAN RESOURCES. (3)** A course designed to emphasize the practical aspects of the management of human resources. Includes employment law, compensation, recruitment, selection, training and development, performance appraisal, labor-management relations, and employee rights.

**BUS 270C. LABOR RELATIONS MANAGEMENT. (3)** *Prerequisite: BUS 248C or permission of instructor.* This course is designed to address the legal and social context of the labor-management relationship; historical and contemporary developments in collective bargaining; work stoppages, impasse and dispute resolution; problems and anticipated developments in labor relations; union elections; union avoidance, as well as contract negotiations and preparation for bargaining.

### CD— COMMUNICATION DISORDERS

#### DEPARTMENT OF COMMUNICATION DISORDERS

**CD 090. LAB SPEECH IMPROVEMENT. (3)** This course is designed to provide individualized speech-language therapy for WKU students who require assistance in their speaking or comprehension of English language skills. Therapy is delivered by student clinicians under the supervision of certified speech-language pathologists. (Grading: Pass/Fail)

**CD 101. AMERICAN SIGN LANGUAGE. (3)** Principles, methods and techniques for communicating with individuals who sign. Topics include expressive and receptive sign skills, manual alphabet, numbers and sign vocabulary. Off-campus experiences are required. Students are responsible for arranging their own transportation to designated or assigned sites. [GENED A-II] (course fee)

**CD 102. AMERICAN SIGN LANGUAGE II. (3)** *Prerequisites: CD 101 and/or permission of instructor.* Continuation and expansion of principles, methods and techniques for communicating with individuals who sign. Off-campus experiences are required. Students are responsible for arranging their own transportation to designated or assigned sites. [GEN ED A-II] (course fee)

**CD 200. CROSS CULTURAL HEALTH CARE ENCOUNTERS. (1)** Provides the opportunity to understand and analyze cross-cultural issues related to communication that emerge in health care settings, particularly during a patient-provider encounter.

**CD 201. AMERICAN SIGN LANGUAGE III. (3)** *Prerequisites: CD 102 with a minimum grade of C or CLEP test or instructor permission.* Development of intermediate expressive and receptive ASL skills and cultural features of the language and community. Off-campus experiences are required. Students are responsible for arranging their own transportation to designated and assigned sites. There is a lab fee for activities within the ASL Lab. The class will be conducted without voice to enhance comprehension of the language.

**CD 210. COMMUNICATION DISORDERS IN LINGUISTICALLY DIVERSE POPULATIONS. (3)** Foundation for the identification, evaluation, and treatment of communication disorders in clients from diverse cultural and linguistic backgrounds.

**CD 220. IMPLEMENTING AND MANAGING A LANGUAGE ACCESS SERVICE. (3)** Implementation and maintenance of successful language access services in health care facilities. Addresses the legal and administrative aspects of language access programs and services.

**CD 230. MEDICAL INTERPRETING SKILLS. (3)** *Prerequisites: AH 290; score of "intermediate-high" or above on American Council on Teaching Foreign Language (ACTFL). Information regarding this test and associated fees can be found at [www.actfl.org](http://www.actfl.org).* Introduces and builds the skills necessary for a bilingual student to become a professional medical interpreter. It also examines the various roles of the professional medical interpreter.

**CD 280. SURVEY OF SPEECH PATHOLOGY AND AUDIOLOGY. (3)** *Prerequisite: Sophomore status.* Orientation course to the profession introduces prospective students of speech pathology and audiology to the general areas of prevention, identification, diagnosis, evaluation, and treatment as related to the management of communication disorders. Includes a basic introduction to the anatomy, physiology, and etiologies of the ear.

**CD 290. INTRODUCTION TO CLINICAL EXPERIENCE. (1)** *Prerequisite: Sophomore status.* Provides speech pathology/audiology students with opportunities to observe a minimum of 25 hours of treatment for communication disorders in children and adults. (Grading: Pass/Fail)

**CD 301. AMERICAN SIGN LANGUAGE IV. (3)** *Prerequisites: CD 301, with a minimum grade of C or instructor permission.* The fourth in the four semester sequence with continues training in American Sign Language (ASL) and student of the Deaf Community. Expressive, receptive, and affective skills will be the primary focus with an emphasis on receptive skills. There is a lab fee for activities within the ASL Lab. The class will be conducted without voice to enhance comprehension of the language. (course fee)

**CD 347. BASES OF SPEECH. (3)** *Prerequisites: CD 280, 290, Sophomore status.* Overview of the linguistic, psycholinguistic, and sociolinguistic variables of speech and hearing. Basic orientation to instruments for measuring acoustic parameters.

**CD 401. FINGERSPELLING. (3)** *Prerequisites: CD 102, with a minimum grade of C or instructor permission.* This course will serve to supplement a student's American Sign Language (ASL) conversational skills. Receptive and expressive fingerspelling course content will serve to further strengthen the student's use of this language. In addition, the course will also focus on aspects and applications of incorporating numerals into use of ASL in a variety of contexts. The class will be conducted without voice to enhance comprehension of the language.

**CD 402. ASL PROFESSIONAL ETHICS AND ISSUES. (3)** *Prerequisites: CD 201, with a minimum grade of C or instructor permission.* Professional and ethical issues as they relate to interpreting and transliterating. In addition, students will become familiar with applicable terminology and procedures when interacting with the Deaf Community. Topics are based on information needed for the Registry of Interpreters for the Deaf certification tests.

**CD 403. DEAF CULTURE AND HISTORY. (3)** *Prerequisites: CD 102, with a minimum grade of C or instructor permission.* An overview of the psychological, sociological and cultural impacts of deafness upon children and adults. Explores how deafness can affect the individual's development in language, communication, cognition and psychological emotional growth. Examines historic relations between Deaf and hearing and compares Deaf culture with that of the hearing world. A voice interpreter will be provided for the class.

**CD 405. APPLIED PHONETICS. (3)** *Prerequisites: CD 280, 290, Junior status.* Study of distinctive feature systems that classify consonants and vowels, the definitions of phonological process terminology, and practice in broad and narrow transcription of words and connected speech.

**CD 433. COMMUNICATION EVALUATION IN AUTISM SPECTRUM DISORDERS. (3)** *Prerequisite: CD 485 or permission of the instructor.* Communication diagnostic considerations employed when assessing language in individuals with diagnoses along the Autism Spectrum Disorder (ASD) continuum; formal and descriptive assessment is presented with case study methodology.

**CD 440. PHONOLOGY AND LANGUAGE DISORDERS. (3)** *Prerequisites: CD 405, 481.* Study of etiology and treatment of phonological and language disorders in children and adolescents.

**CD 434. COMMUNICATION INTERVENTION IN AUTISM SPECTRUM DISORDERS (3)** *Prerequisite: CD 433 or permission of the instructor.* Communication intervention considerations and evidence-based strategies are presented for individuals diagnosed within the Autism Spectrum Disorder (ASD) continuum; use of evidence-based strategies and case study methodology.

**CD 478. CLINICAL ISSUES AND TREATMENT IN SPEECH LANGUAGE PATHOLOGY. (3)** *Prerequisite: Acceptance into CD program; Junior status.* Overview of specified speech and language disorders that may be encountered in a clinical setting. Outcomes based treatment will be discussed.

**CD 481. SPEECH AND LANGUAGE DEVELOPMENT. (3)** *Prerequisites: Acceptance into CD program and junior status, or permission of instructor.* An introduction to the field of speech pathology dealing with the development of speech and language and the cause of treatment of the simpler deviations from normal speech and language. The course will deal with identification of the more common speech problems and suggestions for the remedy of these problems.

**CD 482. AUDIOLOGY. (3)** *Prerequisites: CD 280, 290; junior status or instructor's permission.* Review of basic speech science, ear anatomy, physiology and pathology. Training in auditory testing by speech, pure tone, and bone conduction. Testing techniques for pediatric populations.

**CD 483. ARTICULATION DISORDERS. (3)** *Prerequisites: CD 280, 290, 405, Junior status or instructor's permission.* Study of the etiology, evaluation, and management of phonological process proficiency in children. Includes dialectal and bilingual differences. Stresses proficiency in administering protocols and planning therapy using several approaches.

**CD 484. SPEECH ANATOMY AND PHYSIOLOGY. (3)** *Prerequisites:* Acceptance into CD program and junior status. Designed to help students identify the structures and functions which comprise the speech and hearing mechanism. The relation of this mechanism to the production and development of speech and language will be addressed.

**CD 485. DIAGNOSTIC PROCEDURES FOR COMMUNICATION DISORDERS. (3)** *Prerequisites:* CD 280, 290, 347, 405, 481, 484, junior status or instructor's permission. Focus on assessment using standardized and nonstandardized screening and diagnostic instruments. Development of formal and informal evaluation techniques common to speech pathology/audiology. Overview of data gathering and interpretation regarding communication functions in persons of all ages. Includes multicultural assessment tools and methods.

**CD 486. LANGUAGE DISORDERS. (3)** *Prerequisites:* CD 280, 290, 347, 405, 481, Junior status or instructor's permission. Identification, diagnosis, and treatment approaches used with language delayed children. Covers current state and federal legislation as related to service delivery models. Evaluation strategies include language sampling and report writing. Treatment approaches based on medical and educational models with emphasis on functional language therapy.

**CD 487. AURAL REHABILITATION. (3)** *Prerequisites:* CD 280, 290, 347, 482; Junior status or instructor's permission. Includes terminology, diagnostic procedures (with emphasis on early identification) and habilitation/rehabilitation programs such as manual and total communication for pediatric through geriatric populations.

**CD 488. AUGMENTATIVE COMMUNICATION SYSTEMS. (3)** *Prerequisites:* CD 280, 290, 347, 405, 481, 483, 485, 486, Senior status or permission by instructor. Focus on terminology and issues in alternative/augmentative communication. Teaches about various nonelectrical and electrical communication aids and techniques with special emphasis on rationale for device selection based on client needs. Dismissal summaries. Student must maintain availability for clinic assignments of Tuesdays and Thursdays. Student must maintain availability Tuesdays, Wednesdays, and Thursdays. Supervised clinical experience, including experience with individual and group therapy.

**CD 489. GERIATRIC COMMUNICATION DISORDERS. (3)** *Prerequisites:* Senior or graduate status. If graduate level, officially approved for program admission. Teaches about symptoms, causes, and treatment of speech, language, and hearing disorders in the geriatric population.

**CD 490. NON-SYMBOLIC COMMUNICATION SERVICE DELIVERY. (3)** *Prerequisites:* CD 481, CD 486; Senior Status or instructor's permission. Overview of preverbal communication development, nonverbal expression, and disorders associated with complex syndromes. Focus is on language intervention strategies used with individuals who have complex syndromes and/or medical conditions.

**CD 491. MANAGEMENT OF COMMUNICATION DISORDERS IN THE SCHOOL. (3)** *Prerequisites:* CD 280, 290; Senior status. Focus on assessment techniques; therapy approaches; case selection; scheduling; program planning; program evaluation; and federal, state and local legislation for school support services. Also addresses service delivery to culturally diverse populations.

**CD 495. CLINICAL INTERNSHIP. (2-3)** *Prerequisites:* CD 280, 290, 347, 405, 481, 483, 486, Senior status, course pass from instructor. Supervised clinical experience with individuals and groups of persons with communicative disorders. Weekly clinic meetings include procedures for completing diagnostic reports, scheduling clients, developing individualized treatment plans, lesson plans, and dismissal summaries. Student must maintain availability for clinic assignments of Tuesdays and Thursdays. Student must maintain availability Monday, Tuesday, Wednesday, and Thursday. Supervised clinical experience, including experience with individual and group therapy. (Grading: Pass/Fail) (course fee)

**CD 496. INTERNATIONAL SPEECH PATHOLOGY. (3)** *Prerequisite:* Enrolled as a Communication Disorders major at WKU. A student abroad course that provides students with an opportunity to acquire knowledge and understanding of speech pathology services in other countries. Emphasis on the identification of different methodologies employed by clinicians in other countries for treating communication disorders in adults and children.

**CE – CIVIL ENGINEERING  
DEPARTMENT OF ENGINEERING**

**CE 160. PRINCIPLES OF SURVEYING. (3)** *Prerequisites:* High School Algebra & Trigonometry. *Corequisite:* CE 161. A study of the basic principles of surveying. Topics include: field note-taking, taping distances, differential leveling, profile leveling, angular measurements, bearings and azimuths, EDM, traversing, topographic mapping, and construction stakeout. The use and care of surveying equipment includes: automatic levels, pocket transits, total stations, and data collectors.

**CE 161. PRINCIPLES OF SURVEYING LAB. (1)** *Corequisite:* CE 160. Field and office procedures in support of material studied in CE 160.

**CE 175. UNIVERSITY EXPERIENCE- CIVIL ENGINEERING. (2)** *Prerequisite:* For beginning college freshmen or transfer students with fewer than 24 semester hours of credit. Transition to university experience. Topics include study skills, critical thinking skills, library education, exploration of majors and careers, degree programs, campus resources and personal development, with special attention given to Civil Engineering careers and design. The design process is introduced through hands-on projects.

**CE 176. CIVIL ENGINEERING FRESHMAN DESIGN. (1)** *Prerequisite:* For transfer or change of major students who have earned at least 24 semester hours of credit or have completed a course equivalent in content to the generic WKU University Experience course, or permission of instructor. *Corequisite:* MATH 117 or higher. An introduction to civil engineering and its specialties. Topics include a brief overview of: surveying, water resources, transportation, and construction, geotechnical, and structural engineering. The design process and the importance of public safety are emphasized. Students will complete a simple design project.

**CE 300. FLOODPLAIN MANAGEMENT. (3)** *Prerequisites:* Junior standing or approval of the instructor. Introduction to federal and local regulations governing floodplain management, the National Flood Insurance Program, and flood maps. Successful completion of the class requires passing the Certified Floodplain Manger Exam (CFM) within a maximum of two attempts. Students will be required to pay the exam fee (s) to the Association of State Floodplain Managers.

**CE 303. CONSTRUCTION MANAGEMENT. (3)** *Corequisite:* CE 304. The study of planning, administration, and management of construction projects and an introduction to the methodology utilized in executing specific designs. Emphasis is placed on the organization of construction firms, development of construction documents, theory of estimating and quantity take-offs, contractual and management systems, scheduling, project administration and inspection of construction operations.

**CE 304. CONSTRUCTION MANAGEMENT LAB. (1)** *Corequisite:* CE 303. Extension of CE 303 lecture course. Skills related to Construction Management will be covered in a laboratory setting including plan reading, specification reading, construction scheduling and estimating using industry standard state-of-the-practice software and hardware, and other applied tasks.

**CE 310. STRENGTH OF MATERIALS LABORATORY. (1)** *Prerequisite:* MATH 137, and EM 221, or EM 222. *Corequisite:* EM 302 or EM 303. Implementation of fundamental principles and physical laws governing the response of structural components to external forces. Students will plan, conduct and report on experiments to measure the performance characteristics of materials and structural systems.

**CE 316. EQUIPMENT & METHODS. (3)** *Prerequisite:* CE 303. Study of construction operations as a dynamic process. Primary topics include earthmoving optimizing equipment for best production, foundation construction, concrete, masonry and steel construction methods, concrete formwork design, construction safety and construction productivity. Field trips will be incorporated.

**CE 326. ENGINEERING LAW. (3)** Introduction to law and judicial procedures as they relate to the practicing engineer. Contracts, professional liability, professional ethics, licensing, bidding procedures, intellectual property, products liability. Emphasis on development of critical thinking process, abstract problem analysis and evaluation.

**CE 331. UK-TRANSPORTATION ENGINEERING. (3)** *Prerequisites:* CE 160 and 161. An introduction to transportation engineering. Development of transportation systems in the United States. Route geometrics and design. Traffic flow characteristics and control. Planning, financing and economic analysis of transport facilities.

**CE 332. TRANSPORTATION ENGINEERING. (3)** *Prerequisite:* CE 160 and 161. An introduction to transportation engineering. Development of transportation systems in the United States. Route geometrics and design. Traffic flow characteristics and control. Planning, financing, and economic analysis of transport facilities.

**CE 341. UK-FLUID THERMAL SCIENCE. (4)** *Prerequisite:* MATH 137, and EM 221 or EM 222, and major status in civil engineering. Conservation of fluid mass and momentum, forces in fluids, pipe flow, fluid measurements, pump systems, hydrodynamic drag, open channel flow, and introduction to thermodynamics. Students may not earn credit for both CE 341 and CE 342.

**CE 342. FLUID THERMAL SCIENCE. (4)** *Prerequisite:* MATH 137, and EM 221 or EM 222 and major status in civil engineering. Conservation of fluid mass and momentum, forces in fluids, pipe flow, fluid measurements, pump systems, hydrodynamic drag, open channel flow, and introduction to thermodynamics. Students may not earn credit for both CE 341 and CE 342.

## Course Descriptions

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### **CE 351. UK-INTRODUCTION TO ENVIRONMENTAL ENGINEERING. (3)**

*Prerequisites: MATH 331 and CHEM 120.* Introduction to the fundamental principles of environmental engineering. Topics in water quality, water and wastewater treatment, air quality, and solid waste and landfills are discussed.

### **CE 352. INTRODUCTION TO ENVIRONMENTAL ENGINEERING. (3)**

*Prerequisites: MATH 331 and CHEM 120.* Introduction to the fundamental principles of environmental engineering. Topics in water quality, water, and wastewater treatments, air quality, and solid waste and landfills are discussed.

### **CE 360. ESTIMATING SCHEDULING BIDDING. (3) Prerequisite: CE 303.**

*Corequisite: CE 361.* Investigates the principles of cost estimating, scheduling, and preparing bid documents for construction projects. Topics include feasibility studies, preliminary and detailed estimating, sequencing of tasks, tracking time and cost and variance analysis. State-of-the-practice computer applications for estimating and scheduling will be stressed in the lecture as well as the co-requisite laboratory.

### **CE 361. ESTIMATING LAB. (1) Prerequisite: CE 303. Corequisite: CE 360.**

Extension of CE 360 lecture course. Traditional and computer tools will be applied to construction estimating and scheduling. Techniques for quantity take offs and computer scheduling will be covered.

### **CE 366. MECHANICAL & ELECTRICAL SYSTEMS. (3) Prerequisite: CE 303.**

The fundamental design and installation of M/E systems in buildings. Topics covered include HVAC systems, plumbing and fire protection, electrical principles, equipment and wiring, illumination, environmental control, and plan reading as it relates to the above topics.

### **CE 370. MATERIALS OF CONSTRUCTION. (2) Corequisite: CE 371.**

*Prerequisite: EM 302 or 303.* An introduction to construction materials focusing on aggregate, concrete, masonry, asphalt, timber and construction materials inspections. Topics will include material properties, applications, production and physical characteristics. Students will have the opportunity to become Level I certified through the American Concrete Institute.

### **CE 371. CONSTRUCTION MATERIALS LABORATORY. (1) Corequisite: CE 370.**

The laboratory component of CE 370 Construction Materials. Projects include aggregate sieve analysis and specific gravity, asphalt sample preparation and strength testing using Superpave, and concrete strength, slump and air content.

### **CE 373. UK-STRUCTURAL ANALYSIS. (3) Prerequisite: EM 302 or EM 303.**

*Prerequisite or Corequisite: MATH 237.* Modeling of real structural systems; loads and building codes; analysis of statically determinate and indeterminate planar structures including displacements, internal forces and influence lines; exact and approximate techniques. Students may not earn credit for both CE 373 and CE 382.

### **CE 378. ROUTE SURVEYING. (3) Prerequisites: CE 160, 161 and AMS 163.**

*Corequisite: CE 379.* Horizontal alignment of simple curves, compound curves, and spirals; vertical alignment using equal and unequal tangent parabolic curves in conjunction with road gradient; superelevations; slope stakes; earthwork calculations including volumes and mass diagrams.

### **CE 379. ROUTE SURVEYING LAB. (1) Prerequisites: CE 160 and CE 161.**

*Corequisite: CE 378.* Field and office procedures in support of content in CE 378.

### **CE 380. BOUNDARY SURVEYING. (3) Prerequisites: CE 160, 161, and AMS 163.**

*Corequisite: CE 381.* A study of the principles of land surveying. Topics include: boundary descriptions, deeds, horizontal and vertical control, traverse computations, US Public Land Surveys, metes and bounds, property law, partitioning of land, restoring lost corners, right of ways, easements, and minimum standards for boundary surveys.

### **CE 381. BOUNDARY SURVEYING LAB. (1) Prerequisites: CE 160 and 161.**

*Corequisite: CE 380.* Field and Office procedures in support of material covered in CE 380.

### **CE 382. STRUCTURAL ANALYSIS. (3) Prerequisite: EM 302 or 303.**

*Prerequisite or Corequisite: MATH 237.* Modeling of real structural systems; loads and building codes; analysis of statically determinate and indeterminate planar structures including displacements, internal forces and influence lines; exact and approximate techniques.

### **CE 383. STRUCTURAL STEEL DESIGN. (3) Prerequisite: CE 373 or 382.**

Principles of the design of steel structures using the LRFD method. Design topics include axial tension and compression members, flexural members, beam-columns, connections, framing systems and design codes. Additional topics include influence of non-technical factors such as availability, economy and constructability.

### **CE 384. REINFORCED CONCRETE DESIGN. (3) Prerequisite: CE 373 or 382.**

Design of reinforced concrete structures using the ACI Building Code. Design includes compression members, flexural members, foundations and one-way slabs.

### **CE 400. CIVIL ENGINEERING SENIOR DESIGN SEMINAR. (1) Prerequisite: PSY 265 and senior standing, or consent of instructor.**

Professional, ethical and decision-making issues related to the civil engineering process. Structured small group discussions, oral presentations, and written assignments. Students will complete proposals for CE 498 during this course. Must be taken semester prior to CE 498.

### **CE 410. SOIL MECHANICS. (3) Prerequisite: GEOL 111, 113, and EM 302 or 303. Corequisite: CE 411.**

A study of soils and their properties. Stress-strain analysis, horizontal and vertical stress distribution, consolidation and settlement, soil classification, compaction, static lateral earth pressure, permeability and flow nets, bearing capacity and slope stability, and foundation construction.

### **CE 411. SOIL MECHANICS LAB. (1) Corequisite: CE 410.**

The laboratory component of CE 410 – Soil Mechanics. Projects include collection of soil samples in the field, observation of soil drilling and field testing equipment, classification of soils, plasticity testing, liquid limit, plastic limit, standard and modified proctor compaction test, nuclear density testing, and soil strength testing.

### **CE 412. FOUNDATION ENGINEERING. (3) Prerequisite: CE 410.**

A continuation of CE 410/411 Soil Mechanics, emphasizing design and construction of foundations.

### **CE 426. ADVANCED CONSTRUCTION MATERIALS. (3) Prerequisite: CE 370.**

Continuation of CE 370. Topics focus on highway construction and include soil stabilization, bituminous materials and mixtures, general highway materials and construction of rigid and flexible pavements.

### **CE 436. DESIGN/CONSTRUCTION INTEGRATION. (3) Prerequisite: Senior standing.**

The integration of the design and construction process. Using constructability concepts during the design process. Topics include value engineering, operation and maintenance, design from a construction standpoint, environmental concerns, cost analysis, alternative methods, and aesthetics.

### **CE 440. MASONRY DESIGN AND CONSTRUCTION. (3) Prerequisites: EM 302 or 303, and CE 370 and 371. Corequisite: CE 441.**

Principles in the design and construction of masonry structures in accordance with the American Concrete Institute. Current and historical properties of brick, natural block, natural stone, mortar, grout and reinforcement. Design and constructability of masonry columns, shearwalls, and unreinforced and reinforced masonry structures.

### **CE 441. MASONRY CONSTRUCTION LAB. (1) Corequisite: CE 440.**

The laboratory component of CE 440 Masonry Design and Construction. Projects include mortar testing, grout, testing, strength testing of masonry block and clay brick, block wall testing, developing plan and specifications for the construction of masonry structures, and inspection techniques of masonry systems.

### **CE 444. BRIDGE ENGINEERING. (3) Prerequisites: CE 384 or CE 482 or CE 483.**

A practice based introduction to bridge engineering, exploring the design, behavior, maintenance and rehabilitation of bridges. Bridge loads, reinforced and prestressed concrete slab and T-beam bridges, steel beam bridges, composite beam bridges, bridge evaluations and ratings, and upgrade methodologies are covered based on AASHTO code requirements using the LRFD design methodology. Abutments, piers, joints, bearings, and connections are also included. Nontechnical topics such as public perception of the nation's infrastructure with respect to bridges will be discussed.

### **CE 451. WATER AND WASTEWATER TREATMENT. (3) Pre-requisite: CE 351.**

Fundamentals of the design and operation of water and wastewater treatment facilities.

### **CE 461. HYDROLOGY. (3) Prerequisites: MATH 331, STAT 301, CE 160, and CE 341 or 342.**

A study of the laws governing the occurrence, distribution and movement of water and contaminant substances in watershed systems. Meteorological considerations, precipitation, evaporation, transpiration, infiltration, streamflow, hydrograph analysis, flood routing groundwater flow, and frequency analysis. Principles and mathematical models describing the propagation of contaminants in rivers, lakes, soils and groundwater.

### **CE 462. HYDRAULIC ENGINEERING SYSTEMS. (3) Prerequisites: MATH 331 and CE 461.**

Methods of analysis for hydrostatics, pipe flow, open channel flow including uniform and gradually varied flow, culvert and channel hydraulic design, dimensional analysis and channel modeling for flood mapping.

### **CE 466. CONTRACTS & SPECIFICATIONS. (3) Prerequisite: Senior standing.**

Basic principles of construction contracts and specifications. Topics will include owner, designer, and builder contractual relationships, subcontractors, basic formats for specifications, claims and disputes, bonds, and insurance.

**CE 474. CIVIL ENGINEERING DESIGN PROJECT. (1-3)** *Prerequisite:* *Permission of instructor.* An independent study course in which students complete an engineering design project of their choice under the guidance of a faculty advisor. May be repeated for a maximum of 3 hours.

**CE 475. SELECTED TOPICS IN CIVIL ENGINEERING. (3)** *Prerequisite:* *Permission of instructor.* Advanced special topics delivered by WKU faculty to acquaint undergraduate students with significant problems and developments of current interest in civil engineering. Course is repeatable (with different topics) two times. Permission of instructor only.

**CE 476. HIGHWAY CONSTRUCTION. (3)** *Prerequisite:* *CE 370.* An in-depth study of certain phases of highway engineering and construction including geometric design, planning, traffic flow, highway capacity analysis, and economic analysis.

**CE 482. WKU-ELEMENTARY STRUCTURAL DESIGN. (3)** *Prerequisite:* *CE 373 or 382.* Applications of principles of solid mechanics to the design of steel, timber and reinforced concrete members and structures. Emphasis is on basic ideas and their application to practical design of relatively simple structures according to the building code.

**CE 483. UK-ELEMENTARY STRUCTURAL DESIGN. (3)** *Prerequisite:* *CE 373 or CE 382.* Applications of principles of solid mechanics to the design of steel, timber, and reinforced concrete members and structures. Emphasis is on basic ideas and their application to practical design of relatively simple structures according to building codes. Students may not earn credit for both CE 482 and CE 483.

**CE 486. STEEL & CONCRETE CONSTRUCTION. (3)** *Prerequisite:* *CE 316.* Planning and field engineering for concrete and steel construction. Design and applications of concrete formwork to construction. Erection of structural steel. Safety and Building Codes.

**CE 490. UK-CE SELECTED TOPICS (FALL). (3)** *Prerequisite:* *Permission of instructor.* Advanced special topics delivered in the fall semester by UK faculty to acquaint undergraduate students with significant problems and developments of current interest in civil engineering. Course is repeatable (with different topics) two times. Permission of instructor only.

**CE 491. UK-CE SELECTED TOPICS (SPRING). (3)** *Prerequisite:* *Permission of the instructor.* Advanced special topics delivered in the spring semester by UK faculty to acquaint undergraduate students with significant problems and developments of current interest in civil engineering. Course is repeatable (with different topics) two times. Permission of instructor only.

**CE 498. SENIOR PROJECT. (3)** *Prerequisite:* *CE 400.* Students work on a multi-disciplinary civil engineering team to develop, design, test and build (if applicable) a civil engineering project. Students choose their own project, normally encompassing multiple areas of civil engineering practice. Teamwork and management are stressed.

**CHEM / CHM— CHEMISTRY**  
**DEPARTMENT OF CHEMISTRY (CHEM)**  
**DEPARTMENT OF LIBERAL ARTS AND SCIENCES (CHM)**

**CHEM 101 / CHM 101C. INTRODUCTION TO CHEMISTRY. (3)** A one semester terminal course covering applied chemistry and environmental considerations which can be used for general education requirements in the science field for non-science majors and minors. In-class laboratory constitutes 20 percent of class. It does not count toward a major or minor in chemistry nor does it satisfy the requirements for certain home economics and agriculture majors. [GEN ED D-I (DL)] (course fee)

**CHEM 102. INTRODUCTION TO CHEMISTRY LABORATORY. (1)** An optional laboratory to accompany CHEM 101. It satisfies the natural science laboratory requirements of the teacher certification program. Pre-lab lecture and laboratory meet two hours per week. [GEN ED D-I (DL)] (course fee)

**CHEM 105. FUNDAMENTALS OF GENERAL CHEMISTRY. (3)** *Prerequisite:* *Two years of high school algebra or DMA 096C.* *Corequisite:* *CHEM 106.* The first half of a one-year course predominantly for majors in agriculture and consumer and family sciences, and for non-science majors desiring a full year sequence in chemistry. It does not count toward a major or a minor in chemistry. [GEN ED D-I]

**CHEM 106. FUNDAMENTALS OF GENERAL CHEMISTRY LABORATORY. (1)** *Corequisite:* *CHEM 105.* Laboratory to accompany CHEM 105. Pre-lab lecture and laboratory meet two and one-half hours per week. (course fee) [GEN ED D-I (DL)]

**CHEM 107. FUNDAMENTALS OF ORGANIC CHEMISTRY. (3)** *Prerequisites:* *CHEM 105 and 106.* *Corequisite:* *CHEM 108.* A continuation of CHEM 105 with a major portion of the course devoted to organic chemistry which ends the one-year course for non-science majors. It does not count toward a major or minor in chemistry.

**CHEM 108. FUNDAMENTALS OF ORGANIC CHEMISTRY LABORATORY. (1)** *Prerequisites:* *CHEM 105 and 106.* *Corequisite:* *CHEM 107.* The laboratory to accompany CHEM 107. A major portion of the course deals with experiments in organic and biochemistry. Pre-lab lecture and laboratory meet two and one-half hours per week. (course fee)

**CHEM 109 / CHM 109C. CHEMISTRY FOR THE HEALTH SCIENCES. (4)** A course designed to emphasize the practical aspects on inorganic, organic and biochemistry as related to human health. The course is offered specifically for students in the allied health programs, but is also recommended for students in physical education, recreation, health and safety and other disciplines dealing with human health. It does not count toward a major or minor in chemistry, but does satisfy general education requirement. No laboratory accompanies this course, but CHEM 102 is recommended for students desiring laboratory experience. [GEN ED D-I]

**CHEM 111. INTRODUCTION TO FORENSIC CHEMISTRY. (3)** A combination of lecture and in-class laboratory activities designed to introduce the fundamentals of forensic chemistry including evidence collection and preservation, arson investigation, poisons and toxicity, determination of time of death, the chemistry of explosions, and DNA/blood analysis. In-class laboratory constitutes 20% of the class. [GEN ED D-I (DL)]

**CHEM 116. INTRODUCTION TO COLLEGE CHEMISTRY. (3)** *Prerequisite:* *MATH 116 or higher.* A one-semester course for students desiring a general survey of chemistry with a mathematical emphasis. An introductory course for College Chemistry students whose ACT score in science and/or mathematics, or whose Chemistry Placement Exam scores would indicate marginal success in CHEM 120. Does not count toward a major/minor in chemistry nor does it satisfy the requirements for certain consumer and family science or agriculture majors. CHEM 106 laboratory is optional. A student cannot use both CHEM 101 and 116 for general education credit. [GEN ED D-I]

**CHEM 120. COLLEGE CHEMISTRY I. (4)** *Prerequisite:* *Satisfactory score on Chemistry Placement Exam or CHEM 116 with a grade of "C" or higher.* *Corequisites:* *CHEM 121, MATH 117 or higher.* The beginning course in chemistry for science majors and minors. It also can be used for general education requirement. Covering the first half of the standard first year chemistry course, it is recommended that high school chemistry and a strong high school mathematics background precede this course. [GEN ED D-I]

**CHEM 121. COLLEGE CHEMISTRY I LABORATORY. (1)** *Corequisite:* *CHEM 120.* Laboratory to accompany CHEM 120. One third of each meeting is spent reviewing material from the lecture and the remaining time is used to carry out laboratory investigations. Pre-lab lecture and laboratory meet once each week for three hours per week. [GEN ED D-I (DL)] (course fee)

**CHEM 222. COLLEGE CHEMISTRY II. (3)** *Prerequisites:* *CHEM 120-121 with a grade of "C" or better and MATH 118.* *Corequisite:* *CHEM 223.* A continuation of the first year course in chemistry for science majors and minors. It is also satisfactory for general education requirements for non-science majors and minors.

**CHEM 223. COLLEGE CHEMISTRY II LABORATORY. (2)** *Prerequisites:* *CHEM 120-121 with a grade of "C" or better and MATH 118.* *Corequisite:* *CHEM 222.* Laboratory to accompany CHEM 222. A major portion of the course is devoted to semimicro qualitative inorganic analysis. Pre-lab lecture and laboratory meet for four hours per week. (course fee)

**CHEM 280. INTRODUCTION TO ENVIRONMENTAL SCIENCE. (3)** An introductory course to the study of environmental issues. A general understanding of application of science to solution of contemporary environmental problems. (Equivalent to CH 280, BIOL 280, ENV 280, and GEOG 280) [GEN ED D-I]

**CHEM 295. INTRODUCTION TO RESEARCH METHODOLOGY. (1)** To familiarize Ogden Research Scholars and other research oriented students with the fundamentals of choosing a research topic, performing a bibliographical search on a subject, classification or instruments, data taking, data reduction, professional ethics and other research oriented topics. The common points of research methodology in the different scientific areas will be accentuated. Examples will be drawn from the various disciplines. Use of computers will be emphasized. (Course does not count towards any major or minor.) Equivalent to BIOL 295, CHEM 295, CS 295, GEOL 295, MATH 295, and PHYS 295.

**CHEM 299. INTRODUCTION TO CHEMICAL RESEARCH. (1-3)** *Prerequisites:* *CHEM 222-223 with a grade of "C" or better or consent of instructor.* A course designed to introduce the student to independent chemical research. Each credit hour requires 2 1/2 laboratory work per week with written and oral reports of laboratory work suggested.

## Course Descriptions

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**CHEM 304. BIOCHEMISTRY FOR THE HEALTH SCIENCES. (4)** *Prerequisite: CHEM 109 or consent of the instructor.* A brief treatment of organic chemistry is used as an introduction to carbohydrates, lipids, proteins and nucleic acids emphasizing their functional roles in the biological system. Specific topics will include bioenergetics, enzymes, acid-base balance, hematology and immunology. The course is offered specifically for students in the four-year nursing program, but is also recommended for students in physical education, recreation, health and safety and other disciplines dealing with human health. This course does not count toward a major or minor in biology or chemistry.

**CHEM 314. INTRODUCTORY ORGANIC CHEMISTRY. (5)** *Prerequisites: CHEM 222-223 or permission of instructor.* A brief survey course primarily for various pre-professional and science area curricula requiring one semester of organic chemistry. (course fee)

**CHEM 320. PRINCIPLES OF INORGANIC CHEMISTRY. (3)** *Prerequisites: CHEM 222-223.* A treatment of the usual topics in theoretical inorganic chemistry presented at a level not requiring calculus. It is not acceptable for ACS-program students, who should take CHEM 420.

**CHEM 330. QUANTITATIVE ANALYSIS. (5)** *Prerequisites: CHEM 222-223 with a grade of "C" or better.* A study of the common techniques and theory of gravimetric, volumetric, electrochemical, and optical methods of analysis. (course fee)

**CHEM 340. ORGANIC CHEMISTRY I. (3)** *Prerequisites: CHEM 222-223 with a grade of "C" or better. Corequisite: CHEM 341.* The first half of the standard one-year course for chemistry majors. Discussion includes various organic mechanisms and preparations. The entire sequence of CHEM 340-341, 342-343 should be completed. If only one semester of organic chemistry is desired, CHEM 314 should be taken.

**CHEM 341. ORGANIC CHEMISTRY LABORATORY I. (2)** *Prerequisites: CHEM 222-223 with a grade of "C" or better. Corequisite: CHEM 340.* Laboratory work includes studies of typical organic reactions and preparations. (course fee)

**CHEM 342. ORGANIC CHEMISTRY II. (3)** *Prerequisite: CHEM 340-341 with a grade of "C" or better. Corequisite: CHEM 343.* A continuation of CHEM 340.

**CHEM 343. ORGANIC CHEMISTRY II LABORATORY. (2)** *Prerequisites: CHEM 340-341 with a grade of "C" or better. Corequisite: CHEM 342.* Includes studies of typical organic reactions and an introduction to qualitative organic analysis. (course fee)

**CHEM 369. COOPERATIVE EDUCATION IN CHEMISTRY I. (3-6)** *Prerequisite: Sophomore or junior standing.* Practical out-of-the classroom experience in a supervised work situation with a cooperating business, industry, or governmental agency, emphasizing laboratory skills in chemistry.

**CHEM 389. COOPERATIVE EDUCATION IN CHEMISTRY II. (3-6)** *Prerequisite: Junior standing.* Practical out-of-the classroom experience in a supervised work situation with a cooperating business, industry, or governmental agency, emphasizing laboratory skills in chemistry.

**CHEM 398. UNDERGRADUATE SEMINAR. (1)** *Prerequisite: Junior standing.* A formal introduction to the chemical literature culminating in a student presentation on a selected topic. A treatment pertaining to career opportunities for chemists, resume writing, interview techniques and outside speakers from industry and academics will be included.

**CHEM 399. RESEARCH PROBLEMS IN CHEMISTRY. (1-3)** *Prerequisites: CHEM 452-453 or consent of instructor.* Special research assignments in accord with the interest of the student. Requires a minimum of (3) laboratory work per week for each hour of credit. A written report of the work is required.

**CHEM 412. INTRODUCTION TO PHYSICAL CHEMISTRY. (5)** *Prerequisites: CHEM 330 and MATH 118.* A study of the chemical principles involved in thermodynamics, kinetics, equilibrium, surface phenomena, macromolecules, molecular structure and other selected topics using biological examples. The course is specifically for secondary education students and those students not qualifying for the CHEM 450-452 sequence. It is not acceptable for the ACS-program students. (course fee)

**CHEM 420. INORGANIC CHEMISTRY. (3)** *Prerequisites: CHEM 452-453 or concurrently with 452-453.* A study of such topics as atomic structure, molecular structure, bonding theory, ionic substances, electron deficient compounds, acid-base theory, coordination chemistry, and organometallic chemistry.

**CHEM 425. POLYMER CHEMISTRY. (4)** *Prerequisites: CHEM 342/343 and CHEM 330 with a grade of "C" or better.* The principles of polymer chemistry, synthesis of polymers, reactions of synthetic and biological polymers, thermodynamics and kinetics of polymerization, characterization of polymers such as molecular weights and morphology and fabrication and application of polymeric materials. (course fee)

**CHEM 430. FORENSIC CHEMISTRY. (3)** *Prerequisite: CHEM 330.* A study of the methods and instrumentation used in the crime laboratory and in the medical technology laboratory. Topics discussed will include drugs, blood enzymes, organic and inorganic analysis, gunshot residue, fingerprints, chromatography, spectrophotometry, electrochemistry and electrophoresis. (course fee)

**CHEM 435. INSTRUMENTAL ANALYSIS. (3)** *Prerequisites: CHEM 452-453.* A course in modern instrumental methods of analysis including spectroscopic, electroanalytical and chromatographic techniques. (course fee)

**CHEM 440. INTRODUCTION TO SYNTHETIC ORGANIC METHODOLOGY. (3)** *Prerequisites: CHEM 342 with a grade of "C" or better.* An advanced course designed to address a broad spectrum of topics including an overview of the year-long organic chemistry sequence and a systematic treatment of modern synthetic organic chemistry focusing on basic reactions and methodologies.

**CHEM 446. BIOCHEMISTRY I. (3)** *Prerequisite: CHEM 314 or 340.* A study of biochemical compounds and their role in intermediary metabolism. Special topics include biochemical energetics and coenzyme mechanisms. Equivalent to BIOL 446.

**CHEM 447. BIOCHEMISTRY LABORATORY. (2)** *Corequisite or prerequisite: BIOL/CHEM 446.* A basic laboratory study involving selected experiments which illustrate biochemical principles including separation, identification and chemical properties of carbohydrates, lipids, proteins and enzymes. Equivalent to BIOL 447. (course fee)

**CHEM 450. PHYSICAL CHEMISTRY I. (3)** *Prerequisites: CHEM 330, PHYS 270. Corequisites: CHEM 451, MATH 137.* A study of the theoretical chemistry, including such topics as gaseous state, solid state, liquid state, thermodynamics, thermochemistry and phase and chemical equilibria.

**CHEM 451. PHYSICAL CHEMISTRY I LABORATORY. (2)** *Prerequisite: CHEM 330. Corequisite: CHEM 450.* A laboratory to accompany CHEM 450 and includes experiments on state of matter, surface phenomena, macromolecules, thermochemistry, thermodynamics and equilibria. (course fee)

**CHEM 452. PHYSICAL CHEMISTRY II. (3)** *Prerequisites: CHEM 450-451. Corequisite: CHEM 453.* A continuation of CHEM 450 including studies of kinetics, atomic and molecular structure, theory of chemical bonding, electromotive force and selected topics.

**CHEM 453. PHYSICAL CHEMISTRY II LABORATORY. (2)** *Corequisite: CHEM 452.* A laboratory to accompany CHEM 452 and includes experiments on chemical kinetics, spectroscopy, molecular structure, electrochemistry and mass spectroscopy. (course fee)

**CHEM 462. BIOINORGANIC CHEMISTRY. (3)** *Prerequisite: CHEM 314 or equivalent.* This course is a study of the coordinating properties and reactivity of metal ions in living organisms. Metal ion toxicity and detoxification systems and functions of various metalloenzymes will be discussed.

**CHEM 467. BIOCHEMISTRY II. (3)** *Prerequisite: BIOL/CHEM 446.* A study of the reactions of living systems and an introduction to the mechanisms and energetics of metabolism. Equivalent to BIOL 467.

**CHEM 470. CHEMISTRY/ MIDDLE SCHOOL. (4)** Chemical theories and principles in the middle school science curricula. (elective credit only).

**CHEM 475. SELECTED TOPICS IN CHEMISTRY. (3)** *Prerequisite: Consent of instructor.* Special topics are presented to acquaint advanced students with significant problems and developments of current interest in the fields of analytical, biological, inorganic, organic, physical, polymer and coal chemistry. The course may be repeated for credit provided topics differ.

**CHEM 476. ADVANCED INVESTIGATIONS IN CHEMISTRY LABORATORY. (2)** *Prerequisite: CHEM 314 or 343.* A course for advanced students involving assigned laboratory work in the field of inorganic chemistry. Typical procedures and experiments are those involving the synthesis, characterization, and identification of various chemical compounds, using a variety of handling techniques, and the application of various physical methods. (course fee)

**CHEM 489. COOPERATIVE EDUCATION IN CHEMISTRY III. (3-6)** *Prerequisite: Senior standing.* Practical out-of-the classroom experience in a supervised work situation with a cooperating business, industry, or governmental agency, emphasizing laboratory skills in chemistry.

**CHEM 490. MATERIALS CHEMISTRY. (3)** *Prerequisites: CHEM 412 or 452 and CHEM 330, or equivalent.* A study of the three major classes of materials; metals, polymers, and ceramics. Topics discussed will include chemical composition, bonding, common chemical and physical properties, microstructures, and how processing and uses are affected by a material's chemical and physical properties.

**CHEM 491. MATERIALS CHEMISTRY LABORATORY. (3)** *Prerequisites:* CHEM 330 and either CHEM 412 or 452, or permission of the department. A laboratory course in materials that includes experiments on liquid flow, solid deformation, thermal properties, electrical conductivity of materials, microscopy, diffraction techniques, processing and testing of shaped articles.

**CHHS— COLLEGE OF HEALTH AND HUMAN SERVICES**  
COLLEGE OF HEALTH AND HUMAN SERVICES

**CHHS 175. UNIVERSITY EXPERIENCE – HEALTH AND HUMAN SERVICES. (3)** *Prerequisite:* For beginning college freshman or transfer students with fewer than 2(4) of degree credit. Transition to university experience. Topics include study skills, critical thinking skills, library education, campus resources, and personal development. Special emphasis on careers and degree programs related to the fields of health and human services.

**CHIN— CHINESE**  
DEPARTMENT OF MODERN LANGUAGES

**CHIN 100. CHINESE LANGUAGE AND CULTURE ON-SITE. (1-3)** An introduction to Chinese and Chinese-speaking culture in conjunction with study abroad for students with little or no previous language study. Does not fulfill the general education foreign language requirement. May be repeated for a total of three credits.

**CHIN 101. ELEMENTARY CHINESE I. (3)** Conversational Mandarin with basic grammar and basic functional vocabulary of the Chinese language. Includes aspects of contemporary Chinese culture. (course fee) [GEN ED A-II]

**CHIN 102. ELEMENTARY CHINESE II. (3)** *Prerequisite:* CHIN 101 or equivalent. Continuation of development of basic grammar and functional language skills of Mandarin. Includes aspects of contemporary Chinese culture. (course fee) [GEN ED A-II]

**CHIN 105. INTRODUCTION TO CHINESE CULTURES. (3)** Survey of contemporary culture of Chinese-speaking peoples, with emphasis on values, behavioral characteristics, social and political structures, and their achievements. Taught in English; only taught abroad.

**CHIN 201. INTERMEDIATE CHINESE I. (3)** *Prerequisite:* CHIN 102 or two years of high school Chinese. Expansion of communication skills in increasingly complex and varied situations. Emphasis on conversational speaking, presentational writing and speaking, and understanding culturally specific texts and media. [GEN ED A-II]

**CHIN 202. INTERMEDIATE CHINESE II. (3)** *Prerequisite:* CHIN 201 or equivalent. Continued expansion of interpersonal communication skills at the intermediate level. Emphasis on increasing comprehension, the building of vocabulary, and on presentational modes of speaking and writing. [GEN ED A-II]

**CHNF – CHINESE FLAGSHIP**  
HONORS COLLEGE

**CHNF 101. INTENSIVE ELEMENTARY CHINESE I. (4)** *Prerequisite:* Enrollment in the Chinese Flagship Program, or instructor permission. Introductory instruction to Chinese reading, writing and conversational skills through exposure to daily life topics; designed for students with no previous study of Chinese.

**CHNF 102. INTENSIVE ELEMENTARY CHINESE II. (4)** *Prerequisite:* CHNF 101. Continued introductory intensive instruction in Chinese; designed to further build students' communication skills to an intermediate level.

**CHNF 201. INTENSIVE INTERMEDIATE CHINESE I. (4)** *Prerequisite:* CHNF 102. Intensive instruction in Chinese, designed to develop students' language skills and all-round communicative competence to a novice-high to intermediate-low level.

**CHNF 202. INTENSIVE INTERMEDIATE CHINESE II. (4)** *Prerequisite:* CHNF 201. Intensive instruction in Chinese, designed to further develop students' language skills and all-round communicative competence to an intermediate-low to intermediate-mid level.

**CHNF 301. INTENSIVE ADVANCED CHINESE I. (4)** *Prerequisite:* CHNF 202. Continued intensive instruction in Chinese, designed to further develop students' language skills and all-round communicative competence to intermediate-mid to intermediate-high level.

**CHNF 302. INTENSIVE ADVANCED CHINESE II. (4)** *Prerequisite:* CHNF 202. Continued intensive instruction in Chinese designed to further develop students' language skills and all-round communicative competence to intermediate-high to advance-low level.

**CIS – COMPUTER INFORMATION SYSTEMS**  
DEPARTMENT OF COMPUTER INFORMATION SYSTEMS

**CIS 141. BASIC COMPUTER LITERACY. (3)** An introduction to the breadth of information technology and the role of computer based devices for everyday problem solving in life, work and research. Practical experience with current as well as emerging technologies is provided. Students who have earned credit in CIS 145 may not enroll in CIS 141. (course fee)

**CIS 226. INTRODUCTION TO VISUAL PROGRAMMING. (3)** A study in the algorithmic approach of the analysis of problems and their solutions. A visual programming language will be introduced and used in solving assigned problems. Laboratory work will be required outside of class meetings

**CIS 243. PRINCIPLES OF MIS. (3)** *Prerequisite:* CIS 141 or CS 145. The basis of information systems and how they fit into a decision-making environment. An introduction to systems analysis in relation to managing information systems. Strategic uses of information technology throughout the business enterprise. (course fee)

**CIS 248. SYSTEMS INTEGRATION. (3)** Continuing coverage of programming with emphasis on integrating and designing useful graphical user interfaces to enter, edit and retrieve information from existing databases. Secondary emphasis will be on generating complicated detailed reports.

**CIS 320. PERSONAL INFORMATION TECHNOLOGIES. (3)** *Prerequisite:* CIS 141 or CIS 145. The management and deployment of personal productivity technologies, including management of facilities, workstations, and support services. Particular emphasis is placed on using technology tools to increase productivity and quality. (course fee)

**CIS 321. EMERGING INFORMATION TECHNOLOGIES. (3)** *Prerequisite:* CIS 141 or CS 145. Overview of the most recent tools and techniques in information technology, and their utilization in the business environment. (course fee)

**CIS 369. COOPERATIVE EDUCATION IN INFORMATION SYSTEMS. (1-3)** *Prerequisites:* Application for or enrollment in Cooperative Education Plan; approval of department and Co-op Faculty Advisor; development of Learning Plan; CIS 141 or CS 145, CIS/CS 226 and CIS 243 with a grade of "C" or better. Note: A minimum 2.5 GPA is required for enrollment in this course. Practical out-of-the-classroom experience in a supervised work situation with a cooperating business, industry, social or governmental agency applying information systems theory. (Grading: Pass/Fail)

**CIS 440. SELECTED TOPICS-INFORMATION SYSTEMS. (1.5 or 3)** *Prerequisites:* Admission to the CIS program and permission of instructor. Study of an advanced topic not normally covered in other Computer Information Systems courses. (Some topics may require additional prerequisites)

**CIS 449. INDEPENDENT STUDY IN COMPUTER INFORMATION SYSTEMS. (3)** *Prerequisite:* CIS 243. Directed study and research in one area of computer information systems.

**CIT – COMPUTER INFORMATION TECHNOLOGY**  
DEPARTMENT OF COMPUTER INFORMATION SYSTEMS

**CIT 300. ON-LINE TRAINING FOUNDATIONS. (3)** *Prerequisite:* Admission to the CIT program. Introduces students to educational technology and the distance education process necessary for the CIT program.

**CIT 302. WEB DEVELOPMENT. (3)** *Prerequisite:* CIT 300 or permission of the instructor. Introductory course in web design and development. Provides students with strategies and skills to plan and develop commercial web sites.

**CIT 310. SYSTEMS ARCHITECTURE I. (3)** *Prerequisite:* CIT 300. Introduction to applied technology and computer architecture. Emphasis will be on hardware specification and selection, troubleshooting, maintenance and optimizing system performance.

**CIT 312. SYSTEMS ARCHITECTURE II. (3)** *Prerequisite:* CIT 310. Introduction to software elements of the computer, including operating systems, programming tools and system utilities. Course will emphasize these elements in an applied, organizational context.

**CIT 330. SYSTEMS DEVELOPMENT I. (3)** *Prerequisite:* CIT 300. Emphasis on developing structured system applications and program logic. Assumes no prior experience with system development and does not focus on any particular language.

**CIT 332. SYSTEMS DEVELOPMENT II. (3)** *Prerequisite:* CIT 330. Study of system-development tools commonly used in businesses and organizations. Topics include interfacing systems with databases and web applications.

**CIT 350. DATABASE ADMINISTRATION I. (3)** *Prerequisite:* CIT 300. Introduction to database applications and related fundamentals including database models, normalization and principles of effective database design.

## Course Descriptions

**CIT 352. DATABASE ADMINISTRATION II. (3)** *Prerequisite: CIT 350.* A continuation of CIT 350 with emphasis on developing distributed database solutions, client-server models for business use and advanced SQL.

**CIT 370. TELECOMMUNICATIONS I. (3)** *Prerequisite: CIT 300.* Overview of modern networking systems, including networking fundamentals, local-area networks, routing addressing, wide-area networks, remote access and security. Emphasis on applied technology used in organizational settings.

**CIT 372. TELECOMMUNICATIONS II. (3)** *Prerequisite: CIT 370.* Introduction to the TCP/IP protocol, its use in an organizational environment and the different sub-protocols that underlie popular business applications.

**CIT 412. ADVANCED SYSTEMS ARCHITECTURE I. (3)** *Prerequisite: CIT 312.* A continuation of CIT 312 with a focus on enterprise architecture and how to design computer system solutions using industry-standard operating systems and tools.

**CIT 414. ADVANCED SYSTEMS ARCHITECTURE II. (3)** *Prerequisite: CIT 412.* Examines both the managerial aspects of system design – build-vs.-buy, labor and related strategic decisions – and administration of corporate networks and related systems.

**CIT 416. SYSTEMS ADMINISTRATION I. (3)** *Prerequisite: CIT 312.* Strategies and techniques to prepare students for enterprise server design, implementation and maintenance, including advanced networking hardware and software tools.

**CIT 418. SYSTEMS ADMINISTRATION II. (3)** *Prerequisite: CIT 416.* A continuation of CIT 416 that provides more in-depth analysis of system architecture and administration, developing strategic advantage through appropriate investments in technology and contemporary issues in enterprise computing and management.

**CIT 432. ADVANCED SYSTEMS DEVELOPMENT I. (3)** *Prerequisite: CIT 332.* Focuses on advanced system-development approaches. Students will utilize modern development tools to build business systems and applications.

**CIT 434. ADVANCED SYSTEMS DEVELOPMENT II. (3)** *Prerequisite: CIT 432.* Focuses on the managerial aspects of systems development. Analyzes the various stakeholders of enterprise software architectures, including software architects, designers, analysts, developers, members of IT strategy departments and project managers.

**CIT 436. WEB SYSTEMS DEVELOPMENT I. (3)** *Prerequisite: CIT 302 and CIT 332.* Emerging trends in web-based applications and how they are developed. Emphasis on building business-oriented solutions using web technology and the Internet.

**CIT 438. WEB SYSTEMS DEVELOPMENT II. (3)** *Prerequisite: CIT 436.* A continuation of CIT 436 providing additional coverage of web service and application topics. Also emphasizes integration with existing database systems and legacy applications.

**CIT 452. ADVANCED DATABASE ADMINISTRATION I. (3)** *Prerequisite: CIT 352.* Focuses on administering the enterprise database system. Emphasizes implementation and administration issues associated with large-scale database systems.

**CIT 454. ADVANCED DATABASE ADMINISTRATION II. (3)** *Prerequisite: CIT 452.* A continuation of CIT 452. Related managerial issues are emphasized in this course. Topics include data warehousing, data mining and distributed database systems administration.

**CIT 456. SYSTEMS ANALYSIS & DESIGN I. (3)** *Prerequisite: CIT 352.* Modern analysis and design techniques with an emphasis on developing organizational systems.

**CIT 458. SYSTEMS ANALYSIS & DESIGN II. (3)** *Prerequisite: CIT 456.* Analysis and design of object-oriented systems.

**CIT 472. ADVANCED TELECOMMUNICATIONS I. (3)** *Prerequisite: CIT 372.* Strategies for planning, designing and implementing wireless networks including Wi-Fi ad hoc networks, hybrid wireless, etc. as part of an overall organizational network strategy.

**CIT 474. ADVANCED TELECOMMUNICATIONS II. (3)** *Prerequisite: CIT 472.* Emerging networking technologies that create value and strategic advantage for business users. Emphasis on integrating networking technologies with existing systems and infrastructure.

**CIT 476. NETWORK ADMINISTRATION I. (3)** *Prerequisite: CIT 372.* Network administration and management with an emphasis on technologies and tools for supporting large-scale business networks.

**CIT 478. NETWORK ADMINISTRATION II. (3)** *Prerequisite: CIT 476.* The latest Microsoft technologies and tools for supporting network administration in organizational environments.

**CIT 482. SYSTEMS SECURITY I. (3)** *Prerequisite: CIT 300 and permission of instructor.* An examination of computer and corporate security in business settings, emphasizing security implementation within corporations using commercial tools and technologies.

**CIT 484. SYSTEM SECURITY II. (3)** *Prerequisite: CIT 482.* A continuation of CIT 482 that provides additional study and experience with managerial/operational issues affecting the security of enterprise computers and networks; examines available tools and opportunities in the field.

**CIT 486. KNOWLEDGE MANAGEMENT. (3)** *Prerequisite: CIT 300 and permission of instructor.* Examines computer-based knowledge – how organizations can capture, store, share and effectively manage their intellectual resources.

**CIT 492. TECHNOLOGY MANAGEMENT I. (3)** *Prerequisite: CIT 300 and permission of instructor.* Examines the management of technological projects including planning, implementation, control, quality, time and budget.

**CIT 494. TECHNOLOGY MANAGEMENT II. (3)** *Prerequisite: CIT 492.* A practical examination of information technology with emphasis on the tactical and operational role of IT in an organization.

**CIT 496. TECHNOLOGY SUPPORT ADMINISTRATION. (3)** *Prerequisite: CIT 300 and permission of instructor.* Explores the challenge of supporting technology resources within an organizational setting and presents current strategies and tools employed by managers to support users and technologies across the firm.

### CM – CONSTRUCTION MANAGEMENT

#### DEPARTMENT OF ARCHITECTURAL AND MANUFACTURING SCIENCES

**CM 227. APPLIED STATICS. (3)** *Prerequisites: MATH 122 and PHYS 201.* A branch of mechanics dealing with forces and the effects of forces acting on bodies at rest. Topics include: vector operations, applied loads, forces, moments of a force, couples, resultants, free-body diagrams, equilibrium, friction, centroids, centers of gravity and moments of inertia. Applications involve beams, frames, trusses, cables, pulleys, sheaves and machines. (Does not count toward any engineering major) (course fee)

**CM 250. CONTRACT DOCUMENTS. (3)** Introduction to construction documents including drawings, specifications, contracts, requests for information, change orders, bid packages, addenda, and transmittals. In addition, techniques for reading engineering and shop drawings will be introduced. (course fee)

**CM 337. APPLIED STRENGTH OF MATERIALS. (3)** *Prerequisite: CM 227 or permission of instructor. Corequisite: CM 339.* Basic design applications using primary building materials and concepts of stress, strain, and elastic deformation, including axial, torsional, shearing, flexural, and combined stresses, elongation, and deflection, shear and moment diagrams, column buckling, and material testing. (course fee)

**CM 339. APPLIED STRENGTH OF MATERIALS LAB. (1)** *Corequisite: CM 337.* Testing of metals and non-metals in support of material covered in CM 337. Experiments: Rockwell Hardness, impact, tension, torsion, flexure, deflection, compression, column buckling, bolt shear, bearing on connections.

**CM 346. APPLIED SOIL MECHANICS AND FOUNDATIONS. (3)** *Prerequisite: CE 303 or junior standing.* An applied course in soil mechanics and foundations, including soil composition and classification, soil compaction and site work, lateral earth pressures and retaining walls, and an introduction to foundation design and construction including both deep and shallow foundations. (course fee)

**CM 361. COMPUTER APPLICATIONS IN CONSTRUCTION MANAGEMENT. (3)** *Prerequisite: CE 360.* The utilization of modern construction management computer programs for estimating and scheduling the construction process. Topics include detailed estimating, quantity take-offs using a digitizing board, detailed scheduling and project control.

**CM 363. CONSTRUCTION ESTIMATING AND BIDDING. (3)** *Prerequisite: CE 303.* Methods and procedures for estimating and bidding construction projects, including extracting quantity take-offs from drawings, classifying work in accordance with specifications, compiling and pricing estimates, preparing bids, and computer applications. (course fee)

**CM 400. CONSTRUCTION ADMINISTRATION. (3)** *Prerequisite: CE 303.* Basic principles of construction project administration including finances, legal requirements including permits, cost control, safety and quality management, office organization, site planning, document control, project tracking and risk management. (course fee)

**CM 426. CONSTRUCTION LAW. (3)** *Prerequisite: CE 303 or junior standing.* Introduction to law and judicial procedures as they relate to the practicing construction manager. Contracts, bonds, professional liability, professional ethics, bidding procedures, liens, product liability. Emphasis on development of critical thinking process, abstract problem analysis, and evaluation. (course fee)

**CM 447. APPLIED STRUCTURAL DESIGN. (3)** *Prerequisite:* CM 337. Basic design of permanent and temporary structural components using the primary building materials.

**CM 462. CONSTRUCTION SCHEDULING. (3)** *Prerequisite:* CE 303. Various components of construction project scheduling including work breakdown structures, activity duration estimates, scheduling logic, precedence networking, Gantt charts, CPM and PERT techniques, resource scheduling, schedule updating and reduction and computer applications. (course fee)

**CM 463. CONSTRUCTION ESTIMATING AND BIDDING II. (3)** *Prerequisite:* CM 363. Advanced estimating and bidding procedures using commercially available software and spreadsheets. Includes quantity take-offs and estimating techniques of various construction trades beyond those covered in CM 363. (course fee)

**COMM / COMN – COMMUNICATION  
DEPARTMENT OF COMMUNICATION (COMM)  
DEPARTMENT OF LIBERAL ARTS AND SCIENCES (COMN)**

**COMM 142. FORENSIC PRACTICUM I. (1)** *Prerequisite:* Active participation on the forensic team. Individualized coaching and intercollegiate competitive experience in debate and individual events.

**COMM 144. FORENSIC PRACTICUM II. (1)** *Prerequisites:* COMM 142 and active participation on the forensic team. Individualized coaching and intercollegiate competitive experience in debate and individual events.

**COMM 145 / COMN 145C. FUNDAMENTALS OF PUBLIC SPEAKING AND COMMUNICATION. (3)** A beginning course in the preparation and delivery of public speeches (informative and persuasive), with skills development in listening, teamwork, and interpersonal communication contexts. (course fee) [GEN ED A-III]

**COMM 161 / COMN 161C. BUSINESS AND PROFESSIONAL SPEAKING. (3)** This course will examine the speech communication process in business and professions through studying principles and offering practical experience in the following areas: communication process, interpersonal relations, interviewing and counseling, conference and group processes, manuscript speaking, persuasion in selling, telephone communications, and situational speech. [GEN ED A-III] (course fee)

**COMM 200. COMMUNICATION FOUNDATIONS. (3)** *Prerequisite:* COMM 145 or 161. An introductory course to foundational communication contexts, theories, and processes.

**COMM 240. CRITICAL LISTENING. (3)** A study of contextual, psychological and logical bases of listening and training in listening for comprehension, analysis, synthesis, and evaluation. Focus on critical listening skills in face-to-face, mediated, interactive and public settings.

**COMM 242. FORENSIC PRACTICUM III. (1)** *Prerequisite:* COMM 144 and active participation on the forensic team. Individualized coaching and intercollegiate competitive experience in debate and individual events.

**COMM 244. FORENSIC PRACTICUM IV. (1)** *Prerequisite:* COMM 242 and active participation on the forensic team. Individualized coaching and intercollegiate competitive experience in debate and individual events.

**COMM 245. ARGUMENTATION AND DEBATE. (3)** A beginning course in argumentation and debate, emphasizing construction, analysis, and refutation of arguments. Classroom experience is provided in academic debating.

**COMM 247. VOICE AND DICTION. (3)** A detailed study of the individual's speech. Achieving a pleasing voice quality, correct articulation, distinct enunciation and diction free from substandard pronunciation, are goals of the course.

**COMM 249. INTERPRETATION OF LITERATURE. (3)** Introduction to the study of literature through oral performance with an emphasis on techniques used with various types of literature.

**COMM 263. FUNDAMENTALS OF COMMUNICATION AND CULTURE (3)** This course provides an overview of communication patterns as influenced by surrounding culture and how culture is created and sustained through communication. It focuses on American multicultural perspectives that impact social and business communication in today's world. [GEN ED E]

**COMM 300. INTRODUCTION TO COMMUNICATION RESEARCH METHODS. (3)** *Prerequisites:* COMM 145 or 161, MATH 109 or 116. *Prerequisite/Corequisite:* COMM 200. Introduction to rhetorical, qualitative, and quantitative methods of inquiry used in communication research.

**COMM 330. LEADERSHIP COMMUNICATION. (3)** Studies the role that communication plays in various leadership contexts and situations.

**COMM 340. PARLIAMENTARY PROCEDURE. (1)** A study of accepted practices in parliamentary procedure. This course is designed to prepare students to preside over and participate in business meetings.

**COMM 342. FORENSIC PRACTICUM V. (1)** *Prerequisite:* COMM 244 and active participation on the forensic team. Individualized coaching and intercollegiate competitive experience in debate and individual events.

**COMM 343. SPEECH ANALYSIS AND SPEECH WRITING. (3)** *Prerequisite:* COMM 145 or 161 or permission of the instructor. A course in the art of writing effective speeches. In this course, students study the principles of effective language usage in speeches, analyze the style of model speeches, and write and deliver a variety of speeches.

**COMM 344. FORENSIC PRACTICUM VI. (1)** *Prerequisites:* COMM 342 and active participation on the forensic team. Individualized coaching and intercollegiate competitive experience in debate and individual events.

**COMM 345. ADVANCED PUBLIC SPEAKING. (3)** *Prerequisite:* COMM 145 or 161 or permission of the instructor. An advanced course in the preparation and delivery of public speeches including speeches to explain a concept, technical speeches, speeches to convince, speeches to actuate, speeches to entertain, and speeches for special occasions.

**COMM 346. PERSUASION. (3)** This course introduces basic theory of persuasion and attitude change. The course emphasizes communication theory and rhetorical perspectives of persuasion.

**COMM 348. INTERPERSONAL COMMUNICATION. (3)** Introduces students to the fundamentals of interpersonal communication, including interpersonal skills, theory, and research.

**COMM 349. SMALL GROUP COMMUNICATION. (3)** An intensive study of group dynamics, interaction and communication in group situations.

**COMM 362. ORGANIZATIONAL COMMUNICATION. (3)** An introduction to the theoretical approaches to human communication in organizations.

**COMM 374. GENDER COMMUNICATION. (3)** Examination of communication behaviors as affected by gender, including assessment of communication differences reflected in organizational, interpersonal, and mass communication modes.

**COMM 388. SEMINAR IN POLITICAL COMMUNICATION. (3)** *Prerequisites:* Senior standing, or permission of instructor. The role, processes, and effects of communication within the context of politics. This course is required of all Political Communication Certificate students.

**COMM 400. SPECIAL TOPICS IN COMMUNICATION. (3)** *Prerequisite:* COMM 200. *Prerequisite/Corequisite:* COMM 300 or instructor permission. Designed to offer students courses on various communication topics not covered specifically within the curriculum.

**COMM 440. HEALTH COMMUNICATION. (3)** *Prerequisite:* COMM 200 or instructor permission. *Prerequisite/Corequisite:* COMM 300 or instructor permission. Examines and analyzes the critical role communication plays in health campaigns, health care delivery, health care contexts, and in health behavior change.

**COMM 442. FORENSIC PRACTICUM VII. (1)** *Prerequisites:* COMM 344 and active participation on the forensic team. Individualized coaching and intercollegiate competitive experience in debate and individual events.

**COMM 444. FORENSIC PRACTICUM VIII. (1)** *Prerequisites:* COMM 442 and active participation on the forensic team. Individualized coaching and intercollegiate competitive experience in debate and individual events.

**COMM 448. ADVANCED INTERPERSONAL COMMUNICATION. (3)** *Prerequisites:* COMM 200 and 348. *Prerequisite/Corequisite:* COMM 300 or instructor permission. Designed as a survey of research and theory in interpersonal communication.

**COMM 450. FAMILY COMMUNICATION. (3)** *Prerequisites:* COMM 200 and 348. *Prerequisite/Corequisite:* COMM 300 or instructor permission. Designed as a survey of research and theory in family communication.

**COMM 451. COMPUTER-MEDIATED COMMUNICATION. (3)** *Prerequisite:* COMM 200 or instructor permission. *Prerequisite/Corequisite:* COMM 300 or instructor permission. Examines various types of computer-mediated communication available in contemporary organizations.

**COMM 460. ORGANIZATIONAL INTERVIEWING. (3)** *Prerequisite:* COMM 200 or instructor permission. *Prerequisite/Corequisite:* COMM 300 or instructor permission. This course is designed to provide the student with a comprehensive overview of principles and methods suited to oral, one-on-one information gathering in an organizational setting. Practice both in and out of the classroom will be stressed.



## Course Descriptions

**COMM 462. ADVANCED ORGANIZATIONAL COMMUNICATION. (3)** Prerequisites: COMM 200 and 362. Prerequisite/Corequisite: COMM 300 or instructor permission. Integrated and applied study of organizational communication theory and research.

**COMM 463. INTERCULTURAL COMMUNICATION. (3)** Prerequisite: COMM 200 or instructor permission. Prerequisite: COMM 300 or instructor permission. This course is designed to create an understanding of dimensions of communication theory that apply across cultural boundaries. Emphasis is placed on both theoretical and practical awareness of communication in and between cultures.

**COMM 470. ORGANIZATIONAL RELATIONSHIPS. (3)** Prerequisites: COMM 200 and 362. Prerequisite/Corequisite: COMM 300 or instructor permission. An examination of the positive and negative elements of workplace relationships and its importance to organizational and personal well-being.

**COMM 489. INTERNSHIP IN COMMUNICATION. (3)** Prerequisites: COMM 200, 362. Junior standing. For department majors only. Prerequisite/Corequisite: COMM 300. Appropriate supervised work with a cooperating organization. Open only to Communication Studies and Corporate and Organizational Communication majors. Course will be repeatable once for credit (only 3 hours will count for credit toward major).

**COMM 494. CAPSTONE IN COMMUNICATION. (1)** Prerequisite: COMM 200 Senior standing, for departmental majors only. This portfolio-style course enables Corporate and Organizational Communication and Communication Studies majors to assess and refine knowledge and skill competencies.

**COMM 495. INDEPENDENT STUDY IN COMMUNICATION. (1-6)** Prerequisite: COMM 200 or instructor permission. Prerequisites or corequisite: COMM 300 Directed research in communication. Students are to submit written petitions for faculty approval of the study during the previous semester. With permission of instructor.

**CNS / COUN – COUNSELOR EDUCATION**  
**DEPARTMENT OF COUNSELING AND STUDENT AFFAIRS (CNS)**  
**DEPARTMENT OF LIBERAL ARTS AND SCIENCES (COUN)**

**CNS 100 / COUN 100C. EDUCATIONAL AND LIFE PLANNING. (2)** Emphasis on self exploration, educational planning, and development of decision-making skills. This course will emphasize assisting students with short- and long-term goal setting and conceptualizing appropriate educational objectives. Various academic programs available at Western Kentucky University will be described and related to educational and life planning.

**CNS 269. SPECIAL TOPICS IN COUNSELING/GUIDANCE. (1-3)** Selected topics of significance in counseling and helping relationships. Classroom activities and assignments are variable with credit.

**CS / CSCI – COMPUTER SCIENCE**  
**DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE (CS)**  
**DEPARTMENT OF LIBERAL ARTS AND SCIENCES (CSCI)**

**CS 121. COMPUTATIONAL PROBLEM SOLVING. (4)** Prerequisite: Enrollment in the Gatton Academy of Mathematics and Science in Kentucky. Students will tackle problems ranging from elementary to advanced, using mathematical methods, algorithmic techniques, and computational methods. This course is taught jointly by mathematics and computer science faculty; it is equivalent to MATH 121.

**CS 145 / CSCI 145C. INTRODUCTION TO COMPUTING. (3)** Prerequisite: Two years of high school college preparatory mathematics. An introduction to the use of the computer that explores what a computer is, what it can do, and how it does it. The following topics are surveyed: hardware, software, telecommunications, programming languages, software development, a short history of computing, and the computer's impact on society. Projects in word processing, spreadsheets, file management, and BASIC are assigned. NOT ACCEPTABLE FOR CREDIT IN COMPUTER SCIENCE MAJOR OR MINOR. (course fee)

**CS 146. INTRODUCTION TO PROGRAMMING. (3)** Prerequisite: Two years of high school algebra or concurrent enrollment in a college algebra course. A study of the algorithmic approach in the analysis of problems and their computational solutions. A structured language will be introduced and used in solving assigned problems. Lab sessions may be held in addition to lecture sessions. NOT ACCEPTABLE FOR CREDIT IN COMPUTER SCIENCE MAJOR OR MINOR.

**CS 157. INFORMATION SECURITY I. (3)** An introduction to the concepts, issues, and essential skills of computer security. Topics include computer-based systems, Internet communications, networking, and security. Laboratory sessions will be held as needed. May not be counted toward a computer science major or minor.

**CS 170. PROBLEM SOLVING AND PROGRAMMING. (3)** Prerequisite: Two years of high school algebra. The fundamentals of problem solving, program design, and program development techniques. A high-level programming language is used and lab experiences are included. The course may not be counted toward a computer science major or minor.

**CS 175. UNIVERSITY EXPERIENCE – COMPUTER SCIENCE. (2)** Transition to university experience. Topics include study skills, critical thinking skills, library education, exploration of majors and careers degree programs, campus resources and personal development. Special attention is given to educational requirements, careers, and resources in the field of computer science.

**CS 180. COMPUTER SCIENCE I. (4)** Prerequisite: CS 170 with a grade of C or higher, or a satisfactory score on a CS placement test, or eligibility for MATH 117 (based on criteria developed by the Department of Mathematics and Computer Science.) A study of the algorithmic approach to the analysis of problems and their computational solutions, using a high-level structured language. Labs are included in the course.

**CS 181. COMPUTER SCIENCE II. (4)** Prerequisites: PHIL 215 and CS 180 with grades of C or better, and eligibility to enroll in a calculus course based on criteria developed by the Department of Mathematics and Computer Science. Continued study of algorithmic problem solving techniques using software engineering and a high-level programming language. Introduction to data structures and their applications. Labs are included in the course.

**CS 225. COMPUTER SCIENCE SYSTEMS HARDWARE AND SOFTWARE I. (4)** Prerequisite: Grade of "C" or better in CS 180. Introduction to computer architecture and organization, computer number representations, digital logic and circuitry, types of memory, CPU operations and basic assembly programming. A lab component applies systems hardware and software.

**CS 226. INTRODUCTION TO VISUAL PROGRAMMING. (3)** Prerequisites: Two years of high school algebra or concurrent enrollment in college algebra course. A study in the algorithmic approach of the analysis of problems and their solutions. A visual programming language will be introduced and used in solving assigned problems. Laboratory work will be required outside of class meetings. NOT ACCEPTABLE FOR CREDIT IN COMPUTER SCIENCE MAJOR OR MINOR.

**CS 239. PROBLEM SOLVING WITH COMPUTATIONAL TECHNIQUES. (3)** Prerequisite: MATH 117 or higher. Solving engineering problems using computational techniques. Topics include problem definition, algorithm development, flowcharting, input/output and structured programming. (May count as 1.5 hours towards a major/minor in Computer Science.)

**CS 244. COMPUTER SCIENCE I LABORATORY. (1)** Corequisite: Student must be concurrently enrolled in CS 240. The structured lab component of CS 240. An opportunity for hands-on reinforcement of the topics being covered in lecture. Required for CS majors/minors.

**CS 245 / CSCI 245C. INTRODUCTION TO A COMPUTER PROGRAMMING LANGUAGE. (1.5)** Prerequisites: A grade of "C" or better in CS 146 (or equivalent) and consent of instructor. Designed to introduce the syntax, advantages, limitations, and selected applications of a particular programming language such as ADA, BASIC, C, FORTRAN, LISP, COBOL, PL/I, or assembly language. Will not count toward a computer science major or minor if credit is received for an introduction to the same language in another course. May be repeated for up to 3 semester hours credit.

**CS 249. CONSULTING PRACTICUM IN COMPUTER SCIENCE. (1-2)** Prerequisites: Consent of the instructor. An opportunity for undergraduates to utilize computer skills and enhance communication abilities by serving as consultants for lower divisional students on computer laboratory assignments. Will not count as hours toward the major/minor. May be repeated for up to a total of four hours credit with a maximum of two hours per semester. (One hour of semester credit requires four non-paid hours per week of consulting time in the laboratory). (Grading: Pass/Fail)

**CS 250. SOCIAL IMPLICATIONS OF COMPUTING. (1.5)** Co-requisite: CS 180. A survey course on the role of computing in society, designed primarily for computer science majors and minors. Discusses current topics related to the use of computing and associated trends.

**CS 251. INTRODUCTION TO DATABASE SYSTEMS. (3)** Prerequisite: CS 181. An introduction to relational database management systems and their applications, including the essential skills and methods for the design, development, and implementation of database systems.

**CS 257. INFORMATION SECURITY II. (3)** *Prerequisite:* CS 157 with a grade of "C" or better. An overview of information security technologies, management practices and current standards. Topics include security models and technologies, threat analysis and security implementation, risk and incident response management and security policy. Lab sessions will be held as needed. May not be counted toward a computer science major or minor.

**CS 270. INTRODUCTION TO WEB PROGRAMMING. (3)** *Prerequisites:* CS 146, or CS 170, or CS 180. Introductory course in web programming and web application development. Provides students with essential skills for developing basic client-side and server-side applications. A survey course on the role of computing in society, designed primarily for computer science majors and minors. Discusses current topics related to the use of computing and associated trends.

**CS 280. COMPUTER SCIENCE III. (3)** *Prerequisites:* A grade of "C" or better in CS 181, MATH 119, 122, or 136. Finite and discrete algebraic structures, including Boolean algebras, directed and undirected graphs and the applications of these structures in computer science.

**CS 295. INTRODUCTION TO RESEARCH METHODOLOGY. (1)** *Prerequisite:* Ogden Research Scholar, or 3.2 grade point average at the end of freshman year, or OCS TH faculty member recommendation. To familiarize Ogden Research Scholars and other research oriented students, with the fundamentals of choosing a research topic, performing a bibliographical search on a subject, topic, classification of instruments, data taking, data reduction, professional ethics and other research oriented topics. The common points of research methodology in the different scientific areas will be accentuated. Examples will be drawn from the various disciplines. Use of computers will be emphasized. (Course does not count towards any major or minor). Equivalent to BIOL 295, CHEM 295, CS 295, GEOL 295, MATH 295, and PHYS 295.

**CS 315. INTRODUCTION TO UNIX. (3)** *Prerequisite:* CS 181 (co-requisite). Use of the UNIX operating system as a program development environment. Topics include programming tools like debuggers, make, advanced editing, shell programming, and use of the X Window system.

**CS 325. COMPUTER ORGANIZATION AND ARCHITECTURE. (3)** *Prerequisites:* CS 181. Advanced assembly programming, instruction sets, processor I/O and bus protocols, memory management, system performance, parallelism, and advanced systems.

**CS 349. CONSULTING PRACTICUM IN COMPUTER SCIENCE. (1-2)** *Prerequisites:* Junior status, a grade of "C" or better in CS 325, and consent of instructor. An opportunity for undergraduates to utilize computer skills and enhance communication abilities by serving as consultants for lower level students on computer laboratory assignments. Will not count as hours towards the major/minor. May be repeated for up to a total of four hours credit with a maximum of two hours per semester. (One hour of semester credit requires four non-paid hours per week of consulting time in the laboratory.) (Grading: Pass/Fail)

**CS 360. SOFTWARE ENGINEERING I. (3)** *Prerequisite:* A grade of C or better in CS 181. Modern development cycle examined via software engineering: needs assessment, requirements analysis, user interface, design, construction, test, maintenance/enhancement. Current methodologies and tools: data dictionary, data flow diagrams, structured walkthroughs, teams, program management. Case studies involving automated CASE and expert systems.

**CS 369. COOPERATIVE EDUCATION IN COMPUTER SCIENCE. (1-3)** *Prerequisites:* Application for enrollment in cooperative education plan; approval of department head and co-op faculty advisor. Practical experience in a supervised work situation with a cooperating business, industry, social or governmental agency. May be repeated for up to (3) credit in the major or minor.

**CS 370. XML AND WEB PROGRAMMING. (3)** *Prerequisite:* CS 270 and CS 338. A detailed study of tiered web application development. Focus is on developing applications that process and transform XML data and integrate it with databases.

**CS 371. ADVANCED COMPUTATIONAL PROBLEM SOLVING. (3)** *Prerequisite:* CS 180 with a grade of C or better. *Prerequisite or corequisite:* MATH 136. *Special requirement:* Enrollment in the Gatton Academy of Mathematics and Science or Honors Program eligibility at WKU. Problem-solving tools and techniques, with an emphasis on mathematical reasoning, algorithmic techniques, and computational methods. Techniques and tools are applied to (research) areas of interest to enrolled students, in the context of a project involving program design and implementation. The course is taught jointly by mathematics and computer science faculty. Equivalent to MATH 371.

**CS 380. DATA STRUCTURES AND ALGORITHM ANALYSIS. (3)** *Prerequisite:* A grade of "C" or better in CS 280 and STAT 301. Important data structures, algorithms, and their applications, emphasizing algorithm analysis and general algorithmic strategies. Includes balanced search trees, hashing, and priority queues, sorting, and graph algorithms.

**CS 381. INTRODUCTION TO COMPUTER NETWORKS. (3)** *Prerequisite:* CS 280. An introduction to the design and analysis of computer networks and their applications. Including the basics of data communication, network topologies, protocols, routing and switching, naming, and addressing.

**CS 382. PROGRAMMING LANGUAGES. (3)** *Prerequisite:* A grade of "C" or better in CS 181. A study of principles and common features of imperative and functional programming languages. Topics include syntax, semantics, names, binding, type checking, scope, overloading, and data abstraction.

**CS 389. PRACTICUM IN COMPUTER SCIENCE. (1-4)** *Prerequisites:* A grade of "C" or better in CS 225 and consent of computer science department head. Intended primarily for upper level undergraduates who will undertake significant programming projects. Written reports and documentation are required. May be repeated for up to a total of four hours of credit.

**CS 396. INTERMEDIATE SOFTWARE PROJECT. (3)** *Prerequisites:* A grade of "C" or better in CS 251, ENG 307, and either COMM 161 or 145. The course enhances students' abilities to craft software through the development of a significant group project requiring a variety of skills. Topics include simple data analysis and design, group problem solving, human-computer interface design, software project management, security, and quality control. Technical work is complemented by written and oral presentations.

**CS 405. NUMERICAL ANALYSIS I (MATH 405). (3)** *Prerequisites:* MATH 237 or 307 or 310, and a grade of "C" or better in CS 180 or CS 146 or consent of instructor. Roots of equations, linear operators, polynomial approximation and interpolation, numerical differentiation and integration. Computer solutions of problems will be required.

**CS 425. OPERATING SYSTEMS I. (3)** *Prerequisites:* A grade of "C" or better in CS 325 and CS 382. Overview of the concepts/theory that underlay operating systems with emphasis on process management, memory management, scheduling, multiprocessing, etc.

**CS 443. DATABASE MANAGEMENT SYSTEMS. (3)** *Prerequisites:* CS 251 and 280, or permission of instructor. Organization and management of large data files, various database paradigms, database design theory, query optimization, physical database design, database security, distributed databases.

**CS 445. OPERATING SYSTEMS II. (3)** *Prerequisite:* A grade of "C" or better in CS 425. Advanced study of modern operating system theory and practice. Topics include distributed system structures and coordination, distributed file systems, and protection and security.

**CS 446. INTERACTIVE COMPUTER GRAPHICS. (3)** *Prerequisites:* MATH 307, A grade of "C" or better in CS 338. Introduction to elementary topics in interactive computer graphics. Input devices, display devices, and techniques for 2-D and 3-D transformation will be explored as well as difficulties encountered in each of these areas. Assignments will be used to emphasize interaction, data structures, and applications to various disciplines.

**CS 450. COMPUTER NETWORKS. (3)** *Prerequisite:* CS 325 and CS 381, or permission of instructor. An advanced study of the design and implementation of computer networks. Topics include network topologies, switching techniques, routing, end-to-end protocols, quality of service, and other advanced topics, e.g. wireless networks and multimedia networks.

**CS 456. ARTIFICIAL INTELLIGENCE. (3)** *Prerequisites:* A grade of "C" or better in CS 338, 360. Study of problems which have no plausible algorithmic solution. Their computer representations and solutions usually involve heuristics.

**CS 473. INTRODUCTION TO GRAPH THEORY. (3)** *Prerequisite:* MATH 307 and MATH 310 with grades of C or better, or permission of the instructor. Fundamental concepts, key ideas and tools in graph theory, with an emphasis on proof methods, algorithms, and applications. Techniques and tools are applied to practical optimization problems and other areas of mathematics and computer science. Equivalent to MATH 473.

**CS 475. SELECTED TOPICS IN COMPUTER SCIENCE. (1-3)** *Prerequisite:* Permission of instructor. A consideration of special topics which will acquaint the advanced student with significant problems and developments of current interest in computer science.

**CS 476. RESEARCH METHODS AND PROJECTS IN COMPUTER SCIENCE. (3)** *Prerequisite:* A grade of "C" or better in CS 360. The languages, programming techniques and skills acquired in the sequence of core courses in the undergraduate program are applied to the analysis and design of computer-based systems. Top-down design techniques are applied in one or more large-scale programs which require attention to the documentation, communication, and interfacing or modules in a team project. These techniques are essential in most large-scale research applications of computers. May be repeated for 6 hours.

## Course Descriptions

**CS 496. CS SENIOR PROJECT AND PROFESSIONAL PRACTICE. (3)**  
*Prerequisites:* CS 360 and 396. Student teams of qualifying seniors will design and implement complex capstone software projects. Topics include practical issues of software development, quality assurance and deployment, project management, computing ethics, and professional practice.

### DANC – DANCE DEPARTMENT OF THEATRE AND DANCE

**DANC 108. BEGINNING MEN'S BALLET TECHNIQUE. (2)** Beginning men's ballet technique. Repeatable up to three times for credit. (course fee) [GEN ED F]

**DANC 110. DANCE APPRECIATION. (3)** A general study of the various forms of dance with emphasis on the contributions each has made to the performing arts and the development of our culture. [GEN ED B-II]

**DANC 111. BALLET I. (2)** An introduction to basic techniques of ballet with emphasis on proper techniques, mechanics, differences of the three major systems and terminology. Repeatable up to three times for credit. (course fee) [GEN ED F]

**DANC 112. DANCE FLEXIBILITY/STRENGTH TECHNIQUE. (1)** A study of principals of movement involved in the efficient development of the dancer's body with emphasis on a careful approach that will prevent or minimize common dance injuries.

**DANC 113. JAZZ I. (2)** An introduction to basic techniques of jazz with emphasis on technique, mechanics, rhythmical development and terminology. Repeatable up to three times for credit. [GEN ED F]

**DANC 115. TAP I. (2)** An introduction to the basic techniques of tap with emphasis on technique, mechanics, rhythmical development of styles and terminology. Repeatable up to three times for credit.

**DANC 117. MODERN I. (2)** An introduction to the basic techniques of modern dance with emphasis on technique mechanics and development of the body as a creative tool. Repeatable up to three times for credit. (course fee) [GEN ED F]

**DANC 200. DANCE PEDAGOGY. (3)** Study and practice of teaching methods and skills applicable to the teaching of dance technique.

**DANC 211. BALLET II. (2)** *Prerequisite:* Permission of instructor. A continuation of DANC 111, further developing and exploring technique and stylistic elements of ballet. This course also emphasizes assimilation and application of theoretical movement principles and historical influences on ballet. Repeatable up to three times for credit. (course fee) [GEN ED F]

**DANC 212. PARTNERING I. (2)** *Prerequisite:* DANC 211 or permission of instructor. A study in the basic techniques of partnering with emphasis on the techniques and mechanics that apply to support, timing, and concepts of classical partnering.

**DANC 213. JAZZ II. (2)** *Prerequisite:* Permission of instructor. A continuation of DANC 113, further developing and exploring technique and styles of jazz dance. This course also emphasizes assimilation and application of theoretical movement principles and historical influences on contemporary jazz dance. Repeatable up to three times for credit. [GEN ED F]

**DANC 215. TAP II. (2)** *Prerequisite:* Permission of instructor. A continuation of DANC 115. Repeatable up to three times for credit.

**DANC 217. MODERN II. (2)** *Prerequisite:* Permission of instructor. A study of modern dance technique at the intermediate level with emphasis on elements of time, space, and energy. Repeatable up to three times for credit. (course fee) [GEN ED F]

**DANC 235. DANCE IMPROVISATION. (3)** A guided exploration of dance oriented physical improvisation technique. (course fee)

**DANC 300. DANCE COMPANY. (1)** Prerequisites: By audition only. Must be concurrently enrolled in an appropriate Jazz, Ballet or Modern technique course. Dance performance ensemble. Repeatable 9 times for a total of 10 hours.

**DANC 310. CHOREOGRAPHY I. (3)** *Prerequisite:* DANC 235, or permission of instructor. An introduction to the elements that go into the creative development of dance with emphasis on the isolation of various elements for the purpose of detailed study.

**DANC 311. BALLET III. (2)** *Prerequisite:* Permission of instructor. A continuation of DANC 211, further exploring and developing technique and stylistic elements of ballet. This course also emphasizes assimilation and application of theoretical movement principles and historical influences on ballet. Repeatable up to three times for credit. [GEN ED F] (course fee)

**DANC 312. PARTNERING II. (2)** *Prerequisite:* DANC 212. A continuation of DANC 212.

**DANC 313. JAZZ III. (2)** *Prerequisite:* Permission of instructor. A continuation of DANC 213, further exploring and developing technique and style of jazz dance. This course also emphasizes assimilation and application of theoretical movement principles and historical influences on contemporary jazz dance. Repeatable up to three times for credit. [GEN ED F]

**DANC 314. STYLES OF MUSICAL THEATRE DANCE I. (2)** *Prerequisite:* DANC 318 or DANC 319, or permission of instructor. Development of basic practical knowledge of choreographed movement in the musical theatre dance idiom; includes study of fundamentals of ballet for the actor, derivative musical/rhythmic forms, and elementary Broadway dance vocabulary and styles.

**DANC 315. TAP III. (2)** *Prerequisite:* Permission of instructor. Intermediate level of tap technique. This course includes the study of wings, cramp-rolls, advanced riffs, time steps, breaks, turns and soft-shoe dancing. Repeatable up to three times for credit.

**DANC 317. MODERN III. (2)** *Prerequisite:* Permission of the instructor. A study of modern dance at the advanced intermediate level, with emphasis on dance composition. Repeatable up to three times for credit. (course fee) [GEN ED F]

**DANC 318. BALLET IV. (2)** *Prerequisite:* Permission of instructor. A continuation of DANC 311. Repeatable up to three times for credit. (course fee)

**DANC 319. JAZZ IV. (2)** *Prerequisite:* Permission of instructor. A continuation of DANC 313 with emphasis on the technique and artistic development of jazz dance. Repeatable up to three times for credit.

**DANC 320. CHOREOGRAPHY PRODUCTION. (2)** *Prerequisite:* DANC 310 or permission of instructor. Application of compositional elements toward a completed choreography project. Includes work on production in progress.

**DANC 334. POINTE I. (2)** *Prerequisite:* DANC 318. Preparation for and study of techniques applicable to pointe work as a specialized form of classical ballet. Repeatable up to three times for credit. (course fee)

**DANC 336. POINT II. (2)** *Prerequisite:* DANC 334. Second level in the study of technique applicable to pointe work. This course is designed to develop the accuracy and precision for dancing more complicated pointe variations. Repeatable up to three times for credit.

**DANC 350. DANCE HISTORY. (3)** A survey of the historical and aesthetic development of dance as an art form in Europe and America from ancient Greece to contemporary periods.

**DANC 410. DANCE PRACTICUM. (3)** An independent study project that enables the student to do research and special projects in unique areas where the usual course-work does not fulfill the need of the student.

**DANC 411. BALLET V. (2)** *Prerequisite:* Permission of instructor. A study of ballet technique with emphasis on analysis and correction of mechanics and the combining of techniques into dance sequences. Repeatable up to three times for credit. (course fee)

**DANC 413. JAZZ V. (2)** *Prerequisite:* Permission of instructor. A continuation of DANC 319 with emphasis on artistic quality, musicality and performance level techniques. Repeatable up to three times for credit.

**DANC 415. TAP IV. (2)** *Prerequisite:* Permission of instructor. Advanced level of tap technique. This course is designed to develop speed, control, precise articulation, rhythmic accuracy and effective dynamics. Elements of tap style, line and performance will be studied. Repeatable up to three times for credit.

**DANC 417. MODERN IV. (2)** *Prerequisite:* Permission of the instructor. A study of modern dance at the advanced level, with emphasis on dance performance. Repeatable up to three times for credit.(course fee)

**DANC 418. BALLET VI. (2)** *Prerequisite:* Permission of instructor. A continuation of DANC 411. Repeatable up to three times for credit.(course fee)

**DANC 419. JAZZ VI. (2)** *Prerequisite:* Permission of instructor. An exploration of jazz dance, emphasizing comprehension and development of styles. Repeatable up to three times for credit.

**DANC 420. CHOREOGRAPHY II. (3)** *Prerequisite:* DANC 310. Examines the analytical facet of making and viewing choreography, focusing on theme, meaning, and the artist's creative voice.

**DANC 451. BALLET VII. (2)** *Prerequisite:* Permission of instructor. A continuation of DANC 418. Repeatable up to three times for credit. (course fee)

**DANC 453. JAZZ VII. (2)** *Prerequisite:* Permission of instructor. A continuation of DANC 419. Repeatable up to three times for credit.

**DANC 458. BALLET VIII. (2)** *Prerequisite:* Permission of instructor. A continuation of DANC 451. Repeatable up to three times for credit.(course fee)

**DANC 459. JAZZ VIII. (2)** *Prerequisite: Permission of instructor.* A continuation of DANC 453. Repeatable up to three times for credit.

**DENG – DEVELOPMENTAL ENGLISH**  
**DEPARTMENT OF ACADEMIC SUPPORT**

**DENG 050. BASIC GRAMMAR AND PUNCTUATION. (3)** A refresher course covering the rules of grammar, punctuation, spelling, and sentence structure. (Grading: Pass/Fail)

**DENG 051C. ENGLISH AS A SECOND LANGUAGE. (3 OR 6)** A course designed to give non-native English speakers intensive practice in the four major language skills: reading, writing, listening, and speaking. Equivalent to ENG 051.

**DENG 055C. FUNDAMENTALS OF COMPOSITION. (3)** Intensive course in the basic mechanics of writing, reading, and grammar, designed to prepare students for college-level work in English. If enrollment is based on ACT and/or ACCUPLACER test scores, then a grade of "C" or better is required for the successful completion of the course.

**DH – DENTAL HYGIENE**  
**DEPARTMENT OF ALLIED HEALTH**

**DH 100. INTRODUCTION TO DENTAL HYGIENE. (1)** *Prerequisites: 226P, 524P majors, or exploratory students.* Exploratory course for pre-dental hygiene majors. This course will expose students interested in dental hygiene to the field and introduce them to the professional role of a dental hygienist. Communication and personal interaction skills will play a significant role during the course. During the course, students will be introduced to the clinic setting and will conduct a personal plaque control program.

**DH 111. PRE-CLINICAL DENTAL HYGIENE. (3)** An orientation to the field of dental hygiene. Subject matter includes the history of dentistry, dental hygiene, professional ethics, professional structure and roles of dental auxiliaries. This course develops an awareness of professional responsibility to preventive services, and to develop knowledge of theoretical principles and purposes of specific oral prophylaxis procedures is also included. The students practice prophylactic techniques on manikin heads. In the final few weeks, they provide limited clinical care to patients.

**DH 112. ORAL ANATOMY. (3)** A study of the visible anatomy of the oral cavity and the underlying structures. The basic concepts of the anatomy of cranial and facial bones, muscles, nerve supply, blood supply and lymphatic drainage of the head and neck is covered. A study of the eruption, arrangement, function and morphological characteristics of both the permanent and deciduous dentition is presented.

**DH 115. INDEPENDENT CLINICAL STUDY. (.5-3)** *Prerequisite: Permission of instructor.* Designed to allow students to complete clinical requirements remaining from the previous semester.

**DH 121. CLINICAL DENTAL HYGIENE. (3)** *Prerequisites: DH 111, 112 and 201.* Emphasis is given to the clinical aspects of training. Lectures concentrate on dental patients with special needs such as diseases, pregnancy or physical handicaps and techniques used in the clinical performance of periodontal probing and root instrumentation. The student is taught to counsel patients in all phases of preventive dentistry and nutrition.

**DH 122. PREVENTIVE DENTAL HYGIENE CARE. (1)** *Corequisite: DH 111.* Basic concepts of health promotion and oral disease prevention. Communication and behavior modification skills are presented to facilitate the role of the dental hygienist as an educator.

**DH 130. ORAL HISTOLOGY AND EMBRYOLOGY. (3)** *Prerequisite: DH 112.* This course covers the development and growth of the face and oral cavity, including a detailed study in the development of the teeth and their supporting structures. An abbreviated study of General Histology and Embryology and a microscopic study of the primary human tissues precedes the study of Oral Histology, including a detailed study of the tissues of the teeth and surrounding structures.

**DH 201. DENTAL RADIOLOGY I. (2)** This course explores dental radiology starting with fundamental physics. Material covered includes intraoral techniques, the darkroom, patient positioning, radiation hazards and protection.

**DH 204. PERIODONTICS. (3)** The role of the dental hygienist in the prevention and treatment of periodontal disease is stressed in this course. A study of the macroscopic and microscopic characteristics of the normal periodontium is presented to facilitate the recognition of changes in the gingiva and supporting tissues produced by periodontal pathology. The epidemiology, classification, etiology and prevention of periodontal disease will be covered. Clinical determinations in patient examination and the objectives and techniques in periodontal therapy will be emphasized.

**DH 206. DENTAL PHARMACOLOGY. (3)** *Prerequisites: CHEM 109 and BIOL 131.* Emphasis in this course is given to drugs that the dental professional actively prescribes in the practice of dentistry. All major drug groups, management of dental and medical emergencies from a pharmacological standpoint and pain control are included.

**DH 210. DENTAL MATERIALS AND EXPANDED FUNCTIONS IN RESTORATIVE DENTISTRY I. (2)** The first of two courses designed to introduce the student to dental materials and to the basic concepts of operative dentistry and the dental specialties, including the implementation of expanded functions. The course will include a study of the characteristics, physical and chemical properties, manipulation, uses and care of dental materials used in the practice of dentistry. A proficiency level will be acquired through laboratory and clinical experiences.

**DH 211. CLINICAL DENTAL HYGIENE. (4)** *Prerequisite: DH 121.* A clinical course closely correlated with oral diagnosis and oral pathology. Clinical activities include application of prophylactic technique to adult and pediatric patients. Oral examination and charting, sodium fluoride application, X-ray exposure, development, interpretative application, and patient education and sterilization techniques are carried out. The principal goal of this course is to develop the dental hygiene student into an adept, skilled, self-directing clinician. Off-campus field experiences are required.

**DH 213. EXTERNSHIP IN DENTAL HYGIENE. (3)** *Prerequisites: DH 121, DH 210, DH 226.* A four-week off-campus course at a selected site where all specialties of dentistry are practiced. Students are required to participate and rotate through all specialties. Emphasis is given to expanded functions in dentistry. Students are supervised by a Western Kentucky University faculty member as well as an on-site practitioner.

**DH 226. DENTAL MATERIALS AND EXPANDED FUNCTIONS IN RESTORATIVE DENTISTRY II. (2)** *Prerequisite: DH 210.* The second of two courses covering the utilization of the dental hygienist in expanded functions in operative dentistry. The more advanced concepts and procedures in restorative dentistry will be used to reinforce and expand the previously learned skills. Topics covered include impressions, rubber dam placement and removal, temporary restorations, placement of bases and cavity liners, placement and finishing of amalgam and tooth colored materials and other expanded functions.

**DH 302. DENTAL RADIOLOGY II. (2)** *Prerequisite: DH 201.* This second course in radiology is designed to discuss advanced techniques in radiography including extraoral techniques and continue to develop technical skills that result in radiographs of interpretive quality. Emphasis is placed on identification of normal anatomy and abnormal findings. Radiographic manifestations of dental diseases are taught.

**DH 303. COMMUNITY DENTAL HEALTH. (4)** *Prerequisite: DH 121.* Community dental health is that portion of the dental hygiene curriculum that prepares students to promote oral health and prevent oral disease in a community. The approach taken within the course provides students with the knowledge and skills necessary to meet specific oral health needs of community groups as distinct from the traditional clinical approach that is designed to meet the needs of individual patients. Instructional methods for individual and group presentations are developed and implemented through extramural experiences.

**DH 304. ADVANCED PERIODONTOLOGY. (4)** *Prerequisite: Open only to matriculated dental hygiene students or registered dental hygienists who have completed all attempted dental hygiene program courses with a grade of "C" or better.* This course is designed to provide the dental hygiene student or dental hygienist with advanced knowledge in periodontics. It will provide students with the conceptual framework and clinical skills to treat periodontal infections.

**DH 307. GENERAL AND ORAL PATHOLOGY. (3)** This course will be devoted to oral and general pathological conditions of the head and neck. This course encompasses an abbreviated coverage of general pathology to prepare the student for clinical diagnostic procedures in oral pathology, oral medicine, and radiology. The biology of the basic pathologic processes and how these processes produce diseases will be presented. Diseases that require special attention or require alterations in normal dental treatment planning will be emphasized.

**DH 309. PAIN CONTROL IN DENTISTRY. (4)** *Prerequisites: DH 206, DH 121.* This course is designed to prepare the dental hygiene student to administer local anesthesia and nitrous oxide/oxygen sedation at a clinical level of competency. Students will study and perform various local anesthetic injection techniques, and will administer nitrous oxide and oxygen to achieve conscious sedation. Students will also study the pharmacology of nitrous oxide and local anesthetic agents.

## Course Descriptions

**DH 321. CLINICAL DENTAL HYGIENE. (5)** *Prerequisite: DH 211.* Students are required to perform a specified number of oral prophylaxes on adult patients, patients presenting with special needs, and patients who are medically compromised. Students will also take, process and review dental radiographs and accomplish every clinical procedure that a licensed dental hygienist is expected to provide. Emphasis is also placed on periodontal management of patients.

**DH 323. RESEARCH METHODS. (3)** *Prerequisites: DH 303, DH 211, CH 383 or permission of instructor.* This course involves study of the research process and its application to dental hygiene education and practice. Emphasis is placed on critical analysis of selected research in dental hygiene and dentistry, including theory of research design, bibliographical and data gathering technique, and interpretation of results.

**DH 324. PRACTICE MANAGEMENT AND ETHICS. (2)** A course that covers the major aspects of the management of a growing dental and dental hygiene practice in today's society including location, equipment, insurance plans, ethics and jurisprudence. The course also discusses selecting a practice setting and the process of securing employment.

**DH 330. CLINICAL TEACHING I. (4)** *Prerequisites: DH 321 and FACS 381. Additional special requirements: Current Kentucky Dental Hygiene License.* Integration of previous knowledge and concepts in the supervision of first year dental hygiene students in the pre-clinical and laboratory setting.

**DH 340. CLINICAL TEACHING II. (4)** *Prerequisite: DH 330. Corequisite: DH 350.* Integration of previous knowledge and concepts in the supervision of first year dental hygiene students in the laboratory and clinical setting.

**DH 350. CLINICAL TEACHING III. (4)** *Prerequisite: DH 330. Corequisite: DH 340.* Clinical teaching experience in classroom areas as selected by the student under the direction of a supervising professor. The student develops behavioral course objectives, test and examination items, classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course.

**DH 360. INTERNATIONAL HEALTH AND HUMAN SERVICES LEARNING PROGRAM. (3)** *Prerequisites: DH 111, 210 and permission of instructor.* The purpose of this study abroad/service-learning course is to enhance student learning through the integration of academic and co-curricular experiences. This will be accomplished with active service to community partners, while encouraging civic engagement, community awareness, interdisciplinary teamwork and personal leadership development. Course may be repeated one time for a maximum of six credit hours.

### DMA – DEVELOPMENTAL MATHEMATICS DEPARTMENT OF ACADEMIC SUPPORT

**DMA 050C. PRE-ALGEBRA. (3)** For students whose arithmetic and basic algebra skills are inadequate for college mathematics. Topics include integers, fractions, decimals, percents and basic algebra concepts.

**DMA 055C. BASIC ALGEBRA SKILLS (PRE-COLLEGE). (3)** Designed to assist students whose background in algebra is inadequate for success in Intermediate Algebra (DMA 096C) or for those who did not take Algebra I in high school.

**DMA 080C. BASIC GEOMETRY. (3)** A one-semester course for students who did not complete geometry in high school. The course includes definitions, postulates, theorems, and proofs and topics from Euclidean geometry.

**DMA 096C. INTERMEDIATE ALGEBRA. (4)** *Prerequisite: Satisfactory score on ACCUPLACER test or Math Placement Exam; or completion of DMA 055C with a grade of "C" or better.* For those students needing algebra who do not have the prerequisite for MATH 116 or Math 118. Topics include functions, graphs, and fundamental concepts of algebra. Credit for DMA 096C is not applicable toward a baccalaureate or associate degree.

### DMT – DESIGN, MERCHANDISING AND TEXTILES DEPARTMENT OF FAMILY AND CONSUMER SCIENCES

**DMT 100. INTRODUCTION TO HOUSING AND INTERIOR DESIGN. (3)** Introduction to interior design as it relates to housing environments and residential furnishings and equipment. Focuses on consumer-related information and services. Includes layout and design opportunities. This course for non-Interior Design majors only.

**DMT 110. DESIGN CONCEPTS. (3)** Study of design elements and principles as related to the natural and manufactured environments. Students will develop an understanding of and appreciation for the role of design in human activity and thought.

**DMT 120. DESIGN STUDIO I. (4)** *Prerequisite: DMT 110.* Introduction to the fundamentals of visual design and techniques of representation through exploration of the fundamentals of design, research and conceptual sketching.

**DMT 131. BASIC APPAREL CONSTRUCTION. (3)** Study of basic principles of apparel construction. Concepts include pattern, fabric, and equipment selection. Students experiment with construction techniques. Laboratory. (course fee)

**DMT 132. PERSPECTIVES OF DRESS. (3)** An introduction to the fashion industry and the motivational factors influencing clothing choices. Dress is considered from psychological, socioeconomic, and design perspectives.

**DMT 151. INTRODUCTION TO HISTORY OF ARCHITECTURE AND INTERIOR DESIGN I. (3)** An introduction to the study of styles in architecture and interiors from ancient times through the 18th century. Emphasis is placed on furniture and furnishings and the interface between architecture and interior space.

**DMT 152. INTRODUCTION TO HISTORY OF ARCHITECTURE AND INTERIOR DESIGN II. (3)** An introduction to the study of styles in architecture and interiors from the 18th century to present time. Emphasis is placed on French, English, and American styles and the international movements from which contemporary styles have emerged.

**DMT 201. DESIGN STUDIO II. (4)** *Prerequisites: DMT 110, 120. Corequisites: DMT 243 and portfolio review for advising strengths and weaknesses.* Study of the principles of spatial design expressed by two-and-three-dimensional representation. Problem solving through elements of form, space and color.

**DMT 221. CREATIVE PROBLEM SOLVING IN DESIGN & MERCHANDISING. (3)** Development of problem solving skills in design and merchandising under time and/or environmental constraints. Students will complete projects using right brain-left brain thinking skills to analyze problems and create solutions.

**DMT 222. CAD IN HUMAN ENVIRONMENT. (3)** *Prerequisites: DMT 201 (may be taken concurrently) for Interior Design majors; DMT 131 for Textiles and Apparel Merchandising majors.* Computer aided design and drafting using AutoCAD. Practical applications in interior design and apparel merchandising are addressed through projects.

**DMT 223. TEXTILES. (3)** Includes fundamental facts concerning fibers, yarn, and fabric construction; color and design; and finishes. Performance and care are studied in relation to selection of fabrics for clothing and furnishings. Laboratory and field trips at student's expense included.

**DMT 226. FASHION ILLUSTRATION. (3)** *Prerequisites: DMT 110 and 132, or permission of the instructor.* Survey of industry methods for communicating design concepts and presenting finished products. Emphasis is on application of basic sketching and rendering skills for use in the fashion industry.

**DMT 231. TEXTILE AND APPAREL QUALITY ANALYSIS. (3)** *Prerequisites: DMT 131 (or demonstrated proficiency), DMT 223.* Evaluation of textile and apparel quality and performance. Emphasis on sewn products from the perspective of the manufacturer, retailer, and consumer. Laboratory; field experiences.

**DMT 243. MATERIALS AND FINISHES FOR INTERIOR DESIGN. (3)** *Prerequisite: DMT 120 or permission of instructor. Corequisite: DMT 201.* Analysis of properties and uses of materials specified by interior designers. Major concepts and processes include standards of performance, quantity and cost estimating, and specification writing. Field trips at student's expense.

**DMT 244. DIGITAL DESIGN TOOLS. (3)** *Prerequisite: DMT 120 or permission of instructor.* Introduction to the use of computer software such as Photoshop Elements, Snap Fashion, Sketch-up and AutoCAD for the visual communication of design ideas.

**DMT 300. DESIGN STUDIO III. (4)** *Prerequisite: DMT 201, 243. Corequisite: AMS 163.* Investigation into understanding of conceptual, spatial principles applicable to interior design; development of two- and three-dimensional representation techniques and application of color theory.

**DMT 301. DESIGN STUDIO IV. (4)** *Prerequisite: DMT 202. Corequisite: DMT 303.* Integration of basic building systems with conceptual, organizational, and spatial principles of design to create complete interior environments. (course fee)

**DMT 302. DESIGN STUDIO V. (4)** *Prerequisite: DMT 301.* Non-residential design problems of intermediate complexity with emphasis on application of advanced programming and life safety issues. (course fee)

**DMT 303. LIGHTING DESIGN SEMINAR. (2)** *Corequisite: DMT 301.* A study of the principles of lighting that relate to technical, aesthetic, and economic aspects of user needs. Emphasis is on analysis of quantitative standards (safety and function) and quality of light in various types of spaces. Integrated with studio work. Field trips at student's expense.

**DMT 304. LIGHTING AND ENVIRONMENTAL CONTROLS. (3)** *Corequisite: DMT 301.* Principles of mechanical systems of buildings including the electrical system, ventilation system, plumbing system, HVAC systems. Students will properly execute the design criteria, supervise and collaborate with building trades and competently implement proper materials and mechanical systems in the working drawings.

**DMT 321. PROFESSIONAL ETHICS & ISSUES SEMINAR. (3)** *Prerequisite: Junior Standing.* Interdisciplinary study of social trends, professional issues, and professional ethics impacting careers. Focus is on professional development strategies and resolution of ethical dilemmas both in the job search and within the workplace.

**DMT 322. MERCHANDISING I FOR DESIGN, MERCHANDISING AND TEXTILES. (3)** Study of the principles of merchandising design, apparel and textile products with emphasis on the buying function and using merchandise calculations.

**DMT 332. HISTORY OF 20TH CENTURY FASHION. (3)** *Prerequisite: DMT 132.* Survey of American and European fashions from 1900 to present as they reflect social, economic, and cultural influences. Application to current fashion analysis, re-enactment apparel, and artifact identification.

**DMT 333. FASHION FUNDAMENTALS. (3)** *Prerequisite: DMT 132 or consent of instructor.* Survey of the fashion industry. Major topics include design, production, marketing and apparel management. Current trends in fashion design and merchandising are identified and analyzed.

**DMT 334. APPAREL DESIGN MANAGEMENT. (3)** *Prerequisite: DMT 131.* Study of basic principles of flat pattern design. Students are required to interpret and develop original designs. Laboratory. (course fee)

**DMT 346. ARCHITECTURE AND CULTURE. (3)** *Prerequisite: Honors participation or 3.2 gpa required.* The study of architecture as an integral component of world culture. Attention is focused on the interdisciplinary nature of architecture, its development as a reflection of beliefs, and its use as a setting for interaction and cultural ritual. [GEN ED-E]

**DMT 401. DESIGN STUDIO VI. (4)** *Prerequisites: DMT 302 . Corequisite: DMT 403.* Non-residential design problems of advanced complexity integrating previous experiences and applying office practices to the process of design. (course fee)

**DMT 402. SENIOR DESIGN THESIS . (4)** *Prerequisites: DMT 401, 403, FACS 410.* A mixed-use capstone project which requires students to develop a design solution with an increased amount of technical support data and design detailing. Guest speakers and field trips may supplement instruction. Students are responsible for their own transportation. (course fee)

**DMT 403. BUSINESS PRINCIPLES AND PRACTICES FOR INTERIOR DESIGN. (2)** *Corequisite: DMT 401.* Study of the business, legal, and financial considerations of the practicing designer. Major topics include business formation, project analysis and management, contracts, compensation, and government regulations and codes.

**DMT 410. INTERNSHIP FOR DESIGN, MERCHANDISING AND TEXTILES. (3)** *Prerequisite: Senior standing and all required 300-level courses in DMT.* Students perform professional functions in an appropriate establishment. (Note: application and copy of undergraduate program must be submitted to coordinator of the Internship Program one complete semester prior to the semester a student plans to do the internship. A 2.5 grade point average in professional courses is required for eligibility.) Repeatable to maximum of 6 hours.

**DMT 421. PORTFOLIO DESIGN. (3)** *Prerequisites: DMT 302 and 303 or DMT 333 and 334 or permission of instructor.* Development of a design portfolio as essential ingredient of job search and application to graduate school for all design professions. Includes audit, analysis and assembly of portfolio to demonstrate individual talent and qualifications. Input from industry professionals. Covers digital techniques and World Wide Web promotion.

**DMT 422. TEXTILE DESIGN AND PERFORMANCE. (3)** *Prerequisites: DMT 110 and 221.* Analysis of creativity in historic and contemporary textile designs and techniques. Students experiment and create textile designs and colorways appropriate for specific design applications and end product categories. (course fee)

**DMT 423. HUMAN ENVIRONMENT STUDY TOUR. (3)** *Prerequisite: Consent of instructor.* Travel to fashion and design centers to gain firsthand knowledge concerning design, production, marketing, and promotion of textiles, clothing, and home furnishings. Field trips at student's expense.

**DMT 424. HISTORIC TEXTILES. (3)** *Prerequisite: DMT 223.* A study of decorative fabrics and the history of textile design from ancient times through contemporary production. Understanding cultural diversity as reflected in textile artifacts of major cultures of the world is the major focus. Field trips required at student's expense.

**DMT 426. FASHION DESIGN MARKET TRENDS. (3)** *Prerequisites: Student must have completed at least two courses in DMT, have junior or senior standing, and approval of instructor.* Study of a major market for fashion apparel, textiles, or interior design products. In-class seminars will precede and follow field work experience at a major market for apparel, interior design, or related businesses. Travel to market site at student's expense.

**DMT 427. ADVANCED PRESENTATION TECHNOLOGY. (3)** *Prerequisite: DMT 300.* Exploration of computer technology used to enhance the interior design presentation process.

**DMT 431. CLOTHING AND HUMAN BEHAVIOR. (3)** *Prerequisites: PSY 100 or SOCL 100 and junior standing or consent of instructor.* Study of dress and adornment in relation to human behavior. Clothing and appearance are explored in relation to the self, to interpersonal communication, and to collective behavior in social, cultural, and historical contexts. [GEN ED-E]

**DMT 432. VISUAL MERCHANDISING AND PROMOTION. (3)** *Prerequisites: DMT 110 and DMT 132.* Study of the principles and practices of fashion promotion. Includes supervised experience working with visual merchandising and fashion-related events using merchandise from retail stores.

**DMT 433. FASHION SYNTHESIS. (3)** *Prerequisites: DMT 333 and DMT 334.* A multi-functional team approach to creative problem solving and development of apparel and related products and services. Includes application, evaluation, presentation, and synthesis of merchandising, design, and production processes. Laboratory and field trips. (course fee)

**DMT 434. HISTORY OF COSTUME. (3)** Study of costume from selected historic periods. Students are required to analyze socioeconomic influences on clothing. Field experiences.

**DMT 435. COMPUTER APPLICATIONS IN TEXTILES AND APPAREL MERCHANDISING. (3)** *Prerequisites: DMT 222, DMT 331, and DMT 333.* Study of fundamental principles of textiles and apparel management. Experience with a variety of computer applications in the textiles and apparel industry. Field trips.

**DMT 437. CONSERVATION OF TEXTILES AND CLOTHING. (3)** *Prerequisite: DMT 223.* Comprehensive study of preservation techniques employed for the conservation of textile and clothing artifacts, including consideration of cleaning, repairing, storing, mounting, and displaying procedures. Techniques applicable in both home and museum locations are addressed.

**DMT 438. MERCHANDISING II FOR DESIGN, MERCHANDISING AND TEXTILES. (3)** *Prerequisite: DMT 331.* Study of the principles of effective fashion merchandising. Students apply learning experiences to store design and layout, management patterns, fashion promotion, and financial control.

**DMT 441. BUSINESS PRINCIPLES AND PRACTICES IN INTERIOR DESIGN. (3)** *Prerequisites: All required 200-level courses in the major. Permission of instructor.* Study of the business, legal, and financial considerations of the practicing designer. Major topics include business formation, project analysis and management, contracts, compensation, and government regulations and codes.

**DMT 444. ENVIRONMENTAL PRODUCT DESIGN AND DEVELOPMENT. (3)** *Prerequisite: DMT 241.* A study of emerging technologies and environmental issues confronting consumers and designers of the near environment, including housing, apparel, leisure, and workspaces. Major emphasis is on alternative design forms, energy-conscious design, and energy effectiveness of products and spaces. Possible field trips at student's expense.

**DMT 446. RESTORATION OF HISTORIC INTERIORS. (3)** This course focuses on design and other aspects of interior historic restoration of both academic and vernacular structures. Attention is focused on aesthetic issues of designing domestic and commercial historic interiors for restoration or adaptive reuse. (Equivalent to FLK 446)

**DMT 448. INTERIOR ILLUSTRATION. (3)** *Prerequisite: DMT 120.* Development of advanced skills in design illustration and presentation. Emphasis is on fast techniques for color rendering.

**DMT 449. DESIGN HUMANICS. (4)** *Prerequisites: DMT 300, AMS 163, or DMT 222.* Research and application of design theory to a design project. Student will prepare design documents from conceptual diagrams, preliminary design, and code analysis to final presentation.

**DPE – DEVELOPMENTAL PHYSICAL EDUCATION  
DEPARTMENT OF ACADEMIC SUPPORT**

**DPE 052C. WELLNESS: USING BODY RECALL. (1)** An alternative to aerobic exercise, the course is designed to improve flexibility, strength, and muscle tone through slow and gentle movement. Body Recall is a concept for lifetime fitness and can be used as conditioning for more strenuous activities or as a full body awareness program. Offered to men and women of all ages. No special clothing needed.

## Course Descriptions

### DRDG – DEVELOPMENTAL READING

#### DEPARTMENT OF ACADEMIC SUPPORT

**DRDG 080C. COLLEGE READING STRATEGIES. (3)** Preparation for reading at the college level. Emphasis is given to vocabulary recognition, comprehension, inference, and differentiation of reading requirements as related to different courses. If enrollment is based on ACT and/or ACCUPLACER scores, a grade of "C" or better is required for the successful completion of the course.

**DRDG 090C. COLLEGE STUDY SKILLS. (2)** Emphasizes the development and application of study techniques, including time management, studying from the textbook, note-taking, and examinations.

**DRDG 098C. VOCABULARY DEVELOPMENT STRATEGIES. (3)** This course involves word analysis through examination of word parts, derivatives, definition and usage, with emphasis given to development of basic decoding skills pertaining to college-level, technical terms found across the curriculum.

### ECON / ECO – ECONOMICS

#### DEPARTMENT OF ECONOMICS (ECON)

#### DEPARTMENT OF LIBERAL ARTS AND SCIENCES (ECO)

**ECON 150 / ECO 150C. INTRODUCTION TO ECONOMICS. (3)** A general introduction to economic concepts, ideas, institutions and methods of analysis with emphasis on the description of economic processes and the functioning of institutions in a market economy. This course carries no credit toward any major or minor offered in the Ford College of Business. Note: This course cannot be taken for credit after completing ECON 202 or 203. [GEN ED C]

**ECON 202 / ECO 202C. PRINCIPLES OF ECONOMICS (MICRO). (3)**  
*Prerequisite: Sophomore standing.* An introduction to basic descriptive, analytical and policy problems at the microeconomic level. The economic problems resulting from the disparity between human wants and the resources required to satisfy those wants will be studied with emphasis placed on the derivation and behavior of supply and demand functions and the role of prices in the allocation of scarce resources. [GEN ED C]

**ECON 203 / ECO 203C. PRINCIPLES OF ECONOMICS (MACRO). (3)**  
*Prerequisite: Sophomore standing.* An introduction to basic macroeconomics dealing with descriptive, analytical and policy problems involved in the determination of aggregate income, employment and the price level. Areas of emphasis include money and banking, national income accounting and income-expenditure models. [GEN ED C]

**ECON 206 / ECO 206C. STATISTICS. (3)** *Prerequisites: ECON 202 or 203 and MATH 116 or higher.* An introduction to basic probability and statistics for business and economics. Topics include the collection and presentation of data, descriptive statistics, an introduction to probability and probability distributions, statistical inference, and simple linear regression.

**ECON 300. MONEY AND BANKING. (3)** *Prerequisites: ECON 202 and 203.* An introduction to the functioning of depository institutions and the theory of money. Emphasis is placed on an analysis of the role of money in a global market economy, and the influence exerted by financial institutions and the Federal Reserve System.

**ECON 302. MICROECONOMIC THEORY. (3)** *Prerequisites: ECON 202, 203, and 206.* An intermediate theory course analyzing price determination, output distribution, and resource allocation in a market economy. Topics included are consumer behavior, production theory, market structures and their respective efficiency criteria.

**ECON 303. MACROECONOMIC THEORY. (3)** *Prerequisites: ECON 202, 203, and 206.* An intermediate theory course analyzing Neo-Classical, Keynesian and Post-Keynesian theories of macroeconomic equilibria. The policy implications of these models with respect to income, output, employment and the price level will be emphasized.

**ECON 305. LABOR ECONOMICS. (3)** *Prerequisites: ECON 202 and 203.* Study of modern labor theory and labor market behavior; public policy and implications of policy with topics such as migration, health, wage determination, education, unions, and discrimination.

**ECON 306. STATISTICAL ANALYSIS. (3)** *Prerequisite: ECON 206; NOTE: ECON 306 and ECON 307 may not both be taken for credit.* An introduction to, and, foundations for using techniques involved in estimating and testing relationships between variables. The course includes advanced topics in hypothesis testing, analysis of variance, multiple regression and correlation analysis and experimental design.

**ECON 307. FINANCIAL DATA MODELING. (3)** *Prerequisite: ECON 206. NOTE: ECON 306 and ECON 307 may not both be taken for credit.* Tools for modeling financial data for use in decision making. Using spreadsheet software for exploratory data analysis, financial analysis, multiple regression methods, introduction to forecasting time series. (course fee)

**ECON 323. SPORTS ECONOMICS. (3)** *Prerequisite: ECON 202.* Applies to basic economic principles to the analysis of professional and amateur sports. Topics covered include fan demand, public finance, team output decisions, league/conference organization, and government and sports. This course is designed to cater to Economics, Sport Management, and Business Administration.

**ECON 365. ECONOMICS OF AGING. (3)** *Prerequisites: ECON 150 or 202 or 203.* A course designed to make students familiar with major issues concerning the economic status and roles of older people in the United States.

**ECON 375. MORAL ISSUES OF CAPITALISM. Prerequisite: ECON 202 or 203, or consent of the instructor.** Survey course designed to study the moral issues and consequences of current and changing government policies regarding the operation of markets.

**ECON 380. INTERNATIONAL ECONOMICS. (3)** *Prerequisites: ECON 202 and 203.* Introduction to the theory of international trade and monetary relations with emphasis on the determinants of the direction, volume, terms and gains from international trade.

**ECON 385. ECONOMIC DEVELOPMENT. (3)** *Prerequisites: ECON 202 and 203.* This is a survey course designed to appeal to students interested in interdisciplinary study. Market and non-market based strategies for economic development are studied with an emphasis on case studies of the experiences of countries in Europe, Asia, Africa, and the Americas. Attention is given to the roles of domestic and international institutions, economic and political freedoms, culture, legal systems, tradition, and global issues of sustainable development.

**ECON 386. ECONOMIES IN TRANSITION. (3)** *Prerequisites: ECON 202 and 203.* This is a survey course designed to appeal to students interested in interdisciplinary study. Examined are the experiences of the economies of Europe, Asia, Africa, and the Americas in transition from a non-market based economy to one in which private market processes are the primary governors of resource allocation and distributive outcomes. Attention is given to the topics of economic stability, privatization, property rights, international trade policy, industrial policy, economic planning, international institutions, and cultural traditions.

**ECON 390. ECONOMICS, LAW, AND PUBLIC CHOICE. (3)** *Prerequisites: ECON 302 or ECON 202 with consent of instructor.* Presents basic economic issues and analysis related to topics such as property rights, contracts, torts, crime, voter/interest group activity, legislative output, and bureaucratic output.

**ECON 400. ISSUES IN CAPITAL MARKET ECONOMICS. (3)** Exposure to current economic theory and evidence related to capital markets with emphasis on public policy, the interplay with the macroeconomy, stock price variability, internationalization, and other related topics.

**ECON 410. SEMINAR IN ECONOMICS. (3)** Special topics in economics of current interest. Class format varies with instructor.

**ECON 414. MANAGERIAL ECONOMICS. (3)** *Prerequisites: ECON 202, 203, and 206.* The application of economic principles and tools of analysis to business management decision making in areas of demand, pricing, cost, production and investment. Problems in business decision making are treated in terms of short-run adjustment as well as long-run expansion.

**ECON 420. PUBLIC FINANCE. (3)** *Prerequisite: ECON 202 and 203, or consent of instructor.* A study of the economics of government's spending and taxation. Among the topics covered are governments role in promoting widely accepted economic policy objectives; budgeting and benefit/cost analysis; effects and incidence of major taxes used in the U.S.; and issues in fiscal-federalism.

**ECON 430. ENVIRONMENTAL AND RESOURCE ECONOMICS. (3)** *Prerequisite: ECON 150 or 202 or 203.* A study of environmental issues and natural resource problems and alternative solutions to them. Topics include measurements of environmental benefits, property rights and externalities, environmental quality, pollution control and solid waste management, exhaustible and renewable resources, optimal environmental policy and regulation.

**ECON 434. THE ECONOMICS OF POVERTY AND DISCRIMINATION. (3)** *Prerequisite: ECON 150 or 202 or 203.* A study of the economic nature, origins, and public policy aimed at addressing poverty and discrimination in the economy. Topics include social security, food stamps, equal employment opportunity legislation, and other public policies designed to reduce poverty and discrimination.

**ECON 440. AMERICAN INDUSTRY: STRUCTURE, PERFORMANCE AND POLICY. (3)** *Prerequisites:* ECON 202, 203, and 206. A course in applied price theory in which the structure, behavior and performance of American industry is evaluated in the light of public and private social goals. Public policy toward the promotion of competition and the control of monopoly will be examined.

**ECON 445. ECONOMICS OF HEALTHCARE. (3)** *Prerequisite:* ECON 202. Health economics studies the unique role that healthcare systems play in the broader area of microeconomics.

**ECON 460. BUSINESS AND ECONOMIC FLUCTUATIONS. (3)** *Prerequisites:* ECON 206 and 303. A study of the causes, patterns of development and consequences of economic fluctuations in a modern industrialized economy. Emphasis is placed on macroeconomic techniques of cycle analysis to determine the dynamic time path of income, output and employment.

**ECON 464. INTRODUCTION TO MATHEMATICAL ECONOMICS. (3)** *Prerequisites:* ECON 302 and 303. The application of mathematics to economic analysis, covering algebraic and functional relationships, differential and integral calculus, differential and difference equations, matrix algebra, linear programming and game theory.

**ECON 465. REGRESSION AND ECONOMETRIC ANALYSIS. (3)** *Prerequisite:* ECON 206. Presents the use of statistical methods in measuring and testing economic relationships. Emphasizes the use of ordinary least squares in estimating single equation models. Topics included are dummy variables, lagged variables and such problems as autocorrelation, heteroscedasticity, multicollinearity and identification.

**ECON 467. AMERICAN ECONOMIC HISTORY. (3)** *Prerequisites:* ECON 202 and 203. A study of American economic history from Jamestown to the 21st Century. Topics include the economics of slavery, the Civil War, the Robber Barons, the Great Depression, and the growth of government intervention.

**ECON 475. URBAN AND REGIONAL ECONOMICS. (3)** *Prerequisites:* ECON 202, 203, and 206 or consent of instructor. Considers the fundamental economic relationships within and between economic and political units in the United States. Emphasis is on applied economic analysis dealing with the characteristics of a region, the urban center and employment.

**ECON 480. ECONOMIC FORECASTING. (3)** *Prerequisites:* MATH 116 or higher, and ECON 202, 203, and 206. A survey of forecasting methods, their characteristics, appropriate applications, and evaluation.

**ECON 490. PRACTICUM IN ECONOMICS. (1-3)** *Prerequisites:* Junior standing, 2.5 cumulative GPA, permission of the economics department head and the instructor, completion of at least 12 hours in economics. Internships, independent studies, and special projects of interest to students and faculty in the economics discipline. These may include individual research projects approved by the department head and supervised by a member of the economics faculty, meaningful internships in profit or not-for-profit organizations, or other special projects approved by the economics department head, and the economics faculty.

**ECON 491. HISTORY OF ECONOMIC THOUGHT. (3)** *Prerequisites:* ECON 202 and 203 or consent of instructor. The origin and development of economic thought with emphasis on the contribution of political economy to the behavioral sciences.

**ECON 496. INTERNATIONAL MONETARY ECONOMICS. (3)** *Prerequisite:* ECON 380. Deals in a systematic fashion with the monetary aspects of international trade and finance. Topics covered include various models of the current account such as elasticities, and absorption. Models of the capital account include the monetary and asset approaches to the balance of payments and rational expectations models of exchange rate overshooting. Problems of international capital movements and policies to maintain internal and external balance are addressed.

**ECON 497. SENIOR SEMINAR IN MATHEMATICAL ECONOMICS. (1)** *Prerequisite or corequisite:* Senior standing and admitted to the major in mathematical economics. This course is designed to integrate the ideas and techniques students have encountered in their work in mathematics and economics. Students will study research articles and/or undertake independent investigations in mathematical economics. Equivalent to MATH 497.

**ECON 499. SENIOR ASSESSMENT. (1)** *Prerequisites:* Senior standing, ECON 302 and 303. A capstone course that provides an opportunity to demonstrate knowledge of economics and discuss educational and career opportunities beyond the baccalaureate degree.

## EDU – EDUCATION SCHOOL OF TEACHER EDUCATION

**EDU 175. UNIVERSITY EXPERIENCE. (3)** *Prerequisite:* For beginning college freshman or transfer students with fewer than 24 semester hours of credit. Transition to university experience. Topics include study skills, critical thinking skills, library education, exploration of majors and careers, degree programs, campus resources, and personal development. Special attention is given to educational requirements, careers, and resources in the field of education. Field trips to local public schools and/or other appropriate settings away from campus are required. Students are responsible for their own transportation to designated or assigned sites.

**EDU 250. INTRODUCTION TO TEACHER EDUCATION. (3)** The introductory course to a career in education. The student will acquire basic knowledge of teacher ethics, career awareness, student diversity, and curriculum. Field experiences are required. Students are responsible for arranging their own transportation to designated or assigned sites.

**EDU 400. INVESTIGATIONS IN EDUCATION. (1-3)** Individual investigations of methods and materials, curriculum problems, or other topics related to professional education.

**EDU 489. STUDENT TEACHING SEMINAR. (3)** *Corequisites:* ELED 490, MGE 490, SEC 490, or IECE 490. Analyzes the connection between teaching theory and actual practice. Portfolio refinement with the Teacher Performance Standards will be emphasized. Field experiences in public schools and/or other appropriate settings away from campus are required. Pre-Service Teachers are responsible for their own transportation to designated or assigned sites.

**EDU 491. PRACTICUM FOR TEACHER CANDIDATES. (1)** *Prerequisite:* Department head recommendation; instruction permission. Development of knowledge and skills required of teacher candidates. Identified students must take EDU 491 in the term (Winter or May) immediately following the student teaching semester and EDU 489. (Grading: Pass/Fail) (course fee)

## EE – ELECTRICAL ENGINEERING DEPARTMENT OF ENGINEERING

**EE 101. ELECTRICAL ENGINEERING DESIGN I. (1)** *Prerequisite:* MATH 117 or higher. The introduction of the design process to electrical engineering students. Includes discussion of problem-solving techniques and teaming skills, an introduction to circuit fabrication techniques, and oral and written communication skills. Multiple hands-on projects.

**EE 130. OUR ELECTRICAL WORLD. (3)** An overview of the generation and utilization of electricity in modern society, with emphasis on infrastructure, critical technologies, alternative energy sources, and sustainability.

**EE 175. UNIVERSITY EXPERIENCE –ELECTRICAL ENGINEERING. (2)** *Prerequisite:* For beginning college freshmen or transfer students with fewer than 24 hours of credit. Transition to university experience. Topics include study skills, critical thinking skills, library education, exploration of majors and careers, degree programs, campus resources and personal development. Special attention is given to educational requirements, careers and resources in electrical engineering. EE design process is introduced

**EE 180. DIGITAL CIRCUITS. (4)** *Corequisite:* MATH 117 or higher. An introductory course in digital circuit fundamentals. Topics include number systems, Boolean algebra, binary codes, logic gates, flip-flops, counters, and registers. Laboratory included.

**EE 200. ELECTRICAL ENGINEERING DESIGN II. (1)** *Corequisite:* EE 210. A continuation of the engineering design process including an introduction to circuit and math simulation software tools, printed circuit board software and fabrication techniques. Ethics and professionalism will be addressed.

**EE 210. CIRCUITS & NETWORKS I. (3.5)** *Prerequisite:* MATH 137. *Corequisite:* PHYS 265. An introductory course in circuit analysis including Kirchhoff's Laws, independent and dependent sources, power and energy, lumped linear fixed networks, power factor, phasors, and three phase networks. Laboratory included.

**EE 211. CIRCUITS & NETWORKS II. (3.5)** *Prerequisite:* EE 210 with a grade of "C" or better in EE 210. *Prerequisite or Corequisite:* MATH 331. A second course in circuit analysis with an emphasis on frequency response techniques. Topics include impedance, transformed networks, Laplace transforms, resonance, two-port parameters, mutual inductance, forced and natural responses, transformers, transient response, and sinusoidal steady-state response. Laboratory included.

**EE 300. ELECTRICAL ENGINEERING DESIGN III. (1)** *Prerequisites:* Junior standing in Electrical Engineering and consent of instructor. Application of numerical methods, statistics, economics and production techniques to the engineering design process. Individualized writing and oral presentation tasks and ethical issues. Design project required. Circuit schematic software.



## Course Descriptions

**EE 345. ELECTRONICS. (4)** *Prerequisite: EE 211.* A first course in electronics. Topics include semiconductor concepts, operational amplifiers, diodes, transistors, biasing, large and small signal analysis. Laboratory included.

**EE 350. FUNDAMENTALS OF ELECTRICAL ENGINEERING. (4)** *Prerequisite: PHYS 265. Prerequisite or Corequisite: MATH 331.* An introductory course in electrical engineering. Topics include circuit analysis, digital electronics, and energy conversion devices such as magnetic circuits and rotating machinery. Not acceptable as credit for EE majors.

**EE 380. MICROPROCESSORS. (4)** *Prerequisites: EE 180, 210, and CS 239.* An introductory course in microprocessors. Topics include assembly language, stack operation, vectored interrupts, memory organization, input/output peripheral devices, and hardware design of a computer system. Laboratory included. (course fee)

**EE 400. DESIGN IV. (1)** *Prerequisites: Senior standing in Electrical Engineering and consent of instructor.* This course is designed to prepare students for the workplace by discussing such issues as interviewing, resume writing, ethics, and professional issues. Also design methodology and decision making will be discussed. The students will complete their proposals for EE 401 during this course.

**EE 401. EE DESIGN PROJECT. (3)** *Prerequisites: EE 400 and consent of instructor.* A course designed for the student to assume the primary responsibility or the completion of an electronic or electrical project.

**EE 405. EE SENIOR RESEARCH SEMINAR. (1)** *Corequisite: EE 400 or permission of instructor.* Contemporary topics in electrical and computer engineering, literature, surveys, scientific reporting, peer reviews and intellectual property.

**EE 410. COMPUTER DESIGN. (3)** *Prerequisite: EE 380. Corequisite: EE 411.* This is the University of Louisville course EE 510. Topics include a review of logic design and elementary computer organization. Asynchronous and synchronous logic design using VHDL and programmable logic. Design of the central processing unit, memory, control, and input-output portions of a computer. The VHDL hardware design language will be used.

**EE 411. COMPUTER DESIGN LAB. (1)** *Prerequisite: EE 380. Corequisite: EE 410.* This is the University of Louisville course EE 511. This course is a laboratory which illustrates analysis and design principles of EE 410. It includes experiments in the design of the central processing unit, memory, control, and input-output portions of a computer using VHDL and PC based for software simulation.

**EE 420. SIGNALS AND LINEAR SYSTEMS. (3)** *Prerequisite: EE 211 with a grade of "C" or better and MATH 331. Prerequisite or Corequisite: MATH 307 or MATH 350.* Topics include analysis of continuous-time and discrete-time, discrete-parameter, time-invariant, linear systems based upon the convolution integral, Fourier series and transform, Laplace transform, Z-transform, and state-space methods. Topics include impulse response, transfer function, energy spectra, filtering, sampling, and applications to networks, communications, and controls.

**EE 431. INTRODUCTION TO POWER SYSTEMS. (3)** *Prerequisites: EE 211, MATH 237, EE 473.* Introduction to the principles and concepts of electrical power and analysis of major components of an electric power system. Topics include basic electromechanics, transformers, ac and dc machines, transmission lines, and system analysis. Laboratory included.

**EE 432. POWER SYSTEMS II. (3)** *Prerequisite: EE 431.* Analysis of power systems in the steady state. Includes the development of models and analysis procedures for major power system components and for power networks.

**EE 443. MICROFABRICATION AND MEMS. (3)** *Prerequisites: EE 420, CHEM 116 or 120.* Microfabrication techniques including cleanroom technology, lithography, thermal oxidation, diffusion, ion implantation, film deposition, etching, micromachining, wafer-level bonding/polishing, and packaging yield, microtechnology measurement and analysis techniques, process simulation, CAD device-layout, microelectromechanical systems (MEMS) and microelectrical technology and application, and material issues for MEMS/ microelectronics.

**EE 445. ADVANCED ELECTRONICS. (3)** *Prerequisite: EE 345.* Advanced topic in electronics including: Power semiconductor devices; converter topologies and their applications; switch-mode dc and uninterruptible power supplies; motor drives; EMI concerns and remedies for the interfacing to electric utilities.

**EE 450. DIGITAL SIGNAL PROCESSING. (3)** *Prerequisite: EE 420. Corequisite: EE 451.* This is the University of Louisville course EE 520. Topics include discrete time signals and systems, discrete Fourier transforms, FFT algorithms, flow graph and the matrix representation of digital filters, FIR and IIR filter design techniques, quantization effects, spectral estimation, current applications of digital signal processing.

**EE 451. DIGITAL SIGNAL PROCESSING LAB. (1)** *Pre-requisite: EE 420. Corequisite: EE 450.* This is the University of Louisville course EE 521. This course focuses on the implementation of common digital signal processing function using state-of-the-art DSP devices and software. The fundamentals of discrete-time signal processing and digital signal processor architectures and applications are introduced. Emphasis is on laboratory experience involving generation of deterministic and random signals; digital filter design; quantization effects; FFT computation; linear system analysis; speech processing.

**EE 460. CONTINUOUS CONTROL SYSTEMS. (4)** *Prerequisite: EE 420 with a grade of "C" or better.* A study of continuous control systems that will address the following topics: system modeling, feedback systems, systems stability, root locus plots, Bode plot, state space analysis, and design of controllers. Laboratory included.

**EE 461. DISCRETE CONTROL SYSTEMS. (3)** *Pre-requisite: EE 460.* An applied study of discrete control systems. Topics include: modeling of discrete-time systems, applications of z-transforms, difference equations, stability analysis, root-locus analysis, and design of discrete controllers.

**EE 462. SPECIAL TOPICS IN CONTROL SYSTEMS. (3)** *Prerequisites: EE 460.* A presentation of current topics in control systems theory which builds on the content in EE 460.

**EE 465. ROBOTIC DESIGN. (3)** *Prerequisite: Junior standing and consent of instructor.* A pass/fail course for students involved in the design and building of the EE robot project.

**EE 470. COMMUNICATIONS AND MODULATION. (3)** *Prerequisite: EE 420. Corequisite: EE 475.* This is the University of Louisville course EE 550. Topics include modulations such as AM, FM, PAM, PPM, PDM, single sideband, vestigial sideband. Coherent and non-coherent detection, heterodyne action, performance and distortion, circuits for modulation and demodulation.

**EE 473. INTRODUCTION TO ELECTROMAGNETIC FIELDS AND WAVES. (3)** *Prerequisites: MATH 237, MATH 331 and PHYS 265.* This is the University of Louisville course EE 473. Topics include electrostatic and magnetostatic fields; Faraday's laws, Maxwell's equations, electromagnetic properties of matter, uniform plane waves, and transmission lines.

**EE 475. COMMUNICATION SYSTEMS LAB. (1)** *Prerequisite: EE 420. Corequisite: EE 470.* This is the University of Louisville course EE 551. Topics include laboratory exercises involving the design and analysis of electronic communication systems for the transmission of analog and digital data at radio frequencies.

**EE 477. NUMERICAL TECHNIQUES IN ELECTROMAGNETICS. (3)** *Prerequisite: EE 473 or PHYS 440.* Topics include finite difference and finite element solutions to problems in electromagnetics; absorbing boundaries for wave propagation; convergence and stability; validation with empirical and analytical approaches.

**EE 479. FUNDAMENTALS OF OPTOELECTRONICS. (2)** *Prerequisites: EE 345 and EE 473.* Introduction to the principles of electronic devices that interact with light. Topics include the generation and propagation of light, basic geometrical and wave optics, Snell's Law, polarization, optical storage, LED's micro-opto-electromechanical systems, optical sensors, fiber optics, solar cells, and fundamentals of lasers.

**EE 480. EMBEDDED SYSTEMS. (3)** *Prerequisite: EE 380.* A continuation of the study of digital systems and microprocessors focusing on the principles and applications of embedded systems.

**EE 490. INTRODUCTION TO ROBOTICS. (3)** *Prerequisites: EE 420.* History and application of robots. Robot configurations including mobile robots. Spatial descriptions and transformations of objects in three-dimensional space. Forward and inverse manipulator kinematics. Task and trajectory planning.

### EM – ENGINEERING MECHANICS DEPARTMENT OF ENGINEERING

**EM 221. UK STATICS. (3)** *Prerequisite: MATH 136. Prerequisite or concurrent: MATH 137, PHYS 255.* A study of forces on bodies at rest. Vector algebra, study of force systems, equivalent force systems, distributed forces, internal forces, principles of equilibrium, application to trusses, frames and beams and friction. This course is delivered by the University of Kentucky.

**EM 222. WKU STATICS. (3)** *Prerequisite: MATH 136. Prerequisite or corequisite: MATH 137, PHYS 255.* A study of forces on bodies at rest. Vector algebra, study of force systems, equivalent force systems, distributed forces, internal forces, principles of equilibrium, application to trusses, frames, and beams and friction. Course delivered by Western Kentucky University.

**EM 302. UK MECHANICS OF DEFORMABLE SOLIDS. (3)** *Prerequisites:* EM 222 with a grade of C or better, MATH 137. A study of fundamental principles and physical laws governing the response of mechanical components to external forces. Concepts of stress, equivalent systems, rigid body equilibrium, stress-strain and deformation, torsion, internal forces and bending moments, shear and bending moment diagrams, flexural loading, Mohr's circle and pressure vessels are presented.

**EM 303. WKU MECHANICS OF DEFORMABLE SOLIDS. (3)** *Prerequisite:* MATH 137 and 221 with a grade of "C" or better. Study of fundamental principles and physical laws governing the response of mechanical components to external forces. Concepts of stress, equivalent systems, rigid body equilibrium, stress-strain and deformation, torsion, internal forces and bending moments, shear and bending moment diagrams, flexural loading, Mohr's circle and pressure vessels are presented. This course is delivered by Western Kentucky University.

**EM 313. DYNAMICS. (3)** *Prerequisite:* EM 221. *Prerequisite or concurrent:* MATH 331. Study of the motion of bodies. Kinematics: Cartesian and polar coordinate systems, normal and tangential components, translating and rotating reference frames. Kinetics of particles and rigid bodies, laws of motion, work and energy, impulse and momentum.

#### ELED – ELEMENTARY EDUCATION SCHOOL OF TEACHER EDUCATION

**ELED 345. TEACHING STRATEGIES FOR ELEMENTARY TEACHERS. (3)** *Prerequisites:* EDU 250 and PSY 310 with a grade of "C" or higher; a passing score on specified standardized instrument, overall GPA of 2.5 or higher, and admission to Teacher Education pending. *Prerequisite or Corequisite:* EXED 330. Integrates planning and evaluative techniques with appropriate learning theories. Learning activities for the full range of ability/development levels of students are prescribed.

**ELED 355. STUDENT DIVERSITY IN THE CLASSROOM. (3)** *Prerequisites:* EDU 250, PSY 310, EXED 330 and ELED 345 with a grade of "C" or higher; and admitted to Teacher Education. *Corequisite:* ELED 407 and 365. Focus will be on the range of student diversity and identification of characteristics of children in an integrated elementary classroom. Field experiences in public schools and/or other appropriate settings away from campus are required. Students are responsible for their own transportation to designated or assigned sites.

**ELED 365. TEACHING STRATEGIES FOR ELEMENTARY TEACHERS II. (3)** *Prerequisites:* ELED 345 and EXED 330 with grades of "C" or higher, and admitted to Teacher Education. *Corequisites:* ELED 407 and ELED 355. The second course in a two course series dedicated to teaching strategies. Focuses on strategies unique to teaching in an integrated elementary classroom. Field experiences in public schools and/or other appropriate settings away from campus are required. Students are responsible for their own transportation to designated or assigned sites.

**ELED 405. TEACHING MATHEMATICS IN THE ELEMENTARY SCHOOL. (3)** *Prerequisites:* MATH 212, LTCY 420, ELED 355, 365 and 407 with grades of "C" or higher; completion of General Education Category - DI science courses; and admitted to Teacher Education. *Corequisites:* ELED 406 and 465. Materials and methods of instruction in mathematics for grades P-5 with emphasis upon creative utilization of available materials and techniques. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**ELED 406. TEACHING SCIENCE IN THE ELEMENTARY SCHOOL. (3)** *Prerequisites:* MATH 212, LTCY 420, ELED 355, 365 and 407 with grades of "C" or higher, completion of General Education Category - DI Science courses; and admitted to Teacher Education. *Corequisites:* ELED 405 and ELED 465. A study of the objectives and place of science in grades P-5. The course includes planning units of work, organizing and using materials and resources, and developing ability in the techniques of elementary school science teaching. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**ELED 407. MATERIALS AND METHODS IN SOCIAL STUDIES. (3)** *Prerequisite:* ELED 345 and EXED 330 with grades of "C" or higher; admitted to Teacher Education, and completion of the General Education Category "C" Social and Behavioral Science courses. *Corequisites:* ELED 365 and ELED 355. A study of the objectives, materials, organization, and instructional techniques in the social studies appropriate to grades P-5. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**ELED 445. INTRODUCTION TO EDUCATIONAL TECHNOLOGY. (3)** Instruction and laboratory experience in the operation and maintenance of audio-visual equipment; theory relative to the best practices in audio-visual techniques. Equivalent to LME 445.

**ELED 465. SENIOR PROJECTS IN ELEMENTARY EDUCATION. (3)** *Prerequisites:* MATH 212, LTCY 420, ELED 355, 365 and 407 with grades of "C" or higher; completion of General Education Category - D1 science courses; and admitted to Teacher Education. *Corequisites:* ELED 405 and ELED 406. Part of the professional block semester, which is the culminating experience for elementary teacher candidates prior to the student teaching semester. Projects related to the corequisite courses will be completed. Field experience in public school and/or other appropriate settings away from campus will be required. Students are responsible for their own transportation to designated or assigned sites.

**ELED 490. STUDENT TEACHING. (5-10)** *Prerequisites:* Admission to teacher education; admission to student teaching; and completion of the following courses with grades of "C" or higher: MATH 205, 206, and 308. *Corequisite:* EDU 489. Supervised assignment in approved school setting. Must complete a minimum of sixteen weeks in one or two placements depending on certification requirements. Students follow the academic calendar of the school district in which they are placed and are responsible for providing their own transportation to assigned site(s). (course fee)

**ELED 491. LECTURE IN LIEU OF STUDENT TEACHING. (5)** Seminar in current issues in teaching for certified teachers seeking additional endorsement. Director of Student Teaching approval required.

#### ENG – ENGLISH DEPARTMENT OF ENGLISH

**ENG 051. ENGLISH AS A SECOND LANGUAGE WRITING. (3-6)** *Prerequisite:* COMPASS Writing Skills Placement Test score between 23-54 and COMPASS e-Write score of 4; or permission of instructor. A writing course designed to give non-native speakers of English intensive preparation for ENG 100.

**ENG 100. INTRODUCTION TO COLLEGE WRITING. (3)** *Prerequisite:* Minimum score of 16 on English section of ACT or successful completion of 055 with a grade of "C" or better. Students with ACT English scores of 16 and 17 will be required to attend ENG 100E sections which include an extra hour of class time. Students who have unsuccessfully attempted ENG 100 (earned grade of W, F, or FN) may not retake ENG 100 as a WEB section except under extraordinary circumstances, and then only with the written permission of the Director of Composition. Emphasizes writing for a variety of rhetorical situations with attention to voice, audience and purpose. Provides practice in development, organization, revision and editing. Introduces research skills. [GEN ED A-I]

**ENG 104. INTRODUCTION TO LINGUISTICS. (3)** A general introduction to language study with emphasis on units of sound, units of meaning, sentence structure, dialects, and other cultural aspects of language. Focus is on the English language.

**ENG 200. INTRODUCTION TO LITERATURE. (3)** *Prerequisite:* ENG 100. Introductory study of fiction, poetry, and drama demonstrating techniques by which literary artists reflect human experience. Substantial student writing about literature will be required. [GEN ED B-I]

**ENG 202. HONORS FORUM (1)** An informal introduction to English honors. Topics vary by term.

**ENG 203. CREATIVE WRITING. (3)** *Prerequisites:* ENG 100 and 200. An introduction to the writing of poetry, fiction, creative nonfiction and drama as genres of literary expression.

**ENG 299. INTRODUCTION TO ENGLISH STUDIES. (3)** *Prerequisites:* ENG 200 or permission of instructor. Introduction to the discipline of English studies for literature and writing majors, including exploration of issues and conflicts within the discipline, strategies for reading and researching literary texts, overview of requirements and opportunities within the major and introduction to career and graduate study options.

**ENG 300. WRITING IN THE DISCIPLINES. (3)** *Prerequisites:* ENG 100 and 200 or equivalent. Interdisciplinary writing course to be taken in the junior year. Students will read and write about challenging texts from a number of fields. Each student will produce a substantial research project appropriate to his or her chosen field. [GEN ED A-I]

**ENG 301. ARGUMENT AND ANALYSIS IN WRITTEN DISCOURSE. (3)** *Prerequisites:* ENG 100 and ENG 300. A survey of major theories of argument and analysis with special attention to writing effective argumentative and analytical essays.

## Course Descriptions

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**ENG 302. LANGUAGE AND COMMUNICATION. (3)** *Prerequisite: ENG 100.* A course in English grammar and usage designed primarily for elementary education majors. Emphasis is given to sentence structure. Attention is also given to the nature of language, historical backgrounds, dialects, and standards of correctness.

**ENG 303. INTERMEDIATE FICTION WRITING. (3)** *Prerequisites: ENG 200 and 203 or permission of instructor.* A concentrated study of the techniques of writing fiction, emphasizing contemporary theory and practice.

**ENG 304. ENGLISH LANGUAGE. (3)** *Prerequisite: ENG 100.* Study of the structure of English words and sentence patterns including review of the historical conditions leading to the development of Modern English grammar.

**ENG 305. INTERMEDIATE POETRY WRITING. (3)** *Prerequisite: ENG 200 and 203 or permission of instructor.* An intensive course in the writing of poetry. Some attention to the practice and prevalent theories of contemporary poets.

**ENG 306. BUSINESS WRITING. (3)** *Prerequisite: ENG 100.* Designed to meet the needs of students in business fields, this course teaches the preparation of written reports, case studies, and other forms of professional writing.

**ENG 307. TECHNICAL WRITING. (3)** *Prerequisite: ENG 100.* Designed to meet the needs of students in engineering and other technical fields, this course teaches the preparation of written and oral reports. Emphasizes formal and informal reports, but also includes various kinds of business letters, memoranda, and other forms necessary in the students' future professional role.

**ENG 309. DOCUMENTARY FILM. (3)** *Prerequisites: ENG 200.* Introductory study of documentary film and theory with special attention to the genre's complex reception as "non-fiction" in diverse social and cultural contexts. Among the forms to be studied are the essay-film, cinema verite, reportage, and mockumentary. Will include a film viewing lab.

**ENG 311. CREATIVE NONFICTION WRITING. (3)** *Prerequisites: ENG 200 and 203 or permission of the instructor.* An intensive study of the writing of creative nonfiction (literary nonfiction prose), with emphasis on contemporary theory and practice.

**ENG 320. AMERICAN STUDIES I. (3)** *Prerequisite: ENG 200 or the equivalent.* Designed to examine the diverse origins and the decisive elements in the development of American culture and to provide a wide cultural appreciation and a greater understanding of the mainstream of American thought.

**ENG 321. AMERICAN STUDIES II. (3)** *Prerequisite: ENG 200 or the equivalent.* Designed to examine further the diverse origins and the decisive elements in the development of American culture and to provide a wide cultural appreciation and a greater understanding of the mainstream of American thought.

**ENG 333. MEDIEVAL LITERATURE. (3)** *Prerequisites: ENG 100 and 200.* A survey of representative literary works of the Middle Ages selected from various cultures, with an emphasis on the continuities of medieval literary traditions and cultural values. Non-English works will be read in translation.

**ENG 340. SPECULATIVE FICTION. (3)** *Prerequisite: ENG 200 or the equivalent.* A survey of the development of the genre, including science fiction, and its relationship to main literary currents.

**ENG 354. HISTORY OF DRAMA TO 1640. (3)** *Prerequisite: ENG 200 or the equivalent.* A comprehensive course which traces the major developments in drama from the ancient Greeks to 1640. Emphasis on representative dramatists and plays.

**ENG 355. HISTORY OF DRAMA SINCE 1640. (3)** *Prerequisite: ENG 200 or the equivalent.* A continuation of ENG 354.

**ENG 358. DRAMA WRITING. (3)** *Prerequisites: ENG 200 and 203 or permission of instructor.* A concentrated study of the techniques of drama writing emphasizing contemporary theory and practice.

**ENG 360. GAY AND LESBIAN LITERATURE. (3)** *Prerequisites: ENG 100 and 200.* Introduction to gay and lesbian literature from antiquity to present, with emphasis on concepts of sex and gender, critical theory and cultural constructionism in global and historical contexts.

**ENG 365. FILM ADAPTATION. (3)** *Prerequisites: ENG 100 and 200.* Examines the adaptation of literary works into film not only as an intertextual product but as a process of creative transformation, with emphasis on film analysis and some attention to adaptation theory.

**ENG 366. HISTORY OF NARRATIVE FILM. (3)** *Prerequisites: ENG 100 and 200.* Examines the history and development of narrative film from the silent era to the present. Emphasis on specific narrative conventions of Hollywood cinema.

**ENG 368. JAPANESE CINEMA IN TRANSLATION. (3)** *Prerequisite: ENG 200.* Examines major periods, genres and figures in Japanese cinema, with appropriate background readings in Japanese history/culture. Emphasizes a comparison of Japanese cinema with Hollywood and explores the influence of Japanese cinema on other world cinema.

**ENG 369. COOPERATIVE EDUCATION IN ENGLISH I. (3)** *Prerequisite: Admission to departmental cooperative program.* Appropriate supervised work with a cooperating organization.

**ENG 370. MULTICULTURAL LITERATURE IN AMERICA. (3)** *Prerequisite: ENG 200 or General Education Category B.* Study of literature written in the U.S. by writers from a variety of racial and ethnic groups. [GEN ED E]

**ENG 381. SURVEY OF ENGLISH LITERATURE I. (3)** *Prerequisite: ENG 200.* A study of selected works by representative major authors reflecting the chronological development of English literature to 1798.

**ENG 382. SURVEY OF ENGLISH LITERATURE II. (3)** *Prerequisite: ENG 200.* A study of selected works by representative major authors reflecting the chronological development of English literature from 1798 to the present.

**ENG 385. WORLD LITERATURE. (3)** *Prerequisite: ENG 200 or the equivalent.* Study of selected works in translation by major figures in world literature from ancient Greece to modern Europe, exclusive of British and American writers.

**ENG 387. STUDIES IN AUTOBIOGRAPHY. (3)** *Prerequisites: ENG 100, 200, and 300.* An examination of the literary components and cultural context of autobiographical works, with particular emphasis on under-represented groups, gender, race, and class. [GEN ED E]

**ENG 389. COOPERATIVE EDUCATION IN ENGLISH II. (3)** *Prerequisite: Admission to departmental cooperative program.* Appropriate supervised work with a cooperating organization.

**ENG 390. MASTERPIECES OF AMERICAN LITERATURE. (3)** *Prerequisite: ENG 200 or the equivalent.* Provides for familiarity with the better-known works of leading American authors. May be counted toward minor in writing but not toward English major or minor.

**ENG 391. SURVEY OF AMERICAN LITERATURE I. (3)** *Prerequisite: ENG 200.* A study of selected works by representative major authors reflecting the chronological development of American Literature to 1865.

**ENG 392. SURVEY OF AMERICAN LITERATURE II. (3)** *Prerequisite: ENG 200.* A study of selected works by representative major authors reflecting the chronological development of American Literature from 1865 to the present.

**ENG 393. AFRICAN-AMERICAN LITERATURE. (3)** *Prerequisite: ENG 200 or permission of instructor.* A critical study of the contributions of African-American writers to American literature. [GEN ED E]

**ENG 394. KENTUCKY LITERATURE. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course from Gen Ed Cat B1.* A survey of literary people and places in Kentucky, detailed study of several works of Kentucky writers.

**ENG 395. CONTEMPORARY LITERATURE. (3)** *Prerequisite: ENG 200.* A study of representative literature since World War II, stressing significant writers, thematic concerns, experiments in technique, and selected criticism. The course content, variable by genre, focuses primarily on fiction, poetry, or drama in alternate semesters.

**ENG 396. MYTHOLOGY. (3)** *Prerequisite: ENG 200 or the equivalent.* Greek, Roman and Norse myths and their influence on art and literature.

**ENG 398. HEMINGWAY AND FAULKNER. (3)** *Prerequisite: ENG 200 and honors participation or 3.2 GPA required.* A critical study of the major literary works of Ernest Hemingway and William Faulkner. For honors-eligible students only. [GEN ED B-I]

**ENG 399. TOPICS IN ENGLISH. (3)** *Prerequisite: ENG 200 or the equivalent.* A semester-long, detailed study of a specified topic in language, literature, or composition.

**ENG 401. ADVANCED COMPOSITION. (3)** *Prerequisites: ENG 100 and ENG 300.* Theory and practice in reading and writing various genres of non-fiction, including researched essays, cultural critique, exposition, narrative, and argument. Special attention to style, voice, arrangement and advanced writing techniques.

**ENG 402. EDITING AND PUBLISHING. (3)** *Prerequisite: Either ENG 306 or ENG 307 and one additional upper-level professional writing class.* Editing collections of student works in several types, including experience in computer text editing, lectures by visiting publishers and editors of books, journals, and newspapers.

**ENG 403. WRITING MEMOIR AND AUTOBIOGRAPHY. (3)** *Prerequisites: ENG 203 and 300.* A course in the techniques of writing autobiography; readings will be chosen primarily from contemporary American examples of the genre.

**ENG 404. HISTORY OF THE ENGLISH LANGUAGE. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course from Gen Ed Cat B1.* A study of the origins and development of the language from Indo-European to modern English, with emphasis on developments in the sound system, vocabulary and grammar. Attention is also given to historical and cultural forces, which have affected the language.

**ENG 407. LINGUISTIC ANALYSIS. (3)** *Prerequisites: ENG 104 or ENG 302 or ENG 304, or an equivalent.* The study of current linguistic theory, which includes the important levels of language as a means of communication, as well as some of the various theories and applications of linguistic theory to other fields of study.

**ENG 408. PSYCHOLINGUISTICS AND SOCIOLINGUISTICS. (3)** *Prerequisites: ENG 100, 200 or its Gen Ed Category B1 equivalent, and ENG 407.* The study of developmental psycholinguistics (language acquisition), experimental psycholinguistics (speech production/comprehension), and sociolinguistics (how language varieties are used by families, school systems and multicultural nations).

**ENG 409. PRACTICUM IN ONE-TO-ONE WRITING INSTRUCTION. (1)** *Prerequisites: ENG 100 and ENG 200 or any other course from Gen Ed Cat B1.* Participants will study the theory and practice of writing conferences and tutorials. Course will prepare participants to work individually with students in tutorial settings.

**ENG 410. COMPOSITION THEORY AND PRACTICE IN WRITING INSTRUCTION. (3)** *Prerequisites: ENG 300 and either ENG 302 or ENG 304.* A study of contemporary theories of composition with an emphasis on their application to writing and the teaching of writing.

**ENG 411. DIRECTED WRITING. (3)** *Prerequisite: Permission of the instructor.* A tutorial for students to work under the supervision of a writing instructor. Students choose the form of writing they wish to pursue.

**ENG 412. THEORY AND PRACTICE OF RHETORIC. (3)** *Prerequisites: ENG 300, and either ENG 200 or any B1 equivalent.* A survey of the history of rhetorical theory from the classical to the contemporary period with emphasis on how theories reflect and guide public and written discourse and the teaching of writing.

**ENG 413. CREATIVE WRITING CAPSTONE. (3)** *Prerequisite: Two upper-level writing courses; creative writing majors or minors with senior standing.* A capstone course in the creative writing concentration; provides a workshop setting for students with substantial creative writing projects.

**ENG 414. ADVANCED PROFESSIONAL WRITING WORKSHOP. (3)** *Prerequisite: Two upper-level writing courses in the Professional Writing option and senior standing.* A capstone course for students in the English major with a professional writing concentration; provides a workshop setting for students with substantial writing projects and culminates in production of a portfolio of professional writing.

**ENG 415. WRITING AND TECHNOLOGY. (3)** *Prerequisite: ENG 300.* Study of issues surrounding interrelations of technology and writing; effects of technologies (e.g. printing press, computers) on writing processes and on types of writing; institutional changes wrought by computers.

**ENG 430. 19<sup>TH</sup> CENTURY AMERICAN LITERATURE. (3)** *Prerequisite: ENG 200 or its equivalent.* Seminar in 19<sup>th</sup> Century American Literature; Course topics will vary.

**ENG 455. AMERICAN DRAMA. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course in Gen Ed Cat B1.* This course deals with the development of American drama from colonial productions to present-day plays.

**ENG 457. BRITISH LITERATURE SINCE 1900. (3)** *Prerequisites: ENG 100 and 200 or another course in Gen Ed Cat B-1.* A study of British literature from 1900 to the present, including fiction, poetry, and drama, with attention to innovations in literary form and cultural context.

**ENG 459. MODERN DRAMA. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course in Gen Ed Cat B1.* A selected study of dramatic literature since Ibsen with emphasis on evolving developments and trends in world theatre.

**ENG 460. LITERARY THEORY AND CRITICISM. (3)** *Prerequisites: ENG 100 and at least one upper-level literature course.* A study of theories and methods of literary and cultural analysis selected from ancient times to the present. Focus includes the written practice of criticism in response to a wide variety of texts.

**ENG 465. FILM GENRES. (3)** *Prerequisites: ENG 100 and 200 and either FILM 201 or ENG 365, or instructor's permission.* Study of the historical development, thematic and stylistic conventions, and cultural significance of film genre(s). Surveys representative films from one or two genres, e.g. film noir and the Western; romantic comedy and family melodrama; horror and science fiction; the musical; the war film; the epic.

**ENG 466. FILM THEORY. (3)** *Prerequisites: ENG 366, ENG 365; FILM 201, or permission of instructor.* Study of major theories of narrative film and related media; specific theories examined will include formalist, auteurist, historical, structuralist, psychoanalytical, and political. Will include viewing of selected films.

**ENG 467. VISITING WRITER SUMMER WORKSHOP. (3)** *Prerequisites: At least one creative writing class beyond ENG 203 and instructor permission required.* Advanced creating writing workshop. Offered for four weeks each summer by a visiting writing of national reputation. Alternating genres. May be repeated once if different genre.

**ENG 468. EARLY MODERN ENGLISH LITERATURE. (3)** *Prerequisite: ENG 200 or any other course in General Education Category B-I.* A study of sixteenth- and seventeenth-century English literature with attention to embrace of the vernacular, development of genres and poetic forms, and cultural and social contexts.

**ENG 469. SECOND LANGUAGE ACQUISITION THEORY. (3)** *Prerequisite: One linguistics course.* An introduction to theories, methods, and materials for teaching English as a second or foreign language.

**ENG 470. METHODS AND MATERIALS FOR TEACHING ENGLISH AS A SECOND LANGUAGE. (3)** *Prerequisites: ENG 469 or 469G and one linguistics course.* Selecting and evaluating commercially-prepared materials and developing teacher-made materials for Teaching English as a Second Language (TESL).

**ENG 471. TEACHING ENGLISH AS A SECOND LANGUAGE PRACTICUM. (4)** *Prerequisites: ENG 407, 408, 469, 470 and permission of the instructor.* Supervised observation and instruction in public schools or other appropriate settings, culminating in the production of a portfolio. Students are responsible for arranging their own transportation to designated or assigned sites. The class consists of 30 clock teaching hours and 15 classroom hours.

**ENG 474. ADVANCED POETRY WRITING. (3)** *Prerequisite: ENG 305 or equivalent.* An advanced, intensive course in the writing of poetry, emphasizing the practice and prevalent theories of contemporary poets.

**ENG 475. ADVANCED FICTION WORKSHOP. (3)** *Prerequisite: ENG 303 or equivalent.* An advanced and intensive course exploring the techniques of writing fiction, emphasizing contemporary theory and practice.

**ENG 476. CRITICAL APPROACHES TO LITERATURE IN THE SECONDARY CURRICULUM. (3)** *Prerequisites: At least two 300- or 400-level literature courses.* For English for Secondary Teachers majors, this course surveys texts frequently presented in secondary classes—including widely anthologized short stories, drama, and poetry; classic novels; and contemporary young adult literature—and examines considerations of text selection and presentation.

**ENG 481. CHAUCER. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course in Gen Ed Cat B1.* Representative works of Chaucer, with emphasis on the *Canterbury Tales*; some attention to the medieval background.

**ENG 482. SHAKESPEARE. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course in Gen Ed Cat B1.* Major plays from each stage of Shakespeare's career studied in the light of current Shakespearean criticism and writings from the time.

**ENG 484. BRITISH ROMANTICISM. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course in Gen Ed Cat B1.* Background and phases of romanticism, with a study of representative exponents of the Romantic Movement.

**ENG 486. THE EIGHTEENTH CENTURY. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course in Gen Ed Cat B1.* The concentrated study of eighteenth century literature, forms, and developments.

**ENG 487. DANTE'S DIVINE COMEDY AND ITS INFLUENCES. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course in Gen Ed Cat B1.* An intensive study of *The Divine Comedy*, in English translation, along with Dante's major sources and analogues.

**ENG 488. LITERATURE OF THE VICTORIAN AGE. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course in Gen Ed Cat B1.* A study of selected works by major poets, essayists, and novelists of Victorian England as a reflection of the culture of the age.

**ENG 489. THE ENGLISH NOVEL. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course in Gen Ed Cat B1.* The technique and history of the novel. Several representative novels studied.

**ENG 490. THE AMERICAN NOVEL. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course in Gen Ed Cat B1.* History and technique of the American novel from Cooper to the present. Several representative novels are studied.

## Course Descriptions

**ENG 492. SENIOR SEMINAR. (1)** *Prerequisites: ENG 299 and senior standing.* In the Senior Seminar students will synthesize and assess what they have learned over the course of the English major by reviewing the discipline of English, exploring career and graduate studies opportunities, and collecting and revising selected major projects from previous classes.

**ENG 493. AMERICAN POETRY. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course from Gen Ed Cat B1.* The course examines, in addition to major writers, selected major movements and schools in American poetry, paying special attention to influences, techniques, and styles.

**ENG 495. SOUTHERN LITERATURE. (3)** *Prerequisites: ENG 100 and ENG 200 or any other course from Gen Ed Cat B1.* This course traces the development of uniquely Southern characteristics as exhibited in the works of major writers of the South.

**ENG 497. WOMEN'S LITERATURE. (3)** *Prerequisites: ENG 200 and 300.* An examination of the themes, aesthetic importance, and historical context of canonical fiction by women, with emphasis on twentieth century American and British women writers.

**ENG 499. DIRECTED STUDY IN ENGLISH. (3)** *Prerequisites: 3.0 grade point average; senior standing.* A study of a specific literary or linguistic topic directed by a faculty member.

### ENGL – ENGLISH DEPARTMENT OF LIBERAL ARTS AND SCIENCES

**ENGL 100C. INTRODUCTION TO COLLEGE WRITING.** See ENG 100.

**ENGL 110C. WRITTEN ARGUMENT. (3)** The study of written argument, with emphasis on rhetorical principles, development of ideas, logical progression of thought, and fallacies. Continued instruction and practice in critical reading and thinking, research skills and effective use of language. Not equivalent to Eng 300 in Western Kentucky University degree programs.

**ENGL 200C. INTRODUCTION TO LITERATURE.** See ENG 200.

**ENGL 203C. CREATIVE WRITING.** See ENG 203.

### ENGR – ENGINEERING DEPARTMENT OF ENGINEERING

**ENGR 175. UNIVERSITY EXPERIENCE-- ENGINEERING. (1)** *Prerequisite: MATH 116 or eligibility for higher math course.* For beginning college freshmen or transfer students with fewer than 24 semester hours of credit. Topics include study skills, critical thinking, information literacy, exploration of engineering majors and careers, campus resources, effective teamwork skills, and basic computer tools regularly used by engineering students. Engineering design processes and practices introduced.

**ENGR 295. INTRODUCTION TO RESEARCH METHODOLOGY. (1)** To familiarize Ogden Research Scholars and other research oriented students with the fundamentals of choosing a research topic, performing a bibliographical search on a subject, topic, classification of instruments, data taking, data reduction, professional ethics and other research oriented topics. The common points of research methodology in the different scientific areas will be accentuated. Examples will be drawn from the various disciplines. Use of computers will be emphasized. (Course does not count towards any major or minor.) Equivalent to BIOL 295, CHEM 295, CS 295, GEOL 295, MATH 295, and PHYS 295.

### ENT – ENTREPRENEURSHIP DEPARTMENT OF MANAGEMENT

**ENT 308. INNOVATION MANAGEMENT. (3)** *Prerequisite: Junior Standing.* A study of innovation identification, capitalization and industry dynamics in entrepreneurial and intrapreneurial contexts.

**ENT 312. ENTREPRENEURSHIP. (3)** *Prerequisite: Junior standing.* A study of the entrepreneurial process. Topics include new business opportunities, market entry, access to resources, start-up steps, acquisition, franchising, and careers. Text, cases and hands-on business projects are used.

**ENT 380. NEW VENTURE BUSINESS PLANNING. (3)** *Prerequisite: ENT 312 or permission of instructor.* An in-depth analysis of business planning. The purpose and components of business plans and feasibility analyses are presented. Students prepare a written plan for venture, whether for or not-for profit. Students are strongly encouraged to enter the course with an idea for a venture.

**ENT 410. SENIOR SEMINAR-ENTREPRENEURSHIP. (3)** *Prerequisite: Senior standing.* A special topics course covering subjects of current interest in entrepreneurship. Class format varies with instructor. Can be repeated for a total of up to nine hours.

**ENT 425. INTERNATIONAL ENTREPRENEURSHIP. (3)** *Prerequisite: MGT 303 or ENT 312.* An introduction to the competitive global economy and entrepreneurship in the international context. Students develop an understanding of the entrepreneurial climate across countries and how to become more competitive in the global context.

**ENT 463. SMALL BUSINESS MANAGEMENT. (3)** *Prerequisites: ECON 150 or ECON 202 or ECON 203, ACCT 200, MKT 220 and MGT 312.* Provides a basic understanding of how to manage an ongoing small business and aids in the development of managerial skills necessary to operate small businesses.

**ENT 490. PRACTICUM IN ENTREPRENEURSHIP. (3)** *Prerequisites: ENT 312, junior standing, 2.5 cumulative GPA, and permission of the management chair and instructor.* Includes internships, independent studies, and special projects of interest in the entrepreneurship area. May include individual research projects as well as internships in profit or non-for profit organizations with duties relating to entrepreneurship. Projects must be approved by the management chair.

**ENT 496. SMALL BUSINESS ANALYSIS AND STRATEGY. (3)** *Prerequisites: Senior standing and CIS 243, FIN 330, MGT 210, MGT 314, MKT 220.* Opportunities for students to act in a management consultant relationship with selected small/medium regional entrepreneurial organizations, firms. Overall strategy and policy issues are emphasized.

### ENV – ENVIRONMENTAL SCIENCE DEPARTMENT OF PUBLIC HEALTH

**ENV 120. INTRODUCTION TO OCCUPATIONAL SAFETY AND HEALTH. (3)** An introduction to the principles of occupational safety and health. A survey course covering the basic principles and techniques of accident investigation and prevention. Includes field trips.

**ENV 221. SAFETY AND HEALTH STANDARDS, CODES, AND REGULATIONS. (3)** *Prerequisite: ENV 120 or permission of instructor.* A review of the important occupational safety and health standards and codes with particular emphasis on application of these codes to typical work situations. Includes field trips.

**ENV 280. INTRODUCTION TO ENVIRONMENTAL SCIENCE. (3)** An introductory course devoted to the study of environmental issues. A general understanding of the application of science to solve contemporary environmental challenges. (Equivalent to BIOL 280, CHEM 280, CH 280, and GEOG 280) [GEN ED D-]

**ENV 310. GENERAL HYDROLOGY. (3)** See GEOL 310 or GEOG 310.

**ENV 321. FUNDAMENTALS OF INDUSTRIAL HYGIENE. (3)** *Prerequisites: MATH 117 or higher and CHEM 105/106 or higher or permission of instructor.* *Corequisite: ENV 323.* A basic introduction to the field of industrial hygiene. A survey of the effects of toxic agents on the body and general methods of control. Includes field trips.

**ENV 322. PHYSICAL HAZARDS RECOGNITION AND CONTROL I. (3)** *Prerequisite: ENV 221 or permission of instructor.* An examination of physical hazards in the work environment and methods of recognition and control. Includes field trips.

**ENV 323. FUNDAMENTALS OF INDUSTRIAL HYGIENE LABORATORY. (1)** *Corequisite: ENV 321.* Examines basic industrial hygiene sampling, measurement and analytical techniques. Laboratory exercises will include airflow calibration standards, procedures for calibration of personal sampling pumps, instrumentation and indoor air quality monitoring methodology. (course fee)

**ENV 327. PHYSICAL HAZARDS RECOGNITION AND CONTROL II. (3)** *Prerequisite: ENV 322.* Continuation of ENV 322. An examination of the control of physical hazards in the work environment. Includes field trips.

**ENV 331. HAZARDOUS MATERIALS RECOGNITION AND CONTROL. (3)** *Prerequisites: MATH 116 and CHEM 107.* An examination of the properties of hazardous materials, an analysis process for use in situations involving hazardous materials, and control measures for stabilization of hazardous materials emergencies. Course applicable to all situations involving hazardous materials, fire service, transportation or industrial use.

**ENV 360. AIR POLLUTION CONTROL. (3)** *Prerequisites: CHEM 107/108 and MATH 118 or higher.* Examines air pollution sources, nature and behavior of air pollutants, air sampling and analysis, dispersion and diffusion in the atmosphere, air pollution meteorology, and methods and equipment for community air pollution control. Topics in indoor air quality (IAQ), modeling, and prediction, air quality control regulations, control strategies for stationary and mobile sources.

**ENV 365. AIR POLLUTION CONTROL LABORATORY. (1)** *Co-requisite: ENV 360.* Provides hands-on experience with field instrumentation and equipment, calibration methods and quantitative determination of different physical and chemical air pollutants. Examines air sampling, measurement and analytical methodologies and basic scientific and analytical techniques used in air pollution control. (course fee)

**ENV 367. SUPERVISED WORK EXPERIENCE IN INDUSTRY. (1-6)**

*Prerequisites:* ENV 423 and permission of instructor. Supervised employment in industry. Assignments individually arranged by university coordinator and the cooperating industry. Written reports required. Off-campus travel required.

**ENV 375. INTRODUCTION TO WATER RESOURCES. (3)** *Prerequisite:* GEOL 310 or ET 280 or consent of instructor. Recent advances and the present state of water resources; water resources planning and development; management and administration. Priorities in water resources research. Selected case histories.

**ENV 380. PRINCIPLES OF ENVIRONMENTAL TOXICOLOGY. (3)** *Prerequisites:* CHEM 105/106, MATH 118 or higher, and ENV 280. An overview of the principles of environmental toxicology. Reviews the effects of environmental toxicants in relation to ecosystems and human health and provides an overview of techniques used in assessing the presence and distribution of environmental toxicants.

**ENV 410. WATER TREATMENT PROCESSES. (3)** *Prerequisite:* CHEM 107/108 and MATH 118 or higher. Determination of water quality characteristics pertinent to water and waste-water treatment.

**ENV 411. WATER TREATMENT PROCESSES LABORATORY. (1)** *Prerequisite:* ENV 375. *Corequisite:* ENV 410. Application of water treatment processes in a laboratory. Topics will include water quality measurements, water treatment methods and monitoring. (course fee)

**ENV 423. SAFETY PROGRAM MANAGEMENT. (3)** *Prerequisites:* ENV 321 and 322, or permission of instructor. Acquaints students with the common elements of a modern safety program.

**ENV 430. RADIOLOGICAL HEALTH. (3)** *Prerequisite:* PHYS 332. *Corequisite:* ENV 435. Fundamentals of detection of ionizing radiation, radiation interaction, with matter biological effects radiation dosimetry and radiation protection concepts.

**ENV 435. RADIOLOGICAL HEALTH LABORATORY. (1)** *Corequisite:* ENV 430. A laboratory course correlated with ENV 430. Two laboratory hours per week.

**ENV 440. INDUSTRIAL HYGIENE I. (3)** *Prerequisite:* CHEM 120 or equivalent. *Corequisite:* ENV 321. Techniques for sampling and evaluation of chemical health hazards in the industrial environment including basic exposure modeling.

**ENV 441. INDUSTRIAL HYGIENE I LAB. (1)** *Corequisite:* ENV 440. Laboratory to accompany EHS 440, Industrial Hygiene I. Techniques of calibration, sampling, and analysis of chemical health hazards in the industrial environment.

**ENV 442. INDUSTRIAL HYGIENE II. (3)** *Prerequisites:* MATH 116, PHYS 231, BIOL 131, and ENV 321. *Corequisite:* ENV 443. Second of a two-course sequence in Industrial Hygiene. The focus is on recognition, evaluation, and control of physical health hazards in the industrial environment.

**ENV 443. INDUSTRIAL HYGIENE II LAB. (1)** *Corequisite:* ENV 442. Laboratory to accompany ENV 442, Industrial Hygiene II. Principles and procedures for evaluating physical health hazards in the industrial environment will be covered.

**ENV 460. ENVIRONMENTAL MANAGEMENT. (3)** *Prerequisites or corequisites:* ENV 360, 410, 480. Provides students with a working knowledge of environmental management techniques, standards, permitting and programs that are used to protect our air, water and land resources. Off-campus travel is required. Students are responsible for arranging for their own transportation to designated sites.

**ENV 471. INDUSTRIAL VENTILATION. (3)** *Prerequisite:* ENV 440. Principles and design of ventilation as a means of control of chemical health hazards in the industrial environment. Includes instruction in both local exhaust and dilution ventilation design processes. In addition to reinforcing design fundamentals, laboratory exercises will also emphasize testing, monitoring, and troubleshooting existing ventilation systems. (2) lecture, (2) laboratory.

**ENV 474. ENVIRONMENTAL RISK ASSESSMENT. (3)** *Prerequisites:* ENV 321 and 380. Develops both qualitative and quantitative skills in assessing the health risk of exposure to hazardous environmental agents. Topics include risk prioritization approaches and exposure monitoring strategies. Laboratory sessions focus on the application of risk assessment software tools and include a field project. Off-campus travel is required. Students are responsible for arranging their own transportation to designated sites.

**ENV 475. SELECTED TOPICS IN ENV. (1-3)** *Prerequisite:* Permission of instructor. A consideration of special topics to acquaint the advanced student with significant problems and developments of current interest in environmental technology. Topics to vary each semester offered. Field trips as appropriate.

**ENV 480. HAZARDOUS AND SOLID WASTE MANAGEMENT. (3)** *Prerequisites:* CHEM 107/108 and MATH 118 or higher. Includes the physical, chemical, and biological stressors associated with both hazardous and solid waste. Emphasis on characterization and remediation efforts.

**ENV 485. EDUCATIONAL EXPERIENCES IN OCCUPATIONAL SAFETY AND HEALTH. (3)** *Prerequisite:* Permission of instructor. Special collection of selected short courses with content focused in the area of occupational safety and health. Instruction provided by outside agencies including the Kentucky Labor Cabinet, the Kentucky Regional Technology Center, and the North Carolina National Institute for Occupational Safety and Health Educational Resource Center. Total instruction time approximately 160 hours. (Grading: Pass/Fail)

**ENV 486. SENIOR ENVIRONMENTAL SEMINAR. (1)** *Prerequisite:* Senior standing. Current environmental issues discussed by invited lecturers, including identification of possible careers in environmental fields.

**ENV 490. FOOD SAFETY. (3)** *Prerequisite:* 6 hours of Biology. Principles of food safety in the processing and distribution of milk and milk products, meat, shellfish and other foods, food borne illnesses and sanitation standards, surveillance and evaluation. Off-campus travel is required. Students must arrange own transportation for required field trips.

**ENV 491. INTERNSHIP IN ENVIRONMENTAL, HEALTH, AND SAFETY. (3 OR 6).** *Prerequisite:* Permission of instructor. Supervised experience in an organization, facility, industry, or business with EHS responsibilities. Assignments individually arranged. Off-campus travel required. (Grading: Pass/Fail)

**ENV 495. ENVIRONMENTAL MEASUREMENT. (3)** *Prerequisites:* ENV 280, 360, 410, 480. Includes environmental measurement methods for air, soils, and water analysis. Devices covered include: AA, GC/MS, XRF, PID, SEM, colorimetric tubes, and water quality instruments.

**EXED – EXCEPTIONAL EDUCATION  
SCHOOL OF TEACHER EDUCATION**

**EXED 200. THE CULTURE OF DISABILITY. (3)** Social and cultural perspectives on disabilities. Covers major types of disabilities, disability as a socially-constructed concept, images and stereotypes of disabilities within various cultures, and cultural norms that create barriers to individuals' participation in society.

**EXED 330. INTRODUCTION TO EXCEPTIONAL EDUCATION: DIVERSITY IN LEARNING. (3)** *Prerequisites:* EDU 250, FACS 192, MGE 275, AGED 250 or SEC 365; and either PSY 310 or FACS 191; or instructor permission. Characteristics of exceptionalism, special education programs, schools, and community resources and research relative to exceptionalism. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**EXED 331. EARLY CHILDHOOD EDUCATION FOR CHILDREN WITH DISABILITIES. (3)** *Prerequisites:* EXED 330 and LTCY 320. *Corequisites:* EXED 333 and EXED 432. Emphasis on services and supports for children from birth through five years old, with and without disabilities, and their families, including current intervention research. Field experiences in early childhood settings away from campus are required. Students are responsible for arranging their own transportation to and from assigned sites.

**EXED 332. INTERVENTION STRATEGIES FOR STUDENTS WITH MILD DISABILITIES. (3)** *Prerequisites:* EXED 331, 333, and 432. *Corequisites:* EXED 334, 422, 430 and 433. The student is taught to make appropriate choice/use of audio-visual media and adapted instructional materials in the content areas for individuals with mild disabilities. Field experiences in public schools and/or other appropriate settings away from campus required. Students are responsible for arranging their own transportation to designated or assigned sites.

**EXED 333. TRANSITION: SCHOOL TO ADULT LIFE. (3)** *Prerequisites:* EXED 330 and LTCY 320. *Corequisite:* EXED 331 and 432. Students are exposed to theory and practice of preparing individuals with disabilities to enter the world of work and independent adult citizenship. Field experiences in public schools and/or other appropriate settings away from campus are required. Students are responsible for arranging their own transportation to designated or assigned sites.

**EXED 334. FIELD-BASED PRACTICUM WITH INDIVIDUALS WITH DISABILITIES. (3)** *Prerequisites:* EXED 331, 333 and 432. *Corequisites:* EXED 332, 422, 430 and 433. Students interact with individuals with disabilities in classrooms and institutions via field experiences to discover the nature of exceptionalism, view programs, and make career decisions. Field experiences in public schools and/or other appropriate settings away from campus are required. Students are responsible for arranging their own transportation to designated or assigned sites.

**EXED 415. PRESCRIPTIVE PROGRAMMING FOR INDIVIDUALS WITH SEVERE EMOTIONAL AND BEHAVIORAL DISORDERS (3)** *Prerequisite:* EXED 334. *Corequisites:* EXED 416, 417, 418 and 431. History of instructional models characteristics. Evaluation procedures for identification and instruction with individuals with severe emotional and behavioral disorders, autism, and other pervasive developmental disorders. Field experience in public schools and/or other appropriate settings away from campus are required. Students are responsible for arranging their own transportation to designated or assigned sites.

**EXED 416. FIELD-BASED PRACTICUM WITH INDIVIDUALS WITH MODERATE AND SEVERE DISABILITIES (3)** *Prerequisite:* EXED 334. *Corequisites:* EXED 415, 417, 418 and 431. Supervised practice in an appropriate setting for development of advanced intervention skills used with individuals with moderate and severe disabilities. Field experiences in public schools and/or other appropriate settings away from campus are required. Students are responsible for arranging their own transportation to designated or assigned sites.

**EXED 417. ASSESSMENT AND CURRICULUM I FOR STUDENTS WITH MODERATE/SEVERE DISABILITIES (3)** *Prerequisite:* EXED 334. *Corequisites:* EXED 415, 416, 418 and 431. Characteristics, problems and needs of individuals with moderate to severe disabilities. Curriculum and assessment models are evaluated; intervention strategies for both cognitive and social skills are designed. Field experiences in public schools and/or other appropriate settings are required in this course. Students are responsible for arranging their own transportation to designated sites.

**EXED 418. ASSESSMENT AND CURRICULUM II FOR STUDENTS WITH MODERATE/SEVERE DISABILITIES (3)** *Prerequisite:* EXED 334. *Corequisites:* EXED 415, 416, 417 and 431. This course builds upon EXED 417. Topics include routine/emergency medical procedures, physical management/handling, postural motor dysfunction, recreation, transition programming and modifications with language/vision/hearing impairments. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation in designated sites.

**EXED 419. ASSISTIVE TECHNOLOGY IN THE CLASSROOM AND COMMUNITY. (3)** *Prerequisite:* EXED 330. This class is designed to provide an overview of assistive technology and augmentative/alternate communication devices and their application in the special education classroom. This class will enable participants to develop sound and inclusive technology plans that meet the needs of students with moderate to severe disabilities.

**EXED 421. SPECIAL EDUCATION AND THE LAW: INTERPRETATION AND APPLICATION. (3)** *Prerequisite:* EXED 334. Focus is on laws and regulations and the education of children and youth with disabilities. Laws and regulations, the developments that led to them, and their implications for schools, students, and parents are discussed, analyzed, and applied to practical situations.

**EXED 422. COLLABORATION AND INCLUSION IN SCHOOL AND COMMUNITY SETTINGS. (3)** *Prerequisites:* EXED 331, 333 and 432. *Corequisites:* EXED 332, 334, 430, 433. The course provides an overview of methods which facilitate collaboration across disciplines to support diverse learners in regular classroom and community settings. Field experiences are required.

**EXED 430. DIAGNOSIS FOR INSTRUCTIONAL PLANNING: STUDENTS WITH MILD DISABILITIES. (3)** *Prerequisites:* EXED 331 and 333, and 432. *Corequisites:* EXED 332, 334, 422 and 433. This course will deal with the administration, scoring, and educational utilization of various diagnostic instruments designed to assist the teacher in developing an educational profile for the individual with school-related problems. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**EXED 431. LANGUAGE INTERVENTION: STRATEGIES AND MATERIALS. (3)** *Prerequisite:* EXED 334. *Corequisites:* EXED 415, 416, 417 and 418. An overview of language development is provided with emphasis placed on the educational remediation of language disorders. Focus is on the utilization of methods and materials which foster language development. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**EXED 432. APPLIED BEHAVIOR ANALYSIS. (3)** *Prerequisite:* EXED 330. *Corequisites:* EXED 331 and 333. Major emphasis is placed upon observing, analyzing and modifying the behavior of students. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**EXED 433. MODELS OF POSITIVE BEHAVIOR SUPPORT. (3)** *Prerequisites:* EXED 331, 333 and 432. *Corequisites:* EXED 332, 334, 422 and 430. Examines an array of models for supporting positive behavior changes in students. Field experience required.

**EXED 434. STUDENT TEACHING SEMINAR. (3)** *Prerequisite:* Completion of all exceptional education coursework, admission to student teaching. *Corequisite:* EXED 490. This course is designed to serve as a pre-student teaching experience to allow a student to integrate the process of diagnostic-prescriptive teaching. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**EXED 490. STUDENT TEACHING: EXCEPTIONAL EDUCATION. (10)** *Corequisites:* Admission to teacher education; admission to student teaching; completion of EDU 250 and EXED 330 with grades of "B" or higher; and completion of the following courses with grades of "C" or higher; MATH 211, 212, LME 448, and LME 318 or 407. Supervised assignment in approved school setting. Must complete a minimum of sixteen weeks in one or two placements depending on certification requirements. Students follow the academic calendar of the school district in which they are placed and are responsible for providing their own transportation to assigned site(s).

### EXS – EXERCISE SCIENCE

#### DEPARTMENT OF KINESIOLOGY, RECREATION AND SPORT

**EXS 122. FOUNDATIONS OF KINESIOLOGY. (3)** An introductory study of the historical, philosophical, and scientific foundations of physical education. Equivalent to PE 122.

**EXS 223. HEALTH RELATED FITNESS-EXERCISE SCIENCE. (3)** *Prerequisite:* Declared Exercise Science major. Foundation of knowledge and practice in components of physical fitness. Aerobic conditioning, and musculoskeletal strength, endurance, and flexibility will be explored.

**EXS 296. PRACTICUM IN EXERCISE SCIENCE. (3)** *Prerequisites:* EXS 223 and a declared Exercise Science major. Work experience in Exercise Science practical settings in progression towards completion of the major. Must be repeated for a maximum of 4 hours taken twice with each practicum experience in a different subfield of Exercise Science. Liability insurance required. (Grading: Pass/Fail)

**EXS 311. PHYSIOLOGY OF EXERCISE. (3)** *Prerequisites:* BIOL 131 and EXS 223 or permission of instructor. A systemic study of the acute and chronic effects of exercise on the physiological function of the human body.

**EXS 312. BASIC ATHLETIC TRAINING. (3)** *Prerequisite:* PE 311 or EXS 311 and junior status. A study of the basic principles of athletic training including prevention, evaluation, care, and rehabilitation of athletic injuries. Equivalent to PE 312.

**EXS 313. MOTOR LEARNING AND CONTROL. (3)** *Prerequisites:* MATH 116 and EXS 223 and declared Exercise Science major and junior standing. Designed to help build a foundation of knowledge and practice in the theoretical and conceptual basis behind human acquisition and performance of motor skills. The goal of the course is to understand how the individual, motor skill, and environment work together when learning novel or improving previously learned motor skills.

**EXS 324. EVALUATION IN PHYSICAL EDUCATION. (3)** *Prerequisites:* MATH 116 and EXS 223 and declared Exercise Science major and junior standing. A study of measurements utilized to evaluate the cognitive, affective, and psychomotor dimensions of school-age physical education students. Also, information for exercise specialists. Equivalent to PE 324.

**EXS 325. APPLIED EXERCISE PHYSIOLOGY. (3)** *Prerequisites:* EXS 311 and CHEM 109 or higher and declared Exercise Science major. Applied concepts introduced in exercise physiology and kinesiology. Aspects of the human body's reaction to differing exercise stressors. Emphasis on metabolic, musculoskeletal, and cardiorespiratory systems. Laboratory and field experience applying theoretical concepts of exercise physiology and kinesiology.

**EXS 412. EXERCISE TESTING & PRESCRIPTION. (4)** *Prerequisites:* EXS 311 and declared Exercise Science major. Study and field experience in developing principles and practices of physical fitness in the private and corporate sector for the general population and special populations.

**EXS 420. CLINICAL EXERCISE PHYSIOLOGY. (4)** *Prerequisite:* EXS 325; declared Exercise Science major. Principles of the clinical aspects of exercise physiology. Focuses primarily on the use of exercise in the treatment and diagnosis of various disease states, screening in risk stratification, and the ability to recognize and respond to emergency procedures.

**EXS 425. EXERCISE BIOENERGETICS. (3)** *Prerequisites: CHEM 109 or higher and EXS 325 and declared Exercise Science major.* Study of exercise metabolism during physical activity. Includes metabolic utilization of carbohydrates, fats, and proteins during anaerobic and aerobic exercise.

**EXS 436. PRINCIPLES OF STRENGTH AND CONDITIONING. (3)** *Prerequisite: EXS 325 and declared Exercise Science major.* Designed to develop knowledge of principles and practices in components of strength and condition. The aim of the course is to understand the process behind development, implementation, and evaluation of strength and conditional programs for elite, collegiate, high school, and/or recreational athletic populations.

**EXS 446. BIOMECHANICS. (4)** *Prerequisites: BIOL 131 and MATH 116 and declared Exercise Science major and senior status.* Designed to help build a foundation of knowledge and practice in the theoretical and conceptual basis of human movement. The goal of the course is to understand the influence of rigid-body mechanics on human movement and how manipulations of mechanical factors alter human movement. The secondary goal is to learn to quantitatively analyze human movement.

**EXS 455. EXERCISE AND AGING. (3)** *Prerequisite: Permission of instructor.* Designed for students to gain a better understanding of the acute physiological responses and chronic adaptations associated with exercise in the aged population and the role of exercise in the aging process. Specific attention will be given to the mitigating role of exercise in certain diseases and disorders.

**EXS 485. EXERCISE SCIENCE STUDY ABROAD. (1-3)** *Prerequisite: Must be in good standing, and obtain approval from the instructor.* An exploration of the international offerings pertaining to the study of exercise science and sports medicine. Study abroad courses require travel to various international locations. Specific course offerings will be announced prior to the semester in which travel occurs. May be repeated for a maximum of six hours.

**EXS 496. INTERNSHIP IN EXERCISE SCIENCE. (6)** *Prerequisite: EXS 296 and EXS 412 (pre or corequisite) and declared Exercise Science major.* Comprehensive practical experience in a selected Exercise Science environment. Development of practical skills with on-the-job experience. Students will be responsible for their own transportation to designated or assigned sites.

**FACS— FAMILY AND CONSUMER SCIENCES**  
**DEPARTMENT OF FAMILY AND CONSUMER SCIENCES (FACS)**  
**DEPARTMENT OF LIBERAL ARTS AND SCIENCES**

**FACS 111 / 111C. HUMAN NUTRITION. (3)** Study of nutrients essential to human life and well-being. Nutrients are studied relative to their function in metabolism, sources in food, and relationship to health. [GEN ED F]

**FACS 150. GOURMET FOODS. (3)** An introduction to principles and aesthetics of food preparation characteristic of American and other cuisines of the world. Preparation of food and table service for different types of meal functions is involved. (course fee)

**FACS 151. FOOD SCIENCE. (3)** Introduction to the study of the basic principles of food science as they apply to food preparation. Food components including composition, palatability, flavor, color, texture, and safe food handling practices are studied and evaluated. Application of principles include preparation and evaluation of food products. (course fee)

**FACS 152. FOOD SERVICE SANITATION. (1)** *Corequisite: FACS 251.* National Restaurant Association ServSafe sanitation course. Examines the causes and prevention of foodborne illness in food service operations. Covers proper food handling to include receiving, storage, preparation, and holding of food. Proper cooking and storage temperatures will be stressed. Students must pass the ServSafe National Certification Exam to successfully complete this course.

**FACS 170. INTERNATIONAL CUISINE AND CULTURE. (3)** Focuses on the history, culture, customs and cuisines of countries from around the world. The laboratory component includes preparation of a variety of international recipes. (course fee) [GEN ED E]

**FACS 171. INTRODUCTION TO MANAGEMENT IN THE HOSPITALITY INDUSTRY. (3)** Study of the evolution of the hospitality industry. Organizational systems and management career potentials are examined. Hospitality services are viewed from both consumer and business perspectives.

**FACS 180. FOUNDATIONS IN FAMILY AND CONSUMER SCIENCES. (3)** Overview of interdisciplinary field of family and consumer sciences, including professional organizations and philosophy of education and service. Emphasizes the culture of the scholar.

**FACS 191. CHILD DEVELOPMENT. (3)** Study of the prenatal and postnatal factors that influence the physical, cognitive, language, social and emotional development of children. Implications and applications of concepts learned are stressed. Practical experiences provided in a field setting; students are responsible for arranging their own transportation.

**FACS 192. WORKING WITH YOUNG CHILDREN AND FAMILIES. (3)** An introductory course for persons interested in providing services for infants, toddlers, and preschool-age children, both with and without disabilities, and their families. Practical experiences provided in a field setting; students are responsible for providing their own transportation.

**FACS 193. CURRICULUM DEVELOPMENT FOR YOUNG CHILDREN. (3)** *Prerequisite: FACS 294; restricted to IECE majors.* Overview of curriculum and activities that are developmentally appropriate for diverse groups or individual children. Practical experiences provided in a field setting; students are responsible for providing their own transportation.

**FACS 198. GUIDANCE AND PROBLEM-SOLVING APPROACHES FOR YOUNG CHILDREN. (3)** *Prerequisite: FACS 191 or permission of instructor.* Examines developmentally appropriate guidance and problem-solving approaches for young children based on theoretical and evidence-based practices. Child-centered approaches for addressing typical problems found in early childhood settings will be addressed. Field hours are required; students are responsible for their own transportation.

**FACS 251. COMMERCIAL FOOD PREPARATION. (3)** *Prerequisite: FACS 151. Corequisite: FACS 152.* Study and application of commercial food preparation processes including selection, storage, presentation of food products, and the effective utilization of resources. Students must pass the National Restaurant Association Food Sanitation Certification Examination and become CPR certified to receive credit for this course. (course fee)

**FACS 252. HOSPITALITY INFORMATION TECHNOLOGY. (3)** *Prerequisite: Restricted to hospitality management and dietetics majors.* Study of computer applications in hotel, restaurant, and tourism management and dietetics. Topics include computer programs generic to the hospitality industry such as spreadsheets, word-processing, reservation systems, accounting systems, nutritional analysis, etc.

**FACS 261. ADVANCED NUTRITION. (3)** *Prerequisites: FACS 111, BIOL 131 and CHEM 105 or 109. Corequisite: CHEM 107 (only when chemistry selections include CHEM 105).* Study of nutrients and their function in the human body. Includes analysis of nutritional status and nutrient intakes of individuals and their relationship to health.

**FACS 271. TOURISM PLANNING AND DEVELOPMENT. (3)** Study and evaluation of travel and tourism and the economic and cultural impact on society. Examination of the forces which influence domestic and international tourism. Component parts of tourism management and interrelationship of meeting planning, travel systems, food and lodging systems, and tourist attractions are reviewed. Possible field trips at student's expense.

**FACS 275. RESTAURANT MANAGEMENT. (3)** *Prerequisite: FACS 171 or permission of instructor.* Identifies the crucial elements involved in the successful operation of a restaurant and how they interrelate. Students are taken through the process of creating a concept, developing a menu, budgeting and controlling costs, staffing the restaurant, purchasing food and equipment, bar and beverage management, daily operations and developing a marketing plan. Includes online "virtual field trips."

**FACS 276. LODGING OPERATIONS. (3)** *Prerequisite: FACS 171 or FACS 271 or permission of the instructor.* Study of hotel and lodging operations, including detailed descriptions and analyses of the functions of both revenue-generating and support departments, as well as staffing needs and model position descriptions. Includes online "virtual field trips."

**FACS 292. DIVERSITY IN EARLY CHILDHOOD PROGRAMS. (3)** *Prerequisite: FACS 191.* This course focuses on developing and enhancing the knowledge and skills to work with children and families from diverse developmental, cultural, racial, and socio-economic backgrounds. The exploration of the challenges families face in living in a diverse society and who have a child with special needs will also be reviewed. Implications of diversity for practice with various populations are emphasized throughout the course. Influential theories and relevant research for professionals working with young children and families are discussed.

**FACS 294. ASSESSMENT OF YOUNG CHILDREN. (3)** *Prerequisites: FACS 191 or instructor permission.* Overview of the assessment process, preliminary assessment skills, and using assessment results in planning for guidance/instruction of young children. Roles of the family in the assessment process emphasized. Practical experiences provided in a field setting; students are responsible for providing their own transportation.



## Course Descriptions

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**FACS 295. CURRICULUM DEVELOPMENT FOR INFANTS AND TODDLERS. (3)** *Prerequisite:* FACS 294. Overview of developmentally appropriate curriculum and activities for all infants and toddlers, individually and in groups. Practical experiences in a field setting; students are responsible for providing their own transportation.

**FACS 296. CURRICULUM DEVELOPMENT FOR PRESCHOOL AND KINDERGARTEN CHILDREN. (3)** *Prerequisite:* FACS 294. Overview of curriculum and activities that are developmentally appropriate for diverse groups or individual preschool/kindergarten children. Practical experiences provided in a field setting; students are responsible for providing their own transportation.

**FACS 297. FAMILY, COMMUNITY AND EARLY CHILDHOOD PROGRAM. (3)** An introduction to the skills and appropriate techniques of establishing positive relationships with families of young children and involving them in the early childhood program planning, implementation, and evaluation. Skills and techniques for building community partnerships and advocating for young children are addressed. Practical experiences provided in a field setting. Students are responsible for providing their own transportation.

**FACS 299. ADMINISTRATION OF EARLY CHILDHOOD PROGRAMS. (3)** *Prerequisites:* FACS 294 or permission of instructor. Principles and practices in organization and management of developmentally appropriate early childhood programs. Includes managing physical, personnel, fiscal, curricular, agency, community, and family resources. At least 12 field-based hours will be required in addition to regular course meetings. Students are responsible for arranging their own transportation.

**FACS 310. MANAGEMENT OF FAMILY RESOURCES. (3)** Study of consumer and marketplace interactions in the purchase of goods and services. Decision-making processes are applied to individual and family resources for achieving maximum personal satisfaction.

**FACS 311. FAMILY RELATIONS. (3)** *Prerequisites:* Junior standing. Study of issues affecting individual and family well-being. Interpersonal relationships and communication skills necessary to achieve quality of life are addressed.

### [GENED C]

**FACS 313. PRACTICUM IN HUMAN ENVIRONMENT. (3)** Supervised work experience for a fixed period of time. Students perform professional functions with a pre-approved, cooperating organization. Field experience.

**FACS 351. HUMAN RESOURCE MANAGEMENT IN THE HOSPITALITY INDUSTRY. (3)** *Prerequisite:* FACS 251. Study of management and human resource systems common to the hospitality industry. Case studies, role plays, and simulations are used to examine management and human resource problems unique to hotels, restaurants, and institutions.

**FACS 353. MENU PLANNING AND PURCHASING. (3)** *Prerequisite:* FACS 251. Study of menu planning and merchandising to meet the needs of various target markets. Includes analysis of food and equipment specifications, purchasing methods, and pricing strategy. Possible field trip at student's expense.

**FACS 354. COST CONTROL AND FINANCIAL ANALYSIS IN THE HOSPITALITY INDUSTRY. (3)** *Prerequisites:* FACS 252 and ACCT 200. Study of the financial aspects of hospitality operations to include budgeting, forecasting, financial analysis, food and labor costs, beverage control, inventory control, and the Uniform System of Accounts for Hotels and Restaurants.

**FACS 361. LIFE STAGE NUTRITION. (3)** *Prerequisite:* FACS 261. Study of nutrition needs of individuals in the various stages of the life cycle. Review of public and private enterprises involved in the delivery of nutrition services. Course requires off-campus experiences for which students are responsible for transportation and related activities and expenses.

**FACS 362. MEDICAL NUTRITION THERAPY I. (4)** *Prerequisites:* FACS 361 and CHEM 304 or CHEM 109. Study of the scientific principles of human nutrition in relation to health and disease. Emphasis is placed on nutritional assessment and planning of nutrition intervention strategies for specific disease conditions.

**FACS 364. SPORTS NUTRITION. (3)** *Prerequisite:* FACS 111. Includes determination of optimum carbohydrate, protein, fat, vitamins, minerals, and fluid intake of athletes for health and performance; evaluation of supplements and nutrition information for athletes. For those interested in working with athletes and their diets.

**FACS 365. COMMUNITY NUTRITION. (3)** *Prerequisite:* FACS 111. Review of community resources and delivery of nutrition education, to include diverse populations. Field experiences will be required. Students are responsible for their own transportation.

**FACS 367. NUTRITION IN AGING. (3)** *Prerequisite:* FACS 111 or permission of the instructor. Explores the nutritional needs of the aging adult, focusing on the various disease states and their nutritional ramifications. The nutritional implications for demographic groups in the aging population, and issues related to eating, pharmacology and physical activity in the elderly will also be reviewed. Field experiences will be required; students are responsible for their own transportation.

**FACS 368. DIETARY AND HERBAL SUPPLEMENTS. (3)** *Prerequisite:* FACS 111 or permission of instructor. Current topics related to dietary supplements. Regulatory guidelines and issues related to production, marketing, safety, and efficacy are addressed.

**FACS 371. LODGING MANAGEMENT. (3)** *Prerequisites:* FACS 313 and ACCT 200. Study of lodging facilities and the services provided throughout the guest cycle. Included are the analysis of front desk operations, front office management, marketing, reservations, data processing, guest services, security, executive housekeeping, and night auditing. Field trip at student's expense.

**FACS 373. HOSPITALITY AND TOURISM MARKETING. (3)** *Prerequisites:* FACS 271, MKT 220. Examines the scope and implementation of specialized marketing activities across a range of private and public sector organizations in the hospitality and tourism industry. Focuses on the conceptualization, design, delivery and evaluation of marketing plans for hospitality and tourism organizations. The development of a comprehensive marketing plan is a major component of this course.

**FACS 375. MEETING AND CONVENTION MANAGEMENT. (3)** *Prerequisite:* Junior standing or permission from the instructor. Management and operation of conventions, meetings, trade shows and exhibitions for both profit and non-profit organizations. Emphasizes program planning, budgeting, contracts, marketing, public relations, site and facility selection, exhibit planning and marketing, transportation, food and lodging arrangements, and career opportunities. A convention/meeting planning project will be required for successful completion of the course.

**FACS 378. LEGAL ENVIRONMENT OF HOSPITALITY AND TOURISM. (3)** *Prerequisites:* FACS 275 and FACS 276 or permission of instructor. Study of legal aspects of hospitality and tourism operations including legal relationships with guest and other patrons, food and beverage liability, employment, negligence and contracts.

**FACS 380. PROFESSIONAL PRESENTATION TECHNIQUES IN FAMILY AND CONSUMER SCIENCES. (3)** *Prerequisite:* Major or minor in Family and Consumer Sciences. Includes demonstrations and use of varied technology in teaching family and consumer sciences content. Lecture – field trips at student's expense.

**FACS 381. METHODS AND MATERIALS IN FAMILY AND CONSUMER SCIENCES EDUCATION. (3)** *Prerequisites:* (a.) Junior standing in Family and Consumer Sciences Education or Dietetics; and (b.) FACS 380 Communication Techniques in Family and Consumer Sciences; and (c.) EDU 250 for FCS Ed majors, or consent of instructor. A study of family and consumer sciences curriculum patterns including objectives, methods of planning and presentation, laboratory organization, home and community projects, instructional materials, evaluation, and federal and state legislation for vocational education and family and consumer sciences.

**FACS 391. RISK AND RESILIENCE. (3)** *Prerequisite:* FACS 191 or permission of instructor. Focuses on the development of social and emotional skills as they relate to resilience in children. Risk factors will be explored. Field experiences will be required. Students are responsible for their own transportation.

**FACS 393. ROLE OF PLAY IN CHILD DEVELOPMENT. (3)** *Prerequisite:* FACS 191. Theoretical and empirical perspectives connecting play to children's learning and development will be examined. Students will examine the role of play in relation to brain development.

**FACS 395. CHILD AND FAMILY STRESS. (3)** *Prerequisites:* Junior standing or permission of instructor. Acquaint students with major concepts from the research and conceptual literature on family stress and resilience. Examines stress as experienced and perceived by children and their families. Factors that influence children's coping with stress are emphasized.

**FACS 396. ADOPTION THEORIES AND RESEARCH. (3)** *Prerequisite:* Junior standing. Review of theories and research underlying practice with families and children who have been adopted. Offers an understanding of challenges, risks, and opportunities related to adoptive and birth families. Types and critical issues of adoption will be reviewed.

**FACS 399. IMPLICATIONS OF RESEARCH IN FAMILY AND CHILD STUDIES. (3)** *Prerequisite:* SOC 300 or permission of instructor. Explores the processes and implications of research related to family and child studies. Students will gain understanding and develop skills needed to be consumers of scientific literature.

**FACS 410. INTERNSHIP. (1-9)** *Prerequisites:* Senior standing and all required 300-level courses in the major. Application of knowledge and skills in a supervised experience. Students perform professional functions in an appropriate establishment. (Note: Application must be submitted to coordinator of the Internship Program one complete semester prior to the semester a student plans to do the practicum. A 2.5 grade point average in professional courses is required for eligibility.) (Repeatable to maximum of 6 hours)

**FACS 411. SPECIAL TOPICS IN CONSUMER AND FAMILY SCIENCE. (1-3)** *Prerequisite:* Approval of the head of the department. Individual investigation of problems selected from an area of specialization within the department. (Repeatable for credit.)

**FACS 452. QUALITY AND SERVICE MANAGEMENT IN THE HOSPITALITY INDUSTRY. (3)** *Prerequisites:* Senior standing and MGT 210. Study and analysis of service delivery systems for the hospitality industry with particular emphasis on implementing a consumer-driven, top-down, policy-oriented, quality service program. Possible field trip at student's expense.

**FACS 459. SENIOR SEMINAR IN HOSPITALITY MANAGEMENT AND DIETETICS. (1)** *Prerequisites:* FACS 354 or FACS 362 and senior standing. Course prepares senior Hospitality Management and Dietetics students to assume leadership positions in their career fields. The class will provide a forum where students focus on career, leadership, ethics and lifelong learning and will also provide students an opportunity to debate relevant industry issues. (Grading: Pass/Fail)

**FACS 461. APPLICATION OF NUTRITION THEORY AND RESEARCH. (3)** *Prerequisite:* FACS 261. Application of classic and contemporary theory in the identification and analysis of problems in the practice of nutrition. Provides the student with a research knowledge base specific to dietetic practice.

**FACS 462. MEDICAL NUTRITION THERAPY II. (4)** *Prerequisite:* FACS 362. Continued study of the analysis of the scientific principles of human nutrition in relation to health and disease. Emphasis is placed on intervention strategies for specific disease conditions and disorders. Includes laws, regulations and standards related to dietetic practice.

**FACS 464. APPLIED INSTITUTION MANAGEMENT. (3)** *Prerequisite:* Senior standing. Application of methods in institutional management of foodservice operations and nutritional care. Lecture, one hour; practicum, ten hours per week minimum. Course requires off-campus experiences for which students are responsible for transportation and related activities and expenses.

**FACS 470. ADVANCED LODGING MANAGEMENT. (3)** *Prerequisites:* ACCT 200 and FACS 276 or permission of instructor. *Corequisite:* FACS 472. Study of ethical decision making, risk management, preparation and analysis of financial information, feasibility studies and trends in the lodging industry.

**FACS 471. CATERING AND BEVERAGE MANAGEMENT. (3)** *Prerequisites:* FACS 313, 353, 354, and senior standing. Study and application of principles of catering including planning, purchasing, storing, preparing, and presenting food and beverages. An in-depth review of wines, spirits, beers, and beverage equipment will be included.

**FACS 472. STRATEGIC MANAGEMENT IN THE HOSPITALITY INDUSTRY. (3)** *Prerequisites:* FACS 313, 354, MKT 220, and senior standing. *Corequisite:* FACS 470. Study and analysis of complex business problems in the hospitality industry. Identification of problems, generation of alternatives, and the implementation of effective business and corporate strategies are emphasized.

**FACS 481. ADVANCED METHODS IN FAMILY AND CONSUMER SCIENCE EDUCATION. (3)** A study of the background and trends in education for improving family and consumer sciences. Career and Tech Ed training for high school youth and adults including an understanding of state and federal accountability requirements. Emphasis on working with persons with diverse backgrounds. Lecture- field trips at student's expense.

**FACS 482. RESOURCE MANAGEMENT FOR THE INDIVIDUAL AND FAMILY. (3)** *Prerequisite:* Junior standing in family and consumer sciences. A study of the factors affecting the management of the home in meeting the needs of individuals and creating a satisfying environment for the family. Special consideration is given to those problems involving the use of time, energy, and money. Lecture—field trips at student's expense. Curriculum changes in process. See FCS advisor.

**FACS 491. SEMINAR IN FAMILY ECONOMICS. (1)** *Prerequisite:* Senior standing. Current literature in family and consumption economics are studied and discussed. Curriculum changes in process. See FCS advisor.

**FACS 492. GROWTH AND GUIDANCE OF CHILDREN. (3)** *Prerequisites:* FACS 191 and PSY 100. Study of the biological, physical, social-emotional, and cognitive needs of infants and school-aged children. The strategies by which these needs may be met within the family, the school, and other environments are discussed.

**FACS 493. FAMILY LIFE EDUCATION. (3)** Study of the various professional and educational perspectives regarding family life education. Principles and practices within the field are analyzed and compared.

**FACS 494. PARENTING STRATEGIES. (3)** Study of the major theoretical and practical approaches to effective parenting strategies within functional families. Emphasis is placed on practicing techniques and skills which are developmentally appropriate for different ages of children.

**FACS 495. INTERPERSONAL/ RELATIONSHIP VIOLENCE. (3)** *Prerequisite:* One course in Human Development or Family Relations. A study of the dynamics underlying interpersonal violence and theoretical perspectives regarding the etiology of violent behavior. Analysis of behaviors indicative of violent relationships and various treatment modalities as they are applied to individuals and families are emphasized.

**FACS 496. ADDRESSING CHALLENGING BEHAVIOR IN YOUNG CHILDREN. (3)** *Prerequisite:* FACS 492 or instructor permission. Examination of young children's challenging behaviors and strategies for developing behavior support plans across settings. Practical experiences in a field setting; students are responsible for providing their own transportation.

**FACS 497. FAMILY HOME VISITING. (3)** *Prerequisites:* FACS 395 or FACS 494 or permission of instructor. Focuses on the design, implementation, and effects of human service programs aimed at promoting service provision in a variety of settings. Review of best practice, policy and research with families and young children in natural environments. Field experience hours required. Student is responsible for transportation.

**FACS 499. ISSUES IN FAMILY AND CHILD STUDIES. (3)** *Prerequisite:* Senior-level standing. An examination of the place of family and child studies in the context of broader themes, such as policy and varying social and economic climates. This course is designed to integrate research, theory, and practice, applying former education to a variety of family and child issues.

#### FILM SCHOOL OF JOURNALISM & BROADCASTING

**FILM 201. INTRODUCTION TO THE CINEMA. (3)** A study of the basic elements and techniques of the film medium, designed to increase the student's understanding and appreciation of the motion picture both as a communication medium and as an art form. A number of film masterpieces will be viewed and analyzed. Lecture and lab.

**FILM 369. INTRODUCTION TO WORLD CINEMA. (3)** *Prerequisite:* FILM 201 or permission of instructor. Examines cinema in several regions including China, India, Europe, Middle East, Africa, and Latin America. Viewing of representative films accompanied by background readings on history/culture.

**FILM 399. SPECIAL TOPICS IN FILM. (3)** A detailed study of special topics in film.

**FILM 482. FILM PRODUCTION WORKSHOP. (2)** *Prerequisite:* FILM 201. Intensive, hands-on workshop in the production of short-form cinema. Specific focus of study to be determined in consultation with instructor. Emphasis on techniques and strategies relevant to producing independent film and video. May be repeated three times for additional credit.

**FILM 483. FILM STUDIES SEMINAR. (2)** *Prerequisites:* At least 18 hours completed in the film major and senior standing. Intensive study in an area of film history, theory, and genres. Specific focus of study to be determined in consultation with instructor. Emphasis on independent research and writing. May be repeated once for additional credit.

**FILM 485. SENIOR SEMINAR. (1)** *Prerequisite:* Film majors with senior standing. Synthesis and assessment of complete field of study for film majors, including exploration of career and graduate studies opportunities.

#### FIN/FINC – FINANCE DEPARTMENT OF FINANCE (FIN) DEPARTMENT OF LIBERAL ARTS AND SCIENCES (FINC)

**FIN 161/FINC 161C. PERSONAL FINANCE. (3)** Designed to serve the personal finance needs of students regardless of their major fields. Practical applications in personal and family financial planning, including credit, buying, borrowing, banking, insurance, investments, taxation, estate planning and home ownership. [GEN ED C]

## Course Descriptions

**FIN 330. PRINCIPLES OF FINANCIAL MANAGEMENT. (3)** *Prerequisites:* ACCT 200, MATH 116, and ECON 202 or 203. Covers basic concepts and techniques in corporate finance and investments. Topics include asset valuation, time value of money, capital budgeting, financial statements and international finance.

**FIN 331. APPLIED INVESTMENTS. (3)** *Prerequisite:* FIN 330. Covers the basics of investing, emphasizing the management of personal investments, such as stocks, bonds and mutual funds. Utilizes investment-related web sites.

**FIN 332. INVESTMENT THEORY. (3)** *Prerequisite:* FIN 330. An examination is made of investment institutions, market mechanics and investment media. The course deals with the setting of investment objectives, portfolio building and the problems of selection and timing.

**FIN 350. RISK MANAGEMENT AND INSURANCE. (3)** *Prerequisite:* FIN 330. Fundamental principles of risk and insurance and their application to risk situations. Provides the basic knowledge for intelligent solution of personal and business risk problems.

**FIN 370. PRINCIPLES OF REAL ESTATE. (3)** *Prerequisite:* FIN 330. Deals generally with urban real estate with emphasis on principles and practices of the real estate business.

**FIN 430. SELECTED TOPICS-FINANCE. (3)** *Prerequisites:* FIN 330 and permission of Instructor. Conducted at selected times covering special topics of current interest to finance students. Class format varies with instructor.

**FIN 433. MONEY AND CAPITAL MARKETS. (3)** *Prerequisite:* FIN 330. An examination of the behavior of U.S. and world financial markets with a special emphasis on interest rate theories, funds flows, and the role of financial institutions in these markets.

**FIN 435. COMMERCIAL BANK MANAGEMENT. (3)** *Prerequisite:* FIN 330. Study of the financial management of commercial banks. Emphasis is on asset/liability management and the financial analysis of bank statements.

**FIN 436. INTERNATIONAL FINANCIAL MANAGEMENT. (3)** *Prerequisite:* FIN 330. An examination of the international dimension of corporate finance. Topics covered include environment of international financial management, foreign exchange risk management, foreign investment analysis, and financing foreign operations.

**FIN 437. CORPORATE ASSET MANAGEMENT. (3)** *Prerequisites:* Completion of FIN 330 with a grade of "C" or better and completion of, or current enrollment in, ECON 307. Advanced level exposure to valuation concepts, capital budgeting decisions, working capital management, and mergers and acquisitions. Deals with the current theory and practice of corporate finance in these areas.

**FIN 438. CORPORATE FUNDS MANAGEMENT. (3)** *Prerequisites:* Completion of FIN 330 with a grade of "C" or better and completion of, or current enrollment in, ECON 307. Advanced level exposure to financing and dividend policy, short-, intermediate-, and long-term financing, and financial statement analysis. Deals with the current theory and practice of corporate finance in these areas.

**FIN 439. SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT. (3)** *Prerequisite:* FIN 332 with a grade of "C" or better. An advanced level exposure to fixed income and equity security valuation, and the theory and practice of portfolio management.

**FIN 440. INTERNSHIP IN FINANCE. (3)** *Prerequisites:* FIN 330 and admission to departmental cooperative program. Supervised work with a cooperating organization that provides financial services and products to the public. (Grading: Pass/Fail)

**FIN 441. ENTREPRENEURIAL FINANCE. (3)** *Prerequisite:* FIN 330. This course focuses on gaining understanding of the financing of entrepreneurial ventures, including ways entrepreneurs identify and commit the necessary resources to create and finance their ventures.

**FIN 444. RETIREMENT PLANNING. (3)** *Prerequisite:* FIN 330. Emphasizes the practical knowledge needed for choosing the best financial plan and designing a retirement plan that will meet a client's needs from a tax, retirement, and financial planning standpoint.

**FIN 445. ESTATE PLANNING. (3)** *Prerequisite:* FIN 330. Survey of financial planning, estate and gift tax planning, the unified estate and gift tax system, and the transfer of property through trusts and wills.

**FIN 449. PRACTICUM IN PORTFOLIO MANAGEMENT. (3)** *Prerequisite:* FIN 332 with a grade of "C" or better and permission of instructor. Practical experience in managing an investment portfolio in a teamwork environment. Emphasis placed on Economics, Industry, and Company analysis, security selection, report preparation, daily decision making, record keeping and performance evaluation. Students will be responsible for making all material decisions in managing an actual investment portfolio of real funds. (Special Information: May be repeated for credit.)

**FIN 499. SENIOR ASSESSMENT IN FINANCE. (1)** *Prerequisites:* Senior standing, enrolled in last regular semester of course work (summer graduates would take this course in the spring semester prior to completion.) This course is designed to be a tool in the senior assessment process. It is designed to provide a means of conducting assessment of Finance majors. The course will seek to measure knowledge of basic ideas and concepts necessary of Finance graduates. Students will also be introduced to educational and career opportunities and professional certification programs available in Finance.

### FLK / FOLK – FOLK STUDIES

#### DEPARTMENT OF FOLK STUDIES AND ANTHROPOLOGY (FLK)

#### DEPARTMENT OF LIBERAL ARTS AND SCIENCES (FOLK)

**FLK 276. INTRODUCTION TO FOLK STUDIES. (3)** An introduction to the study of folk tradition in different contexts, focusing on the concepts of folk group, cultural relativism, fieldwork, meaning and function, and the genres of folk narrative, folksong, folk custom and traditional material culture.

**FLK 277. INTRODUCTION TO WORLD MUSIC. (3)** A cultural and functional analysis of traditional musical genres developed in world areas: Africa, America, Asia, Europe and Oceania. Emphasis will be placed on musical styles, performance practices, aesthetics, and instruments. Equivalent to ANTH 277/MUS 277. [GEN ED E]

**FLK 280 / FOLK 280C. CULTURAL DIVERSITY IN THE U.S. (3)** Understanding, interpretation and appreciation of the multicultural nature of American society. Emphasis on the varieties of cultural expression, custom and world view practiced by regional, ethnic, racial and sectarian cultures. [GEN ED E]

**FLK 281. ROOTS OF SOUTHERN CULTURE. (3)** Examination of Southern folklore and folklife as part of the foundation of contemporary Southern culture.

**FLK 310. COMMUNITY TRADITIONS & GLOBAL CORPORATE CULTURE. (3)** Multicultural study of community traditions and corporate culture in the global world.

**FLK 340. PEOPLES AND CULTURES OF LATIN AMERICA. (3)** Study of the history and development of present cultures in Latin America with emphasis on economics, politics, religion, folklife and world view of indigenous, peasant and urban peoples. Equivalent to ANTH 340.

**FLK 342. PEOPLES AND CULTURES OF THE CARIBBEAN. (3)** Examination of the variety of cultural practices and social conditions found in modern-day Caribbean societies with attention to historical roots. Topics include, but are not limited to, definition of the region, religious practices, festivals, musical traditions, migration, and everyday social life and conditions. Equivalent to ANTH 342.

**FLK 345. PEOPLE AND CULTURES OF NATIVE NORTH AMERICA. (3)** Survey of the cultures of the original peoples of North America, with emphasis on the ethnographic present. Equivalent to ANTH 345.

**FLK 350. PEOPLES AND CULTURES OF AFRICA. (3)** Survey of the cultures of Africa, with emphasis on historical development and contemporary cultural diversity. Equivalent to ANTH 350. [GEN ED E]

**FLK 371. URBAN FOLKLORE. (3)** Varieties and characteristics of urban American folklore with emphasis on legends, customs, beliefs, and other lore of today's regional, occupational, and ethnic groups. [GEN ED C]

**FLK 373. FOLKLORE AND THE MEDIA. (3)** Variety and characteristics of folklore in the media including newspapers, television, magazines, comics, movies, photographs, cartoons, and advertisements.

**FLK 375. SUPERNATURAL FOLKLORE. (3)** An investigation of traditional beliefs concerning unverifiable phenomena, including superstition, traditional healing, divination, and witchcraft. Current historical, philosophical, anthropological and folkloristic theories are covered.

**FLK 377. AFRICAN-AMERICAN FOLKLIFE. (3)** Oral, written, and material folk traditions of African-Americans, with emphasis on the United States and the Caribbean. [GEN ED E]

**FLK 378. SOUTHERN APPALACHIAN FOLKLIFE. (3)** Folklife of southern Appalachia, as reflected in the material folk culture, in traditional folk customs and practices, legends, anecdotes, songs, language, and literature. Equivalent to ANTH 378.

**FLK 379. TOPICS IN FOLKLORE. (3)** A consideration of special topics to acquaint students with significant problems and current issues in folklore. Content will vary from time to time according to the instructor and the needs of the students.

**FLK 380. EUROPEAN FOLKLIFE. (3)** An ethnological survey of the historical background and contemporary presence of regional cultures in Europe. Emphasis on the relationship between traditional folklife and art, music, literature, and custom.

**FLK 399. FIELD METHODS IN ETHNOGRAPHY. (3)** An examination of the history, theory, techniques, and ethics of ethnographic fieldwork, including practical fieldwork experience. Equivalent to ANTH 399.

**FLK 400. ETHNOMUSICOLOGY. (3)** Survey of the concepts and methods of ethnomusicology. Topics include history of ethnomusicology, transcription and analysis, musicians, musical instruments, music acculturation, and the function of music in society. Equivalent to ANTH 400.

**FLK 410. AFRICAN-AMERICAN MUSIC. (3)** A survey of selected musical styles created and developed by African-Americans from the 17th to the 20th century: spirituals, blues, popular music forms (e.g. soul, reggae, rap music). Emphasis will be placed on the historical factors and sociocultural trends that influenced the development of African-American music. Equivalent to ANTH 410. [GEN ED E]

**FLK 411. AMERICAN INDIAN/FIRST NATIONS MUSIC. (3)** *Prerequisite:* ANTH 400/FLK 400, ANTH 345/FLK 345, or ANTH 277/FLK 277/MUS 277. Survey of American Indian/First Nations music. Emphasis will be placed on the study of musical styles and the historical factors and sociocultural contexts that influenced American Indian/First Nations music.

**FLK 434. HISTORIC PRESERVATION. (3)** (See GEOG – Geography and Geology.)

**FLK 445. AMERICAN ARCHITECTURAL HISTORY. (3)** An interdisciplinary survey of American architectural history, including trends and styles, architect designed and manufactured structures and elements, and the social history of American architecture. Equivalent to ART 445.

**FLK 446. RESTORATION OF HISTORIC INTERIORS. (3)** (See FACS - Family and Consumer Sciences.)

**FLK 447. HISTORY OF ARCHITECTURE INTERIORS III. (3)** (See FACS - Family and Consumer Sciences.)

**FLK 462. FOLKLORE AND MEDICINE. (3)** This course examines the role of traditional culture in shaping attitudes and behavior related to sickness, health, and healing. Institutional, alternative, and informal medical settings are discussed. Equivalent to PH 462.

**FLK 464. VERNACULAR ARCHITECTURE. (3)** The forms, functions, and styles of buildings constructed according to custom from local materials to meet individual and cultural preferences.

**FLK 470. MUSEUM PROCEDURES AND PRESERVATION TECHNIQUES. (3)** Essential aspects of museums and of preservation, i.e., collecting, preserving, researching, exhibiting, and interpreting material culture. Equivalent to ANTH 470.

**FLK 477. FOLK ARTS AND TECHNOLOGY. (3)** Folklife research in selected world culture groups, with emphasis on folk crafts, technology, and architecture in the United States prior to their absorption into industrialization. Special reference to northwest European antecedents, sources, and parallels.

**FLK 478. FOLKLORE AND LITERATURE. (3)** Readings in world literature from the Bible to the modern novel and examination of the degree to which oral literature has affected origins and development of written literature.

**FLK 479. DIRECTED INDEPENDENT RESEARCH IN FOLKLORE. (3)** Supervised individual study directed by a member of the Folk Studies faculty (course pass required)

**FLK 480. WOMEN'S FOLKLIFE. (3)** The various images and roles of women in the U.S. and selected world cultures as reflected in folklife materials such as narratives, beliefs, ballads, rhymes, games, customs, and folk arts.

**FLK 489. INTERNSHIP IN FOLK STUDIES. (3)** Practical out-of-classroom experience in a supervised work situation with a cooperating business, industry, social or governmental agency emphasizing application of advanced knowledge and skills in folk studies (course pass required)

#### FREN / FRN – FRENCH

#### DEPARTMENT OF MODERN LANGUAGES (FREN)

#### DEPARTMENT OF LIBERAL ARTS AND SCIENCES (FRN)

**FREN 100. FRENCH LANGUAGE AND CULTURE ON-SITE. (1-3)** *Prerequisite:* *Permission of instructor.* An introduction to French and French-speaking culture in conjunction with study abroad for students with little or no previous language study. Does not fulfill the general education foreign language requirement. May be repeated for a total of 3 credits.

**FREN 101 / FRN 101C. ELEMENTARY FRENCH I. (3)** A beginning course designed to teach the four basic skills of understanding, speaking, reading and writing with emphasis on speaking and understanding as well as on cultural aspects of France and other French-speaking nations. (course fee) [GEN ED A-II]

**FREN 102 / FRN 102C. ELEMENTARY FRENCH II. (3)** *Prerequisite:* FREN 101. Continuation of the development of the four basic skills and cultural insights. (course fee) [GEN ED A-II]

**FREN 105. INTRODUCTION TO FRENCH CULTURE. (3)** Survey of contemporary culture of France, with emphasis on values, behavioral characteristics, social and political structures, and achievements of the French-speaking people. Taught in English; only taught abroad.

**FREN 201. INTERMEDIATE FRENCH I. (3)** *Prerequisite:* FREN 102. Expansion of grammatical knowledge and practice in oral and written expression. (course fee) [GEN ED A-II]

**FREN 202. INTERMEDIATE FRENCH II. (3)** *Prerequisite:* FREN 201. Continuation of oral and written practice, vocabulary building and introduction to the reading of literary or cultural texts. (course fee) [GEN ED A-II]

**FREN 210. INTERMEDIATE FRENCH CONVERSATION ABROAD. (1-3)** *Prerequisite:* FREN 102 or equivalent. Course designed to develop the vocabulary and communication skills of a student with one year of college French or equivalent, with emphasis on contact with French native speakers. FREN 210 may not substitute for FREN 201 or 202, but may count as an elective for the major or minor. Taught in French. May be repeated for a total of three credits.

**FREN 211. FRENCH CULTURE ABROAD. (1-3)** *Prerequisite:* FREN 102 or equivalent. Course designed to develop an appreciation for different aspects of France and its people and culture, for a student with one year of college French or equivalent. FREN 211 may not substitute for FREN 201 or 202, but may count as an elective for the major or minor. Taught in French. May be repeated for a total of three credits.

**FREN 306. EXPERIENCING FRENCH ABROAD. (1-6)** *Prerequisites:* FREN 202 or equivalent and permission of instructor. *Corequisite:* Enrollment in supervised language study while abroad. Supervised language and cultural studies accomplished during a study abroad program. Students who receive transferable credit for language study done during the study abroad program will receive credit only for cultural study. May be repeated once for a maximum of six hours of credit.

**FREN 314. INTRODUCTION TO FRENCH LITERATURE. (3)** *Prerequisite:* FREN 202. This course is intended to develop adequate reading skills to enable the student to succeed in literature courses. Texts from the theatre, poetry, short stories and selections from novels will be read. [GEN ED B-I]

**FREN 320. FRENCH GRAMMAR AND COMPOSITION. (3)** *Prerequisite:* FREN 202. A comprehensive study of French grammar based on classroom explanation and drill and written translation of texts especially prepared to illustrate grammar under discussion. (course fee)

**FREN 321. FRENCH CONVERSATION. (3)** *Prerequisite:* FREN 202. Exercises in pronunciation, comprehension and composition. Thorough review of language usage. Ample opportunity for conversation. Entirely in French. (course fee)

**FREN 322. TRANSLATION. (3)** *Prerequisite:* FREN 202. A concentrated study of the intricacies and processes of translation work (both French to English and English to French) for literary and non-literary materials. (course fee)

**FREN 323. FRENCH CIVILIZATION AND CULTURE. (3)** *Prerequisite:* FREN 202. Readings, discussion, lectures, films, oral and written reports on different aspects of France and its people and culture. (course fee) [GEN ED B-II]

**FREN 325. SURVEY OF FRENCH LITERATURE I. (3)** *Prerequisite:* FREN 314 or equivalent. Reading of French literary texts representing the masterpieces of this important branch of French civilization; lectures on literary history and criticism. The period covered is from 842 AD to the end of the 18th century.

**FREN 326. SURVEY OF FRENCH LITERATURE II. (3)** *Prerequisite:* FREN 314 or equivalent. See French 325 for description. The period covered is the 19th and 20th centuries.

## Course Descriptions

**FREN 328. FRENCH DICTION AND PRONUNCIATION. (3)** *Prerequisite:* FREN 202 or equivalent. Mastery of fluent French diction and pronunciation through intensive practice with sounds, stress, rhythm, linking, phrasing, and intonation. (course fee)

**FREN 331. BUSINESS FRENCH. (3)** *Prerequisite:* FREN 202 or equivalent. Introduction to business communication in the French speaking countries. Linguistic structures and vocabulary, forms of business communication, reading and discussion of business texts, social customs. (course fee)

**FREN 389. INTERNSHIP IN FRENCH. (1-3)** *Prerequisites:* One 300-level French course or the equivalent, and permission of instructor. Supervised work using French in a professional setting. Open only to French majors or minors. May be repeated once for elective credit in the major or minor for a maximum of six hours.

**FREN 420. ADVANCED FRENCH COMPOSITION AND STYLISTICS. (3)** *Prerequisite:* FREN 202. Creative self-expression in written French, refinement of grammatical understanding, introduction to the art of translation and an examination of selected texts to study stylistic devices. (course fee)

**FREN 421. ADVANCED FRENCH CONVERSATION. (3)** *Prerequisite:* FREN 202. Free classroom discussion on assigned topics and reports on newspaper and magazine articles of current interest. Special attention will be paid to idiomatic expressions. (course fee)

**FREN 426. FRENCH LITERATURE OF THE TWENTIETH CENTURY. (3)** *Prerequisite:* One 300-level French literature course. A study of the works of major French writers of the 20th century.

**FREN 427. FRANCOPHONE CULTURE. (3)** *Prerequisite:* FREN 323. Course will cover all francophone countries (including France) and deal with various aspects of their culture: oral literature.

**FREN 445. FRENCH CANADIAN LITERATURE. (3)** *Prerequisites:* FREN 314, 321, 325 or 326, or instructor's permission. A survey of the Québécois novel, theatre and poetry through a selection of 19th and 20th century writers.

**FREN 450. TOPICS IN FRANCOPHONE CINEMA. (3)** *Prerequisites:* FREN 320 and 321 or permission of instructor. Course examines the way Francophone film directors and social scientists look at various aspects of the most recent cinema: narrative structure, recurring patterns, relation of form to content and ideology. Taught in French. May be repeated once for credit.

**FREN 499. ADVANCED STUDIES IN FRENCH. (1-4)** *Prerequisites:* Junior or senior standing and permission of instructor. For guided independent study in culture, language, or literature. May be used with consent of full-time program faculty members for work accomplished during study abroad. Number of credit hours will be determined in consultation with instructor. May be repeated for a maximum of six hours of credit.

**GEOG / GEO- GEOGRAPHY**  
**DEPARTMENT OF GEOGRAPHY AND GEOLOGY (GEOG)**  
**DEPARTMENT OF LIBERAL ARTS AND SCIENCES (GEO)**

**PHYSICAL GEOGRAPHY**

**GEOG 100 / GEO 100C. INTRODUCTION TO THE PHYSICAL ENVIRONMENT. (3)** This course introduces the student to the major aspects of the physical environment. [GEN ED D-I]

**GEOG 196. PHYSICAL GEOGRAPHY RECITATION LABORATORY. (1)** *Corequisite:* Must be concurrently enrolled in GEOG 100 section designated as a recitation lab course. The physical geography recitation lab is designed to support and enhance the lecture material through practical exercises and problem solving. Map analysis is stressed, as well as critical thinking related to current issues and events. No category D Lab credit.

**GEOG 121. METEOROLOGY. (3)** An introduction to the elements of the atmosphere, severe storms, atmospheric environmental issues, the interdependence between human life and the atmosphere, and rudimentary forecasting of basic weather systems. A self-paced laboratory is required. (2 hour lecture; (1) lab) (course fee) [GEN ED D-I (DL)]

**GEOG 175. UNIVERSITY EXPERIENCE-GEOGRAPHY. (2)** *Prerequisite:* For beginning college freshmen or transfer students with fewer than 24 semester hours of credit. Transition to university experience. Topics include study skills, critical thinking skills, library education, exploration of majors and careers, degree programs, campus resources and personal development. Special attention is given to educational requirements, careers and resources in the geosciences.

**GEOG 204. VOLCANOES AND EARTHQUAKES. (1)** An analysis of the causes and effects of volcanic eruptions and earthquakes. Students who complete GEOG 204 may not enroll in GEOL 204.

**GEOG 205. TORNADOES. (1)** An analysis of the causes and effects of tornadoes.

**GEOG 207. HURRICANES. (1)** An analysis of the causes and effects of hurricanes.

**GEOG 208. FLOODS AND DROUGHTS. (1)** An analysis of the causes and effects of floods and droughts.

**GEOG 209 / GEO 209C. NATURAL DISASTERS. (1)** An analysis of the causes and effects of natural disasters and their human-environment implications.

**GEOG 280. INTRODUCTION TO ENVIRONMENTAL SCIENCE. (3)** An introductory course devoted to the study of environmental issues. A general understanding of application of science to solution of contemporary environmental problems. Equivalent to BIOL 280, CHEM 280, ENV 280, and PH 280. [GEN ED D-I]

**GEOG 310. GLOBAL HYDROLOGY. (3)** *Prerequisite:* GEOG 100, or GEOL 102, or GEOL 111. Emphasis is given to descriptive and quantitative hydrology. The hydrologic cycle, precipitation, evaporation, and transpiration will be covered under descriptive hydrology. Hydrographs, runoff relations, ground water, and storage routing will be covered under quantitative hydrology. Consideration will be given to use and management of water as a resource. Equivalent to GEOL 310.

**GEOG 322. GLOBAL CLIMATE SYSTEMS. (4)** *Prerequisite:* GEOG 121. Analyzes the elements of climate and their world distribution with emphasis on the climatic controls and processes; surveys the influences of climates on environment; introduces climatic classification systems and climatological regions of the world.

**GEOG 328. ELEMENTS OF BIOGEOGRAPHY. (3)** *Prerequisites:* GEOG 100, 280, or instructor's permission. An examination of interrelationships between climatic factors, vegetational biomes, and soil-forming processes, as well as human alteration of the biogeographical environment.

**GEOG 420. GEOMORPHOLOGY. (4)** *Prerequisite:* GEOG 100 or GEOL 102 or 111. The study of the origin, history, and characteristics of landforms produced by fluvial, glacial, wind, and wave erosion and mass-wasting and ground water or by a combination of these, acting upon the major types of earth materials and structures. Laboratory work includes the interpretation of topographic and geologic maps, air photos, and stereopairs. A field trip may be required. Equivalent to GEOL 420.

**GEOG 421. ADVANCED GEOMORPHOLOGY. (3)** *Prerequisite:* GEOG 420. Course emphasis is on landform development under processes associated with running water. Principal topics are climate and geomorphic processes, weathering, the drainage basin as a geomorphic unit, water and sediment in channels, channel form, hillslope characteristics, drainage pattern evolution, channel changes with time, and evolution of hillslopes. A field trip is required.

**GEOG 422. PHYSICAL CLIMATOLOGY. (4)** *Prerequisites:* GEOG 424 and MATH 237 and PHYS 265, or permission of instructor. Addresses the complexity of climatic processes at various spatial and temporal scales. Budgets of energy, water, and momentum, and soil-plant-atmosphere interactions at the earth's surface are explored from both a theoretical and practical point of view.

**GEOG 424. WEATHER ANALYSIS AND FORECASTING. (3)** *Prerequisite:* GEOG 121 or permission of instructor. Analysis of the atmosphere using satellite and radar imagery. Weather forecasting techniques using surface and upper air data are also examined.

**GEOG 426. APPLIED METEOROLOGY/CLIMATOLOGY. (3)** *Prerequisite:* GEOG 121 or permission of instructor. This course offers a practical insight into the influence of meteorology and climatology on everyday life. Environmental problems caused by changes in the atmosphere are also examined.

**GEOG 427. WATER RESOURCES. (3)** *Prerequisite:* GEOL/GEOG 310. Opportunities and constraints of natural hydrologic processes in maintaining or reclaiming environmental quality. Storm water runoff, floods, droughts and water resources planning, development and management.

**GEOG 428. APPLIED GROUNDWATER HYDROLOGY. (4)** *Prerequisites:* GEOG/GEOL 310 and GEOL 440. Groundwater contamination and procedures used in groundwater investigations. Regulations, monitoring wells, groundwater flow, tracer studies, aquifer pumping tests, contaminant plumes, groundwater modeling, remediation and cleanup.

**GEOG 431. DYNAMIC METEOROLOGY I. (3)** *Prerequisites:* GEOG 424 and MATH 237 and PHYS 265 or permission of instructor. Introduction to large-scale dynamics of the Earth's troposphere focusing on fundamental topics, the basic governing equations of motion in the atmosphere, and dry thermodynamics.

**GEOG 432. SYNOPTIC METEOROLOGY. (3)** *Prerequisites:* GEOG 424, and MATH 237, and PHYS 265 or permission of instructor. Addresses the analysis and prediction of large-scale weather systems, such as extra-tropical cyclones, fronts and jet streams through the application of fundamental dynamical concepts of meteorology. (course fee)

**GEOG 433. DYNAMIC METEOROLOGY II.** (3) *Prerequisite:* GEOG 431. Analysis of phenomena related to large scale dynamics of the Earth's troposphere including thermodynamics, elementary applications of the basic equations, and circulation and vorticity.

**GEOG 437. MESOSCALE METEOROLOGY.** (3) *Prerequisites:* GEOG 424 and MATH 237, and PHYS 265, or permission of instructor. Addresses the analysis and prediction of convective and Mesoscale phenomena, such as Mesoscale convective systems, severe thunderstorms, tornadoes and hurricanes. (course fee)

**GEOG 438. PHYSICAL METEOROLOGY.** (3) *Prerequisites:* GEOG 424, and MATH 237, and PHYS 265 or permission of instructor. Addresses the microscopic processes related to cloud formation, radiative transfer, precipitation processes, and dry and moist thermodynamics.

**GEOG 444. ENVIRONMENTAL ETHICS IN GEOGRAPHY.** (3) *Prerequisite:* GEOG 280. Examination of ethical and environmental theory, environmental policy evaluations, philosophy of technology and relevance of environmental ethics in geographic analysis and everyday life.

**GEOG 455. GLOBAL ENVIRONMENTAL CHANGE.** (3) *Prerequisite:* GEOG 280 or instructor's permission. Examines key themes in environmental change at the global scale, environmental policy formation and relevance of environmental change for policy implementation and assessment.

**GEOG 459. PHYSICAL HYDROLOGY.** (3) *Prerequisites:* MATH 136 with a grade of C or better, and GEOG 310 or GEOL 420. A geologically-based and calculus-based introduction to the Earth's hydrologic cycle, using principles of fluid dynamics, that addresses components of atmospheric, surface, and ground waters. Field trips and field-based exercises are required.

**GEOG 461. KARST ENVIRONMENTS.** (3) *Prerequisites:* GEOG 310 or 459, GEOG 420, or permission of instructor. Provides a fundamental understanding of karst, focusing on the processes, landforms, and evolution of karst landscapes over time, with an emphasis on the characterization, distribution, and function of various karst environments. Field trips and field-based exercises are required.

**GEOG 489. ALTERNATIVES IN SUSTAINABILITY.** (3) *Prerequisite:* GEOG 280. This capstone course for the minor in sustainability addresses all aspects of sustainability theory and practice, including problem-solving and decision making techniques and critical analyses of prominent sustainability plans.

#### **HUMAN GEOGRAPHY**

**GEOG 197. HUMAN GEOGRAPHY RECITATION LABORATORY.** (1) The human geography recitation lab is designed to support the lecture material through practical exercises and problem solving. Map analysis is stressed, as well as critical thinking related to current issues and events.

**GEOG 209. NATURAL DISASTERS.** (1) An analysis of the causes and effects of natural disasters and their human-environment implications. Students who complete GEOG 209 may not enroll in GEOL 209.

**GEOG 210. HUMAN ECOLOGY.** (3) A course designed to examine the human elements as a functional variable within an ecosystem through the study of culture groups and their mutual interrelationships with their immediate natural and social environment.

**GEOG 330. INTRODUCTION TO CULTURAL GEOGRAPHY.** (3) *Prerequisite:* GEOG 110. An overview of core concepts in cultural geography based on five major themes: region, mobility, globalization, nature-culture, and cultural landscape. Field trips required.

**GEOG 350. ECONOMIC GEOGRAPHY.** (3) This course examines the functional interrelationships among economic activities and areas in the consumption, production, and exchange of goods and services. [GEN ED C]

**GEOG 378. FOOD, CULTURE, AND ENVIRONMENT.** (3) *Prerequisite:* GEOG 110. Exploration of geographical patterns of agricultural production and cuisine through the intersection of environment, technology, and culture. Field trips required. Students will share the cost of several meals.

**GEOG 380. GLOBAL SUSTAINABILITY.** (3) *Prerequisite:* GEOG 210 or GEOG 280. An introduction to the major themes and scientific principles of sustainability, with an emphasis on developing critical thinking skills.

**GEOG 423. TRANSPORTATION, LOCATION AND GIS.** (3) *Prerequisite:* GEOG 317 or permission of instructor. A critical examination of the problems of interaction, diffusion and information transfer as they appear in a spatial context. Current research and planning needs are analyzed.

**GEOG 425. POLITICAL GEOGRAPHY.** (3) *Prerequisite:* Permission of instructor. A study of the political system as a spatial phenomenon from pre-literate forms and socio-political integration to the nation-state and other modern forms of political unification. Examples from local, metropolitan-regional, national, and international levels.

**GEOG 430. TOPICS IN CULTURAL GEOGRAPHY.** (3) *Prerequisite:* GEOG 330. Examines the concept of culture as it relates to the geographic landscape. Topics include the built environment, symbolic landscapes, representation of place in film, literature, photography, music, subaltern geographies, landscapes, cultures of work and place-situated identity. Course provides an overview of research methods and advanced topics in cultural geography. Field trip and field research is required.

**GEOG 434. HISTORIC PRESERVATION PLANNING: PRINCIPLES AND PRACTICES.** (3) For course description, see City and Regional Planning section.

**GEOG 471. NATURAL RESOURCE MANAGEMENT.** (3) Natural resources of the United States are studied and recommendations for their more efficient utilization are presented. [GEN ED C]

**GEOG 473. INTERACTIONS IN THE CAVE AND KARST ENVIRONMENT.** (3) *Prerequisites:* BIOL 120/121 or equivalent. Discussion of biological diversity, groundwater and humanity's role in utilizing and conserving the unique features of karst areas and use of these areas in teaching. Not applicable to a major or minor in agriculture, biology or geography and geology. Equivalent to AGRI 473.

**GEOG 474. ENVIRONMENTAL PLANNING.** (3) *Prerequisite:* Geog 100, 280, or instructor's permission. An advanced integrative course in environmental science and planning dealing with urban and rural areas. Emphasis on ecological planning strategies for improving climatic conditions, conserving water, and optimizing vegetative and aquatic habitats, while allowing for sustainable economic development at reduced cost.

**GEOG 479. INDUSTRIAL AND COMMERCIAL GEOGRAPHY.** (3) *Prerequisite:* GEOG 350 or permission of instructor. Analysis of industrial and business location with an emphasis on theory and research techniques.

**GEOG 480. URBAN GEOGRAPHY.** (3) Geographic principles related to basic elements of distribution, structure, functional relationships, and regional setting of urban centers are discussed. [GEN ED C]

**GEOG 484. PLANNING: THEORY AND APPLICATION.** (3) *Prerequisite:* GEOG 240. For course description, see City and Regional Planning section.

**GEOG 485. POPULATION AND RESOURCES.** (3) *Prerequisite:* Permission of instructor. The distribution of population and population characteristics are viewed against the background of the resources and cultures of the world.

**GEOG 487. ENVIRONMENTAL LAW.** (3) *Prerequisite:* Senior-level standing. An introduction to major environmental legislation for air, water, toxic, and hazardous pollutants; and related legislative, administrative, and judicial developments.

**GEOG 497. SPATIAL DECISION SUPPORT SYSTEM.** (3) *Prerequisite:* GEOG 350. Theory of locational decision making. Application of locational models in an interactive computer-based environment.

#### **REGIONAL GEOGRAPHY**

**GEOG 110 / GEO 110C. WORLD REGIONAL GEOGRAPHY.** (3) A general survey of the political, social, and ecological systems of the world. The course is concerned with the complexity and diversity of world peoples and cultures. [GEN ED E]

**GEOG 198. WORLD REGIONAL GEOGRAPHY RECITATION LABORATORY.** (1) *Corequisite:* Must be concurrently enrolled in GEOG 110 section designated as a recitation course. The world regional geography recitation lab is designed to support the lecture material through practical exercises and problem solving. Map analysis is stressed, as well as critical thinking related to current issues and events.

**GEOG 200. INTRODUCTION TO LATIN AMERICA.** (3) This course is a broad, interdisciplinary introduction to the study of Latin America, emphasizing regions, peoples, and cultures. [GEN ED E]

**GEOG 360. GEOGRAPHY OF NORTH AMERICA.** (3) Analysis of selected problems related to natural conditions, land use, settlement patterns, and regional structure of the United States and Canada. [GEN ED C]

**GEOG 451. GEOGRAPHY OF KENTUCKY.** (3) A regional study assessing the natural and human resources of Kentucky with special attention to current ecological, social, and economic problems. A field experience is required.

**GEOG 454. GEOGRAPHY OF MIDDLE AMERICA.** (3) *Prerequisite:* Permission of instructor. Analysis of the physical and cultural bases of Mexico, Central America, and the West Indies with emphasis on problems of resource development.

## Course Descriptions

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**GEOG 462. GEOGRAPHY OF SOUTH AMERICA. (3)** *Prerequisite: Permission of instructor.* Analysis of the physical and cultural bases of South America's geographical patterns with an emphasis on problems of urban and regional development.

**GEOG 464. GEOGRAPHY OF EUROPE. (3)** *Prerequisite: Permission of instructor.* A geographic analysis of Europe. Aspects of regional integration, with a focus on the European Community, and problems of economic growth in disadvantaged regions.

**GEOG 465. GEOGRAPHY OF ASIA. (3)** *Prerequisite: Permission of instructor.* A study of regional differences, with particular attention to the distribution and activities of the peoples in relation to the natural and economic setting and to problems of development.

**GEOG 466. GEOGRAPHY OF AFRICA. (3)** *Prerequisite: Permission of instructor.* A geographic survey assessing the relationships of the physical and cultural patterns to actual and potential economic development.

**GEOG 467. GEOGRAPHY OF THE MIDDLE EAST. (3)** *Prerequisite: Permission of instructor.* This course deals with the various aspects of the sequent occupancy of southwestern Asia and surrounding regions. Emphasized are the physical setting, the historic religious geography of the region, and the contemporary scene.

### **GEOGRAPHIC TECHNIQUES**

**GEOG 203. CARTOGRAPHIC ORIENTEERING. (1)** Use of maps, G.I.S., G.P.S., globes, protractors, rulers, and compasses to perform physical and cultural orienteering with spatially distributed data. Students who complete GEOG 203 may not enroll in GEOL 203.

**GEOG 316. FUNDAMENTALS OF GEOGRAPHIC INFORMATION SYSTEMS. (4)** *Prerequisites: GEOG 100 or GEOL 111, and GEOG 110, or permission of the instructor.* Fundamentals of GIS data management and cartographic design. Topics include data organization, map projections, scale, and accuracy. Hands-on work in geospatial data acquisition, base map development, and map production. (course fee)

**GEOG 317. GEOGRAPHIC INFORMATION SYSTEMS. (4)** *Prerequisites: GEOG 316 with a grade of C or better, or permission of instructor.* Basic concepts of spatial science: introduction to data management, display, and analysis using geographic information systems. (course fee)

**GEOG 318. GEOGRAPHIC INFORMATION SYSTEMS FOR ENGINEERS. (3)** *Prerequisite: MATH 137, CE 160 and CE 161; or permissions of instructor.* Applications of fundamental methods of GIS, with a focus on surveying, water resources, traffic engineering, and construction. This course does not count towards the Certificate in GIS. (course fee)

**GEOG 325. METEOROLOGICAL INSTRUMENTATION AND MEASUREMENT. (3)** *Prerequisite: GEOG 121.* Introduces the purpose, operation, and application of meteorological instrumentation and the treatment of meteorological measurements.

**GEOG 391. DATA ANALYSIS AND INTERPRETATION. (3)** *Prerequisites: GEOG 100 or GEOG 102, GEOG 110, GEOG 316 and general education mathematics requirement or higher; or instructor's permission.* Basic concept of statistical models and use of samples: variation, statistical measures, distribution, tests of significance, analysis of variance and elementary experimental design, regression, correlation, and chi-square as related to interpretation and use of scientific data.

**GEOG 414. REMOTE SENSING FUNDAMENTALS. (4)** *Prerequisite: GEOG 317 or permission of instructor.* Fundamentals of remote sensing theory and application including the electromagnetic spectrum, history of remote sensing, sensing platforms system limitations and applications for vegetation studies, land-use change and environmental management. Course includes a lab component. (course fee)

**GEOG 416. REMOTE SENSING: PRINCIPLES AND APPLICATIONS TO ENVIRONMENT AND PLANNING. (3)** *Prerequisite: GEOG 317 or permission of instructor.* Remote-sensing techniques and their application in the study of the biophysical environment through use of satellite imagery, including visible, infrared and radar data.

**GEOG 417. GIS ANALYSIS AND MODELING. (3)** *Prerequisite: GEOG 317 with a grade of C or better or instructor's permission.* Develops expertise with a broad range of spatial analysis functions applied within a cartographic modeling framework. (course fee)

**GEOG 418. INTERNET GEOGRAPHIC INFORMATION SYSTEMS. (3)** *Prerequisites: CS 146 and GEOG 417; or permission of instructor.* Understanding and utilizing different techniques for creating, analyzing and disseminating GIS data and services via the internet. (course fee)

**GEOG 419. GIS PROGRAMMING. (3)** *Prerequisites: GEOG 317 and CS 170.* Planning and implementing GIS within an organization. Designing and developing GIS applications to support spatial decision making. (course fee)

**GEOG 443. GEOGRAPHIC INFORMATION SYSTEMS DATABASES. (3)** *Prerequisites: CS 146 and GEOG 417 or permission of instructor.* An introduction to the concepts and principles of GIS database planning, design, implementation, and administration. Focuses on state-of-the-art GIS database software and spatial database engine software used in conjunction with relational database management systems. (course fee)

**GEOG 452. FIELD STUDIES IN GEOGRAPHY. (3)** *Prerequisite: Permission of instructor.* Field methods are emphasized in problems, which are assigned. Field work is required.

**GEOG 477. SPECIAL TOPICS IN GEOGRAPHIC INFORMATION SYSTEMS. (3)** *Prerequisites: GEOG 417 and GEOG 419.* Applications of Geographic Information Systems (GIS) technologies in selected fields, including urban & regional planning, environmental modeling, geology, transportation, locational analysis, criminology, public health, and internet GIS. Repeatable once for credit. (course fee)

**GEOG 492. ADVANCED SPATIAL ANALYSIS. (3)** *Prerequisites: GEOG 300, GEOG 391, and GEOG 417.* History and philosophy of spatial analysis. Applications of advanced spatial analytical techniques in an interactive GIS-based environment. Equivalent to GEOL 492.

**GEOG 497. SPATIAL DECISION SUPPORT SYSTEM. (3)** *Prerequisite: GEOG 350.* Theory of locational decision making. Application of locational models in an interactive computer-based environment.

### **CITY AND REGIONAL PLANNING**

**GEOG 240. INTRODUCTION TO PLANNING. (3)** *Prerequisite: Three hours of social science credit.* An overview of planning theory, practice, and organizations structure. History of planning and planning thought. The comprehensive plan, zoning, and current legislation.

**GEOG 423. TRANSPORT, LOCATION, AND GIS. (3)** *Prerequisite: GEOG 350 or permission of instructor.* A critical examination of the problems of interaction, diffusion, and information transfer as they appear in a spatial context. Current research and planning needs are analyzed.

**GEOG 434. HISTORIC PRESERVATION PLANNING. (3)** An overview of historic preservation methods and practice. The course will include an overview of the historic preservation movement in the United States and an examination of preservation law and methodology. A field project is required.

**GEOG 474. ENVIRONMENTAL PLANNING. (3)** *Prerequisite: GEOG 100, 280, or instructor's permission.* An advanced integrative course in environmental science and planning dealing with urban and rural areas. Emphasis on ecological planning strategies for improving climatic conditions, conserving water, and optimizing vegetative and aquatic habitats, while allowing for sustainable economic development at reduced cost.

**GEOG 481. TOURISM GEOGRAPHY (3)** *Prerequisite: GEOG 110.* Examination of concepts, models, and theories in the geography of tourism. Topics include the evolution of patterns of tourism, economic, environmental, and socio-cultural impacts of tourism, sustainable tourism, environmental tourism, ethical tourism, the politics of tourism, and critical analysis of alternative meanings of tourism sites. Local, national, and international examples in both developed and developing countries are discussed.

**GEOG 484. PLANNING: THEORY AND APPLICATION. (3)** *Prerequisite: GEOG 240 and GEOG 317, or permission of instructor.* An analysis of advanced topics and results of recent research in city and regional planning.

**GEOG 488. RURAL PLANNING. (3)** *Prerequisites: GEOG 240 and GEOG 317; or permission of instructor.* An examination of the principles and practices of rural planning with an emphasis on the relationships between planning and economic, social, and ecologic problems in the rural setting.

**GEOG 495. SUPERVISED PRACTICUM. (1-9)** *Prerequisite: Permission of instructor.* Supervised experience in a cooperating government, community, or private concern. May be repeated for a maximum of 12 credit hours. A maximum of 9 credit hours of practicum can be earned in minor programs.

### **OTHER COURSES**

**GEOG 275. SUPERVISED INDEPENDENT RESEARCH IN GEOGRAPHY. (3)** *Prerequisites: GEOG 121 or appropriate preparation course, and permission of instructor. Restricted to freshmen, sophomores, and Galtton Academy students.* A study of a selected problem under the supervision of a faculty member.

**GEOG 295. INTRODUCTION TO RESEARCH METHODOLOGY. (1)** To familiarize Ogden Research Scholars and other research oriented students with the fundamentals of choosing a research topic, performing a bibliographical search on a subject, classification of instruments, data taking, data reduction, professional ethics and other research oriented topics. The common points of research methodology in the different scientific areas will be accentuated. Examples will be drawn from the various disciplines. Use of computers will be emphasized. (Course does not count towards any major or minor.)

**GEOG 300. GEOGRAPHIC RESEARCH AND ANALYSIS. (3)** *Prerequisites:* GEOG 100 or GEOL 102 or GEOL 111; GEOG 110; or instructor's permission. An examination of the field of geography as an academic discipline. The course content will include a review of various philosophies of the field as well as geographic research, analysis, and writing application.

**GEOG 475. SELECTED TOPICS IN GEOGRAPHY. (1-3)** *Prerequisite:* Senior standing or permission of instructor. A study of a selected problem under the supervision of a faculty member.

**GEOG 486. SENIOR ENVIRONMENTAL SEMINAR. (1)** *Prerequisite:* Senior standing. Current environmental issues discussed by invited lecturers, including identification of possible careers in environmental fields.

**GEOG 499. PROFESSIONAL PREPARATION. (1)** *Prerequisite:* Senior standing. Professional career or graduate school preparation, resume writing, college-to-career transition, professional ethics, graduate school application and requirements, written senior assessment and selected seminar topics. Outside speakers from industry and academia will be included. (Grading: Pass/Fail)

#### **GIS AND CARTOGRAPHIC TECHNIQUES**

**GEOG 203. CARTOGRAPHIC ORIENTEERING. (1)** For course description, see Geographic Techniques section.

**GEOG 216. GEOGRAPHIC INFORMATION SCIENCE AND SOCIETY. (3)** Introduces the purpose, operation, and application of the Geographic Information Science technologies in contemporary society. This course cannot be substituted for any other GIS course. (Course fee required.) [GEN ED C]

**GEOG 316. FUNDAMENTALS OF GEOGRAPHIC INFORMATION SYSTEMS. (4)** For course description, see Geographic Techniques section.

**GEOG 317. GEOGRAPHIC INFORMATION SYSTEMS. (3)** For course description, see Geographic Techniques section.

**GEOG 318. GIS FOR ENGINEERS. (3)** For course description, see Geographic Techniques section.

**GEOG 414. REMOTE SENSING FUNDAMENTALS. (4)** For course description, see Geographic Techniques section.

**GEOG 417. GIS ANALYSIS AND MODELING. (3)** For course description, see Geographic Techniques section.

**GEOG 418. INTERNET GIS. (3)** For course description see Geographic Techniques section.

**GEOG 419. GIS PROGRAMMING. (3)** For course description, see Geographic Techniques section.

**GEOG 443. GIS DATABASES. (3)** For course description see Geographic Techniques section.

**GEOG 477. SPECIAL TOPICS IN GEOGRAPHIC INFORMATION SYSTEMS. (3)** For course description, see Geographic Techniques section.

**GEOG 497. SPATIAL DECISION SUPPORT SYSTEM. (3)** For course description, see Geographic Techniques section.

#### **METEOROLOGY AND CLIMATOLOGY**

**GEOG 121. METEOROLOGY. (3)** For course description, see Physical Geography section. [GEN ED D-1(DL)]

**GEOG 122. AVIATION METEOROLOGY. (3)** The emphasis of the course will be on weather elements and their measurements, weather instruments, weather codes needed by aviators, weather effects upon flying, and weather hazards of aviation.

**GEOG 222. OBSERVATIONAL AND ANALYTICAL METEOROLOGY. (3)** *Prerequisite:* GEOG 121 or permission of instructor. An intensive course in weather instrument reading, synoptic weather observations, and analysis of weather maps and charts.

**GEOG 422. PHYSICAL CLIMATOLOGY. (4)** For course description, see Physical Geography section.

**GEOG 424. WEATHER ANALYSIS AND FORECASTING. (3)** For course description, see Physical Geography section.

**GEOG 426. APPLIED METEOROLOGY/CLIMATOLOGY. (3)** For course description, see Physical Geography section.

**GEOG 429. BROADCAST METEOROLOGY. (3)** For course description, see Physical Geography section.

**GEOG 431. DYNAMIC METEOROLOGY. (3)** For course description, see Physical Geography section.

**GEOG 432. SYNOPTIC METEOROLOGY. (3)** For course description, see Physical Geography section.

**GEOG 433. DYNAMIC METEOROLOGY II. (3)** For course description, see Physical Geography section.

**GEOG 437. MESOSCALE METEOROLOGY. (3)** For course description, see Physical Geography section.

**GEOG 438. PHYSICAL METEOROLOGY. (3)** For course description see Physical Geography section.

#### **GEOLOGY**

##### **DEPARTMENT OF GEOGRAPHY AND GEOLOGY (GEOL)**

##### **DEPARTMENT OF LIBERAL ARTS AND SCIENCES (GE)**

**GEOL 102 / GE 102C. INTRODUCTION TO GEOLOGY. (3)** A general overview for non-science majors combining the physical and historical aspects of geology. There is no laboratory credit associated with this course. Topics discussed include rocks and minerals, natural resources, landforms and surface processes, oceans, internal Earth processes, plate tectonics, environmental geology, geologic time, and an introduction to earth's history. Students seeking a laboratory experience in geology must enroll in Geology 111 and Geology 113 instead. [GEN ED D-I]

**GEOL 106. GEOLOGY AND CINEMA. (1.5)** Examines how Hollywood depicts geology and geologists in movies. Addresses facts and fallacies in selected movies and in so doing explores basic geological processes and Earth materials. No credit for the Geology major or minor.

**GEOL 107. BACKYARD GEOLOGY. (1.5)** Applies basic geologic principles to local surroundings. Explains how geologic processes create local rock forms and structures. Field trips required. No credit for the Geology major or minor.

**GEOL 111. THE EARTH. (3)** [GEN ED D-I] The study of Earth including rocks, mineral resources, energy, soils, surface geologic processes, earthquakes and Earth's interior, global tectonics, hydrology and environmental geology. Students electing to meet their general education laboratory requirement through GEOL 113 must simultaneously enroll in the GEOL 111 lecture course. Laboratory is required for Geology majors, minors and some prospective science teachers but is optional for most others.

**GEOL 112. EARTH HISTORY. (3)** Geologic study of the Earth's history: major land, sea, and life patterns throughout geologic time. Topics include the development of geology as a science, nature and significance of the fossil record, basic stratigraphic relations, theories concerning the origin of Earth and the solar system, prehistoric life, paleogeography, and global tectonics. Students electing to meet their general education laboratory requirement through GEOL 114 must simultaneously enroll in the GEOL 112 lecture course. The associated laboratory is required for Geology majors, minors and some prospective science teachers, but is optional for most others. [GEN ED D-I]

**GEOL 113. THE EARTH LABORATORY. (1)** *Corequisite:* GEOL 111. Laboratory work designed to accompany GEOL 111. Minerals, rocks, topographic maps, geologic maps, and aerial photographs are studied. This laboratory is required for Geology majors, minors and some prospective science teachers, but is optional for most others. (course fee) [GEN ED D-I(DL)]

**GEOL 114. EARTH HISTORY LAB. (1)** *Prerequisite or Corequisite:* GEOL 112. Laboratory work designed to accompany GEOL 112. Sedimentary rocks, fossil specimens, stratigraphic concepts and geologic maps are studied. This laboratory is required for Geology majors and minors and some prospective science teachers, but is optional for most other students. (course fee) [GEN ED D-I(DL)]

**GEOL 203. CARTOGRAPHIC ORIENTEERING. (1)** Use of maps, G.I.S., G.P.S., globes, protractors, rulers, and compasses to perform physical and cultural orienteering with spatially distributed data. Students who complete GEOL 203 may not enroll in GEOG 203. No credit for the major or minor.

**GEOL 204. VOLCANOES AND EARTHQUAKES. (1)** An analysis of the causes and effects of volcanic eruptions and earthquakes. Students who complete GEOL 204 may not enroll in GEOG 204. No credit for the major or minor.

**GEOL 209. NATURAL DISASTERS. (1)** An analysis of the causes and effects of natural disasters and their human-environment implications. No credit for the major or minor. Students who complete GEOL 209 may not enroll in GEOG 209. No credit for the major or minor.



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**GEOL 270. ANALYTICAL TECHNIQUES IN GEOLOGY. (3)** *Prerequisites:* GEOL 111 and 112 or permission of instructor. Basic analytical techniques used to examine and analyze Earth materials. Topics include precision and accuracy, sample preparation, contamination, calibration techniques, analysis of data sets. (course fee)

**GEOL 295. INTRODUCTION TO RESEARCH METHODOLOGY. (1)** To familiarize Ogden Research Scholars and other research oriented students with the fundamentals of choosing a research topic, performing a bibliographical search on a subject, classification of instruments, data taking, data reduction, professional ethics and other research oriented topics. The common points of research methodology in the different scientific areas will be accentuated. Examples will be drawn from the various disciplines. Use of computers will be emphasized. (Course does not count towards any major or minor.) Equivalent to BIOL 295, CHEM 295, CS 295, GEOL 295, MATH 295, and PHYS 295.

**GEOL 308. STRUCTURAL GEOLOGY. (4)** *Prerequisites:* GEOL 111 and 113, and MATH 116 or higher. This course introduces the mechanics, characteristics, occurrences, and resultant structures associated with the major processes of deformation of the earth's crust. Major structural regions of North America are discussed. The laboratory emphasizes graphical and mathematical solutions of structural problems. Field trip required.

**GEOL 310. GLOBAL HYDROLOGY. (3)** *Prerequisite:* GEOG 100, or GEOL 102, or GEOL 111. Emphasis is given to descriptive and quantitative hydrology. The hydrologic cycle, precipitation, evaporation, and transpiration will be covered under descriptive hydrology. Hydrographs, runoff relations, ground water, and storage routing will be covered under quantitative hydrology. Consideration is given to use and management of water as a resource. Equivalent to GEOG 310.

**GEOL 311. GENERAL OCEANOGRAPHY. (3)** *Prerequisite:* GEOL 102 or 111 or permission of the instructor. A course in basic fundamentals pertaining to the geological, chemical, physical and biological aspects of the marine environment. Topics for discussion include the topography, structure and history of the ocean basins and their margins, ocean waters and oceanic circulation, tides and waves, marine geochemistry, ocean sediments and sedimentation, near-shore geologic processes and the ocean as a biogeochemical system. The resources of the ocean and the influence of humans are also considered.

**GEOL 325. INTRODUCTION TO MINERALS AND ROCKS. (3)** *Prerequisite:* GEOL 102 or GEOL 111. The sight identification of minerals and rocks is stressed. The description, origin and classification, economic uses, and occurrences of the major mineral and rock groups are discussed. Appropriate rock and minerals specimens are examined in the laboratory.

**GEOL 330. MINERALOGY. (4)** *Prerequisites:* GEOL 111 and 113 and one semester of college chemistry or permission of the instructor. The systematic study of minerals. Includes crystallography, crystal chemistry, mineral stability, the classification of minerals, and the origin, characteristics and occurrences of the major mineral groups. Laboratory work includes crystal symmetry, mineral identification, and an introduction to the optical microscope. A field trip may be required.

**GEOL 350. PETROLOGY. (4)** *Prerequisite:* GEOL 330. The study of the origin, characteristics, occurrence, and classification of igneous and metamorphic rocks, and of the processes that lead to their formation. Their occurrence in relation to plate tectonics is stressed. Laboratory work includes petrographic study of igneous and metamorphic rocks in hand specimen and in thin section. A field trip is required.

**GEOL 370. PRINCIPLES OF STRATIGRAPHY. (4)** *Prerequisites:* GEOL 111, 112, 113 and 114. Description, classification, and correlation of sedimentary rocks. Topics include hand-sample petrography, surface and subsurface analysis techniques, spatial and temporal relations of rock units, biostratigraphy, chronostratigraphy, and cycles and sequences in the stratigraphic record. Associated laboratory work includes field trips.

**GEOL 380. INTRODUCTORY FIELD TECHNIQUES. (3)** *Prerequisites:* GEOL 111 and 113; *prerequisite or corequisite* GEOL 112 and 114. Techniques of geological field work. Topics include sampling, rock identification and description, field notes and the transition from field to laboratory analysis. Field work is required. (course fee)

**GEOL 399. RESEARCH PROBLEMS IN GEOLOGY. (1-3)** *Prerequisites:* GEOL 370 and permission of research project director. Individual research projects are conducted under faculty supervision. May be repeated with a change of content, but only (3) will be counted toward the major. A written report is required.

**GEOL 405. PALEONTOLOGY. (4)** *Prerequisites:* GEOL 112 and 114 and BIOL 120-121 or permission of instructor. A basic course in paleobiology including the nature of the fossil record, preservation, basic factors and theories relating to the origin and development of living systems and the process of evolution, the species concept, systematics, and paleoecology. Major invertebrate taxa with a significant fossil record are also studied. Laboratory work includes the examination, description, and classification of fossil specimens.

**GEOL 415. ENVIRONMENTAL GEOLOGY. (3)** *Prerequisite:* GEOL 111-113 or 102 or GEOG 100 or permission of instructor. The interrelationships of geologic processes, earth materials, and human activities. Assessment of geologic factors with respect to site selection, energy production, land use, waste disposal, planning, water resources, engineering practices, and the recognition and control of geologic hazards. Class exercises stress the application of geologic knowledge to specific environmental situations.

**GEOL 420. GEOMORPHOLOGY. (4)** *Prerequisite:* GEOG 100 or GEOL 111. The study of the origin, history, and characteristics of landforms produced by fluvial, glacial, wind, and wave erosion and mass-wasting and ground water or by combination of these, acting upon the major types of earth materials and structures. Laboratory work includes the interpretation of topographic and geologic maps, air photos, and stereopairs. A field trip may be required. Equivalent to GEOG 420.

**GEOL 430. OPTICAL MINERALOGY. (3)** *Prerequisite:* GEOL 330. A study of the optical constants and phenomena exhibited by and characteristic of crystalline mineral materials. Topics covered include the behavior of light in crystalline solids, the origin and nature of interference colors, refractive index, birefringence, optical character, and optical identification of minerals. Laboratory work concerns techniques employed with the petrographic microscope and the use of the microscope in mineral identification.

**GEOL 432. CRYSTALLOGRAPHY. (4)** *Prerequisite:* GEOL 330 or PHYS 266 or CHEM 222. An introduction to the theory and experimental practices of modern crystallography. Focuses on the study of symmetry and crystal structures and their physical and chemical properties in environmentally important Earth materials. Laboratory fee required.

**GEOL 440. HYDROGEOLOGY. (3)** *Prerequisite:* GEOG 310 or GEOL 310. *Prerequisite or corequisite:* MATH 136. Origin, occurrence, and movement of ground water; water wells and aquifer evaluations; exploratory investigations; quality of ground water supplies; legal aspects.

**GEOL 445. AQUEOUS GEOCHEMISTRY. (3)** *Prerequisites:* CHEM 120 and 121. An introduction to geochemical processes of surface and ground water including concentrations of ions and organic compounds, chemical equilibria, and analytical techniques. Carbonate and clay minerals will be studied in detail.

**GEOL 460. SEDIMENTOLOGY AND STRATIGRAPHY. (3)** *Prerequisite:* GEOL 380. Introduces sedimentary processes, including sediment origins, erosion, transportation, deposition and diagenesis. Sedimentation patterns and stratigraphic architecture are studied in the context of depositional and tectonic settings.

**GEOL 465. GEOPHYSICS. (3)** *Prerequisites:* GEOL 111 and one year of college physics or permission of instructor. The fundamentals of general and exploration geophysics. Topics include the origin of the earth and solar system, the earth's interior, geochronology, gravity and isostasy, seismology, the earth's heat, geomagnetism, upper atmosphere, continents and ocean basins, ridges and island arcs, and plate tectonics. The theory and applications of exploration geophysics are also covered, especially gravity, magnetic, and seismic methods.

**GEOL 475. SPECIAL TOPICS IN GEOLOGY. (1-3)** *Prerequisite:* Permission of instructor. A lecture-discussion course in which advanced or special topics in geology are considered in detail.

**GEOL 485. GEOLOGY OF FOSSIL FUELS. (3)** *Prerequisite:* GEOL 308 or permission of instructor. Formation of coal, petroleum and natural gas including depositional setting, source materials and processes of thermal maturation. Stratigraphic and structural relations, modes of occurrence, exploration techniques and resource evaluation are emphasized. Field trip required.

**GEOL 490. PETROLEUM GEOLOGY. (3)** *Prerequisite:* GEOL 370 or equivalent. Concepts of oil formation, source-rock evaluation, thermal maturation, and petroleum migration are reviewed. Emphasis is placed on characterization of petroleum reservoirs and traps and on the techniques employed by geologists in exploration for oil and gas accumulations. Field trip required.

**GEOL 492. ADVANCED SPATIAL ANALYSIS. (3)** *Prerequisites:* GEOG 300, GEOG 391, and GEOG 417. History and philosophy of spatial analysis. Applications of advanced spatial analytical techniques in an interactive GIS-based environment. Equivalent to GEOG 492.

**GEOL 499. PROFESSIONAL PREPARATION IN GEOLOGY. (2)** *Prerequisite:* Senior standing. Professional career preparation in geology including senior assessment, resume writing, college-to-career transition, professional ethics and selected seminar topics. Outside speakers from industry and academics will be included. (Grading: Pass/Fail)

**GERM / GRM – GERMAN**  
**DEPARTMENT OF MODERN LANGUAGES (GERM)**  
**DEPARTMENT OF LIBERAL ARTS AND SCIENCES (GRM)**

**GERM 100. GERMAN LANGUAGE AND CULTURE ON-SITE. (1-3)** *Prerequisite:* Permission of instructor. An introduction to German and German-speaking culture in conjunction with study abroad for students with little or no previous language study. Does not fulfill the general education foreign language requirement. May be repeated for a total of 3 credits.

**GERM 101 / GRM 101C. GERMAN I: FUNDAMENTAL COMMUNICATION. (3)** Introduction to German through exploration of the students' personal world. Students will learn to express preferences, abilities, needs, and obligations; ask for information; describe people, places, and things in their world; and report their typical activities. (course fee) [GEN ED A-II]

**GERM 102 . GERMAN II: SOCIAL COMMUNICATION. (3)** *Prerequisite:* GERM 101 or equivalent. Extension of German I that moves toward increased linguistic and social awareness of German-speaking cultures. Students will use the past tense, demonstrate basic understanding of aspects of the German-speaking world, and be able to give information on course topics. (course fee) [GEN ED A-II]

**GERM 105. INTRODUCTION TO GERMANIC CULTURE. (3)** Survey of the contemporary culture of Austria and Germany, with emphasis on values, behavioral characteristics, social and political structures, and achievements of German-speaking peoples. Taught in English; only taught abroad.

**GERM 201. GERMAN III: CULTURAL COMMUNICATION. (3)** *Prerequisite:* GERM 102 or equivalent. Helps students strengthen basic language skills while continuing to broaden cultural awareness of German-speaking societies. Students produce brief reports related to course topics and express opinions simply. Includes literature, film and fine arts. Taught in German. (course fee) [GEN ED A-II]

**GERM 202. THE GERMAN-SPEAKING LANDS. (3)** *Prerequisite:* GERM 201 or equivalent. Introduction to geography, social structures, and recent history. Material drawn from literature, popular culture, and the Internet. Students learn to read short texts and express opinions about them. Taught in German. (course fee) [GEN ED A-II]

**GERM 210. INTERMEDIATE GERMAN CONVERSATION ABROAD. (1-3)** *Prerequisite:* GERM 102 or equivalent. Course designed to develop the vocabulary and communication skills of a student with one year of college German or equivalent, with emphasis on contact with German native speakers. GERM 210 may not substitute for GERM 201 or 202, but may count as an elective for the major or minor. Taught in German. May be repeated for a total of three credits.

**GERM 211. INTERMEDIATE GERMAN CULTURE ABROAD. (1-3)** *Prerequisite:* GERM 102 or equivalent. Course designed to develop an appreciation for different aspects of German-speaking countries and their people and cultures, for a student with one year of college German or equivalent. GERM 211 may not substitute for GERM 201 or 202, but may count as an elective for the major or minor. Taught in German. May be repeated for a total of three credits.

**GERM 306. EXPERIENCING GERMAN ABROAD. (1-6)** *Prerequisites:* GERM 202 or equivalent and permission of instructor. *Corequisite:* Enrollment in supervised language study while abroad. Supervised language and cultural studies accomplished during a study abroad program. Students who receive transferable credit for language study done during the study abroad program will receive credit only for cultural study. May be repeated once for a maximum of six hours of credit.

**GERM 314. INTRODUCTION TO GERMAN LITERATURE. (3)** *Prerequisite:* GERM 202. Emphasis on major periods, literary types and critical approaches through the study of selected representative works and authors. [GEN ED B-I]

**GERM 330. GERMAN COMPOSITION AND CONVERSATION. (3)** *Prerequisite:* GERM 202. Develops skill in writing and speaking standard German. Stress is on vocabulary building, use of dictionary and control of sentence structures. Skill in spoken German is aimed at enabling the students to find their way around the environment and to function in a social situation. (course fee)

**GERM 331. BUSINESS GERMAN. (3)** *Prerequisite:* GERM 202 or equivalent. Introduction to business communication in German-speaking countries: linguistic structures and vocabulary, forms of business communication, reading and discussion of business texts, social customs. (course fee)

**GERM 332. ADVANCED GERMAN TRANSLATION. (3)** *Prerequisite:* GERM 202 or permission of instructor. Translation English to German and German to English of texts selected from various sources both literary and non-literary. Texts are selected for general interest and challenge to the translator.

**GERM 333. GERMANIC CIVILIZATION AND CULTURE. (3)** *Prerequisite:* GERM 202. Survey of the historical background and cultural development of the German-speaking countries of Europe: The Federal Republic of Germany, Austria and Switzerland. Conducted in German. (course fee) [GEN ED B-II]

**GERM 335. CONTEMPORARY CULTURE AND CIVILIZATION. (3)** *Prerequisites:* GERM 202 or equivalent. Study of Geography, politics, social customs, culture and contemporary issues of the German-speaking countries. Especially useful for students who plan to study or work abroad. Taught in German. (course fee) [GEN ED B-II]

**GERM 389. INTERNSHIP IN GERMAN. (1-3)** *Prerequisites:* One 300-level German course or the equivalent, and permission of the instructor. Supervised work using German in a professional setting. Open only to German majors or minors. May be repeated once for elective credit in the major or minor for a maximum of six hours.

**GERM 430. ADVANCED GERMAN STYLISTICS. (3)** *Prerequisite:* GERM 330 or permission of instructor. Provides intensive practice in written and spoken German, enabling the student to write letters, reports, essays, descriptions, and to discuss literary, cultural, and political topics. (course fee)

**GERM 435. GERMAN LITERATURE OF THE 19<sup>TH</sup> AND 20<sup>TH</sup> CENTURIES. (3)** *Prerequisite:* GERM 314 or permission of instructor. A study of major German, Austrian, and Swiss writers of the 19th and 20th centuries with emphasis on prose and drama.

**GERM 436. GERMAN LITERATURE OF THE CLASSICAL PERIOD. (3)** *Prerequisite:* GERM 314 or permission of instructor. A study of the outstanding works of Goethe, Schiller and other authors of the late 18th and early 19th centuries.

**GERM 437. GERMAN LITERATURE AND FILM. (3)** *Prerequisite:* GERM 314 or equivalent. A study of German film and film adaptations of German literature. Emphasis on textual analysis, special film terminology, theoretical approaches to film, writing about film.

**GERM 455. TOPICS IN GERMANIC LITERARY AND CULTURAL STUDIES. (3)** *Prerequisite:* GERM 314 or permission of instructor. Examines different topics of interest in German literary and cultural studies. May be repeated once for credit.

**GERM 499. ADVANCED STUDIES IN GERMAN. (1-4)** *Prerequisites:* Junior or senior standing and permission of instructor. For guided independent study in culture, language, or literature. May be used with consent of full-time program faculty members for work accomplished during study abroad. Number of credit hours will be determined in consultation with instructor. May be repeated for a maximum of six hours of credit.

**GERO - GERONTOLOGY**  
**CENTER FOR GERONTOLOGY**

**GERO 100. INTRODUCTION TO THE AGING EXPERIENCE. (3)** An introduction to a variety of topics involved in the study of aging. Considers such issues as worldwide changing demographics, increased diversity among the aged, intergenerational relationships, and biopsychosocial concerns of aging. [GEN ED C]

**GERO 485. SEMINAR IN GERONTOLOGY. (1)** *Prerequisites:* GERO 100, primary GERO electives, and consent of Gerontology coordinator. Students integrate what they have learned in gerontology with a focus on how those concepts, ideas, theories and practical experiences relate to their career or higher education goals. Students create a portfolio and resume that reflect their experiences.

**GERO 490. INDEPENDENT STUDY IN GERONTOLOGY. (1-6)** *Prerequisites:* Permission of the instructor and the gerontology coordinator. Supervised individual study and/or field-based experience in a topic or area of gerontology of particular interest to the student. May be repeated for credit but only a total of 3 credits can be counted toward gerontology minor.

**GERO 495. TOPICS IN GERONTOLOGY. (1-3)** Investigation of specific issues in gerontology, either from the perspective of a single discipline or from a multidisciplinary perspective. Students are responsible for arranging transportation to assigned sites.

## Course Descriptions

### GWS – GENDER & WOMEN STUDIES

#### GENDER AND WOMEN'S STUDIES PROGRAM

##### **GWS 200. INTRODUCTION TO GENDER AND WOMEN'S STUDIES. (3)**

Drawing on historical perspectives and cultural analysis, this course examines such topics as women and work, violence against women, family, and the social construction of gender, sexuality, race, and class. [GEN ED C]

##### **GWS 321. WOMEN AND JOURNALISM. (3)** *Prerequisite: Sophomore standing.*

Survey of women's contributions to journalism, including historical and contemporary challenges women face in the profession, mainstream news media coverage of women's issues, examples of women's work in various news genres, global feminist news coverage, and the depiction of women journalists in film and literature.

##### **GWS 375. AMERICAN MASCULINITIES. (3)** *Prerequisite: Sophomore standing.*

Survey of the meanings of manhood in the United States, including historical, social, economic, cultural, and political influences on the development of masculine identity.

**GWS 400. WESTERN FEMINIST THOUGHT. (3)** *Prerequisite: WOMN 200 and junior standing.* This course presents the fundamental concepts embodied in Western feminist thought as it has developed from the eighteenth century to the present. It emphasizes a close analysis of individual works and critical evaluations of the assumptions and central concepts that inform the works under consideration.

##### **GWS 421. GENDER, WOMEN AND SCIENCE. (3)** *Pre-requisites: 6 hours of science from General Education Category D1 or permission of instructor and junior standing.*

Study of women's participation in the natural and physical sciences, the scientific education of women, contemporary science workplaces, and feminist critiques of science.

##### **GWS 470. SPECIAL TOPICS IN GENDER AND WOMEN'S STUDIES. (3)**

*Prerequisites: Junior standing and permission of instructor.* A detailed study of a specialized topic in Women's Studies.

##### **GWS 491. PRACTICUM IN GENDER AND WOMEN'S STUDIES. (3)**

*Prerequisite: Junior standing, WOMN 200, and instructor permission.* Practical experience volunteering with cooperating community organizations that address the needs of women or deal in some compelling way with gender issues.

**GWS 499. DIRECTED STUDY. (1-3)** This course is available to students who wish to conduct individual, intensive reading and research in a specific area of women's studies under the direction of supervising faculty. Approval required prior to enrollment.

### HCA – HEALTH CARE ADMINISTRATION

#### DEPARTMENT OF PUBLIC HEALTH

**HCA 120. HEALTH LITERACY FOR CONSUMERS. (3)** Provides an introduction to health literacy from a consumer's perspective. Students will examine the current state of affairs in healthcare, identify medical challenges, and learn how consumers can heighten awareness and better prepare to be their own best advocate.

**HCA 340. HEALTH CARE ORGANIZATION AND MANAGEMENT. (3)** Examines the historic, social, political, and economic factors that shape the U.S. health care delivery system. Topics include the components of the healthcare delivery system such as medical office practices, hospitals, and long-term healthcare systems. Included are financial and non-financial resources found in the U.S., concepts of public health, quality of care and outcomes measurement, and strategies for improving access to care. The role of health care administration as critical to the system will be stressed.

##### **HCA 342. HUMAN RESOURCES MANAGEMENT FOR HEALTHCARE MANAGERS. (3)**

*Prerequisites: HCA 340 or permission of instructor.* This course explores human resource management issues experienced by supervisors within healthcare organizations. Course topics include core human resources management functions and skills (job analysis, recruitment, retention, selection, placement, training/education, performance evaluation, and compensation) related to clinical, administrative and paraprofessional employees within the healthcare setting.

**HCA 343. QUALITY MANAGEMENT FOR HEALTHCARE. (3)** *Prerequisite: HCA 340 or permission of instructor.* Examines the history, philosophies, methods, and techniques used in continuous quality improvement, specifically for healthcare delivery systems. Topics include problem identification, data collection and analysis, implementation, and evaluation of system changes. Customer service approach to health care, accreditation, credentialing, and current issues in quality improvement (performance improvement models and patient safety improvement), utilization management and risk management will be included in the discussion.

**HCA 344. HEALTH SYSTEMS MANAGEMENT. (3)** *Prerequisite: HCA 340 or permission of instructor.* This course provides information and applications of general systems theory relative to organizations, operations, and decision analysis in healthcare delivery system components. The course will also explore the responsibilities, relationships, and trends of various departments in health facilities.

**HCA 345. LONG-TERM CARE ADMINISTRATION. (3)** *Prerequisite: HCA 340 or permission of instructor.* Introduce the special topics and operating environment facing long-term care managers today. Emphasis is on regulations, reimbursement, care delivery, and alternative delivery systems that deal with the elderly. Includes field trips.

**HCA 346. AMBULATORY CARE ADMINISTRATION. (3)** *Prerequisite: HCA 340.* Access, content, and expected outcomes of health care delivery settings outside traditional inpatient facilities.

##### **HCA 347. INTERNATIONAL COMPARISONS OF HEALTH CARE SYSTEMS. (3)**

*Prerequisite: ENG 100.* Cross country comparisons, including concepts of illness and healing within different cultural contexts; differing approaches to critical issues including access, quality of care, and cost containment; and methods of organization, financing and structuring of providers in various countries. [GEN ED E]

##### **HCA 353. QUALITY AND PATIENT SAFETY IN LONG-TERM CARE. (3)**

Application of quality management techniques with special emphasis on the types of populations, facilities, and expectations involved in long-term care service delivery programs.

##### **HCA 355. NURSING FACILITY ADMINISTRATION. (3)** *Prerequisite: HCA 345 or permission of instructor.*

Cover the domains of knowledge associated with the national licensure examination for nursing home administrators along with other necessary knowledge for the administration of a long-term care facility.

##### **HCA 383. STATISTICAL APPLICATIONS IN HEALTHCARE. (1)** *Prerequisite: Permission of instructor.*

This course covers statistical applications in both MS Excel and SPSS. Basic familiarity with personal computers is assumed.

##### **HCA 401. FUNDAMENTALS OF HEALTH CARE FINANCIAL MANAGEMENT. (3)**

*Prerequisite: HCA 340 or permission of instructor.* Principles of financial management for health care organizations. Financial ratios applicable to health providers and insurance companies; issues in the healthcare revenue cycle and value chain; recognizing sources of risk in reimbursement and addressing risk in financial plans.

**HCA 440. HEALTH ECONOMICS. (3)** *Prerequisites: HCA 340, 344, 345 or 346, and ECON 202.* Examines the characteristics of the markets for medical services with emphasis on medical costs, competition, health cost inflation, health insurance, medical service markets, regulation, and economic strategies for health care managers. This course includes financing and cost-control in foreign health systems.

##### **HCA 441. LEGAL ASPECTS/ HEALTH CARE. (3)** *Prerequisite: HCA 340, or permission of instructor.*

This course will examine the relationship between the health care system in the United States and the legal system. The component parts of the legal system, including the legislative, administrative and judicial functions will be reviewed. Current trends in the area of health care law will be studied.

##### **HCA 442. PRINCIPLES AND METHODS OF HEALTH PLANNING. (3)**

*Prerequisites: HCA 340 and HCA 344.* This course will provide theoretical foundations and methodology used in health planning. It will include the roles of government, health professions and consumers in the process of planning for health services, facilities and manpower.

**HCA 445. HEALTH CARE FINANCE. (3)** *Prerequisites: HCA 340, 344, 345 or 346, 440, ACCT 200, 201 and FIN 330.* Methods of financing health care will include a review of health care specific financial statements, and quantitative methods. Students are expected to develop an understanding of the financial basis of cost accounting and managerial decision-making. The course covers the importance of managed care and an overview of managed care contracting.

##### **HCA 446. HEALTH CARE INFORMATICS. (3)** *Prerequisite: HCA 340.*

Consideration of the vital role played by the exchange of organizational information in support of clinical care and management decision making in today's health care environment.

##### **HCA 447. INFORMATION SYSTEMS LABORATORY. (1)** *Prerequisite: Permission of instructor.*

This course includes hands-on instruction in computer hardware, operating systems, and database architecture. Basic familiarity with personal computers is assumed.

**HCA 448. HEALTH CARE ANALYSIS AND EVALUATION. (3)** *Prerequisites:* HCA 344 and senior standing. Unifies the knowledge gained in the required course work for health care administration majors and prepares them for the internship experience. Individual primary projects are required.

**HCA 449. INTERNSHIP IN HEALTH CARE ADMINISTRATION. (6)** *Prerequisites:* Completion of all program course requirements, general education and electives, minimum overall GPA of 2.5, and permission of the internship supervisor. The internship provides the student administrative experience with a health care provider or health related organization. Students are expected to secure the internship site during the last academic semester and are responsible for all university and facility requirements during the internship. Participating agencies will have a qualified administrator to serve as preceptor. Off-campus travel required. Interns are not permitted to take other courses during internship. (Grading: Pass/Fail)

**HCA 471. MANAGED CARE. (3)** *Prerequisites:* HCA 340, 344, 440, 441. This elective course provides an overview of managed care, includes history, government policy, organizational structures, cost control strategies and management issues.

**HED—HEALTH EDUCATION  
DEPARTMENT OF LIBERAL ARTS AND SCIENCES**

**HED 100C. PERSONAL HEALTH. (3)** Examines behaviors and environmental conditions that enhance or hinder an individual's health status. In addition to exploring social and environmental factors, students are encouraged to think critically about behavioral choices that impact one's health. Students assess their individual behavior in the light of current scientific knowledge concerning mental health; drugs, alcohol and tobacco; health care; selection of health products; prevention of disease; nutrition; exercise, and stress management. Equivalent to PH 100. [GEN ED F]

**HED 165C. DRUG ABUSE. (3)** This course offers an opportunity for the student to explore the drug culture, and both healthful and harmful use of drugs. The scope will include marijuana, hallucinogens, narcotics, stimulants, depressants and volatile chemicals. Pharmacological, psychological and sociological aspects of drug abuse will be studied through individual research, group discussion, lectures and field trips when practical. Equivalent to PH 165. [GEN ED F]

**HED 247C. CONTEMPORARY HEALTHCARE ISSUES. (3)** *Prerequisites:* ENGL 100C, sophomore standing. An introductory course addressing contemporary issues confronting the healthcare delivery system, patients, and medical professionals in American society.

**HIM—HEALTH INFORMATION MANAGEMENT  
DEPARTMENT OF ALLIED HEALTH**

**HIM 100. HEALTH DATA CONTENT AND STRUCTURE \*\* (4)** Emphasis on the health information profession, interdisciplinary relationships, health care data management, documentation standards, and methods of access and retention of image-based information and maintenance of health information in acute and non-acute care facilities. Procedures for maintaining vital statistics and specialized registries will be included.

**HIM 220. STATISTICAL APPLICATIONS IN HEALTH INFORMATION MANAGEMENT. (2)** *Prerequisites:* HIM 100 and MA 109C/ 116C. Emphasis on acquiring knowledge and skills in data collection methods, health statistics terminology, and computation and presentation of reported health statistics.

**HIM 221. HEALTH INFORMATION AND QUALITY MANAGEMENT\*\*. (4)** *Prerequisites:* HIM 100. Exploration of principles of management, human relations, human resources, total quality management, utilization and risk management and credentialing in the HIM department and healthcare setting.

**HIM 225. LEGAL ISSUES IN HEALTH INFORMATION MANAGEMENT. (2)** Advanced course relating concepts and principles of law, the health record as a legal document, confidential communication, consents and authorization, release of information and current trends in health legislation.

**HIM 230. COMPUTER SYSTEMS AND APPLICATIONS IN HEALTH INFORMATION MANAGEMENT\*\*. (3)** *Prerequisites:* HIM 100 and CSCI 145C. Exploration of computer systems for health information management, with emphasis on the electronic health record. Various HIM software applications will be utilized.

**HIM 250. INTERNATIONAL CLASSIFICATION OF DISEASES (ICD) CODING\*\*. (4)** *Prerequisites:* HIM 100, HIM 290, BIO 131C, or consent of the instructor. Discussion of various nomenclature and classification systems. Guidelines used to assign codes to diseases and operations in the current ICD classification system.

**HIM 251. HEALTHCARE COMMON PROCEDURE CODING SYSTEM/ CURRENT PROCEDURAL TERMINOLOGY (HCPCS/CPT) CODING\*\*. (4)** *Prerequisite:* HIM 100 or consent of instructor. Application of HCPCS/ CPT coding principles to outpatient reimbursement systems.

**HIM 252. HEALTHCARE PAYMENT SYSTEMS. (3)** Overview of management of health care payment systems including insurances, billing and collection processes, case mix analysis, corporate compliance, HIPAA, and other current reimbursement issues.

**HIM 290. MEDICAL TERMINOLOGY. (2)** A course designed to acquaint the student with the specialized language of medicine and to develop communication skills in areas where use of medical terms is necessary and appropriate. Equivalent to AH 290.

**HIM 291. ADVANCED MEDICAL TERMINOLOGY. (2)** *Prerequisite:* HIM 290 or consent of instructor. Terminology of diseases, operations and treatment modalities.

**HIM 292. PHARMACOLOGY AND LABORATORY DIAGNOSTICS. (2)** Study of pharmacology, laboratory tests and diagnostics as they relate to the management of health information.

**HIM 295. SEMINAR AND PROFESSIONAL PRACTICE EXPERIENCE. (5)** *Prerequisites:* Completion of all HIM required courses. Final project-based field experience. Two weeks preparatory classroom work; two weeks focused field experience; on-campus post-seminar and project presentation. Student responsible for own expenses.

\*\*\*Lab component required

**HIST / HIS – HISTORY  
DEPARTMENT OF HISTORY (HIST)  
DEPARTMENT OF LIBERAL ARTS AND SCIENCES (HIS)**

**GENERAL HISTORY**

**HIST 101. WORLD CIVILIZATION I. (3)** A comparative historical survey of the major political, religious, and cultural developments in Asia, Africa, and the Mediterranean basin, Europe, and the Americas from ca. 3000 BCE to 1500 CE.

**HIST 102. WORLD CIVILIZATION II. (3)** A comparative historical survey of the major political, religious, and cultural developments in Asia, Africa, Europe, and the Americas from 1500 to present.

**HIST 119 / HIS 119C. WESTERN CIVILIZATION TO 1648. (3)** A survey of the political, social, cultural, and economic phases of western civilization to 1648. [GEN ED C]

**HIST 120 / HIS 120C. WESTERN CIVILIZATION SINCE 1648. (3)** A survey of the political, social, cultural, and economic phases of western civilization since 1648. [GEN ED C]

**HIST 175. UNIVERSITY EXPERIENCE- HISTORY/ SOCIAL SCIENCES. (3)** *Prerequisite:* For beginning college freshmen or transfer students with fewer than 24 semester hours of credit. Transition to university experience. Topics include study skills, critical thinking skills, library education, exploration of majors and careers, iCAP reports, campus resources and personal development. Special attention is given to educational requirements, careers and resources in history and social studies.

**HIST 240 / HIS 240C. THE UNITED STATES TO 1865. (3)** A survey of the political, social, cultural, and economic phases of American life to the Civil War.

**HIST 241 / HIS 241C. THE UNITED STATES SINCE 1865. (3)** A survey of the political, social, cultural, and economic phases of American life since the Civil War.

**HIST 498. SENIOR SEMINAR. (3)** A capstone course designed for senior history and social studies majors. This seminar will deal with themes that challenge the student to develop an overview of history.

**UPPER-DIVISION COURSES MEETING AREA REQUIREMENTS: UNITED STATES HISTORY**

**HIST 320. AMERICAN STUDIES I. (3)** *Prerequisite:* Junior standing or permission of instructor. An interdisciplinary course designed to examine the diverse origins and the decisive elements in the development of American culture. It seeks to provide a wide cultural appreciation and a greater understanding of the mainstream of American thought through the coordinated application of numerous viewpoints drawn from the contributing disciplines of English, Political Science, and History.

## Course Descriptions

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**HIST 321. AMERICAN STUDIES II. (3)** *Prerequisite: Junior standing or permission of instructor.* An interdisciplinary course designed to examine the diverse origins and the decisive elements in the development of American culture. It seeks to provide a wide cultural appreciation and a greater understanding of the mainstream of American thought through the coordinated application of numerous viewpoints drawn from the contributing disciplines of English, Political Science, and History.

**HIST 347. SOCIAL HISTORY OF THE UNITED STATES SINCE 1800. (3)** A topical study of the institutions and influences that have shaped American society in the nineteenth and twentieth centuries.

**HIST 348. UNITED STATES, 1900-1945. (3)** A study of the period 1900-1945, with special emphasis on the Progressive Movement, the Republican era, and the New Deal. Foreign affairs are related to domestic events and policy.

**HIST 349. THE UNITED STATES SINCE 1945. (3)** A study of all phases of United States history since 1945.

**HIST 352. AMERICAN BORDERLANDS AND THE WEST. (3)** An exploration of borderlands/frontiers in American history with a particular focus on the trans-Mississippi West in the nineteenth century.

**HIST 353. INDIAN PEOPLES OF NORTH AMERICA. (3)** *Prerequisite: HIST 240 or 241 recommended, but not required.* A study of the indigenous people of North America from precontact to the present, with an emphasis on Indian peoples in the United States. [GEN ED E]

**HIST 358. BLACKS IN AMERICAN HISTORY TO 1877. (3)** A chronological study of African American history and culture from 1619 to 1877 with an emphasis on black contributions to American life and thought. [GEN ED E]

**HIST 359. BLACKS IN AMERICAN HISTORY SINCE 1877. (3)** A chronological study of African American history and culture since 1877 with an emphasis on black contributions to American life and thought. [GEN ED E]

**HIST 430. THE CIVIL RIGHTS MOVEMENT IN AMERICA. (3)** *Prerequisite: HIST 119 or 120 or permission of the instructor.* Survey of the struggle for civil rights and social justice in 20<sup>th</sup> century America.

**HIST 440. COLONIAL NORTH AMERICA TO 1763. (3)** *Prerequisite: HIST 119 or 120, or permission of instructor.* The background, founding and development of the North American colonies, emphasizing political, social, cultural, and economic institutions.

**HIST 441. THE AMERICAN REVOLUTION AND EARLY REPUBLIC, 1776-1815. (3)** A study of the Confederation, the American Revolution, the making of the Constitution, and the development of the nation through the War of 1812.

**HIST 442. THE AGE OF JACKSON, 1815-1850. (3)** A detailed study of social, political, and economic events from the War of 1812 through the War with Mexico.

**HIST 443. CIVIL WAR AND RECONSTRUCTION, 1850-1877. (3)** A study of the origins and course of the war, including an analysis of military, social, cultural, and diplomatic events, as well as significant developments during the era of Reconstruction. Occasional field trips to Civil War sites.

**HIST 444. GILDED AGE AMERICA. (3)** A study of American history and culture from the end of Reconstruction to the early twentieth century, emphasizing social, political, cultural, and regional development.

**HIST 445. AMERICAN LEGAL HISTORY TO 1865. (3)** A survey of the development of American law and its relationship to political, economic, and social trends in antebellum American society.

**HIST 446. AMERICAN LEGAL HISTORY SINCE 1865. (3)** A survey of the development of American law and its relationship to political, economic, and social trends in modern American society.

**HIST 447. HISTORY OF AMERICAN POPULAR CULTURE. (3)** *Prerequisite: HIST 119 or 120 or permission of instructor.* Introduction to the central role popular culture has played in United States history and consciousness from the nineteenth century to the present.

**HIST 448. AMERICAN BIOGRAPHIES. (3)** *Prerequisite: Junior standing.* The lives of famous Americans, the times in which they lived, and the skills of their biographers.

**HIST 449. KOREA AND VIETNAM. (3)** A detailed study of both the Korean and Vietnam conflicts and how they related to the overall foreign policy of the U.S.

**HIST 450. DIPLOMATIC HISTORY OF THE UNITED STATES TO 1898. (3)** An analysis of American diplomacy from the colonial period through the Spanish-American War.

**HIST 451. DIPLOMATIC HISTORY OF THE UNITED STATES SINCE 1898. (3)** An analysis of American diplomacy from the Spanish-American War to the present.

**HIST 453. AMERICAN WOMEN'S HISTORY. (3)** Social, cultural, and political history of American women from pre-colonial times to the present.

**HIST 454. HISTORY OF RELIGION IN AMERICA. (3)** A survey of the development of religion in America. Among the subjects covered will be the separation of church and state and American civil religion.

**HIST 456. KENTUCKY HISTORY. (3)** A study of the political, economic, social, and cultural development of the state from pioneer days. Local development is also stressed.

**HIST 457. OLD SOUTH. (3)** Intellectual, cultural, political, economic, and racial ideologies of the American South, focusing on the period between 1800 and 1860.

**HIST 458. NEW SOUTH. (3)** Intellectual, cultural, political, economic, and racial ideologies of the American South from the Civil War until the end of the twentieth century.

**HIST 463. THE ATLANTIC WORLD. (3)** *Prerequisite: HIST 119 or 120 or permission of instructor.* A study of the areas touched by the Atlantic Ocean in the period from the 1300s through the early 1800s, focusing on the intersections of African, Native American, and European cultures. [GEN ED E]

**HIST 481. THE RISE AND FALL OF THE CONFEDERACY. (3)** *Prerequisites: HIST 119 or 120 and HIST 240, or permission of instructor.* An overview of the Confederate States of America. Topics covered will include nationalism, race, politics, religion and leadership.

### EUROPEAN HISTORY TO 1648

**HIST 305. ANCIENT GREECE. (3)** A survey emphasizing the political, cultural, social, and economic aspects of Greek civilization. [GEN ED B-II]

**HIST 306. ANCIENT ROME. (3)** A survey emphasizing the political, cultural, social, and economic aspects of Roman civilization. [GEN ED B-II]

**HIST 307. THE MIDDLE AGES. (3)** A study of political, cultural, social, and economic institutions from the fifth century to the fourteenth century. [GEN ED B-II]

**HIST 317. RENAISSANCE EUROPE. (3)** *Prerequisites: HIST 119 or 120, and sophomore standing; or permission of the instructor.* A study of the impact of Renaissance culture and thought among various social, intellectual, and political groups in Italian cities and princely courts, and the diffusion of the movement in Western Europe from the thirteenth to sixteenth centuries. [GEN ED B-II]

**HIST 318. AGE OF THE REFORMATION. (3)** *Prerequisites: HIST 119 or 120, and sophomore standing; or permission of the instructor.* A study of the religious reform movements in Europe from the late Middle Ages to the end of the religious wars in 1648, with particular attention paid to the cultural, intellectual, political, and social responses to Reformation ideas. [GEN ED B-II]

**HIST 323. THE BRITISH ISLES TO 1688. (3)** A study of the British Isles from earliest times through the Medieval and Early Modern periods. Examining the participation both of elites and of ordinary men and women, this course explores the social, cultural, political and economic development of England, Wales, Scotland, and Ireland. Major themes include the early Celts, Roman conquest, religious changes, the establishment of regional kingdoms, the expansion of England, the origins of English constitutional law and Parliament, and the changing relationship with continental Europe.

**HIST 407. THE CRUSADES: WEST MEETS EAST. (3)** A study of the idea of holy war and political, social, and cultural interaction in the Mediterranean World from 1000 to 1300.

**HIST 419. TUDOR-STUART ENGLAND. (3)** A study of the principal political, economic, social, religious, and cultural developments in British history from the beginning of the Tudor dynasty in 1485 to the end of the Stuart dynasty in 1714.

### EUROPEAN HISTORY SINCE 1648

**HIST 322. AGE OF ENLIGHTENMENT. (3)** A detailed study of social, political, cultural, intellectual, and economic events from 1648 to 1789 with primary emphasis upon the development of Absolutism during the Old Regime.

**HIST 324. MODERN BRITAIN SINCE 1688. (3)** A study of the British Isles from the end of the seventeenth century to the present. Examining the participation both of elites and of ordinary men and women, this course explores the social, cultural, political and economic developments of the United Kingdom in modern times. Major themes include nationhood and empire, industrialization and class formation, gender relations, the expansion of suffrage and the rise of mass politics, the impact of the World Wars and the Great Depression, the development of the welfare state, Britain's shifting relationship with Europe, and the politics of ethnicity and race in post-colonial Britain.

**HIST 334. NINETEENTH CENTURY EUROPE. (3)** A study of political, intellectual, and socioeconomic developments with special emphasis on nationalism, the rise of socialism, and the causes of World War I.

**HIST 335. TWENTIETH CENTURY EUROPE. (3)** *Prerequisite: HIST 119 or 120 or permission of instructor.* A survey of Europe during the twentieth century that covers developments in social, cultural, political, intellectual and gender history.

**HIST 338. RUSSIA TO 1900. (3)** A study of the development of Russia from its beginnings to the pre-Soviet era with special emphasis on the centuries of isolation which separated Russia from the mainstream of European development.

**HIST 340. HISTORY OF WESTERN POPULAR CULTURE SINCE 1450. (3)** *Prerequisite: HIST 119 or 120 or permission of instructor.* Examines popular culture in the Western World from the invention of the Gutenberg printing press to the present, focusing especially on how popular culture evolved in reaction to social, economic, political, and technological change and from local, national, trans-Atlantic and global perspectives. Students engage the questions, debates, methods and approaches of popular culture history.

**HIST 422. THE FRENCH REVOLUTION AND NAPOLEON. (3)** A survey of the period 1789 to 1815 with special emphasis on the political, economic, and social events leading to the birth of modern France.

**HIST 425. MODERN GERMANY. (3)** A survey of German history from the early nineteenth century to the present.

**HIST 426. HITLER AND NAZI GERMANY. (3)** A detailed study of German history between 1933 and 1945, emphasizing political, economic, social, diplomatic, and military aspects.

**HIST 428. ENGLAND SINCE 1914. (3)** A detailed study of the political, intellectual, cultural, and socioeconomic developments that transformed England into a welfare state and its empire into a commonwealth of nations.

**HIST 438. TWENTIETH CENTURY RUSSIA. (3)** A survey of the decline of Imperial Russia, the age of Revolution, and the maturation of the Soviet state.

**HIST 439. RISE AND DECLINE OF COMMUNISM. (3)** A study of the origins, development, and decline of international communism.

**HIST 480. A SOCIAL HISTORY OF SCIENCE. (3)** A study of the cultural and intellectual impact that science has had on the West with an emphasis on the period since the seventeenth century.

#### **AREAS OTHER THAN EUROPE OR THE UNITED STATES**

**HIST 360. HISTORY OF AFRICA. (3)** A survey of the history of sub-Saharan Africa from the earliest times to the present. (Equivalent to AFAM 360.) [GEN ED E]

**HIST 364. COLONIAL LATIN AMERICA, 1400-1825. (3)** Political, social and cultural development of Latin America since 1400, focusing on the Maya, Aztec and Inca civilizations, the period of conquest and three centuries of Spanish and Portuguese colonization. [GEN ED E]

**HIST 365. MODERN LATIN AMERICA, 1800-PRESENT. (3)** A study of the political, social, economic, and cultural development of Latin American republics from their independence in the early 19th century to the present. [GEN ED E]

**HIST 370. MODERN SOUTH ASIA: FROM EMPIRES TO NATIONS. (3)** A study of South Asia from the mid-eighteenth century to the present, focusing on the development of colonialism, capitalism, nationalism and feminism. Major topics include the collapse of the Mughal Empire, the rise and fall of the British Raj and the development of the new nations of India, Pakistan and Bangladesh. [GEN ED E]

**HIST 460. TRADITIONAL EAST ASIA. (3)** A survey of the political, socioeconomic, intellectual, and cultural history of China and Japan from ancient times to 1600.

**HIST 461. MODERN EAST ASIA. (3)** A survey of the political, socioeconomic, intellectual, and cultural history of China and Japan since 1600. [GEN ED E]

**HIST 462. HISTORY OF THE MIDDLE EAST. (3)** A study of the history, religion, and culture of the Middle East from the rise of Islam until the present.

**HIST 464. LATIN AMERICA AND THE UNITED STATES. (3)** An intensive study of the relations between Latin America and the United States.

**HIST 465. THE MEXICAN REPUBLIC. (3)** A study of Mexico from 1824 to the present.

**HIST 471. MODERN CHINA. (3)** A study of the rise of modern China since the seventeenth century, focusing on the decline of the imperial system, the revolutionary struggle, and the triumph of Communism.

**HIST 472. MODERN JAPAN. (3)** An analysis of Japanese history since 1600 with special emphasis on the forces, events, and personalities that transformed Japan from a feudal to a modern state.

**HIST 479. TOPICS IN WORLD HISTORY. (3)** An intensive study of a selected world history topic.

#### **SPECIAL COURSES**

The courses in this category count toward meeting history/social studies major and minor requirements, but do not count toward meeting area requirements.

**HIST 110. INTRODUCTION TO ASIAN CIVILIZATION. (3)** A survey of the histories and cultures of the civilizations of Asia, emphasizing the traditional values which have shaped their development from ancient to modern times. [GEN ED E]

**HIST 200. INTRODUCTION TO LATIN AMERICA. (3)** A broad interdisciplinary introduction to the study of Latin America, emphasizing its regions, peoples, and cultures. [GEN ED E]

**HIST 299. INTRODUCTION TO MILITARY HISTORY. (3)** A study of the development of warfare from the earliest times to the present with emphasis on the modern period and the development of weapons, tactics, and strategy.

**HIST 341. A CULTURAL HISTORY OF ALCOHOL. (3)** *Prerequisite: HIST 119 or HIST 120 or permission of instructor.* An examination of the role that alcohol plays in historical development among various world cultures over time. Instructor may choose to focus on a specific region and/or time period.

**HIST 391. HISTORY OF SPORT. (3)** *Prerequisite: HIST 119 or 120, or permission of instructor.* A study of topics and themes in the history of sport, as well as the historical context in which sport evolved.

**HIST 402. PIRATES IN WORLD HISTORY. (3)** *Prerequisite: HIST 119 or 120 or permission of instructor.* Myths and realities of piracy across the globe and throughout history using movies, novels and historical narratives.

**HIST 404. HISTORY OF ANCIENT EGYPT. (3)** A study of ancient Egyptian civilization with attention to the rediscovery of ancient Egypt by modern scholars and the development of the discipline of Egyptology.

**HIST 420. HISTORY OF SEXUALITY. (3)** *Prerequisite: HIST 119 or 120 or permission of instructor.* Survey of how past societies and cultures have interpreted human sexual behavior and identities.

**HIST 489. COOPERATIVE EDUCATION IN HISTORY. (3)** *Prerequisites: Application for or enrollment in Cooperative Education plan, approval of departmental co-op faculty advisor, and development of a Learning Plan. May be repeated once with departmental approval, but only (3) will count toward history major requirements.* Practical experience in a supervised work station with a cooperating library, museum, archives, or other appropriate organization.

**HIST 490. TOPICS IN HISTORY I. (3)** A detailed study of selected topics in history.

**HIST 491. TOPICS IN HISTORY II. (3)** A detailed study of selected topics in history.

**HIST 492. HISTORY OF CANADA. (3)** A survey of Canada's history and heritage, with special emphasis on Canadian-American relations and interdependency.

**HIST 494. U.S. MILITARY HISTORY. (3)** *Prerequisites: MIL 301, 302 (for ROTC cadets); junior-senior status for all others.* A study that focuses upon the role of the military in American history. Political, economic, social, and cultural aspects of U.S. history are also covered as they pertain to the military.

**HIST 499. ADVANCED INDIVIDUAL STUDY. (1-3)** *Prerequisite: 3.0 average in at least 21 hours of history.* A research problem or intensive readings directed by a faculty member.

#### **HON – HONORS HONORS COLLEGE**

**HON 175. HONORS UNIVERSITY EXPERIENCE-LEADERSHIP. (3)** *Prerequisites: For beginning college freshmen or transfer students with fewer than 24 hours of credit who are accepted into the Honors College. Transition to University Experience. Topics include advanced study skills, critical thinking skills, explorations of majors and careers, degree programs, campus resources and personal development. Special attention is given to educational requirements and opportunities within the University Honors College leadership education, and developing leadership behaviors and skills.*

**HON 250. HONORS PRACTICUM I. (3)** *Prerequisite: Good standing in the Honors College.* First semester course offering a supervised, practical experience for honors students.

**HON 251. CITIZEN AND SELF. (3)** *Prerequisite/Corequisite: Good standing in the Honors College or Honors eligibility (minimum 3.2 GPA).* Sophomore standing or approval from instructor required.

## Course Descriptions

**HON 275. HONORS INTERNSHIP I. (3)** *Prerequisite: Good standing in the Honors College.* First semester course offering practical experience for honors students in a supervised work situation with a cooperative organizations, agency, or entity.

**HON 350. HONORS PRACTICUM II. (3)** *Prerequisites/corequisites: HON 250 and good standing in the Honors College.* Second semester course offering a supervised, practical experience for honors students.

**HON 375. HONORS INTERNSHIP II. (3)** *Prerequisites/corequisites: HON 275 and good standing in the Honors College.* Second semester course offering practical experience for honors students in a supervised work situation with a cooperative organization, agency, or entity.

**HON 402. CE/ T PROPOSAL WRITING COURSE. (1)** *Prerequisites: ENG 100; Honors College student or instructor's permission.* Assistance in formulating and writing a Capstone Experience/Thesis (CE/ T) proposal.

**HON 490. SPECIAL TOPICS. (3)** A detailed study of selected topics. May be repeated once for credit.

### COLLOQUIUM

**HON 300. HONORS COLLOQUIUM. (1-4)** Honors colloquia are interdisciplinary in nature, and emphasize student-directed learning. Students participate in and lead discussions on various aspects of the broad topic, and select specific issues on which to base analytical writing projects.

**HON 301. HONORS COLLOQUIUM. (1-4)** Honors colloquia are interdisciplinary in nature, and emphasize student-directed learning. Students participate in and lead discussions on various aspects of the broad topic, and select specific issues on which to base analytical writing projects.

### INDEPENDENT RESEARCH

**HON 203. INDEPENDENT RESEARCH. (1-3)** Independent research allows students to engage in research, creative activities, or in-depth study of a topic under the direction of a faculty member.

**HON 303. INDEPENDENT RESEARCH. (1-3)** Independent research allows students to engage in research, creative activities, or in-depth study of a topic under the direction of a faculty member.

**HON 403. HONORS THESIS/PROJECT I. (1-3)** First three credit hours of 6-hour Capstone Experience/ Thesis Project (CE/ T).

**HON 404. HONORS THESIS/ PROJECT II. (1-3)** *Prerequisite: HON 403.* Final three credit hours of 6-hour Capstone Experience/Thesis Project (CE/ T).

### HORT – HORTICULTURE DEPARTMENT OF AGRICULTURE

**HORT 209. FLORAL DESIGN. (3)** Principles and elements of floral design; the use of floral materials, design techniques, and elements including line, form, texture and color; emphasis on the history and use of floral art in business and society. (course fee)

**HORT 301. INTRODUCTION TO LANDSCAPE PLANTS . (2)** *Corequisite: HORT 302. Prerequisite: AGRO 110.* Identification, recognition and use of deciduous trees, shrubs and herbaceous plants in the landscape. Introduction to evergreen shrubs and trees as well as fall flowering bulbs and perennials are included.

**HORT 302. INTRODUCTION TO LANDSCAPE PLANTS LABORATORY. (1)** *Corequisite: HORT 301.* A laboratory course correlated with HORT 301.

**HORT 304. LANDSCAPE MAINTENANCE. (2)** *Corequisite: HORT 305. Prerequisite: AGRO 110.* Maintenance of landscape plants including trees, shrubs, annuals, perennials, and turf; proper use of equipment, fertilizers, and pesticides. Landscape maintenance business practices are included.

**HORT 305. LANDSCAPE MAINTENANCE LABORATORY. (1)** *Corequisite: HORT 304.* A laboratory course correlated with HORT 304.

**HORT 309. ADVANCED FLORAL DESIGN. (3)** *Prerequisite: HORT 209.* Advanced principles of floral design as applied to a commercial floral shop enterprise. Production cost and profit analysis, selling, techniques and customer relations are considered concurrently with design. (course fee)

**HORT 312. INTRODUCTION TO HORTICULTURE. (3)** *Prerequisite: AGRO 110.* Emphasis is given to principles of growth, development and management of major horticulture plants. Special consideration is given to major horticultural crops of Kentucky.

**HORT 313. TURFGRASS MANAGEMENT. (3)** *Prerequisite: AGRO 110 or permission of instructor.* A study of turfgrass, including adaption, identification, uses and fundamental principles essential for establishing and maintaining quality turf in lawns and recreation areas.

**HORT 316. GREENHOUSE PRODUCTION. (2)** Structures, equipment, and cultural techniques for growing floriculture crops with special emphasis on the production of container plants, foliage crops and bedding plants.

**HORT 317. GREENHOUSE PRODUCTION LABORATORY. (1)** *Corequisite: HORT 316.* A laboratory course correlated with HORT 316.

**HORT 330. WEDDING FLORAL DESIGN. (3)** *Prerequisite: HORT 209.* Principles and elements of floral design as applied to wedding planning and design. Includes production cost and profit analysis and marketing techniques. (course fee)

**HORT 401. LANDSCAPE PLANTS II. (2)** *Corequisite: HORT 402. Prerequisite: HORT 301 or permission of instructor.* Identification, recognition and use of landscape plants; with emphasis on evergreens, annuals, perennials and bulbs, winter effect and flowering sequence of deciduous trees and shrubs will be included.

**HORT 402. LANDSCAPE PLANTS II LABORATORY. (1)** *Corequisite: HORT 401.* A laboratory course correlated to HORT 401.

**HORT 403. LANDSCAPE DESIGN AND CONSTRUCTION. (2)** *Corequisite: HORT 404. Prerequisite: HORT 402 or permission of instructor.* Design of residential and commercial landscapes; techniques and materials for construction of landscape features such as decks, patio covers, walls, patios, pools, and irrigation are presented.

**HORT 404. LANDSCAPE DESIGN AND CONSTRUCTION LABORATORY. (1)** *Corequisite: HORT 403.* A laboratory course correlated with HORT 403.

**HORT 405. NURSERY MANAGEMENT. (2)** *Corequisite: HORT 406. Prerequisite: AGRO 110.* An introduction to the organization and management of a landscape plant nursery for container and field grown stock. Students will design and plan a working nursery for south central Kentucky.

**HORT 406. NURSERY MANAGEMENT LABORATORY. (1)** *Corequisite: HORT 405.* A laboratory course correlated with HORT 405.

**HORT 407. PLANT PROPAGATION. (2)** *Corequisite: HORT 408. Prerequisite: AGRO 110.* Plant propagation is studied and practiced as an art and a science. Sexual and asexual techniques include propagation by seed, cuttings, grafting, layering, division and tissue culture.

**HORT 408. PLANT PROPAGATION LABORATORY. (1)** *Corequisite: HORT 407.* A laboratory course correlated with HORT 407.

**HORT 412. MODERN FRUIT PRODUCTION. (3)** *Prerequisite: AGRO 110.* Production, harvesting, post-harvesting handling and marketing of the major tree and small fruit of the temperate region. Emphasis is given to those crops adaptable to Kentucky.

**HORT 419. VEGETABLE PRODUCTION. (3)** *Prerequisite: AGRO 110 or permission of instructor.* Production of vegetables that are particularly suited for Kentucky, considering variety selection, culture, harvesting, processing, and marketing.

**HORT 475. SELECTED TOPICS IN AGRICULTURE. (1-3)** *Prerequisite: Consent of instructor.* Special topics acquaint advanced undergraduate students with scientific developments of current interest in agriculture. Appropriate topic titles are assigned. Lecture and assignments vary with credit. May be repeated with change in content.

### HUM – HUMANITIES POTTER COLLEGE OF ARTS AND LETTERS

*\*Note: Humanities Semester courses must be taken together and not as individual courses.*

#### ANCIENT GREECE AND ROME

**HUM 191. FINE ARTS OF ANCIENT GREECE AND ROME. (3)** A study of classical painting, sculpture, and architecture. [GEN ED B-II]

**HUM 192. LITERATURE AND DRAMA OF ANCIENT GREECE AND ROME. (3)** This course includes the works of the Greek tragedians, Homer, Aristophanes, and Vergil. [GEN ED B-I]

**HUM 193. PHILOSOPHY AND RELIGION OF ANCIENT GREECE AND ROME. (3)** A survey of the Greek gods and such philosophers as Socrates, Plato, Aristotle, and Augustine. [GEN ED B-II]

#### MEDIEVAL AND RENAISSANCE EUROPE

**HUM 171. FINE ARTS OF MEDIEVAL AND RENAISSANCE EUROPE. (3)** A study of art and architecture in the Middle Ages and Renaissance which includes the great cathedrals and the Renaissance masters. [GEN ED B-II]

**HUM 172. LITERATURE OF MEDIEVAL AND RENAISSANCE EUROPE. (3)** A literary survey of the Middle Ages and Renaissance, which includes Beowulf, Chaucer, Dante and Shakespeare. [GEN ED B-I]

**HUM 173. PHILOSOPHY AND RELIGION OF MEDIEVAL AND RENAISSANCE EUROPE. (3)** A study of the major philosophical and religious developments from St. Augustine through the Reformation. [GEN ED B-II]

#### MODERN WESTERN WORLD

**HUM 181. FINE ARTS OF THE MODERN WESTERN WORLD. (3)** A study of painting, sculpture, and architecture from the late eighteenth century to the present. [GEN ED B-II]

**HUM 182. LITERATURE OF THE MODERN WESTERN WORLD. (3)** This course surveys the great literary works of the past two centuries in the West. [GEN ED B-I]

**HUM 183. PHILOSOPHY AND RELIGION OF THE MODERN WESTERN WORLD. (3)** A study of philosophical and religious developments in the contemporary period. [GEN ED B-II]

#### IDST – INTERDISCIPLINARY STUDIES DEPARTMENT OF INTERDISCIPLINARY STUDIES

**IDST 369. CAREER RELATED FIELD EXPERIENCE. (1-3)** Prerequisites: Junior or senior standing with a declared major. Instructor permission is required. Work arrangements approved through the Career Services Center with instructor consultation. Supervised work experience related to a student's field of study or career goals within a cooperating business, industry, or agency. Students should work directly with the Career Services Center and course instructor to identify goals, secure appropriate work experience, and review course requirements. Students are responsible for all internship-related transportation and travel. Students may repeat twice for a maximum of 3 total hours.

**IDST 375. SEMINAR IN PEER MENTORING. (3)** Prerequisites: UC 175 or equivalent, junior standing and instructor permission. An introduction to effective mentoring techniques including an examination of mentoring theories and styles.

**IDST 376. PRACTICUM IN PEER MENTORING. (1)** Prerequisites: UC 375 with a grade of "B" or higher and instructor permission. Supervised mentoring experience in appropriate first year student setting. (Grading: Pass/Fail)

**IDST 399. SPECIAL TOPICS IN INTERDISCIPLINARY STUDIES. (3)** Prerequisite: Junior standing or permission of the instructor. A detailed study of selected topics in interdisciplinary studies that lend themselves to interdisciplinary problem solving. Course may be repeated one time with a different topic.

**IDST 495. INTERDISCIPLINARY STUDIES CAPSTONE. (3)** Prerequisites: BIS major (558), senior standing, or permission of the instructor. Examination of interdisciplinary scholarship and problem-solving, with application based on students' area of emphasis in the major.

#### IECE – INTERDISCIPLINARY EARLY CHILDHOOD EDUCATION SCHOOL OF TEACHER EDUCATION

**IECE 321. FAMILY SUPPORTS AND SERVICES. (3)** Prerequisites: FACS 192, and EXED 330. Corequisites: CD 481, IECE 322 and IECE 323; or instructor permission. Application of family systems theory. The development of family plans and the implementation of family-centered services is stressed. Minimum of 25 hours of field experiences; students are responsible for arranging their own transportation.

**IECE 322. PLANNING CURRICULUM AND INSTRUCTION FOR DIVERSE LEARNERS. (3)** Prerequisites: FACS 295 and FACS 296. Corequisites: CD 481, IECE 321, and IECE 323; or instructor permission. Planning for curriculum and instruction of children birth through five years who are culturally and linguistically diverse or who have developmental delays and disabilities.

**IECE 323. POSITIVE BEHAVIORAL SUPPORTS WITH YOUNG CHILDREN. (3)** Prerequisites: FACS 295 and 296. Corequisites: CD 481, IECE 321 and 322; or instructor permission. Knowledge and skills necessary for applying the principles of positive behavioral supports with young children. Field experience is required; students are responsible for their own transportation.

**IECE 324. ADVANCED ASSESSMENT OF YOUNG CHILDREN. (3)** Prerequisites: FACS 294, PE 313, IECE 321, IECE 322, and IECE 323; or instructor permission. Corequisites: EXED 422, IECE 325, IECE 326, and LTCY 310; or instructor permission. Advanced training to develop assessment skills with children from birth to primary age, with and without disabilities, and their families. Minimum of 30 hours of field experiences; students are responsible for their own transportation.

**IECE 325. PARTNERSHIPS WITH FAMILIES. (3)** Prerequisites: CD 481, IECE 321, IECE 322 and IECE 323; or instructor permission. Corequisites: IECE 324, IECE 326, EXED 422, and LTCY 310; or instructor permission. Strategies that early childhood educators employ to develop active partnerships with families. Field experience is required. Students are responsible for their own transportation.

**IECE 326. INTEGRATING MATHEMATICS AND SCIENCE ACROSS THE EARLY CHILDHOOD CURRICULUM. (3)** Prerequisites: CD 481, IECE 321, IECE 322 and IECE 323; or instructor permission. Corequisites: IECE 324, 325, EXED 422, and LTCY 310; or instructor permission. Methods for active involvement of young children in the areas of mathematics and science in developmentally appropriate ways. Field experience is required; students are responsible for their own transportation. Course fee will be assessed.

**IECE 421. ADVANCED CURRICULUM AND INSTRUCTION FOR INFANTS AND TODDLERS. (3)** Prerequisites: IECE 324, IECE 325, IECE 326, EXED 422 and LTCY 130; or instructor permission. Corequisites: IECE 422, EXED 419, and EXED 432; or instructor permission. Implementation of curriculum and instruction of children birth through two years, both with and without disabilities, and their families will be addressed. Students will be prepared to implement services in both home and center-based settings. Field experience is required; students are responsible for their own transportation. Course fee will be assessed.

**IECE 422. ADVANCED CURRICULUM DEVELOPMENT FOR YOUNG CHILDREN. (3)** Prerequisites: IECE 324, IECE 325, IECE 326, and EXED 422; or instructor permission. Corequisites: IECE 421, EXED 419 and EXED 432; or instructor permission. Advanced preparation in planning, implementing and evaluating curricula and instructional strategies/methods for children from birth to primary age. A wide range of student diversity is addressed, including ability, culture and language. Minimum of 30 hours of field experiences; students are responsible for their own transportation.

**IECE 423. INTERDISCIPLINARY SERVICES FOR YOUNG CHILDREN WITH LOW INCIDENCE DISABILITIES. (3)** Prerequisites: IECE 321, IECE 322, and IECE 323; or instructor permission. Characteristics of children birth through five years with low incidence disabilities (e.g., autism, sensory impairments, physical impairments), as well as assessment and instructional strategies. The role of the transdisciplinary team, including family members, in providing services will be emphasized. Field experience is required; students are responsible for their own transportation.

**IECE 489. PRACTICUM SEMINAR IN INTERDISCIPLINARY EARLY CHILDHOOD EDUCATION. (1)** Prerequisites: IECE 421 and 422 with grades of "C" or higher. Corequisite: IECE 491. Discussion of a reflection on the practicum placement, as well as career planning. This course prepares IECE majors to apply knowledge learned in previous courses.

**IECE 490. STUDENT TEACHING (INFANTS AND TODDLERS) (5) (PRESCHOOLERS) (5)** Prerequisites: Admission to Teacher Education and admission to student teaching Corequisite: EDU 489. Supervised assignment in approved setting where young children with and without disabilities and their families are served. Must complete a minimum of sixteen weeks in one or two placements depending on certification requirements. Students follow the academic calendar of the setting in which they are placed and are responsible for providing their own transportation to assigned site(s).

**IECE 491. PRACTICUM IN INTERDISCIPLINARY EARLY CHILDHOOD EDUCATION. (5)** Prerequisites: IECE 421 and IECE 422, with grades of "C" or higher. Corequisite: IECE 489. Supervised work in off-campus settings with children birth to age 5, with and without disabilities, and their families. Students are responsible for arranging their own transportation.

#### INS – INFORMATION SYSTEMS DEPARTMENT OF PROFESSIONAL STUDIES

**INS 181C. COMPUTER PROGRAMMING I. (3)** Prerequisite: DMA 096C or background for eligibility for MA 116C. This course provides an introduction to program design and development. A structured approach to problem solving, program definition and design methodologies is stressed. The student will be assigned several programming problems.

**INS 182C. COMPUTER OPERATING SYSTEM. (3)** This course provides a thorough study of an operating system command set. This includes topics in file management, disk organization, memory management, virus safeguarding and system configuration.

**INS 200C. PC HARDWARE. (3)** Prerequisites: CSCI 145C and INS 182C. This course introduces microcomputing hardware and the principle functions of hardware components. The student learns the history of computer hardware as well as the details of internal addressing, interrupt priorities, and hardware diagnostics. Students will also install hardware components such as CPU's, memory, storage devices, communication devices, and display adaptors.

**INS 270C. ELECTRONIC SPREADSHEETS. (3)** This course provides the student the foundation needed to utilize a spreadsheet for business applications. Design concepts, databases, charts and macros will be examined thoroughly along with the major built-in functions. Students will design several spreadsheets both in and out of class to solve specific business problems. (course fee)



## Course Descriptions

**INS 272C. DATABASE MANAGEMENT. (3)** This course addresses the design and maintenance of a database system. Topics of emphasis are writing of data queries, data redundancy and validation, sorting, reporting, and database programming. The student will design, create and manipulate several databases and also write database programs. (course fee)

**INS 275C. WEB PAGE DESIGN. (3)** Covers web page design concepts and practice. Students will utilize software to design web pages and web sites that are attractive, use-friendly, and functional. Emphasis on both planning and creating a web site. (course fee)

**INS 281C. COMPUTER PROGRAMMING II. (3)** *Prerequisite: INS 181C.* This course is a continuation of INS 181. An introduction to simple data structures and their applications is included. The student will be assigned several programming problems.

**INS 285C. ADVANCED SOFTWARE APPLICATIONS. (3)** This course provides the opportunity for the students to install, configure, evaluate and use a variety of software applications on single user systems and in a network environment. Software proficiency is emphasized as the need for end-user support is vital in both networked and stand-alone systems. This course will provide problem recognition and problem resolution experience at the system and application level.

**INS 288C. NETWORK ADMINISTRATION. (3)** *Prerequisite: INS 182.* This course provides the student the opportunity to analyze a system at the network operating system (NOS) level. A NOS will be available for installation providing client/server administration experience. Various network analysis problems will be examined. Study of the design of local area networks and wide area networks will be included as will maintenance issues.

**INS 290C. INTERNSHIP-INFORMATION SYSTEMS. (3)** *Prerequisite: Instructor's permission.* Provides the advanced student with a practical working-learning opportunity. Periodic seminars and outside assignments related to the job are required. (Grading: Pass/Fail)

### INT – INTERCULTURAL STUDIES DEPARTMENT OF FOLK STUDIES AND ANTHROPOLOGY

**INT 450. FOREIGN FIELD STUDIES. (1-12)** The course will focus on significant aspects of the culture under investigation, particularly the fine arts, the economy, the land and geography, the government, the history, the anthropological development, and the language and literature. The emphasis will be on contemporary culture and civilization, but with a look toward the past. (Contact the Office of International Programs and Projects.)

### ICSR INSTITUTE FOR CITIZENSHIP AND SOCIAL RESPONSIBILITY

**ICSR 300. PUBLIC PROBLEM SOLVING. (3)** An applied learning experience focused on broad-based form of community organizing and development generally aimed at building capacity for democratic engagement in both rural and urban environments.

**ICSR 499. PUBLIC WORK CAPSTONE EXPERIENCE. (1-3)** *Prerequisite: ICSR 300 and permission of instructor.* A capstone experience in which students engage in and reflect upon public work. Repeatable up to six hours.

### ITAL – ITALIAN DEPARTMENT OF MODERN LANGUAGES

**ITAL 100. ITALIAN LANGUAGE AND CULTURE. (1-3)** An introduction to Italian and Italian-speaking culture in conjunction with study abroad for students with little or no previous language study. Does not fulfill the general education foreign language requirement. May be repeated for a total of three credits.

**ITAL 101. ELEMENTARY ITALIAN I. (3)** A beginning course designed to develop skills in understanding, speaking, reading and writing and to provide cultural insights. (course fee) [GEN ED A-II]

**ITAL 102. ELEMENTARY ITALIAN II. (3)** *Prerequisite: ITAL 101 or one year of high school Italian.* Continuation of development of four skills and of cultural insights. (course fee) [GEN ED A-II]

**ITAL 105. ELEMENTARY ITALIAN II. (3)** Survey of the contemporary culture of Italy, with emphasis on values, behavioral characteristics, social and political structures, and achievements of Italian-speaking people. Taught in English; only taught abroad.

### JAPN – JAPANESE DEPARTMENT OF MODERN LANGUAGES

**JAPN 100. JAPANESE LANGUAGE AND CULTURE ON-SITE. (1-3)** An introduction to Japanese and Japanese-speaking culture in conjunction with study abroad for students with little or no previous language study. Does not fulfill the general education foreign language requirement. May be repeated for a total of three credits.

**JAPN 101. ELEMENTARY JAPANESE I. (3)** Introduction to pronunciation, grammar, and basic functional vocabulary of modern Japanese. Includes aspects of contemporary Japanese culture. (course fee) [GEN ED A-II]

**JAPN 102. ELEMENTARY JAPANESE II. (3)** *Prerequisite: JAPN 101 or equivalent.* Continuation of Japanese 101 using Hiragana and Katakana writing systems, grammar, and basic additional vocabulary of modern Japanese. Includes aspects of contemporary Japanese culture. (course fee) [GEN ED A-II]

**JAPN 115. INTRODUCTION TO JAPANESE CULTURE. (3)** Survey of the contemporary culture of Japan, with emphasis on values, behavioral characteristics, social and political structures, and achievements of the Japanese-speaking people. Taught in English; only taught abroad.

**JAPN 201. INTERMEDIATE JAPANESE I. (3)** *Prerequisites: JAPN 102 or two years of high school Japanese. Expansion of communication skills in increasingly complex and varied situations. Emphasis on conversational speaking, presentational writing and speaking, and understanding culturally specific texts and media.* [GEN ED A-II]

**JAPN 210. INTERMEDIATE JAPANESE CONVERSATION ABROAD. (1-3)** *Prerequisite: JAPN 102 or equivalent.* Course designed to develop the vocabulary and communication skills of a student with one year of college Japanese or equivalent, with emphasis on contact with Japanese native speakers. Taught in Japanese. May be repeated for a total of three credits.

**JAPN 211. INTERMEDIATE JAPANESE CULTURE ABROAD. (1-3)** *Prerequisite: JAPN 102 or equivalent.* Course designed to develop an appreciation for different aspects of Japan and its people and culture, for a student with one year of college Japanese or equivalent. Taught in Japanese. May be repeated for a total of three credits.

### JOUR – JOURNALISM SCHOOL OF JOURNALISM & BROADCASTING

**JOUR 131. INTRODUCTION TO DIGITAL PHOTOGRAPHY. (3)** Introduces non-photojournalism majors to the processes and aesthetic values of digital photography, including light, composition, content and ethics. Concepts applied through hands-on projects. Students must bring digital camera to first class meeting. (course fee)

**JOUR 154. NEW MEDIA LITERACY: EXPLORATIONS IN PARTICIPATORY CULTURE. (3)** Develops a framework to access, analyze, evaluate, create and interact with messages in a variety of digital forms, including social media. Restricted to majors/minors outside the School of Journalism & Broadcasting.

**JOUR 201. MEDIA AND SOCIETY. (3)** A study of newspapers, radio and television, magazines, public relations, advertising and allied topics. Includes consideration of communication theory, current practices, history, involvement of minorities and women, legal restrictions, ethics, government-press relations and career opportunities. (Must be taken by majors prior to enrolling in any 300-level course.)

**JOUR 202. INTRODUCTION TO MEDIA WRITING. (3)** Writing to print, online and broadcast media, and public relations with primary focus on news writing. Accuracy, responsibility, clarity, style and structure techniques emphasized. (course fee)

**JOUR 231. INTRODUCTION TO PHOTOJOURNALISM. (3)** Introduces photojournalism majors to the technical, aesthetic and ethical aspects of digital photography through weekly projects. Adjustable digital SLR camera required. Must bring camera to first day of class. (course fee)

**JOUR 232. ELECTRONIC TECHNOLOGIES FOR JOURNALISM. (3)** *Prerequisite: Must be enrolled in a major in the School of Journalism & Broadcasting.* A hands-on introduction to computer programs and technologies used by journalists and other media practitioners to collect, process, analyze and publish information. (course fee)

**JOUR 261. INTRODUCTION TO MULTIMEDIA. (3)** *Prerequisites: JOUR 231 (Photojournalism majors), JOUR 131 (non-majors).* Journalistic storytelling on the Web and other forms of electronic communication using photographs, words, audio, video, screen design, and navigation. Weekly assignments require transportation, digital SLR camera, audio recording device, and external hard drive. (course fee)

**JOUR 300. RESEARCH IN ADVERTISING AND PUBLIC RELATIONS. (3)** *Prerequisites: JOUR 201, 202, 232, MKT 220, a course in statistics (ECON 206, SOCL 300, MATH 183, PSY 301 or AMS 271) and either JOUR 355 for majors in public relations or JOUR 341 for majors in advertising.* Prepares students to perform and supervise preliminary research in advertising and public relations environments. Includes consumer analysis, media tracking, attitude measurement, copy testing, online research and evaluation of externally supplied research.

**JOUR 301. PRESS LAW AND ETHICS. (3)** *Prerequisites: JOUR 201, 202 and junior standing, or permission of instructor.* An in-depth study of concepts basic to freedom of expression, with emphasis on libel, privacy, free-press and fair-trial guidelines, access to government information, and obscenity. Attention is given to attendant ethical considerations.

**JOUR 302. INTERMEDIATE REPORTING. (3)** *Prerequisites: JOUR 201, 202.* Reporting and writing for print and online media. Emphasis on using journalistic style and grammar, interviewing and writing news stories on a range of topics including governmental affairs. (course fee)

**JOUR 323. NEWS EDITING. (3)** *Prerequisites: JOUR 202.* A course of basic instruction in copy editing and headline writing, as well as an introduction to picture handling, outline writing, and the use and abuse of the language.

**JOUR 325. FEATURE WRITING. (3)** *Prerequisites: JOUR 302 and 323, or permission of the instructor.* A professional reporting course that teaches feature writing and marketing of feature articles for magazines and newspapers. (course fee)

**JOUR 333. LIGHTING TECHNOLOGIES. (3)** *Prerequisites: JOUR 231, 261.* Lighting techniques used in the studio and on-location applied through weekly portrait, feature, and picture story assignments. Discussion includes interviewing techniques and ethics. On-location lighting equipment and digital SLR camera required. (course fee)

**JOUR 334. PICTURE STORIES. (3)** *Prerequisite: JOUR 336.* Extensive use of the multiple-picture project to develop skills in visual storytelling, caption writing, and ethics. Digital SLR camera, compact flash cards, and external hard drive required. (course fee)

**JOUR 336. PICTURE EDITING. (3)** *Prerequisites: JOUR 333 (Photojournalism majors); JOUR 131, 232 (News-Editorial majors); or permission of the instructor.* A study of the process of making informed and ethical decisions concerning the publication of photographs. Topics include picture choice, design, and photo management. (course fee)

**JOUR 340. CREATIVE STRATEGY AND COPYWRITING. (3)** *Prerequisite: JOUR 341.* Aids students in developing skills in creative strategic thinking and in writing advertising copy for a variety of media including magazines, newspapers, television, radio and the Internet. (course fee)

**JOUR 341. PRINCIPLES OF ADVERTISING. (3)** *Prerequisites: JOUR 201 and 202 (for journalism majors).* A survey course in the fundamental principles and practices of advertising including study of the techniques of creating advertisements, functions of advertising agencies, budgets, media selection, research and other topics.

**JOUR 343. PRINT DESIGN, PRODUCTION AND TYPOGRAPHY. (3)** *Prerequisites: JOUR 201, 202 and 232 or successful completion of final exam in JOUR 232.* Introduction to practical and creative aspects of designing and preparing materials for print media. This computer-aided course includes design, layout and typography for preparing newspaper, magazine, advertising and promotional publications materials for various print processes. (course fee)

**JOUR 344. ADVERTISING IN A DIGITAL WORLD. (3)** *Prerequisite: JOUR 341 or permission of instructor.* Theory and practice of incorporating new technology into advertising campaigns. Emphasis on advertising strategy development utilizing interactive technology and computer presentation skills. (course fee)

**JOUR 345. COPYWRITING AND LAYOUT. (3)** *Prerequisites: JOUR 343 and a satisfactory rating on a portfolio review.* A practical course in the creation of advertisements for print and broadcast media. Includes considerations of audience, product or service, theories, practices and appeals. (course fee)

**JOUR 346. ADVERTISING ACCOUNT PLANNING. (3)** *Prerequisite: JOUR 300 or permission of instructor.* Advertising minors may substitute MKT 220 for JOUR 300. Designed to provide information and discussion on campaign strategy development in an advertising agency setting. Advertising campaigns today may integrate advertising, sales promotion, direct marketing and public relations.

**JOUR 348. INTRODUCTION TO INTERACTIVE AD DESIGN. (3)** *Prerequisite: JOUR 341 or permission of the instructor.* Study and creation of interactive advertising, using current software programs. Develop interactive ads for Web and mobile applications. Cover aesthetic and technical aspects of design and production, business process and working in teams to produce Web-based products. (course fee)

**JOUR 349. ADVERTISING MEDIA. (3)** *Prerequisite: JOUR 300.* Advertising minors may substitute MKT 220 for JOUR 300. Study and evaluation of principal advertising media, including newspapers, magazines, trade publications, radio, television and outdoor. Includes consideration of media and audiences, media rates, budgeting, negotiating, scheduling and evaluations.

**JOUR 354. INTERNATIONAL PUBLIC RELATIONS. (3)** *Prerequisite: Junior standing.* Issues and processes relating to the practice of international public relations, including international public relations campaign and business styles.

**JOUR 355. FUNDAMENTALS OF PUBLIC RELATIONS. (3)** *Prerequisites: JOUR 201 and JOUR 202 (for journalism majors), typing skills.* Introduction to principles, practices and theory of public relations. Provides basic understanding of role played by PR in society; historical, ethical and sociological foundations of PR; and tasks and functions performed in organizations by those responsible for managing and implementing PR activities.

**JOUR 358. PUBLIC RELATIONS WRITING AND PRODUCTION. (3)** *Prerequisites: JOUR 232, 355.* Writing and production of print and electronic messages to achieve organizational objectives. Includes writing styles appropriate for various media and publication design strategies to achieve public relations goals. (course fee)

**JOUR 362. WEB NARRATIVES. (3)** *Prerequisite: JOUR 334.* Web-based narratives course involving weekly assignments using photography, audio, and video. Web ethics explored. Transportation, digital SLR camera, external hard drive, and audio equipment required. (course fee)

**JOUR 421. AMERICAN PRESS HISTORY. (3)** Major events and personalities in the development of print and electronic journalism, advertising and public relations from Gutenberg to the present, with future projections. Includes consideration of involvement of minorities and women. Analysis of contemporary journalism in the context of its history.

**JOUR 422. CURRENT ISSUES IN MASS COMMUNICATION. (3)** *Prerequisite: 18 hours of journalism for journalism majors.* A senior-level seminar designed as a capsule course for journalism students focusing on a variety of topics including, but not limited to, access to the media, protection of confidential sources, objectivity, fairness, the media influence on the decision-making process, and the new technology. Capstone course for the mass communication major.

**JOUR 426. ADVANCED REPORTING. (3)** *Prerequisite: JOUR 325.* Designed to produce for publication in-depth news reporting, including reporting on government affairs, using interviewing, observation and public records research skills coupled with computer assisted reporting. Capstone course for news/editorial curriculum. (course fee)

**JOUR 427. SCHOOL JOURNALISM. (3)** *Prerequisite: Senior or graduate standing.* A course designed to meet the state requirements for secondary certification in journalism. Explores resources available to journalism teachers and the responsibility of publications advisors.

**JOUR 428. NEWSPAPER MANAGEMENT. (3)** *Prerequisite: 18 hours of journalism or permission of instructor.* Critiquing of the decision-making process and of solutions reached by newspaper management. Topics will include circulation, promotion, advertising, production, managing newsroom personnel, and the law regarding newspaper publication and distribution.

**JOUR 432. PHOTOJOURNALISM PRACTICUM. (3)** *Prerequisite: JOUR 362.* Practical application of concepts and skills introduced in previous photojournalism courses through work with campus and regional publications, both traditional and online. Emphasis on deadline reporting involving sports, news, and features, and how to work with ethical situations that arise from these events. Transportation, digital SLR camera, and audio equipment required. (course fee)

## Course Descriptions

**JOUR 436. PHOTOJOURNALISM PROJECTS. (3)** *Prerequisite: JOUR 432.* Capstone for photojournalism major, emphasis on the long-term project and conceptual assignments. Ethics discussed. In addition to projects, each student will present a final portfolio to reflect mastery of skills. Guest lecturers from the photojournalism field enhance student learning. Transportation, digital SLR camera, and audio equipment required. Video camera recommended. (course fee)

**JOUR 439. ADVANCED STUDIO LIGHTING TECHNIQUES. (3)** *Prerequisite: JOUR 333.* Advanced lighting techniques for studio photography. Techniques applied to portrait and still-life assignments. Advanced interviewing techniques for portrait work. The business of a working studio will be explored. Final project includes a portfolio and business plan. Off campus travel required. (course fee)

**JOUR 443. INTERACTIVE ADVERTISING DESIGN. (3)** *Prerequisites: JOUR 348 and 343; or permission of instructor.* A survey course in the fundamental principles and practices of advertising including study of the techniques of creating advertisements, functions of advertising agencies, budgets, media selection, research and other topics. (course fee)

**JOUR 444. ADVANCED INTERACTIVE ADVERTISING DESIGN. (3)** *Prerequisite: JOUR 443 or permission of instructor.* An advanced course to aid students in creating portfolios of their interactive design work. Provides an opportunity to use multi-media techniques in advertising projects. Capstone course for the Interactive Advertising emphasis in the advertising curriculum. (course fee)

**JOUR 445. ADVANCED COPYWRITING AND LAYOUT. (3)** *Prerequisites: JOUR 345 and senior standing.* Aids advertising students in developing writing and designing portfolios of their work. Includes advertisements created for magazines, newspapers, direct mail, collateral and other print media. Intensive use of computer programs associated with advertising design. Capstone course for the Print Advertising option in the advertising curriculum. (course fee)

**JOUR 446. ADVERTISING CAMPAIGNS. (3)** *Prerequisite: JOUR 349.* Preparation of an advertising campaign including research, marketing, creative, media and sales promotion plans. Capstone course for the Account Services emphasis in the advertising curriculum. (course fee)

**JOUR 448. ADVERTISING INTERNSHIP OR PRACTICUM. (3)** *Prerequisites: 18 hours in the major and permission of sequence head.* Professional-quality experience outside or inside the University for a fixed period of time and conforming to standards established by the School. Follow-up will consist of student reports and evaluation.

**JOUR 454. PUBLIC RELATIONS STRATEGY AND PLANNING. (3)** *Prerequisites: JOUR 300, 323, 358.* Course in conceptualizing, managing, monitoring and implementing specialized programs. Practical guidance and experience in applying logic, implementation and evaluation and development of PR case studies. Actual clients are often used. (course fee)

**JOUR 456. PUBLIC RELATIONS MANAGEMENT. (3)** *Prerequisites: JOUR 300, 454.* Advanced course in conceptualizing, managing, monitoring and implementing specialized commercial and social programs for corporate, service and government institutions. This capstone course in PR involves interaction with actual clients. (course fee)

**JOUR 458. PR INTERNSHIP OR PRACTICUM. (3)** *Prerequisites: 18 hours in the major and permission of sequence head.* Professional-quality experience outside or inside the University for a fixed period of time and conforming to minimum standards established by the School. Follow-up will consist of student reports and employer evaluation.

**JOUR 481. PROBLEMS IN MASS COMMUNICATION. (3)** Study of contrived and real problems involving research, planning and implementation.

**JOUR 491. INTERNSHIP OR PRACTICUM. (3)** *Prerequisites: 18 hours in the major and permission of sequence head.* Professional-quality experience outside or inside the University for a fixed period of time and conforming to minimum standards established by the School. Follow-up will consist of student reports and evaluation.

**JOUR 495. COLLABORATIVE JOURNALISM. (3)** *Prerequisites: JOUR 362 (photo majors); JOUR 325 (News/Editorial majors); BCOM 361 or 366 or 368 (Broadcasting majors); JOUR 443 (Ad majors); JOUR 358 (PR majors); or permission of sequence coordinator; and consent of the instructor or participation in iMedia certification.* Demonstrates, through supervised practical application, how to work in a multimedia environment to tailor news stories for distribution through various media including: Web, print, broadcast, and mobile media. (course fee)

### LEAD / LEA – LEADERSHIP STUDIES CENTER FOR LEADERSHIP EXCELLENCE (LEAD) DEPARTMENT OF LIBERAL ARTS AND SCIENCES (LEA)

**LEAD 200 / LEA 200C. INTRODUCTION TO LEADERSHIP STUDIES. (3)** *Prerequisite: Open to students of at least sophomore standing.* An introduction to the basics of effective leadership including an investigation of leadership theories and assessment of leadership styles. [GEN ED C]

**LEAD 325. LEADING CHANGE. (3)** *Prerequisite: LEAD 200 or instructor's permission.* Study of processes and skills impacting a leader's ability to implement change, emphasizing the analysis of various existing models to produce sound solutions.

**LEAD 330. LEADERSHIP ETHICS AND DECISION-MAKING. (3)** *Prerequisite: LEAD 200 or instructor's permission.* Study of contemporary ethical and decision-making issues facing leaders; emphasis on examining and analyzing ethical issues for sound leadership solutions.

**LEAD 395. CONTEMPORARY LEADERSHIP ISSUES. (3)** *Prerequisite: LEAD 200 or instructor's permission.* Analysis of contemporary issues from a leadership perspective.

**LEAD 400. PRACTICUM IN LEADERSHIP. (1-6)** *Prerequisite: Completion of all other courses approved for the Certificate in Leadership Studies or concurrent with the last course needed for fulfillment of the certificate. Students must submit a written proposal for approval by the Leadership Studies Committee.* Application of leadership skills in directing an activity in business, campus, public sector, non-profit, or other related situation. Repeatable up to a maximum total of six hours. (Grading: Pass/Fail)

**LEAD 475. LEADERSHIP STUDIES SPECIAL TOPICS. (3)** *Prerequisite: LEAD 200 or instructor's permission.* Applications of leadership theories and methodologies in selected fields, including the sciences, engineering, urban planning, the arts, public health, education and business, and for study abroad programs.

### LME – LIBRARY MEDIA EDUCATION SCHOOL OF TEACHER EDUCATION

**LME 318. CHILDREN'S LITERATURE. (3)** *Prerequisites: First three English courses or instructor approval.* An introduction to picture books, traditional literature, poetry, fiction, biography, informational books, and the development of literature programs in the elementary and middle school.

**LME 407. LITERATURE FOR YOUNG ADULTS. (3)** Selection and evaluation of materials, reading guidance, and programming for young people, adolescence through young adult.

**LME 409. SELECTED TOPICS. (1-3)** *Prerequisite: Permission of supervising faculty member.* Problematic study of a selected topic under the supervision of a faculty member. A formal research paper or annotated bibliography is required.

**LME 410. STORYTELLING. (3)** Storytelling literature, story selection, and sources. Practice in oral communication.

**LME 411. CREATIVE MEDIA EXPERIENCES FOR CHILDREN. (3)** Methods and procedures for developing creativity in children. The design and evaluation of materials and activities in a variety of media formats for school and library settings. Includes program development.

**LME 445. INTRODUCTION TO EDUCATIONAL TECHNOLOGY. (3)** Instruction and laboratory experiences in the basic theory and application of educational technology to the design, production, evaluation, and utilization of various communication media formats.

**LME 448. TECHNOLOGY APPLICATIONS IN EDUCATION. (3)** Uses of technology in education for instruction and instructional management. Emphasis on evaluation and utilization of appropriate software and hardware.

**LME 475. WORKSHOP. (1-3)** Workshop classes of variable content focused on library media practice and integration of educational technology.

### LTCY – LITERACY SCHOOL OF TEACHER EDUCATION

**LTCY 199. READING POWER. (3)** Emphasis on development of high-level reading skills, and strategic approaches to deep comprehension and analysis of academic texts. Required for incoming freshmen who scored 18 or 19 on the reading portion of the ACT. Must be paired with approved heavy reading content course.

**LTCY 310. EARLY READING, LANGUAGE AND LITERACY. (3)** *Prerequisites:* IECE 321, IECE 322 and IECE 323; or instructor permission. *Corequisites:* EXED 422, IECE 325, IECE 326 and IECE 493; or instructor permission. Theory and methods for creating learning environments for the development of language, emergent literacy, and reading and writing skills from infancy through kindergarten.

**LTCY 320. THE TEACHING OF READING. (3)** *Prerequisites:* EDU 250, PSY 310. An introduction to reading instruction for elementary grade children; includes an examination of reading needs, teaching methods, materials, and resources related to reading skills development. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**LTCY 420. READING IN THE PRIMARY GRADES. (3)** *Prerequisites:* LTCY 320, ELED 345 with grades of "C" or higher, admission to Teacher Education. A second course in reading designed to offer a detailed view of the principles, materials, and methods of instruction for grades P-5. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**LTCY 421. CONTENT AREA READING IN THE MIDDLE AND SECONDARY GRADES. (3)** *Prerequisites:* EDU 250, MGE 275, AGED 250, or AMS 220 with a grade of C or higher; and admission to Teacher Education. A course in reading designed to offer a detailed view of the principles, materials and methods of instruction for middle and secondary grade students. Field experiences in public schools and/or other appropriate settings away from campus are required. Students are responsible for arranging their own transportation to designated or assigned sites.

**LTCY 444. READING IN THE SECONDARY GRADES. (3)** The principles, psychology, and methodologies for teaching the general and the specialized reading skills in the secondary grades.

**MATH / MA – MATHEMATICS**  
**DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE (MATH)**  
**DEPARTMENT OF LIBERAL ARTS AND SCIENCES (MA)**

(Courses numbered below 122 are not applicable toward a major or minor in mathematics.) A student who has earned credit for the listed course with a grade of "C" or better may not subsequently receive credit for the courses following in parentheses: MATH 117 (MATH 116); MATH 118 (MATH 116 and 117); MATH 119 (MATH 116 and 118); MATH 122 (MATH 116 and 118); MATH 136 (MATH 116, 117, 118, 119, and 122); MATH 137 (MATH 116, 117, 118, 119, 122, 136); MATH 310 (MATH 109); MATH 382 (MATH 109 and 183); STAT 301 (MATH 109 and 183).

**MATH 106. ACADEMIC SUPPORT FOR MATH 116E. (0)** *Corequisite:* MATH 116E. *Special Requirement:* Students who withdraw from MATH 116E must also withdraw from MATH 106. Provides supervised sessions in which students work individually or in groups to complete supplementary assignments or projects; may include assistance with text-specific online homework and graphing calculators.

**MATH 109 / MA 109C. GENERAL MATHEMATICS. (3)** Terminal course for non-science majors suggested for the student who has satisfactorily completed minimum high school mathematics requirements and needs no further work in algebra. Topics include sets, introduction to probability and statistics, geometry, and consumer mathematics. [GEN ED D-II]

**MATH 116 (116E) / MA 116C. COLLEGE ALGEBRA. (3)** *Prerequisites:* High school Algebra I and II and satisfactory score on Math Placement Exam; or DMA 096C with a grade of C or better. Student must enroll in MATH 116E if his/her DMA 096C grade was a C, or previous MATH 116 grade was D, F, or W, or Math ACT and MPE scores indicate need for enhanced version. *Corequisite for MATH 116E:* MATH 106, Academic Support for MATH 116E. *Special Requirement:* Students who withdraw from MATH 106 must also withdraw from MATH 116E. Graphing and problem solving are integrated throughout the study of polynomial, absolute value, rational, radical, exponential, and logarithmic functions. (Graphing calculator required.) [GEN ED D-II]

**MATH 117 / MA 117C. TRIGONOMETRY. (3)** *Prerequisites:* Four years of high school mathematics including Algebra I and II and geometry, and satisfactory score on Math Placement Exam; or MATH 116 with a grade of C or better. Unit circle; trigonometric functions and graphs; trigonometric identities and equations; right triangle trigonometry; laws of sines and cosines; DeMoivre's Theorem; vectors and applications of trigonometry. (Graphing calculator required.) [GEN ED D-II]

**MATH 118. COLLEGE ALGEBRA AND TRIGONOMETRY. (5)** *Prerequisites:* High school Algebra I and II and geometry, and a satisfactory score on the Math Placement Exam; or DMA 096C or MATH 096 with a grade of A. (Students who have completed DMA 096C or MATH 096 are urged to substitute MATH 116-117

for MATH 118.) Real number system, algebraic manipulations, and solutions of equations and inequalities, absolute value, exponential and logarithmic functions, trigonometry, systems of equations, complex numbers. (Graphing calculator required.) (course fee MATH 118-002) [GEN ED D-II]

**MATH 119. FUNDAMENTALS OF CALCULUS. (4)** *Prerequisites:* Four years of high school mathematics, including Algebra I and II and geometry, and satisfactory score on Math Placement Exam; or MATH 116 or MATH 118, with a grade of C or better. An introduction to calculus designed for non-science and non-technical majors. Applications are directed toward the management sciences and related areas. Not accepted for credit toward a mathematics major or minor. (Graphing calculator required.) [GEN ED D-II]

**MATH 121. COMPUTATIONAL PROBLEM SOLVING. (4)** *Prerequisite:* Enrollment in the Gatton Academy of Mathematics and Science in Kentucky. Students will tackle problems ranging from elementary to advanced, using mathematical methods, algorithmic techniques, and computational methods. This course is taught jointly by mathematics and computer science faculty; it is equivalent to CS 121.

**MATH 122. CALCULUS OF A SINGLE VARIABLE I. (3)** *Prerequisites:* Four years of high school mathematics, including Algebra II, geometry, and trigonometry, and satisfactory score on Math Placement Exam; or MATH 117 or MATH 118, with grade of C or better. Introductory analytic geometry and differential calculus. First course of a three-course sequence presenting a unified development of analytical geometry, differential and integral calculus, and series. (Graphing calculator required.) [GEN ED D-II]

**MATH 127. APPLIED GEOMETRY. (3)** *Prerequisites:* MATH 116/116E with a grade of C or better, or Math ACT and MPE scores that qualify student for MATH 117. Euclidean geometry with historical applications, including tilings, fractals, circular and spiral designs, celestial themes, special topics in linear algebra, and the origins of perspectives.

**MATH 136. CALCULUS I. (4)** *Prerequisites:* Four years of high school mathematics, including Algebra II, geometry, and trigonometry, and satisfactory score on Math Placement Exam and Math Placement Trig Exam; or MATH 117 or MATH 118, with grade of C or better. A course in one-variable calculus including topics from analytic geometry. Limits, derivatives, integration, and applications of polynomial, rational, trigonometric, and transcendental functions. Includes lecture and recitation. [GEN ED D-II]

**MATH 137. CALCULUS II. (4)** *Prerequisites:* MATH 136 with a grade of C or better. A second course in one-variable calculus including topics from analytic geometry. Methods of integration, sequences and series, polar and parametric functions. Includes lecture and recitation.

**MATH 142. CALCULUS WITH APPLICATIONS FOR LIFE SCIENCES. (5)** *Prerequisites:* Four years of high school mathematics, including Algebra I and II, geometry, and a course that includes trigonometry, and satisfactory Math ACT and math placement scores; or MATH 117 or MATH 118, with a grade of C or better. Exponential and logarithmic functions, derivatives, integration, first order differential equations, and systems of linear equations, with major emphasis on applications in life sciences. [GEN ED D-II]

**MATH 175. UNIVERSITY EXPERIENCE – MATHEMATICS. (2)** *Prerequisite:* For beginning college freshmen or transfer students with fewer than 24 semester hours of credit. Transition to university experience. Topics include study skills, critical thinking skills, library education, exploration of majors and careers, degree programs, campus resources and personal development. Specific degree requirements for a major in mathematics and career opportunities in mathematics are also discussed.

**MATH 183. INTRODUCTORY STATISTICS. (3)** *Prerequisite:* Eligibility for College Algebra based on MATH ACT or MPE scores, or DMA 096C with a grade of C or better. Introduction to elementary probability theory. The analysis of data by means of frequency distributions and the statistics which describe them. The binomial and normal probability distributions. Statistical inference. Emphasis is on applied real world problems. Not accepted for credit toward a mathematics major or minor. [GEN ED D-II]

**MATH 205. NUMBER SYSTEMS AND NUMBER THEORY FOR TEACHERS. (3)** *Prerequisites:* Completion of general education math course with a grade of C or better; for students in early grades (K-5), middle grades (5-9) or EXED teacher certification programs only. Development of conceptual understanding of elementary place value, operations on whole numbers and integers, number theory, basic algebra, and functions.

**MATH 206. FUNDAMENTALS OF GEOMETRY FOR TEACHERS. (3)** *Prerequisites:* Completion of general education math course and MATH 205 with grades of C or better; for students in the early grades (K-5), middle grades (5-9) or EXED teacher certification programs only. Conceptual development of fundamental concepts of geometry and measurement.

## Course Descriptions

### **MATH 211. MATHEMATICS FOR ELEMENTARY TEACHERS I. (3)**

*Prerequisite:* Completion of general education math requirement with grade of C or higher. (For students in the early grades (K-5) teacher certification program or students pursuing middle grades (5-9) certification with a mathematics emphasis.) Elementary work with relations, systems of numeration, number systems, and number theory.

### **MATH 212. MATHEMATICS FOR ELEMENTARY TEACHERS II. (3)**

*Prerequisite:* MATH 211 with a grade of C or higher and completion of general education mathematics requirement. (For students in the early grades (K-5) teacher certification program or students pursuing middle grades (5-9) certification with a mathematics emphasis.) Construction geometry, motion geometry, nonmetric geometry, measurement including the metric system, and introductions to computers, probability, and statistics.

### **MATH 237. MULTIVARIABLE CALCULUS. (4)**

*Prerequisite:* MATH 137 with a grade of C or better. Topics in real-valued functions of several variables including directional derivatives, implicit functions, gradient, Taylor's Theorem, maxima, minima, and Lagrange multipliers. Differential calculus of vector-valued functions including chain rule and Inverse Function Theorem. Multiple integrals, line integrals, surface integrals, Stokes' and Green's Theorems.

### **MATH 275. INTRODUCTORY TOPICS IN MATHEMATICS. (1-3)**

*Prerequisite:* MATH 136 and permission of instructor. Varied topics selected to give students an early introduction to interesting mathematical problems or applications not found in the foundation sequence.

### **MATH 295. INTRODUCTION TO RESEARCH METHODOLOGY. (1)**

*Prerequisite:* Ogden Research Scholar, or 3.2 grade point average at the end of freshman year or OCSE faculty member recommendation. To familiarize Ogden Research Scholars and other interested students with the fundamentals of choosing a research topic, performing a bibliographical search on a subject, classification of instruments, data taking, data reduction, professional ethics and related topics. The common points of research methodology in the different scientific areas will be emphasized, with examples drawn from various disciplines. Computers will be utilized. (Course does not count toward any major or minor.) Equivalent to BIOL 295, CHEM 295, CS 295, GEOL 295, MATH 295, and PHYS 295.

### **MATH 304. FUNCTIONS, APPLICATIONS AND EXPLORATIONS. (3)**

*Prerequisite:* MATH 136. In-depth study of mathematical topics used in teaching pre-calculus and transition-to-calculus courses at the middle and secondary school level. Modeling with linear, exponential, and trigonometric functions; curve fitting; discrete and continuous models.

### **MATH 305. INTRODUCTION TO MATHEMATICAL MODELING. (3)**

*Prerequisite:* MATH 137. Theory and computer implementation of mathematical models. Deterministic, stochastic, discrete, continuous, and matrix models. Introduction to advanced topics such as linear algebra, differential and difference equations, probability, stochastic processes, and dynamical systems.

### **MATH 307. INTRODUCTION TO LINEAR ALGEBRA. (3)**

*Prerequisites:* MATH 136 and either EE 180 or PHIL 215, all with a grade of C or better. Systems of linear equations, matrix algebra, vector spaces, inner product spaces, linear transformations, eigenvectors, quadratic forms.

### **MATH 308. RATIONAL NUMBERS AND DATA ANALYSIS FOR TEACHERS. (3)**

*Prerequisite:* Completion of MATH 206 with a grade of C or better; for students in the early grades (K-5), middle grades (5-9) or EXED teacher certification programs only. Conceptual development of rational number system, including operations with and relationships among fractions, decimals, and percents; elementary probability and statistics.

### **MATH 310. INTRODUCTION TO DISCRETE MATHEMATICS. (3)**

*Prerequisite:* MATH 137. Introduction to discrete topics. Development of skills in abstraction and generalization. Set theory, functions and relations, mathematical induction, elementary propositional logic, quantification, truth tables, validity; counting techniques, pigeonhole principle, permutations and combinations; recurrence relations and generating functions; elementary graph theory, isomorphisms, trees.

### **MATH 315. THEORY OF NUMBERS. (3)**

*Prerequisite:* MATH 307. A study of the arithmetic of the integers, divisibility, prime numbers, factorization, diophantine equations, congruences, quadratic residues.

### **MATH 317. INTRODUCTION TO ALGEBRAIC SYSTEMS. (3)**

*Prerequisites:* MATH 307 and MATH 310. Introduction to groups, rings, polynomial rings, integral domains, and fields.

### **MATH 323. GEOMETRY I. (3)**

*Prerequisite:* MATH 307 or permission of instructor. Beginning with a re-examination of elementary Euclidean geometry, the course includes a study of absolute plane geometry and the parallel postulate, which leads to an axiomatic treatment of hyperbolic geometry and related topics.

### **MATH 331. DIFFERENTIAL EQUATIONS. (3)**

*Prerequisite:* MATH 137. (Recommended corequisite: MATH 307). Methods of solution of differential equations, existence and nature of solutions, systems of differential equations, applications, and numerical solutions.

### **MATH 337. ELEMENTS OF REAL ANALYSIS. (3)**

*Prerequisites:* MATH 237, 307, 310 with a grade of C or higher. Basic concepts and techniques of real analysis, including proofs by induction and contradiction, the number system, functions of real variables, sets, series and sequences, cardinality, continuity, convergence, elementary topology.

### **MATH 350. ADVANCED ENGINEERING MATHEMATICS. (3)**

*Prerequisite:* MATH 331 or equivalent. Special topics in Laplace transforms, linear algebra and complex analysis. Designed for engineering students.

### **MATH 370. APPLIED TECHNIQUES IN MATHEMATICS. (3)**

*Prerequisites:* MATH 237, MATH 331 with grades of C or higher. Matrices, systems of ordinary differential equations, complex variables, and at least one of the topics from Fourier analysis, numerical analysis, or optimization (linear programming, Lagrange multipliers).

### **MATH 371. ADVANCED COMPUTATIONAL PROBLEM SOLVING. (3)**

*Prerequisite:* CS 180 with a grade of C or better. *Prerequisite or corequisite:* MATH 136. *Special requirement:* Enrollment in the Gatton Academy of Mathematics and Science or Honors Program eligibility at WKU. Problem-solving tools and techniques, with an emphasis on mathematical reasoning, algorithmic techniques, and computational methods. Techniques and tools are applied to (research) areas of interest to enrolled students, in the context of a project involving program design and implementation. The course is taught jointly by mathematics and computer science faculty. Equivalent to CS 371.

### **MATH 382. PROBABILITY AND STATISTICS I. (3)**

*Prerequisite:* MATH 310. *Prerequisite or corequisite:* MATH 237. Axioms and laws of probability; discrete and continuous probability distributions; multivariate distributions; random variables; expectation; moment generating functions; Central Limit Theorem.

### **MATH 398. SEMINAR. (1)**

*Prerequisite:* MATH 237. Students will work on a topic of interest under the direction of a mathematics faculty member, who will set the requirements for the course. Mathematics majors could have the opportunity to continue this work in MATH 498. (May be repeated for up to a total of 3 hours credit.)

### **MATH 403. GEOMETRY FOR ELEMENTARY AND MIDDLE SCHOOL TEACHERS. (3)**

*Prerequisites:* MATH 206 with a grade of C or better or MATH 212 with a grade of C or better. (For students in the early grades (K-4) teacher certification program or students pursuing middle grades (5-8) certification with a mathematics emphasis.) Both formal and informal methods are used to explain the basic concepts of Euclidean geometry. Emphasis is given to the investigative approach, organizational skills, and problem solving.

### **MATH 405. NUMERICAL ANALYSIS I (CS 405). (3)**

*Prerequisites:* MATH 237 or 307 or 310, and CS 180 or CS 146 or permission of instructor. Computer arithmetic, roots of equations, polynomial approximation and interpolation, numerical differentiation and integration. Computer solutions of problems will be required.

### **MATH 406. NUMERICAL ANALYSIS II. (3)**

*Prerequisites:* MATH 237, 307, 331, and either MATH 405 or CS 405. The solution of linear systems by direct and iterative methods, matrix inversion, the calculation of eigenvalues and eigenvectors of matrices. Initial and boundary value problems in ordinary differential equations. Computer solution of problems will be required.

### **MATH 409. HISTORY OF MATHEMATICS. (3)**

*Prerequisite:* Six hours of approved mathematics courses at the 300 and/or 400 level or permission of instructor. History of mathematics from ancient times through the development of calculus, with emphasis on famous problems. Provides knowledge and appreciation useful in the classroom. This course cannot be accepted as part of the 35-hour requirement for the non-certifiable mathematics major. Term papers will be required.

### **MATH 411. PROBLEM SOLVING FOR ELEMENTARY AND MIDDLE SCHOOL TEACHERS. (3)**

*Prerequisites:* MATH 308 with a grade of C or better or permission of instructor. Integrates concepts developed in algebra, geometry, logic, statistics, probability, and elementary number theory. Students are encouraged to use problem-solving strategies, models, and technologies, and to create problems of their own.

### **MATH 413. ALGEBRA AND TECHNOLOGY FOR MIDDLE GRADES TEACHERS. (3)**

*Prerequisite:* MATH 117 or 136, with a grade of C or better. The use of graphing calculators and computer software to explore algebraic ideas including patterns, functions, equations, inequalities, linear programming, curve fitting, and practical applications of algebra and technology.

**MATH 415. ALGEBRA AND NUMBER THEORY. (3)** *Prerequisite: MATH 315 or 317.* An integrated survey of modern algebra and number theory. Topics include number systems, divisibility, congruences, groups and their application to number theory.

**MATH 417. ALGEBRAIC SYSTEMS. (3)** *Prerequisite: MATH 317.* Theory of groups.

**MATH 421. PROBLEM SOLVING FOR SECONDARY TEACHERS. (3)** *Prerequisites: MATH 307 and 310; MATH 382 and 323, or permission of instructor.* Utilizes various techniques and technology to solve mathematical problems. Integrates concepts from algebra, geometry, trigonometry, probability, statistics, number theory, discrete mathematics, linear algebra, and calculus.

**MATH 423. GEOMETRY II. (3)** *Prerequisite: MATH 323.* An axiomatic development of hyperbolic geometry based on the hyperbolic parallel postulate and the absolute geometry developed in MATH 323, including an emphasis on contrasts with Euclidean geometry.

**MATH 431. INTERMEDIATE ANALYSIS I. (3)** *Prerequisite: MATH 337.* Topics in analysis chosen from inverse and implicit function theorems, differentiation, integration, infinite series, series of functions, and elementary functional analysis.

**MATH 432. INTRODUCTION TO MEASURE THEORY. (3)** *Prerequisite: MATH 431.* Algebra of sets, axiom of choice, axioms for the real numbers, continuous functions, Borel sets, Lebesgue measure, Lebesgue integral.

**MATH 435. PARTIAL DIFFERENTIAL EQUATIONS. (3)** *Prerequisites: MATH 237, 307, and 331.* Equations of first and second order; elliptic, hyperbolic and parabolic equations; Sturm-Liouville theory; applications to equations of mathematical physics using separation of variables and Fourier series.

**MATH 439. TOPOLOGY I. (3)** *Prerequisite: MATH 317 or permission of instructor.* Introduction to topology including topics selected from: topological spaces, mappings, homeomorphisms, metric spaces, surfaces, knots, manifolds, separation properties, compactness and connectedness.

**MATH 450. COMPLEX VARIABLES. (3)** *Prerequisite: MATH 237.* Complex number plane, analytic functions of a complex variable, integration, power series, calculus of residues, conformal representation, applications of analytic function theory.

**MATH 470. INTRODUCTION TO OPERATIONS RESEARCH. (3)** *Prerequisite: MATH 237 and 307 or permission of instructor.* Principles and techniques of operations research including linear programming, integer programming, quality theory, sensitivity analysis, and dynamic programming.

**MATH 473. INTRODUCTION TO GRAPH THEORY. (3)** *Prerequisites: MATH 307 and MATH 310 with grades of C or better, or permission of the instructor.* Fundamental concepts, key ideas and tools in graph theory, with an emphasis on proof methods, algorithms, and applications. Techniques and tools are applied to practical optimization problems and other areas of mathematics and computer science. Equivalent to CS 473.

**MATH 475. SELECTED TOPICS IN MATHEMATICS. (1-3)** *Prerequisite: Permission of instructor.* A consideration of special topics to acquaint the advanced undergraduate student with significant problems and developments of current interest in mathematics. Topics may vary each semester offered.

**MATH 482. PROBABILITY AND STATISTICS II. (3)** *Prerequisites: MATH 237 and MATH 382.* Multivariate probability distributions; sampling distributions, statistical inference; point and interval estimation, properties of estimators; hypothesis testing; regression and correlation; analysis of variance; non-parametric methods.

**MATH 490. SEMINAR IN MIDDLE GRADES MATHEMATICS. (1)** *Prerequisite/Corequisite: MATH 411.* Hands-on activities emphasize connections among various areas of mathematics; communicating mathematics effectively and applications of middle school mathematics. Papers and oral presentations are required.

**MATH 497. SENIOR SEMINAR IN MATHEMATICAL ECONOMICS. (1)** *Prerequisite or corequisite: Senior standing and admitted to the major in mathematical economics.* This course is designed to integrate the ideas and techniques students have encountered in their work in mathematics and economics. Students will study research articles and/or undertake independent investigations in mathematical economics. Equivalent to ECON 497.

**MATH 498. SENIOR SEMINAR. (3)** *Prerequisites: MATH 237 and MATH 317 and senior standing, or permission of instructor.* *Recommended prerequisite: MATH 398.* Students will study articles in current mathematical journals or undertake independent investigations in mathematics. Written and oral presentations are required.

## ME – MECHANICAL ENGINEERING DEPARTMENT OF ENGINEERING

**ME 175. UNIVERSITY EXPERIENCE – MECHANICAL ENGINEERING. (2)** *Prerequisite: For beginning college freshmen or transfer students with fewer than 24 semester hours of credit.* Transition to university experience. Topics include study skills, critical thinking skills, library education, exploration of majors and careers, degree programs, campus resources, and personal development, with special attention given to Mechanical Engineering. The design process is introduced through multiple projects during the laboratory sessions. (course fee)

**ME 176. MECHANICAL ENGINEERING FRESHMAN DESIGN. (1)** *Prerequisite: For transfer or change of major students who have earned at least 24 semester hours of credit or have completed a course equivalent to the basic topics of the generic WKU University Experience.* An introduction to Mechanical Engineering. The design process and basic professional tools are introduced through multiple projects. A replacement for ME 175 for transfer or change of major students. Permission of instructor only. (course fee)

**ME 180. FRESHMAN DESIGN II. (3)** *Prerequisites: ME 175 or 176, or permission of instructor, and MATH 136 with a grade of "C" or better.* A continuation of the engineering design process, with an emphasis on electromechanical design and the use of professional engineering tools. Virtual and rapid prototypes will be developed through a series of integrated projects. Basic concepts in engineering experimentation will be introduced. Requires a grade of "C" or better in MATH 136. (course fee)

**ME 200. SOPHOMORE DESIGN. (3)** *Prerequisites: ME 180 with a grade of "C" or better, EM 221.* Enhances design abilities through individual and team design projects, develops structured problem-solving techniques and written, oral and graphical communication skills.

**ME 220. ENGINEERING THERMODYNAMICS I. (3)** *Prerequisites: MATH 237, ME 200. Prerequisite or concurrent: MATH 331.* Fundamental principles of thermodynamics, first law, physical properties, ideal and real gases, second law, reversibility and irreversibility, and consequences of thermodynamic cycles.

**ME 240. MATERIALS AND METHODS OF MANUFACTURING. (3)** *Prerequisites: MATH 136 with a grade of C or better, CHEM 116 or 120. Corequisites: ME 241.* Introduction to the science of engineering materials including structures from the atomic to macroscopic scales, properties, strengthening mechanisms, phase diagrams and correlation between processing and properties. Introduction to manufacturing process selection and properties of materials.

**ME 241. MATERIALS AND METHODS OF MANUFACTURING LAB. (1)** *Prerequisites: MATH 136 with a grade of C or better; CHEM 116 or 120. Corequisite: ME 240.* Laboratory supporting ME 240. Experiments to develop understanding of materials science, engineering material properties and relationships between processing and properties. Exposure to manufacturing methods through experimentation and observation, including field trips to regional sites.

**ME 285. ELEMENTS OF INDUSTRIAL AUTOMATION. (1)** *Prerequisite: ME 180 with a "C" or better.* An introduction to PLC controls of industrial automation equipment, with emphasis on their impact on electromechanical design and safety. Elements of industrial networking will be introduced. (course fee)

**ME 300. JUNIOR DESIGN. (2)** *Prerequisites: ME 200, ME 344.* Students must have satisfied the Mechanical Engineering Pre-Major requirements as shown in the iCAP system. *Prerequisite or corequisite: ME 310.* Introduces the concept of design methodologies: Design for Assembly, Design for Manufacturing, etc. and applies these techniques to design projects. Written, oral, and graphical communication skills will continue to be developed, including skills in working with vendors for production of components to engineering specifications.

**ME 310. ENGINEERING INSTRUMENTATION AND EXPERIMENTATION. (3)** *Prerequisites: ME 285, EM 303. Prerequisite or corequisite: ME 347.* The use of sensors and instruments to measure the behavior of mechanical systems is explored in lectures and laboratory exercises. Application of sensors, calibration of systems, and methods of data collection and analysis are covered with an emphasis on uncertainty analysis. (course fee)

**ME 321. ENGINEERING THERMODYNAMICS II. (3)** *Prerequisites: ME 220, MATH 331.* Gas mixtures, air-water vapor mixtures. Air conditioning system design. Principles and design of energy conversion devices, power and refrigeration cycles. Principles of combustion, chemical equilibrium, one-dimensional gas dynamics. Nozzle design. Continuation of ME 220.

## Course Descriptions

**ME 325. ELEMENTS OF HEAT TRANSFER. (3)** *Prerequisite: ME 330.* Discussion of basic physical laws of heat transfer including steady-state and transient heat flow, one, two, and three dimensional heat conduction in solids, free or forced convection in fluids, radiation and phase change. Analysis of heat exchangers.

**ME 330. FLUID MECHANICS. (3)** *Prerequisite: ME 220. Prerequisite or corequisite: MATH 331.* An introduction to the physical laws governing the mechanical behavior of liquids and gasses, with applications of conservation of mass, energy and momentum equations. Topics include fluid statics, internal and external fluid flow, flow measurement, scale modeling and similitude, hydraulic machinery analysis and pipe networks.

**ME 344. MECHANICAL DESIGN. (3)** *Prerequisite: EM 303. Prerequisite or corequisite: ME 240.* Fundamentals of design with methods of approximation. Introduction to optimum design considerations. Synthesis and problems on the design of various mechanical elements.

**ME 347. MECHANICAL SYSTEMS LABORATORY. (1)** *Prerequisite: ME 241. Prerequisite or corequisite: EM 303, MATH 331.* Implementation of fundamental principles and physical laws governing the response of mechanical system components to external forces and constraints. Students will learn to plan, conduct, and report on a variety of experiments and projects to measure the performance characteristics of mechanical systems.

**ME 365. THERMAL SCIENCES FOR ELECTRICAL ENGINEERS. (3)** *Prerequisite: PHYS 265 or MATH 331 (prerequisite or concurrent).* Theoretical background and analysis methods required to predict the thermal behavior of electronic components and systems. Topics include design and analysis methods of forced and buoyancy-driven systems, as well as conduction, natural and forced convection, and radiation heat transfer. (This course is not for Mechanical Engineering majors).

**ME 366. MECHANICS FOR ELECTRICAL ENGINEERS. (3)** *Prerequisite: PHYS 255. Prerequisite or corequisite: MATH 237.* A combined course in statics and dynamics. Topics from statics include vector algebra, distributed and internal forces, trusses, frames, and beams. Topics from dynamics include kinematics/kinetics in various reference systems, work/energy, and impulse/momentum. (This course is not for civil or mechanical engineering majors.)

**ME 400. MECHANICAL ENGINEERING DESIGN. (2)** *Prerequisite: ME 300.* A formal introduction to product development methodologies and project management techniques, building upon experiences in previous design courses. Students will perform team design projects as well as complete the design specifications for their senior capstone project.

**ME 412. MECHANICAL ENGINEERING SENIOR PROJECT. (3)** *Prerequisites: ME 325, 400.* Students work in design teams to develop a robust solution to a complex system design problem. Focus will be on design-build-test of the proposed solution. Students expected to demonstrate all aspects of professional engineering practice.

**ME 416. UK-DYNAMIC SYSTEMS ELECTIVE. (3)** *Prerequisites: EM 313 and MATH 331.* Advanced special topics delivered in the program by UK faculty to acquaint the undergraduate student with significant problems and developments of current interest in the dynamic systems area of mechanical engineering. (course fee)

**ME 440. THERMAL FLUID SYSTEMS LABORATORY. (2)** *Prerequisite: ME 310 with a grade of "C" or better. Corequisite: ME 325.* Applied laboratory in modeling, prediction, and measurement of thermal-fluid systems. Emphasis on preparation of engineering reports, uncertainty analysis, and experimental design plan process. System level experiments will include fluid property measurements, pipe flow and turbomachinery characteristics, heat transfer measurements, and various thermodynamic cycles.

**ME 445. DYNAMIC SYSTEMS LABORATORY. (2)** *Prerequisite: ME 310 with a grade of "C" or better. Corequisite: ME 416.* Applied laboratory in modeling, prediction, and measurement of the response of mechanical dynamic systems, including free and forced responses. Emphasis on experimental planning and documentation of results. (course fee)

**ME 494. WKU ME SELECTED TOPICS. (2)** *Prerequisite: permission of instructor.* An advanced special topics course delivered by WKU faculty to acquaint the undergraduate student with significant problems and developments of current interest in mechanical engineering. This course and an accompanying ME 495 course will satisfy one technical elective requirement. Course is repeatable (with different topics) two times. Permission of instructor only.

**ME 495. WKU ME SELECTED TOPICS. (1)** *Prerequisite: permission of instructor.* An advanced special project course delivered by WKU faculty to allow undergraduate students the opportunity to execute a relevant project of current interest in mechanical engineering. This course accompanies a ME 494 course, and together will satisfy one technical elective requirement. Course is repeatable (with different topics) two times. Permission of instructor only.

**ME 496. WKU – ME SELECTED TOPICS (FALL). (3)** *Prerequisite/Corequisite: Permission of instructor.* Advanced special topics delivered in the fall semester by WKU faculty to acquaint the undergraduate student with significant problems and developments of current interest in mechanical engineering. Course is repeatable (with different topics) two times. Permission of instructor only.

**ME 497. WKU – ME SELECTED TOPICS (SPRING). (3)** *Prerequisite/Corequisite: Permission of instructor.* Advanced special topics delivered in the spring semester by WKU faculty to acquaint the undergraduate student with significant problems and developments of current interest in mechanical engineering. Course is repeatable (with different topics) two times. Permission of instructor only.

**ME 498. UK – ME SELECTED TOPICS (FALL). (3)** *Prerequisite/Corequisite: Permission of instructor.* Advanced special topics delivered in the fall semester by UK faculty to acquaint the undergraduate student with significant problems and developments of current interest in mechanical engineering. Course is repeatable (with different topics) two times. Permission of instructor only.

**ME 499. UK – ME SELECTED TOPICS (SPRING). (3)** *Prerequisite/Corequisite: Permission of instructor.* Advanced special topics delivered in the spring semester by UK faculty to acquaint the undergraduate student with significant problems and developments of current interest in mechanical engineering. Course is repeatable (with different topics) two times. Permission of instructor only.

### MFG – MANUFACTURING MANAGEMENT DEPARTMENT OF PROFESSIONAL STUDIES

**MFG 240C. MANUFACTURING OPERATIONS MANAGEMENT. (3)** *Prerequisite: BUS 200C.* A course designed to provide an overview background in manufacturing (product) operations management for production, supervisory and support personnel. Topics include analysis of production activities, techniques to improve production, planning, work measurement, material control, and forecasting.

**MFG 245C. MANUFACTURING QUALITY MANAGEMENT. (3)** *Prerequisite: BUS 200C.* A course designed to provide a background in manufacturing quality assurance for production, supervisory and support personnel. Topics include quality philosophies, issues related to quality control systems and statistical process control concepts and applications.

**MFG 265C. MANUFACTURING MANAGEMENT SEMINAR. (3)** *Prerequisite: MFG 240C and MFG 245C.* The course covers a variety of issues related to Manufacturing operations, management and organizational leadership. Topics are focused on the challenge of change, diversity of management methods, applications of strategies and future innovation. The course involves group learning experiences, practical application of concepts, and case study paper and presentation.

### MGE – MIDDLE GRADES EDUCATION SCHOOL OF TEACHER EDUCATION

**MGE 275. FOUNDATIONS OF MIDDLE GRADES INSTRUCTION. (3)** This course presents the philosophy, development, curriculum of middle grades education, through an emphasis on appropriate ethical behavior of teachers. Develops generic teaching skills related to effective teaching. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**MGE 385. MIDDLE GRADES TEACHING STRATEGIES. (3)** *Prerequisite: MGE 275.* Emphasizes the demonstration of generic teaching strategies and communication skills related to middle grades education and the integration of content methodologies, including classroom management practices and multicultural awareness through interdisciplinary/ cooperative planning. Field experiences in public schools and/or other appropriate settings away from campus are required. Students are responsible for arranging their own transportation to designated or assigned sites.

**MGE 475. TEACHING LANGUAGE ARTS. (3)** *Prerequisites: MGE 275, PSY 310, ENG 302 and two of the following courses 301, 401 or 410.* Develops skills, curriculum, and strategies for teaching English in middle school. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**MGE 477. TEACHING MIDDLE GRADES MATHEMATICS. (3)** *Prerequisites:* MGE 275, PSY 310, MATH 211 and 212. Cooperative learning, manipulatives, technology, and problem solving are modeled, discussed, and applied using methods and materials appropriate for middle school students. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**MGE 479. TEACHING SCIENCE. (3)** *Prerequisites:* MGE 275, PSY 310. Develops the skills, procedures, and strategies for teaching science in middle school. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**MGE 481. TEACHING SOCIAL STUDIES. (3)** *Prerequisites:* MGE 275, PSY 310. Develops skills, procedures, and strategies for teaching social studies in middle school. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**MGE 490. STUDENT TEACHING. (5-10)** *Prerequisites:* Admission to Teacher Education; admission to student teaching; and completion of all required courses in the major with grades of "C" or higher. *Corequisite:* EDU 489. Supervised assignment in approved school setting. Must complete a minimum of sixteen weeks in one or two placements depending on certification requirements. Students follow the academic calendar of the school district in which they are placed and are responsible for providing their own transportation to assigned site(s). (course fee)

**MGT/MGMT – MANAGEMENT**

**DEPARTMENT OF MANAGEMENT (MGT)**

**DEPARTMENT OF PROFESSIONAL STUDIES (MGMT)**

**MGT 200/ MGMT 200C. LEGAL ENVIRONMENT OF BUSINESS. (3)** *Prerequisite:* Sophomore standing. An introduction to the American public law system; use of law to achieve economic and social goals; legal responsibilities of the business manager.

**MGT 210. ORGANIZATION AND MANAGEMENT. (3)** *Prerequisite:* Sophomore standing. An introduction to organization theory and organizational behavior. The course focuses on managing people and material resources to enhance organizational productivity and effectiveness. Attention is given to the managerial functions of planning, organizing, leading and controlling.

**MGT 301. BUSINESS LAW. (3)** *Prerequisite:* Junior standing. A basic course in commercial law covering contracts, property, creditor rights, torts and other bases for liability and the Uniform Commercial Code.

**MGT 303. INTERNATIONAL BUSINESS. (3)** *Prerequisite:* MGT 210 and junior standing. Fundamentals of international business particularly in planning, organizing, and control aspects of the multinational enterprise. Roles of government, culture, foreign currency, taxes, political risk, and legal formalities for small and large firms entering new markets are emphasized.

**MGT 305. ETHICS AND CRITICAL THINKING. (3)** *Prerequisite:* MGT 200 and junior standing. This course is designed to develop skills needed for analyzing a problem or situation to arrive at a hypothesis or conclusion about it after synthesizing or integrating all available information. In critical thinking, all assumptions are open to question, divergent views are sought, and the investigation is not biased in favor of a particular solution.

**MGT 311. HUMAN RESOURCE MANAGEMENT. (3)** *Prerequisite:* Completion of MGT 210, AMS 430 or COMM 362. An introduction to major human resource management functions, including personnel selection; recruitment; training and development; performance appraisal; compensation; health and safety; labor-management relations; and employment law.

**MGT 313. DECISION MODELING. (3)** *Prerequisite:* ECON 206, CIS 243. This course deals with modeling problems that are similar to those faced by business managers. The problem is viewed as the focal point of analysis, and appropriate decision modeling tools are applied to obtain a solution. (course fee)

**MGT 314. OPERATIONS MANAGEMENT. (3)** *Prerequisite:* ECON 206 or equivalent or junior standing. The management of the direct resources required to produce goods and services. Operations objectives are cascaded through the organization and are translated into measurable terms that become part of the operating goals for production-related departments and their managers.

**MGT 316. INTERNATIONAL MANAGEMENT. (3)** *Prerequisite:* MGT 303 or by instructor's approval. A study of techniques and methods involved in managing an international business, with an emphasis on managerial issues unique to the global environment.

**MGT 333. MANAGEMENT OF NONPROFIT ORGANIZATIONS. (3)** Overview of nonprofit organizations, including budgeting, finance, marketing, communication, boards of directors, volunteers and strategic planning.

**MGT 361. BUSINESS COMMUNICATION FUNDAMENTALS. (3)** Emphasis on communication fundamentals essential for business. Electronic communications in the business environment, research tools for business, reports, presentations, resumes and correspondences.

**MGT 365. ENTREPRENEURIAL LAW. (3)** *Prerequisite:* Junior standing. This course is designed to identify legal risks and enable the entrepreneur or small business manager to manage these risks. This course is not intended as a substitute for hiring an attorney, but rather to identify legal issues of concern to a new venture or entrepreneurial firm.

**MGT 383. HUMAN RESOURCE INFORMATION SYSTEMS. (3)** *Prerequisite:* MGT 311. Components of HRIS and how one can be used to create a competitive advantage. Spreadsheet analysis will be also used to develop analytical skills.

**MGT 390. VALUE CREATION IN EMERGING MARKETS. (3)** *Prerequisite:* Junior standing. Examination of techniques for competing in emerging markets.

**MGT 400. EMPLOYMENT LAW. (3)** *Prerequisite:* MGT 200 or permission of instructor. An overview of the myriad of laws affecting personnel decisions. Discussions will focus on the implications of employment-at-will, equal employment opportunity, ERISA, FLSA, IRCA, NLRA, OSHA, workers' compensation, and other regulatory development.

**MGT 410. SENIOR SEMINAR-MANAGEMENT. (3)** *Prerequisites:* Senior standing and permission of instructor. A special topics course covering subjects of current interest in management. (Can be repeated for a total of 6-9 hours).

**MGT 411. EFFECTIVE STAFFING PRACTICES. (3)** *Prerequisite:* MGT 311 or PSY 370. Explores the development and utilization of employee assessment methods. Specifically covers fair recruitment, hiring, and performance appraisal practices including application processes, interviews, assessment centers, and employee testing.

**MGT 414. COMPENSATION ADMINISTRATION. (3)** *Prerequisite:* MGT 311. An investigation of the concepts and practices affecting compensation decisions in organizations, with emphasis on job analysis and evaluation, external competitiveness, employee motivation, legal requirements, and benefit administration.

**MGT 416. MANAGEMENT OF LABOR RELATIONS. (3)** *Prerequisite:* MGT 311. Legal and social context of the labor-management relationship in union and non-union environments; formation, structure and functioning of labor unions; union elections; collective bargaining; contract administration; dispute settlement; impasse resolution; and union avoidance.

**MGT 417. ORGANIZATIONAL BEHAVIOR. (3)** *Prerequisite:* MGT 210. An advanced course designed to develop an understanding of managing behavior in organizations.

**MGT 419. MANAGEMENT OF ORGANIZATIONAL CONFLICT. (3)** *Prerequisite:* Junior standing. Designed to develop skills needed to manage interpersonal, intragroup, and intergroup conflict in organizations.

**MGT 473. TRAINING IN BUSINESS AND INDUSTRY. (3)** *Prerequisites:* MGT 311 or PSY 370 or permission of the instructor. An introduction to theories, research and methods of training needs analysis, program design, implementation, and evaluation.

**MGT 490. PRACTICUM IN MANAGEMENT. (3)** *Prerequisites:* Junior standing; 2.5 cumulative GPA; MGT 210 and 6 additional hours of Management courses; Permission of the Management Chair and the instructor. Internships, independent studies, and special projects of interest to students and faculty in the Management area. These may include individual research projects, meaningful internships in profit or not-for-profit organizations with duties relating to Management, or other special projects approved by the Management Chair and the Management faculty. (Grading: Pass/Fail)

**MGT 495. STRATEGIC HUMAN RESOURCES MANAGEMENT. (3)** *Prerequisites:* MGT 311, 305. Case studies to evaluate the role human resources management plays in an organization. Discussions will center around how talent can be used to support an organization's strategic advantage and create a competitive advantage.

**MGT 498. STRATEGY AND POLICY. (3)** *Prerequisites:* Senior standing and ACCT 201, CIS 243, FIN 330, MGT 210, MGT 314, MKT 220. The development and application of contemporary competitive strategies at mid and upper managerial levels. Capstone course uses cases and/or simulation to integrate materials from prerequisite courses. (course fee)



## Course Descriptions

**MGT 499. SENIOR ASSESSMENT IN MANAGEMENT. (1)** *Prerequisites:* Senior standing. Special Information: The course may be taught on a bi-term basis. The course will be graded on a pass/fail basis and will be required of all Management majors in their last semester. Preparation for and administration of the senior assessment exam. Discussion of educational and career opportunities beyond the baccalaureate degree. (Grading: Pass/Fail)

### MIL – MILITARY SCIENCE

#### DEPARTMENT OF MILITARY SCIENCE AND LEADERSHIP

##### BASIC COURSE (MIL I AND MIL II)

**MIL 101. MILITARY MOUNTAINEERING AND LEADERSHIP. (2)** Introduction to military mountaineering operations and leadership. Fundamentals of basic rappelling, belaying, rope bridges and application of leadership in practical exercises. Field trips to off-campus locations may be required, and transportation will be provided. (course fee) [GEN ED F]

**MIL 102. DEVELOPMENTAL SKILLS. (2)** Continues the student's education in military and "life skills" lessons in the areas of problem solving, critical thinking, leadership theory, basic first aid, survival skills and group interaction.

**MIL 201. BASIC LEADERSHIP. (3)** *Prerequisites:* MIL 101 and 102 or PMS permission. Prepares the cadet to become an effective small unit leader. Topics include leadership doctrine, ethics, communications, first aid and land navigation.

**MIL 202. TEAM BUILDING AND MILITARY DOCTRINE. (3)** *Prerequisites:* MIL 101, 102, and 201, or PMS permission. Introduces cadets to military doctrine and tactics, values and ethics, and officership. The latter includes extensive work in military oral and written communication skills as well as the role of the United States Army from Vietnam to present day.

**MIL 209. INTRODUCTION TO MILITARY LIFE. (1)** *Prerequisite:* Permission of the PMS. A basic introduction to the Army standards and procedures for students who plan to attend the United States Army ROTC Leader's Training Course, Ft. Knox, KY.

**MIL 210. MILITARY SCIENCE PRACTICUM (LEADER'S TRAINING COURSE). (6)** Introduces military science in a comprehensive course designed to be taken in lieu of MIL 101, 102, 201, and 202 for students who were unable to take these courses. The course is held at Fort Knox, KY during the summer and emphasizes practical application of military skills and development of leadership abilities. Students are provided room and board and paid approximately \$800 for attending. Prior to enrollment in this course, the student must meet academic and physical standards established by the Army. To receive credit for this course, at no cost, see the Professor of Military Science.

##### ADVANCED COURSE (MIL III AND MIL IV)

**MIL 301. MILITARY LEADERSHIP AND MANAGEMENT. (3)** *Prerequisite:* Permission of the PMS. Principles and techniques of leadership and management including leadership techniques and training, introduction to basic military weapons, and ethics and professionalism.

**MIL 302. MILITARY LEADERSHIP AND ADVANCED TACTICAL SKILLS. (4)** *Prerequisite:* Permission of the PMS. Principles and fundamentals of small unit tactics and communications with emphasis on leadership techniques for controlling and employment of small units. Includes communication, map reading, and troop leading procedures.

**MIL 401. PROFESSIONAL LEADERSHIP SKILLS. (3)** *Prerequisite:* Permission of the PMS. Focuses on military leadership and management principles. Discussion and practical exercises in leadership principles and traits, organizational leadership, counseling techniques, management, delegation and control.

**MIL 402. ROLE OF THE ARMY OFFICER. (4)** *Prerequisite:* Permission of the PMS. The final course of the advanced program focuses on Army combat operations, logistics, administration, readiness, military justice, leadership, management, and preparation for commissioning.

**MIL 410. MILITARY SCIENCE PRACTICUM (LEADERSHIP DEVELOPMENT AND ASSESSMENT COURSE). (6)** *Prerequisite:* Permission of the PMS. Develops leadership through an intensive five-week summer field course of rotating leader/command roles, practical experience in problem analysis, decision making and troop leading while providing in-depth coverage of technical subjects. Successful completion of this course is required. Prior to enrollment, the student must meet the physical and academic standards established by the Army.

**MIL 490. MILITARY LEADERSHIP SEMINAR. (1)** *Prerequisite:* Permission of the PMS. Practical applications of military leadership skills, military bearing and physical fitness are stressed. Course is designed to assist students in the transition to Army officer status and continue their physical conditioning. Field experience on military installations is required (transportation provided).

### MKT – MARKETING

#### DEPARTMENT OF MARKETING AND SALES

**MKT 220. BASIC MARKETING CONCEPTS. (3)** *Prerequisite:* Sophomore standing. Introduction to the functional activities of marketing including product, distribution, promotion, and pricing decisions; the importance of a consumer orientation; and strategic marketing planning including implementation and control of marketing activities.

**MKT 321. CONSUMER BEHAVIOR. (3)** *Prerequisite:* MKT 220. A study of the basic concepts underlying consumer behavior; sociological and psychological phenomena which influence consumer behavior, and research approaches which allow marketers to predict and influence behavior.

**MKT 322. INTEGRATED MARKETING COMMUNICATIONS. (3)** *Prerequisite:* MKT 220. This course examines the various components of the promotional mix both individually and collectively as an integrated whole. It addresses the need to target appropriate marketing communications to the publics of interest to both profit and nonprofit organizations.

**MKT 323. SERVICES MARKETING. (3)** *Prerequisite:* MKT 220. A study of marketing as it applies to intangible products such as professional, health care, financial, and hospitality services. The course pays special attention to the interaction between marketing management and the simultaneous creation, delivery and consumption of services.

**MKT 324. INTERNATIONAL MARKETING. (3)** *Prerequisite:* MKT 220. Theory, concepts and practices of firms engaged in various levels of international marketing. Emphasis placed on developing marketing strategies consistent with environmental opportunities.

**MKT 325. PERSONAL SELLING. (3)** *Prerequisite:* Junior Standing. A study of the fundamentals of personal selling with emphasis on self-confidence, control in the sales interaction, and appropriate sales techniques. Extensive opportunity is provided in the classroom for experience with various personal selling situations.

**MKT 326. SPORTS MARKETING. (3)** *Prerequisite:* MKT 220. This course explores one of the most important links between the sports industry and business. Emphasis is placed on the marketing of sports, such as the marketing performed by teams, leagues and sporting goods manufacturers, and marketing through sports, which entails using sports images and personalities to market nonsports products and services.

**MKT 327. RETAILING MANAGEMENT AND STRATEGY. (3)** *Prerequisite:* MKT 220. A study of the principles that underlie the successful operation of a company distributing goods and services directly to the ultimate consumer. This will include, but is not limited to, strategic decisions such as site selection, franchising, and target markets, as well as management decisions such as pricing, personnel selection, merchandising, and atmospheric design.

**MKT 328. MARKETING ON THE WORLD WIDE WEB. (3)** *Prerequisite:* MKT 220, CS 145 or CIS 141. An entrepreneurial-oriented, applied course designed to thoroughly familiarize the student with the primary aspects of marketing on the World Wide Web.

**MKT 329. BUSINESS-TO-BUSINESS MARKETING. (3)** *Prerequisite:* MKT 220. Provide information specifically targeted at the field of business-to-business marketing. Explore the challenges, the environmental influences and managerial issues related to the marketing mix decision variables, product, place, promotion, and price, in a business-to-business setting.

**MKT 331. SOCIAL MEDIA MARKETING. (3)** *Prerequisite:* MKT 220. The use of online social channels (social networking sites, websites, search engines, forums/message boards, video-sharing sites) to achieve marketing goals, including targeting markets on the social web, increasing effectiveness of communication in social web channels, and measuring the success of social media marketing campaigns.

**MKT 420. SENIOR SEMINAR-MARKETING. (3)** *Prerequisite:* MKT 220. A special topics course covering subjects of current interest in marketing.

**MKT 421. MARKETING RESEARCH. (3)** *Prerequisites:* MKT 220, ECON 306 (or comparable statistics course). Analysis of the interaction between marketing information needs and decision-making; planning, executing and reporting results of research using modern research methods and applied statistics are stressed.

**MKT 422. MARKETING MANAGEMENT. (3)** *Prerequisites:* MKT 220 + 6 additional hours of marketing. An in-depth study of marketing activities from a managerial perspective. Areas of study include strategic planning; segmentation and target marketing; consumer behavior; marketing research; product, promotion, pricing, and distribution decisions; services marketing; and international marketing. A lecture course.

**MKT 423. PURCHASING AND PHYSICAL DISTRIBUTION. (3)** *Prerequisite:* MKT 220. A primarily non-quantitative study of the Place function of the marketing mix. An examination of the process of moving a product, idea or service from the producer to the ultimate purchaser. Topics of interest may include channel structures, transportation modes, channel power, conflict, negotiation strategies, and the various tools used by channel members.

**MKT 424. SALES FORCE MANAGEMENT. (3)** *Prerequisite:* MKT 220. Principles and concepts of sales planning and control, organizing sales departments, developing territories, recruiting, selecting, training, motivating and compensating salespeople, and controlling sales operations.

**MKT 425. ADVANCED PERSONAL SELLING STRATEGIES. (3)** *Prerequisites:* MKT 220, MKT 325. An advanced, experiential course designed to thoroughly familiarize the student with all of the primary aspects of personal selling, from a hands-on, applied approach.

**MKT 427. ENTREPRENEURIAL MARKETING. (3)** *Prerequisite:* MKT 220. A study of key marketing strategies relevant to new ventures that prepares students to work in an entrepreneurial firm or to run their own business.

**MKT 490. PRACTICUM IN MARKETING. (1-3)** *Prerequisites:* 2.75 cumulative GPA, MKT 220, 6 additional hours of marketing, and permission of instructor. Internships, independent studies, and special projects of interest to the students and faculty in the marketing area. These may include individual research projects approved by the department head and supervised by a member of the marketing faculty, meaningful internships with area businesses with duties relating to marketing, or other special projects which may be approved by the department head and the marketing faculty. (Grading: Pass/Fail)

**MKT 491. MARKETING STUDY ABROAD. (1-6)** *Prerequisite:* Permission of instructor. Experiential learning taking place in a foreign culture in a foreign country. Provides students with the opportunity to experience and learn about marketing in a foreign nation. This may be part of a formalized program (i.e. KISS or CCSA) or it could be a customized program developed within the department for an individual or small group of students. This course may be repeated one time, but no more than 6 total hours can be included in the major or minor portion of the degree program.

**MKT 499. SENIOR ASSESSMENT. (1)** *Prerequisite:* Senior standing. Preparation for and administration of the senior assessment exam. Discussion of educational and career opportunities beyond the baccalaureate degree.

#### MLNG – MODERN LANGUAGES DEPARTMENT OF MODERN LANGUAGES

**MLNG 410. SECOND LANGUAGE ACQUISITION. (3)** *Prerequisite:* Enrollment in P-12 certification program in French, German or Spanish and successful completion of at least two upper-division courses in the teaching language. Introduction to principal theories of the acquisition of a second or foreign language. Explores how language learning styles and strategies relate to language acquisition and implications for the classroom.

**MLNG 420. MULTIMEDIA TECHNOLOGIES IN TEACHING FOREIGN LANGUAGES. (3)** *Prerequisites:* Enrollment in K-12 certification program in French, German or Spanish or permission of instructor and successful completion of at least one upper-division course in the language of teaching certification. Pedagogical and hands-on training for pre-teachers. Student will enroll in a course section for French, German or Spanish.

**MLNG 474. TEACHING FOREIGN LANGUAGE. (3)** *Prerequisites:* EDU 250, EXED 330, SEC 351, SEC 453, PSY 310. *Corequisite:* SEC 453. This course is equivalent to SEC 474. Develops skills, procedures, and strategies for teaching foreign language in middle and secondary schools. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**MLNG 480. TOPICS IN MODERN LANGUAGE CULTURES AND PEDAGOGY. (1-3)** *Prerequisites:* Enrollment in K-12 certification program in French, German, or Spanish; successful completion of at least two upper-division courses in the teaching language; senior standing or permission of instructor. Topics in Modern Language cultures and societies, including literature and the arts, social issues, and current events, as well as aspects of language pedagogy. Students enroll in course section for the language of their major. May be repeated with different topics for a maximum of 6 hours of credit.

#### MUS / MUSI – Music DEPARTMENT OF MUSIC (MUS) DEPARTMENT OF LIBERAL ARTS AND SCIENCES (MUSI)

##### **MUSIC THEORY AND COMPOSITION**

**MUS 090. FUNDAMENTALS OF MUSIC THEORY. (3)** *Prerequisite:* Restricted to majors in music. Prepares students for entry into MUS 100 in the theory sequence for music majors. Includes fundamental music notation, literacy, aural skills, clefs, notes, rhythms, keys, scales and intervals.

**MUS 100. THEORY I. (3)** *Prerequisite:* Theory Placement Exam. Music fundamentals. Triads, intervals, keys, scales, cadences, notation, triads, four-part writing, analysis, non-chord tones, harmonization, rhythmic notation, sight singing, melodic/harmonic dictation, keyboard harmony.

**MUS 101. THEORY II. (3)** *Prerequisite:* MUS 100. Seventh chords, inversions, chromatic harmony, suspensions, pedal point, writing for piano, four-part writing, harmonic analysis, rhythmic reading, sign signing, melodic/harmonic dictation, keyboard harmony.

**MUS 175. UNIVERSITY EXPERIENCE-MUSIC MAJORS. (2)** *Prerequisite:* For beginning college freshmen music or transfer students with fewer than 24 semester hours of credit. Transition to university experience. Topics include study skills, critical thinking skills, library education, exploration of majors and careers, degree programs, campus resources and personal development. Special attention is given to music degree requirements, careers and resources in the field.

**MUS 200. THEORY III. (3)** *Prerequisite:* MUS 101. Modulation, ninth/eleventh/thirteenth chords, jazz harmonization, modal, non-tertian, and twentieth century harmony, serialism, four-part writing, harmonic analysis, rhythm, sight-singing, melodic/harmonic dictation, keyboard harmony.

**MUS 201. THEORY IV. (3)** *Prerequisite:* MUS 200. Form and analysis Baroque/Classical/Romantic eras, piano sonatina composition, harmonic analysis, improvisation, rhythmic reading, sight-singing, melodic/harmonic dictation, keyboard harmony.

**MUS 203. MUSIC TECHNOLOGY. (2)** This course provides the student with a comprehensive overview of the current technological advances present in the music workplace.

**MUS 206. COMPOSITION. (2)** *Prerequisite:* Consent of the instructor. Study and assignment will depend on previous background and creative ability.

**MUS 405. CHORAL ARRANGING. (3)** *Prerequisite:* MUS 201. A study of the principles of part-writing, arranging, and editing for various voice groupings. Practical application for school and church choruses will be stressed.

**MUS 407. ORCHESTRATION AND BAND ARRANGING. (3)** *Prerequisite:* MUS 201. A study of the characteristics and techniques of the various orchestra and band instruments. Practical experience in scoring for full symphonic orchestra and symphonic band. Performances given for selected orchestrations and arrangements.

##### **MUSIC EDUCATION**

**MUS 214. STRING TECHNIQUES. (1)** This course is required for music education majors. It is designed to acquaint students with the techniques and pedagogy of the violin, viola, cello and string bass.

**MUS 215. BRASS TECHNIQUES. (1)** This course is required for music education majors. It is designed to acquaint students with the techniques and pedagogy of the high and low brass families.

**MUS 307. MUSIC THEATRE WORKSHOP. (2)** *Prerequisites:* THEA 101, DANC 213 and MUS 162, or permission of instructor. Intensive, interdisciplinary scenework focusing on the special demands of analyzing, rehearsing and performing scenes drawn from music theatre literature. Repeatable three times for up to 8 hours for credit. Equivalent to THEA 307.

**MUS 311. MUSIC FOR THE ELEMENTARY TEACHER. (3)** A required course for primary elementary education majors which centers on music as an aid in instruction of standard curricular subjects and techniques which classroom teachers can utilize to further develop the natural rote and rhythmic abilities of the young child.

**MUS 312. TEACHING MUSIC IN THE PRIMARY GRADES. (3)** A required course for music education majors which consists of developmentally appropriate techniques, methods and materials for pre-primary and primary learners. Observation and field experiences will be required.

## Course Descriptions

**MUS 314. COMPREHENSIVE ARTS EDUCATION FOR THE ELEMENTARY TEACHER. (3)** *Prerequisites:* ART 310, MUS 311. Required for the elementary education major. Appropriate concepts, methods, and materials for weaving the arts (dance, drama, music, visual art) through the elementary school curriculum. Field experience in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**MUS 315. CLARINET AND SAXOPHONE TECHNIQUES. (1)** This course is required for instrumental music education majors. It is designed to acquaint students with the techniques and pedagogy of the clarinet and saxophone.

**MUS 316. FLUTE AND DOUBLE REED TECHNIQUES. (1)** This course is required for instrumental music education majors. It is designed to acquaint students with the techniques and pedagogy of the flute, oboe, English horn and bassoon.

**MUS 317. CONDUCTING I. (2)** Patterns for each meter, uses of the left hand, cueing posture, attacks, releases, terminology and score study.

**MUS 318. CONDUCTING II. (2)** *Prerequisite:* MUS 317. Continuation of Conducting I. Score reading.

**MUS 319. PERCUSSION TECHNIQUES. (1)** This course is required for music education majors. It is designed to acquaint students with the techniques and pedagogy of the percussion instruments.

**MUS 412. TEACHING MUSIC IN THE MIDDLE SCHOOL. (3)** *Prerequisite:* MUS 312. A required course for music education majors which consists of developmentally appropriate techniques, methods and materials for learners ages 9-14. Observation and field experiences will be required.

**MUS 414. CHORAL MATERIALS. (2)** *Prerequisite:* MUS 415. A practical survey for the school and church musician of choral music from the fifteenth- through the twentieth-centuries. Course emphasis will be on the evolution of secular and sacred choral forms and performance practices, which would be accessible for most choral programs.

**MUS 415. CHORAL METHODS. (3)** A study of the techniques of choral development from rehearsal procedures to performance. Emphasis is also placed on cultivating choral musicianship, program planning and organizational development.

**MUS 416. INSTRUMENTAL METHODS. (3)** Organization of the school instrumental program; problems, materials and program planning for the school orchestra and band from the elementary grades through high school; special problems in connection with concerts, festivals, materials and administrative details.

**MUS 417. MARCHING BAND TECHNIQUES. (2)** Systems, mechanics, and charting the modern exhibition marching band, including visual support units.

### MUSIC HISTORY AND LITERATURE

**MUS 119. JAZZ APPRECIATION. (3)** Survey of jazz from its origins to the present. Includes jazz elements, swing, bop, cool jazz, avant-garde and free jazz, among other topics. [GEN ED E]

**MUS 120 / MUSI 120C. MUSIC APPRECIATION. (3)** A survey of music from early to modern times. The course aims to widen the musical horizons and receptivities of the general college student and to make him a more discriminating listener. Concerts, radio, and television programs are assigned for special listening. No formal background is required. [GEN ED B-II]

**MUS 277. INTRODUCTION TO WORLD MUSIC. (3)** A cultural and functional analysis of traditional musical genres developed in world areas: Africa, America, Asia, Europe and Oceania. Emphasis will be placed on musical styles, performance practices, aesthetics, and instruments. Equivalent to ANTH 277/ FLK 277. [GEN ED E]

**MUS 326. THE HISTORY OF MUSIC I. (3)** Music history from early times through Monteverdi. Assigned readings and recorded illustrations. [GEN ED B-II]

**MUS 327. THE HISTORY OF MUSIC II. (3)** Music history from Monteverdi through Wagner. Assigned readings and recorded illustrations. [GEN ED B-II]

**MUS 328. THE HISTORY OF MUSIC III. (3)** Music history from Wagner through the present day. Assigned readings and recorded illustrations.

**MUS 430. MUSIC LITERATURE. (3)** A variable topic course which may be taken more than once for credit. Typical term sub-titles are as follows: American Music, Band Literature, Baroque Period, Chamber Music, Keyboard Literature, Medieval and Renaissance Music, Opera Literature, Symphonic Literature, Vocal Literature, World Music.

### PEDAGOGY

**MUS 310. PEDAGOGY FOR PERFORMANCE MAJORS. (3)** A required course for Bachelor of Music (B.M.) in performance majors, which centers on teaching in their particular area of performance and provides a knowledge of basic repertoire.

**MUS 338. DIR INDEPENDENT STUDY. (1-3)** *Prerequisite:* Permission of instructor. Supervised, guided individual study in a specialty area.

### ENSEMBLES

**MUS 340. CHORAL UNION. (1)** Subtitles: Choral Society, Women's Chorus, Men's Chorus

**MUS 341. CHORALE. (1)**

**MUS 344. UNIVERSITY ORCHESTRA. (1)**

**MUS 345. CHAMBER SINGERS. (1)**

**MUS 347. MARCHING BAND. (1)** [GEN ED F]

**MUS 348. BAND. (1)** Subtitles: Symphonic Band, University Band, Concert Band, Wind Ensemble

**MUS 371. JAZZ ENSEMBLE. (1)**

### PERFORMANCE CLASSES

**MUS 155. PERFORMANCE ATTENDANCE. (0)** *Prerequisite:* Restricted to majors in music. Attendance at 14 recitals and/or concerts within one semester from a music department approved list. (Grading: Pass/Fail)

**MUS 349. CHAMBER MUSIC. (1)** This course presupposes that the student has attained considerable ability as a performer. Preparation and performance of all types of chamber music literature. Credits will be given for as many semesters as taken. (Subtitles: Accompanying, Brass Ensemble, Early Music Ensemble, Double Reed Ensemble, Guitar Ensemble, Jazz Improvisation Ensemble, Percussion Ensemble, String Ensemble, Vocal Ensemble, Woodwind Ensemble, Orchestra Strings)

**MUS 374. OPERA THEATRE. (1)**

### APPLIED MUSIC SKILLS CLASSES

**MUS 152. DICTION I FOR VOICE MAJORS. (1)** Review of the use of the International Phonetic Alphabet and its application to the German and Italian languages using appropriate vocal literature.

**MUS 160. GROUP PIANO I. (1)** A course for beginners. Scales and keyboard skills.

**MUS 161. GROUP PIANO II. (1)** A course for beginners. Scales and keyboard skills.

**MUS 162. GROUP VOICE. (1)** An exploratory course in the theory and practice of the development of the singing voice. Natural breathing, correct tone production.

**MUS 166. GROUP GUITAR I. (1)** Group instruction in the basic elements of guitar and the rudiments of music to include time signatures, notation, transposition, bar chord techniques, scales and triads.

**MUS 252. DICTION II FOR VOICE MAJORS. (1)** Review of the use of the International Phonetic Alphabet and its application to the French and English languages using appropriate vocal literature.

**MUS 260. GROUP PIANO III. (1)** Keyboard skills to include cadential progressions in all keys, harmonization of diatonic melodies in simple keys, playing by ear, sight reading, scales and development of techniques adequate to a moderately easy Clementi *Sonatina*.

**MUS 261. GROUP PIANO IV. (1)** Keyboard skills to include cadential progressions in all keys, harmonization of diatonic melodies in simple keys, playing by ear, sight reading, scales and development of techniques adequate to a moderately easy Clementi *Sonatina*.

**MUS 266. GROUP GUITAR II. (1)** *Prerequisite:* Group Guitar I or consent of instructor. Continuation of development of basic skills learned in Group Guitar I, with addition of more difficult repertoire. Classical, Pop, Jazz, and Folk Styles included.

### APPLIED MUSIC INSTRUCTION

**MUS 150, 350. APPLIED MUSIC SECONDARY. (1)** (course fee)

**MUS 153, 353. APPLIED MUSIC PRINCIPAL. (2)** *Corequisite:* MUS 155. (course fee)

**MUS 357, 457. APPLIED MUSIC MAJOR. (3)** *Corequisite:* MUS 155. (course fee)

**NURS / NUR – NURSING  
SCHOOL OF NURSING**
**ASSOCIATE DEGREE NURSING COURSES**

**NUR 104. CALCULATIONS FOR NURSING. (1)** *Prerequisite:* Admission to the nursing program. An introduction to medication dosage calculations, symbols, abbreviations, unit dosing, and system equivalent conversion operations. Emphasis of course is on medication problems involving metric and household measurement conversions necessary for medication administration in nursing.

**NUR 105. FUNDAMENTALS OF NURSING. (6.5)** *Prerequisite:* Admission to the nursing program. *Corequisite:* NUR 106. *Prerequisites/Corequisites:* NURS 104, PSY 199/PSYC 199C, BIOL 131/BIO 131C. Introduces fundamental nursing concepts and principles utilizing basic human needs, developmental theory, nursing process, and therapeutic nursing interventions to promote and maintain health for selected populations. (course fee)

**NUR 106. FUNDAMENTALS OF NURSING CLINICAL. (1.5)** *Prerequisite:* Admission to the nursing program. *Prerequisites or corequisites:* NUR 104, 105, PSY 199/PSYC 199C, BIOL 131/BIO 131C. Application of fundamental nursing concepts, principles, and skills. (course fee)

**NUR 150. LPN TO RN TRANSITION. (1)** *Prerequisite:* Admission to the nursing program. *Prerequisites or corequisites:* PSY/PSYC 199, BIOL/BIO 131C. Concepts required to transition from the licensed practical nurse to the registered nurse role.

**NUR 155. MEDICAL-SURGICAL NURSING I. (5.5)** *Prerequisites:* NUR 104, 105, 106. *Corequisites:* NUR 156, 165, 166. *Prerequisite or corequisite:* CHEM 109/CHM 109C. Medical-surgical concepts utilizing basic human needs, developmental theory, nursing process and therapeutic nursing interventions to promote and maintain health for selected populations. (course fee)

**NUR 156. MEDICAL-SURGICAL NURSING I CLINICAL. (3.5)** *Prerequisites:* NUR 104, 105, 106. *Corequisite:* NUR 155, 165, 166. *Prerequisite or corequisite:* CHEM 109/CHM 109C. Application of medical-surgical nursing concepts, principles, and skills. (course fee)

**NUR 165. MENTAL HEALTH NURSING. (2.5)** *Prerequisites:* NUR 104, 105, 106. *Corequisites:* NUR 155, 156, 166. *Prerequisite or Corequisite:* CHEM 109/CHM 109C. Includes mental health nursing concepts utilizing basic human needs, developmental theory, nursing process and therapeutic nursing interventions to promote and maintain health for selected populations.

**NUR 166. MENTAL HEALTH NURSING CLINICAL (1.5)** *Prerequisites:* NUR 104, 105, 106. *Corequisites:* NUR 155, 156, 165. *Prerequisite or corequisite:* CHEM 109/CHM 109C. Application of mental health nursing concepts, principles, and skills.

**NUR 208. MEDICAL-SURGICAL NURSING II. (5)** *Prerequisites:* NUR 155, 156, 165, 166. *Corequisites:* NUR 209, 215, 216. *Prerequisites or Corequisites:* ENG 100/ENGL 100C, BIOL 207/BIO 207C. Expansion on previous medical-surgical nursing concepts utilizing basic human needs, developmental theory, nursing process and therapeutic nursing interventions to promote and maintain health for selected population. (course fee)

**NUR 209. MEDICAL-SURGICAL NURSING II CLINICAL. (3)** *Prerequisites:* NUR 155, 156, 165, 166. *Corequisites:* NUR 208, 215, 216. *Prerequisites or Corequisites:* ENG 100/ENGL 100C, BIOL 207/BIO 207C. Application of medical-surgical nursing concepts, principles and skills.

**NUR 215. MATERNAL-NEWBORN NURSING. (2.5)** *Prerequisites:* NUR 155, 156, 165, 166. *Corequisites:* NUR 208, 209, 216. *Prerequisites or Corequisites:* ENG 100/ENGL 100C, BIOL 207/BIO 207C. Includes maternal-newborn nursing concepts utilizing basic human needs, developmental theory, nursing process and therapeutic nursing interventions to promote and maintain health for selected populations.

**NUR 216. MATERNAL-NEWBORN NURSING CLINICAL. (1.5)** *Prerequisites:* NUR 155, 156, 165, 166. *Corequisites:* NUR 208, 209, 215. *Prerequisites or Corequisites:* ENG 100/ENGL 100C, BIOL 207/BIO 207C. Application of maternal-newborn nursing concepts, principles and skills.

**NUR 245. PEDIATRIC NURSING. (2)** *Prerequisites:* NUR 208, 209, 215, 216. *Corequisite:* NUR 255. *Prerequisite or Corequisite:* SOCL 100/SOC 100C, BIOL 208/BIO 208C, Category B elective. Includes pediatric nursing concepts utilizing basic human needs, developmental theory, nursing process and therapeutic nursing interventions to promote and maintain health for selected populations.

**NUR 255. MEDICAL SURGICAL NURSING III. (3)** *Prerequisites:* NUR 208, 209, 215, 216. *Corequisites:* NUR 254, 256, 257. *Prerequisites or corequisites:* SOCL 100/SOC 100C, BIOL 208/BIO 208C, Category B elective. Expansion on previous medical-surgical nursing concepts utilizing basic human needs, developmental theory, nursing process and therapeutic nursing interventions to promote and maintain health for selected populations. (course fee)

**NUR 256. NURSING SEMINAR. (1)** *Prerequisites:* NUR 208, 209, 215, 216. *Corequisites:* NUR 255, 257. *Prerequisites or Corequisites:* SOCL 100/SOC 100 C, BIOL 208/BIO 208C, Category B elective. Exploration of issues and policies related to the profession of nursing including preparation for licensure.

**NUR 257. NURSING PRACTICUM. (3)** *Prerequisites:* NUR 208, 209, 215, 216. *Corequisites:* NUR 255, 256. *Prerequisite or Corequisite:* SOCL 100/SOC 100C, BIOL 208/BIO 208C, Category B elective. Capstone experience applying previous knowledge and skills to provide nursing care to multiple clients.

**PRELICENSURE BACHELOR OF SCIENCE IN NURSING COURSES**

**NURS 102. INTRODUCTION TO PROFESSIONAL NURSING. (3)** *Prerequisite:* 586P, ENG 100, or equivalent, or permission of instructor. This course is required for students seeking entry into the nursing major. Course includes nursing history, trends, professional roles and responsibilities, educational options, and licensure issues. Taking this course does not guarantee admission into nursing or count towards hours in the nursing major.

**NURS 317. SPECIAL TOPICS/ INDEPENDENT STUDY. (1-3)** A variable credit course which permits the student to select an explore a topic of interest in nursing. With faculty guidance, the student is expected to design, implement and evaluate objectives based on identified learning needs.

**NURS 324. PATHOPHYSIOLOGY FOR NURSING. (3)** *Prerequisite:* Admission to the nursing program. *Corequisites:* NURS 333, 334, 335, 336, 337. Explores the basic pathophysiology of selected disease processes that alter the health of individuals across the lifespan. Focuses on nursing assessment and identification of presenting signs and symptoms and manifestations of the selected disease processes. (course fee)

**NURS 329. CONCEPTS IN PHARMACOLOGY I. (2)** *Prerequisites:* NURS 324, 333, 334, 335, 336, and 337; or permission of the instructor. *Corequisites:* NURS 338, 341, 342, 343, 344. Explores introductory principles of pharmacology, drug prototypes used to treat alternations in health for medical, surgical, and mental health patients, and the nurse's role in administering drugs to patients. (course fee)

**NURS 333. FUNDAMENTALS OF NURSING. (3)** *Prerequisite:* Admission to the nursing program. *Corequisites:* NURS 324, 334, 335, 336, 337. Fundamental concepts and principles that form the basis for professional nursing practice.

**NURS 334. CLINICAL: FUNDAMENTALS OF NURSING. (2)** *Prerequisite:* Admission to the nursing program. *Corequisites:* NURS 324, 333, 335, 336, 337. Application of fundamental concepts and principles, performance of psychomotor skills and techniques that form the basis for professional nursing practice. Students are responsible for arranging their own transportation to assigned sites. (Grading: Pass/Fail) (course fee)

**NURS 335. HEALTH ASSESSMENT. (3)** *Prerequisite:* Admission to the nursing program. *Corequisites:* NURS 324, 333, 334, 336, 337. Development of physical assessment skills to determine health status of clients across the life span.

**NURS 336. HEALTH ASSESSMENT LAB. (1)** *Prerequisite:* Admission to the nursing program. *Corequisites:* NURS 324, 333, 334, 335, 337. Application of assessment concepts, principles, psychomotor skills, and techniques that form the basis for professional nursing assessment. (Grading: Pass/Fail) (course fee)

**NURS 337. HEALTH PROMOTION. (3)** *Prerequisite:* Admission to the nursing program or permission of the instructor. *Corequisites:* NURS 324, 333, 334, 335, 336. Explores professional nursing interventions and standards to promote the health of individuals, families, and groups from diverse cultures across the lifespan. Includes discussion of health policies at the local, regional, and national levels.

**NURS 338. TRANSCULTURAL NURSING: CONCEPTS AND APPLICATION. (2)** *Prerequisites:* NURS 324, 333, 334, 335, 336, and 337; or permission of instructor. *Corequisites:* NURS 329, 341, 342, 343, 344. Explores the meaning of health and illness for diverse populations. Identifies barriers and facilitators to access and utilization of healthcare. Focuses on the provision of culturally-sensitive nursing care to diverse populations across the lifespan.

**NURS 341. MEDICAL SURGICAL NURSING I. (3)** *Prerequisites:* NURS 324, 333, 334, 335, 336, and 337; or permission of instructor. *Corequisites:* NURS 338, 329, 342, 343, 344. Basic medical surgical nursing concepts to provide holistic care to diverse individuals and families experiences alternations in health.

## Course Descriptions

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**NURS 342. CLINICAL: MEDICAL SURGICAL NURSING I. (3)** *Prerequisites:* NURS 324, 333, 334, 335, 336, and 337; or permission of instructor. *Corequisites:* NURS 338, 329, 341, 343, 344. Application of basic medical surgical nursing concepts to provide holistic care to diverse individuals and families experiencing alteration in health. Students are responsible for arranging own transportation to assigned sites. (Grading: Pass/Fail) (course fee)

**NURS 343. MENTAL HEALTH NURSING. (2)** *Prerequisites:* NURS 324, 333, 334, 335, 336, and 337; or permission of instructor. *Corequisites:* NURS 338, 329, 341, 342, 344. Integration of mental health concepts to provide care to clients experiencing alterations in mental health.

**NURS 344. CLINICAL: MENTAL HEALTH NURSING. (1)** *Prerequisites:* NURS 324, 333, 334, 335, 336, and 337; or permission of instructor. *Corequisites:* NURS 338, 328, 341, 342, 343. Application of mental health concepts to provide nursing care to clients experiencing alterations in mental health. Students are responsible for arranging own transportation to assigned sites. (Grading: Pass/Fail)

**NURS 403. NURSING LEADERSHIP, MANAGEMENT, AND PROFESSIONAL ISSUES. (4)** *Prerequisites:* NURS 413, 429, 432, 433, 444, 445; or permission of instructor. *Corequisites:* NURS 421, 422, 448, 449, and nursing elective. Examines issues and trends in professional nursing practice, and theoretical foundations of nursing management and leadership. (course fee)

**NURS 413. NURSING RESEARCH AND EVIDENCE-BASED PRACTICE. (3)** *Prerequisites:* NURS 329, 338, 341, 342, 343, 344. *Corequisites:* NURS 429, 432, 433, 444, 445. A study of the research process. Emphasis on critical analysis of selected research in nursing, evaluation of research findings, and application to evidence-based nursing practice.

**NURS 421. HIGH ACUITY NURSING. (3)** *Prerequisites:* NURS 429, 413, 432, 433, 444, 445 or permission of instructor. *Corequisites:* NURS 403, 422, 448, 449. Application and integration of advanced medical-surgical nursing concepts to provide holistic nursing care to the high-acuity patient.

**NURS 422. SENIOR PRACTICUM. (3)** *Prerequisites:* NURS 429, 413, 432, 433, 444, 445 or permission of instructor. *Corequisites:* NURS 403, 421, 448, 449. Application and integration of previous knowledge and skills in the delivery of nursing care to multiple clients in a variety of health care settings. (course fee) (Grading: Pass/Fail)

**NURS 429. CONCEPTS IN PHARMACOLOGY II. (2)** *Prerequisites:* NURS 338, 329, 341, 342, 343, and 344; or permission of instructor. *Corequisites:* NURS 413, 432, 433, 444, 445. Explores advanced principles of pharmacology, drug prototypes used to treat alterations in health for women, infants, children and high acuity patients, and the nurse's role in administering drugs to patients. (course fee)

**NURS 432. MEDICAL-SURGICAL NURSING II. (3)** *Prerequisites:* NURS 338, 329, 341, 342, 343, and 344; or permission of instructor. *Corequisites:* NURS 413, 429, 433, 444, 445. Advanced medical-surgical nursing concepts to provide holistic care to diverse individuals, families, and groups experiencing complex alterations in health.

**NURS 433. CLINICAL: MEDICAL-SURGICAL NURSING II. (2)** *Prerequisites:* NURS 338, 329, 341, 342, 343, and 344; or permission of instructor. *Corequisites:* NURS 413, 429, 432, 444, 445. Application and integration of advanced medical-surgical nursing concepts to provide holistic care to diverse individuals, families, and groups experiencing complex alterations in health. Students are responsible for arranging own transportation to assigned sites. (Grading: Pass/Fail) (course fee)

**NURS 444. MATERNAL CHILD NURSING. (4)** *Prerequisites:* NURS 338, 329, 341, 342, 343, and 344; or permission of instructor. *Corequisites:* NURS 413, 429, 432, 433, 445. Application and integration of nursing concepts to provide holistic care to diverse women, infants, and children experiencing alterations in health.

**NURS 445. CLINICAL: MATERNAL CHILD NURSING. (2)** *Prerequisites:* NURS 338, 329, 341, 342, 343, and 344; or permission of instructor. *Corequisites:* NURS 413, 429, 432, 433, 444. Application and integration of concepts in acute care and community settings to provide holistic nursing care to diverse women, infants, and children experiencing alterations in health. Students are responsible for arranging own transportation to assigned sites. (Grading: Pass/Fail) (course fee)

**NURS 448. COMMUNITY HEALTH NURSING. (3)** *Prerequisites:* NURS 413, 429, 432, 433, 444, and 445; or permission of instructor. *Corequisites:* NURS 403, 421, 422, 449, and nursing elective. Theories and concepts from nursing and public health address multidimensional health needs of diverse populations: role of the nurse in healthcare of society.

**NURS 449. CLINICAL: COMMUNITY HEALTH NURSING. (3)** *Prerequisites:* NURS 413, 429, 432, 433, 444, and 445; or permission of instructor. *Corequisites:* NURS 403, 421, 422, 448, and nursing elective. Application of public health concepts to address multidimensional health needs of diverse populations: role of the nurse in healthcare of society. Students are responsible for arranging own transportation to assigned sites. (Grading: Pass/Fail) (course fee)

### **NURSING GENERAL ELECTIVE COURSES**

**NURS 317. SPECIAL TOPICS/INDEPENDENT STUDY. (1-3)** A variable credit course which permits the student to select an explore a topic of interest in nursing. With faculty guidance, the student is expected to design, implement and evaluate objectives based on identified learning needs.

**NURS 320. WOMEN'S HEALTH ISSUES THROUGH THE LIFE CYCLE. (3)** *Prerequisite:* Junior standing in nursing or permission of instructor. Through lecture and class discussion, health issues confronting women throughout the life cycle will be explored.

**NURS 369. COOPERATIVE EDUCATION IN NURSING. (3)** *Prerequisite:* Completion of all Junior level nursing courses. Practical experience in a supervised work situation with a cooperating hospital, governmental or other health care agency, emphasizing application of knowledge and skills in selected areas of nursing.

**NURS 411. SCHOOL HEALTH NURSING. (3)** *Prerequisite:* Admission to school nurse certification program or permission of instructor. Provides theory and skills to assist the registered nurse in fulfilling the multiple roles of the school nurse in K-12 settings. Clinical practicum may be completed in school of employment.

**NURS 415. COMPLEMENTARY HEALTH CARE. (3)** *Prerequisite:* Permission of instructor. Selected holistic modes of healing will be explored. Focus will be on history, research findings, theoretical basis and legal implications.

**NURS 424. CARDIAC AND HEMODYNAMIC MONITORING. (3)** *Prerequisite:* Completion of all junior level nursing courses. Interpretation of basic cardiac dysrhythmias and hemodynamic waveforms, application of principles and techniques, and recommended interventions.

**NURS 450. RURAL HEALTH & SAFETY. (3)** Students will explore a variety of health and safety issues unique to rural populations. The interdisciplinary team concept will be used throughout the course to foster collaboration that facilitates sharing of the expertise of students and faculty.

**NURS 451. GERONTOLOGICAL NURSING. (3)** *Prerequisites:* *Prelicensure;* Admission to the *prelicensure program* and NURS 300. *Post-RN;* Admission to the *Post-RN program* or with permission of instructor. This course focuses on the nursing care of older adults. Emphasis is placed on theories of aging, pathophysiological processes, and normal variations specific to the aging population, and use of the nursing process to enhance positive outcomes.

**NURS 492. FAITH COMMUNITY NURSING. (3)** *Prerequisite:* Senior level BSN or permission of instructor. Builds upon practice of community health nursing to develop skills needed to provide nursing care for individuals and groups in faith communities.

### **RN to BSN COURSES (Registered Nurse to Bachelor of Science)**

**NURS 300. CONCEPTS OF DISEASE PROCESSES. (3)** *Corequisites:* NURS 309, 313, 325 (*prelicensure student*). Explores the pathophysiological processes influencing the health of clients across the lifespan and the role of the nurse in assessing manifestations of these processes.

**NURS 309. HEALTH ASSESSMENT ACROSS THE LIFESPAN. (3)** *Corequisites:* NURS 300, 313, 325 (*prelicensure student*). Development of physical assessment skills to determine health status of clients across the life span.

**NURS 315. CONCEPTS IN PHARMACOLOGY. (3)** *Prerequisite or corequisite:* ENG 300. *Prerequisites:* NURS 300, 309, 313 and 325 (*prelicensure student*). *Corequisites:* NURS 316, 321, and 328 (*prelicensure student*). Explores principles of pharmacology, drug prototypes used to treat alterations in body systems and the nurse's role in administering drugs to clients across the lifespan.

**NURS 321. TRANSCULTURAL NURSING. (2)** *Prerequisites:* NURS 300, 309, 313, and 325 (*prelicensure student*). *Corequisites:* NURS 315, 316, and 328 (*prelicensure student*). *Prerequisite or corequisite:* NURS 323 (*PostRN student*). Focus on developing knowledge of theoretically based transcultural nursing with application of nursing care to clients across the lifespan.

**NURS 323. CONCEPTS OF PROFESSIONAL NURSING. (2)** *Prerequisite or corequisite:* Admission to *Post-RN nursing program*. Emphasizes concepts that enhance development of advanced professional practice and continued professional development. (course fee)

**NURS 340. TEACHING AND HEALTH PROMOTION IN NURSING PRACTICE.** (3) *Prerequisite:* NURS 323 (May be corequisite). Emphasizes client educational assessment, special learning needs, theories, models and nurses' role of teaching and health promotion for clients across the life span.

**NURS 400. NURSING LEADERSHIP AND MANAGEMENT.** (3) *Prerequisites:* Junior level nursing courses (prelicensure student). *Corequisites:* NURS 412, 414, and 428 (prelicensure student). *Prerequisite or co-requisite:* NURS 323 (Post RN Student). Theoretical foundations of nursing management and leadership emphasizing human resource management, decision making, and motivational skills.

**NURS 405. NURSING INFORMATICS.** (2) *Prerequisite or Corequisite:* NURS 323 (Post-RN student). Explores the science and art of nursing informatics in the health care system in the context of nursing practice, education, systems administration and research.

**NURS 408. PROFESSIONAL ISSUES.** (3) *Prerequisites:* NURS 400, 412, 414, and 428 (prelicensure student). *Corequisites:* NURS 421, 422, and 426 (prelicensure student). *PostRN student:* This course must be taken in the final semester of the program. Explores issues and trends in current professional practice: social, legal, economic, historical, theoretical, political, ethical and research components. (course fee)

**NURS 412. INTRODUCTION TO NURSING RESEARCH.** (3) *Prerequisites:* Junior level nursing courses (prelicensure student). *Corequisites:* NURS 400, 414, and 428 (prelicensure student). *Prerequisite or Corequisite:* NURS 323 (Post-RN student). A study of the research process with emphasis on critical analysis and evaluation of selected research findings for application to professional nursing practice.

**NURS 430. CONCEPTS OF PUBLIC HEALTH NURSING.** (4) *Prerequisite or corequisite:* NURS 323. Theories and concepts from public health nursing address the multidimensional health needs of diverse populations and role of the nurse in community-based settings.

**NURS 431. APPLICATION OF PUBLIC HEALTH NURSING.** (2) *Prerequisite or corequisite:* NURS 323. *Corequisite:* NURS 430. Application of nursing process with diverse populations across the lifespan in community-based settings. Focus on health promotion. (Grading: Pass/Fail)

#### OST – OFFICE SYSTEMS TECHNOLOGIES DEPARTMENT OF PROFESSIONAL STUDIES

**OST 101C. KEYBOARDING.** (3) Keyboarding mastery, drill for speed and accuracy, letters and other business forms. (course fee)

**OST 217C. TRANSCRIPTION.** (3) Designed to develop skills required for transferring machine transcription to printed form.

**OST 220C. WORD PROCESSING.** (3) Application of word and information processing and communication skills to produce quality business and professional documents. (course fee)

**OST 221C. DESKTOP PUBLISHING.** (3) Use of software to develop page layout, graphics, charts, illustrations and artwork for creation of newsletters and other professional publications. (course fee)

**OST 222C. ADVANCED DESKTOP PUBLISHING.** (3) *Prerequisite:* OST 221C or *instructor's permission.* Includes technical, design, and typography concepts used in Advanced Desktop Publishing.

**OST 225C. RECORDS AND INFORMATION MANAGEMENT.** (3) Management of records from creation to disposal. Included are the principles and procedures of organizing, operating and controlling traditional, automated, and special records.

**OST 255C. OFFICE ADMINISTRATION.** (3) Includes work relationships, leadership roles, team membership, problem solving skills, and the use of technology.

**OST 271C. OFFICE INTERNSHIP.** (3) A parallel of cooperative work assignment in a business office supervised and coordinated by a faculty member. Periodic seminars and outside assignments related to the job are required. (Grading: Pass/Fail)

#### PE / PED – PHYSICAL EDUCATION DEPARTMENT OF KINESIOLOGY, RECREATION AND SPORT (PE) DEPARTMENT OF LIBERAL ARTS AND SCIENCES (PED)

**PE 103 / PED 103C. THIRD ACTIVITY COURSE.** (1) Activity may be selected from aquatics, archery, bowling, dance, golf, karate, racquetball, soccer, volleyball, weight training, aerobic dance, jogging, firearms, self-defense for women, water aerobics and white water kayaking. Students are responsible for transportation to and from off-campus experiences.

**PE 104 / PED 104C. FOURTH ACTIVITY COURSE.** (1) Activity may be selected from aquatics, archery, bowling, dance, golf, karate, racquetball, soccer, volleyball, weight training, aerobic dance, jogging, firearms, self-defense for women, water aerobics and white water kayaking. Students are responsible for transportation to and from off-campus experiences.

#### GENERAL EDUCATION PHYSICAL EDUCATION

**PE 100 / PED 100C. FUNDAMENTALS OF PHYSICAL ACTIVITY.** (3) A study of the basic knowledge, understandings, and values of physical activity. Laboratory experiences are required. [GEN ED F]

**PE 101 / PED 101C. FIRST ACTIVITY COURSE.** Activity may be selected from aquatics, bowling, dance, golf, karate, racquetball, soccer, volleyball, weight training, aerobic dance, jogging, firearms, self-defense for women, water aerobics and white water kayaking. Students are responsible for transportation to and from off-campus experiences. (course fee in selected sessions) [GEN ED F]

**PE 102 / PED 102C SECOND ACTIVITY COURSE.** (1) Activity may be selected from aquatics, bowling, dance, golf, karate, racquetball, soccer, volleyball, weight training, aerobic dance, jogging, firearms, self-defense for women, water aerobics and white water kayaking. Students are responsible for transportation to and from off-campus experiences. [GEN ED F]

#### PROFESSIONAL PHYSICAL EDUCATION

**PE 111. MOVEMENT THEMES AND CONCEPTS I.** (2) An introduction to the basic principles of body management skills. Students are required to perform movement patterns which have gymnastic qualities. The students will conduct peer-teachings. For Physical Education majors only.

**PE 121. DANCE AND RHYTHMICAL ACTIVITIES.** (2) A study of a variety of dance forms and rhythmical activities suitable for teaching in public schools. Students will learn appropriate teaching techniques and procedures.

**PE 122. FOUNDATIONS OF KINESIOLOGY.** (3) An introductory study of the historical, philosophical, and scientific foundations of physical education. Equivalent to EXS 122.

**PE 123. MOVEMENT THEMES AND CONCEPTS II.** (2) *Prerequisite:* PE 111 or *permission of instructor.* Designed to provide majors with biomechanical knowledge and skill acquisition in the area of human movement to include the fundamental skills of catching, throwing, kicking, and striking. The students will conduct peer-teachings. For Physical Education majors only.

**PE 211. NET/WALL AND TARGET SPORTS.** (2) Pedagogical principles related to teaching the skills, tactics, and strategies of 'Net/wall' and 'Target' game forms.

**PE 212. STRIKING/ FIELDING AND INVASION SPORTS.** (2) Pedagogical principles of teaching 'invasion' and 'striking/fielding' game forms.

**PE 220. SKILL PROGRESSION AND ASSESSMENT.** (2) Focuses on appropriate learning progressions for instructional tasks to achieve a necessary link between learning outcomes using a skills approach and a tactical awareness of games approach.

**PE 221. HEALTH RELATED FITNESS I – AEROBICS.** (2) The importance of aerobic exercise for health is presented through a variety of aerobic fitness activities. Students are required to perform and lead activities. For Physical Education majors only.

**PE 222. FITNESS/ WELLNESS APPLICATIONS.** (2) Designed to help physical education majors build a foundation of current knowledge and practice in health related fitness and wellness for application in the education setting.

**PE 223. INTRODUCTION TO TEACHING PHYSICAL EDUCATION.** (3) Designed to provide majors with the abilities to define, describe, and demonstrate a range of skills to support multiple accreditation standards teaching physical education in a variety of settings.

**PE 250. CONDUCT OF INTRAMURAL SPORTS.** (2) A critical analysis of intramural sports programs from the standpoint of objectives, age level, and contribution to the general welfare of the participating students. Problems of policy and administration of programs on the elementary, secondary, and college levels are studied.

**PE 300. OUTDOOR EDUCATIONAL ACTIVITIES.** (2) *Prerequisite:* Junior standing. A study of outdoor activity skills and techniques for assessing community outdoor education resources.

**PE 310. KINESIOLOGY.** (3) Study of the anatomical, mechanical, and neuromuscular bases of human movement.

**PE 311. EXERCISE PHYSIOLOGY.** (3) A study of the acute and chronic effects of exercise on the body's physiological function.

## Course Descriptions

**PE 312. BASIC ATHLETIC TRAINING. (3)** *Prerequisites: PE 311 or EXS 311 and junior status.* A study of the basic principles of athletic training including prevention, evaluation, care, and rehabilitation of athletic injuries. Equivalent to EXS 312.

**PE 313. MOTOR DEVELOPMENT. (3)** A study of the development of human motor performance.

**PE 314. PHYSICAL EDUCATION CURRICULUM. (3)** A comprehensive study of guidelines for curriculum development within domain of physical education based on developmentally appropriate content and movement framework.

**PE 319. ADAPTED PHYSICAL EDUCATION. (3)** Provides knowledge and skills for assessing, interpreting, programming and instructing children and adults with disabilities/special needs in a wide range of physical education programs.

**PE 320. METHODS IN EARLY AND MIDDLE CHILDHOOD PHYSICAL EDUCATION. (2)** Designed to provide an in-depth study of the pedagogical knowledge and techniques required for an effective elementary physical education program.

**PE 321. PHYSICAL EDUCATION CURRICULUM (K-6). (3)** A study of guidelines for curriculum development in elementary physical education. The content of this course is based on developmentally appropriate content and the movement framework.

**PE 322. FIELD EXPERIENCE IN PHYSICAL EDUCATION I. (2)** Field-based experiences in Early and Middle Childhood emphasizing the abilities to understand, recognize, analyze, and demonstrate a range of teaching skills.

**PE 323. ADAPTIVE PHYSICAL EDUCATION (K-6). (1)** The course provides knowledge and skills for assessing, interpreting, programming, and instructing students with disabilities in K-6 physical education programs.

**PE 324. EVALUATION IN PHYSICAL EDUCATION. (3)** *Prerequisite: Second semester junior standing in the physical education major.* A study of measurements utilized to evaluate the cognitive, affective, and psychomotor dimensions of school-age physical education students. Also, information for exercise specialists. Equivalent to EXS 324.

**PE 333. COACHING OF VOLLEYBALL. (2)** *Prerequisite: Junior standing.* A study of the fundamentals of coaching offensive and defensive volleyball.

**PE 340. FOOTBALL COACHING. (3)** *Prerequisite: Junior standing.* Fundamentals of offensive and defensive play, psychology of coaching, schedule making, rules and problems in training, and conditioning in football.

**PE 341. BASKETBALL COACHING. (3)** *Prerequisite: Junior standing.* Fundamentals of offensive and defensive play, psychology of coaching, schedule making, rules and problems in training, and conditioning in basketball.

**PE 342. TRACK AND FIELD COACHING. (3)** *Prerequisite: Junior standing.* Fundamentals of coaching, schedule making, rules and problems in training, and conditioning in track and field.

**PE 343. BASEBALL COACHING. (3)** *Prerequisite: Junior standing.* Fundamentals of coaching, schedule making, rules and problems in training, and conditioning in baseball.

**PE 354. PHYSICAL EDUCATION FOR ELEMENTARY SCHOOLS. (3)** Designed especially for classroom teachers emphasizing materials and techniques for the physical education program for elementary schools.

**PE 355. LABORATORY PROCEDURES IN PHYSICAL EDUCATION ATHLETICS. (2)** A study of specific problems in the administration of physical education, recreation, athletics and exercise science.

**PE 413. ADAPTIVE PHYSICAL EDUCATION (7-12) (1)** The course provides knowledge and skills for assessing, interpreting, programming, and instructing students with disabilities in 7-12 physical education programs.

**PE 414. PHYSICAL EDUCATION CURRICULUM (7-12) (3)** Principles and practices of secondary physical education curriculum models to include an in-depth understanding and implementation of KERA academic expectations. Field experience is required.

**PE 415. FIELD EXPERIENCE IN PHYSICAL EDUCATION II. (2)** Field-based experiences in adolescent/young adulthood emphasizing the abilities to understand, recognize, analyze, and demonstrate a range of teaching skills.

**PE 416. SPECIAL TOPICS IN PHYSICAL EDUCATION. (1-3)** *Prerequisite: Permission of instructor.* An in-depth examination of a topic of current interest and relevance to physical education practitioners. Repeatable with a maximum of 4 hours.

**PE 420. ADAPTIVE PHYSICAL EDUCATION. (3)** *Prerequisite: Junior standing.* Study and field experience in the adaption of the principles and practices of physical education programs for the teaching of handicapped children.

**PE 456. ADVANCED STUDIES IN PHYSICAL EDUCATION AND ATHLETICS. (3)** Specific and detailed analysis of practical problem areas in physical education and athletics.

**PE 483. TECHNOLOGY APPLICATIONS IN PHYSICAL EDUCATION. (1)** Technology-related applications in physical education.

**PE 493. PRACTICUM IN COACHING. (1, 2 OR 3)** Supervised experience as an assistant coach in an interscholastic athletic program.

### PERF – PERFORMING ARTS DEPARTMENT OF THEATRE AND DANCE

**PERF 105. TAIJI. (1)** Fundamentals of Yang-style Taijiquan, a traditional Chinese martial art designed to strengthen and coordinate physical motion with breath control and mental/emotional focus. Repeatable three times for credit. (Grading: Pass/Fail) [GEN ED F]

**PERF 110. MAT PILATES. (2)** A study of Pilates-based, mat exercises. Holistic exercises use specific breath support and provide physical/mental conditioning that change muscle tone, balance, flexibility and overall fitness and well-being. Repeatable two times for credit. [GEN ED F]

**PERF 120. REHEARSAL AND PRODUCTION I. (1)** An experiential learning course designed to provide practical experience in all areas of theatrical production under actual production conditions.

**PERF 121. REHEARSAL AND PRODUCTION II. (1)** Continuation of PERF 120.

**PERF 175. UNIVERSITY EXPERIENCE: PERFORMING ARTS. (2)** Designed to develop academic skills and library research skills to foster personal development and to provide information about campus resources, thus empowering students to have a successful transition to the higher education experience.

**PERF 205. VOICE AND MOVEMENT FOR THE STAGE. (2)** A developmental studio course designed to help students enhance the quality, strength, balance, flexibility, and control of their natural vocal/kinesthetic abilities. Repeatable once for credit.

**PERF 220. REHEARSAL AND PRODUCTION III. (1)** Continuation of PERF 121.

**PERF 221. REHEARSAL AND PRODUCTION IV. (1)** Continuation of PERF 220.

**PERF 261. PERFORMING ARTS PRACTICUM I. (1)** *Prerequisite: Permission of instructor.* Individualized, mentored practical project course in drama, theatre or dance. Repeatable 3 times for a total of 4 credit hours.

**PERF 300. TOPICS IN CONTEMPORARY PERFORMANCE STUDIES. (3)** Topics-based course focusing on a particular area of contemporary performance theory and practice. May be repeated twice for a total of 9 credit hours.

**PERF 320. REHEARSAL AND PRODUCTION V. (1)** Continuation of PERF 221.

**PERF 321. REHEARSAL AND PRODUCTION VI. (1)** Continuation of PERF 320.

**PERF 361. PERFORMING ARTS PRACTICUM II. (2)** *Prerequisite: Permission of instructor.* Individualized, mentored practical project course in drama, theatre or dance. Repeatable 3 times for a total of 8 credit hours.

**PERF 369. PROFESSIONAL WORK/ CAREER EXPERIENCE IN THEATRE. (3)** Practical out-of-classroom experience in a supervised work situation with a cooperating business, industry, social or governmental agency. Can be repeated one time with departmental approval.

**PERF 400. ADVANCED PERFORMING ARTS STUDIO. (3)** *Prerequisite: Theatre and Dance majors only, at least junior standing and permission of instructor.* A team mentored applied performing arts studio offering advanced Theatre and Dance majors an opportunity to work together in small, collaborative teams on the conceptualization and production of fully realized performing arts events. Repeatable twice for a total of 9 credit hours.

**PERF 420. REHEARSAL AND PRODUCTION VII. (1)** Continuation of PERF 321.

**PERF 421. REHEARSAL AND PRODUCTION VIII. (1)** Continuation of PERF 420.

**PERF 445. RESEARCH IN THEATRE AND DANCE. (3)** Directed Research in Theatre and Dance. Offered as an independent study course with a theatre/ dance faculty advisor.

**PERF 450. PERFORMING ARTS CAREER SEMINAR. (2)** *Prerequisites: Department of Theatre and Dance majors with senior standing, or permission of instructor.* Prepares senior theatre and dance department majors to successfully engage the application/audition process for graduate and/or entry-level career positions in the field of performing arts.

**PERF 423. PERFORMING ARTS MANAGEMENT. (3)** A basic study of the principles of management applied to the fields of theatre operation, production preparation and performance that will affect the direction and growth of the theatre.

**PERF 451. CAREER SEMINAR WORKSHOP. (1)** *Corequisite: PERF 450.* A discipline specific workshop designed to accompany PERF 450: Performing Arts Career Seminar.

**PERF 461. PERFORMING ARTS PRACTICUM III. (3)** *Prerequisite: Permission of instructor.* Individualized, mentored practical project course in drama, theatre or dance. Repeatable 3 times for a total of 12 credit hours.

#### PH- PUBLIC HEALTH DEPARTMENT OF PUBLIC HEALTH

**PH 100. PERSONAL HEALTH. (3)** Examines behaviors and environmental conditions that enhance or hinder an individual's health status. In addition to exploring social and environmental factors, students are encouraged to think critically about behavioral choices that impact one's health. Students assess their individual behavior in the light of current scientific knowledge concerning mental health; drugs, alcohol and tobacco; health care; selection of health products; prevention of disease; nutrition; exercise, and stress management. Equivalent to HED 100C. [GEN ED F]

**PH 111. HUMAN NUTRITION. (3)** Includes a study of the nutrients essential to human life and well-being, their function in metabolism, their sources in food as it is consumed and the application of this information to the significant relationship between food habits and health. [GEN ED F]

**PH 165. DRUG ABUSE. (3)** This course offers an opportunity for the student to explore the drug culture, and both healthful and harmful use of drugs. The scope will include marijuana, hallucinogens, narcotics, stimulants, depressants and volatile chemicals. Pharmacological, psychological and sociological aspects of drug abuse will be studied through individual research, group discussion, lectures and field trips when practical. Equivalent to HED 165C. [GEN ED F]

**PH 261. FOUNDATIONS OF HEALTH EDUCATION. (3)** *Prerequisite: PH 100.* An introduction to the discipline of health education, including history, theoretical basis, comparison and contrast of work settings, ethics, professional organizations, and perspectives on the future.

**PH 280. INTRODUCTION TO ENVIRONMENTAL SCIENCE. (3)** An introductory course devoted to the study of environmental issues. A general understanding of application of science to solution of contemporary environmental problems. Equivalent to BIOL 280, CHEM 280, ENV 280, and GEOG 280. [GEN ED D-J]

**PH 363. HEALTH SERVICES FOR SCHOOL PERSONNEL. (3)** *Prerequisites: PH 261 and BIOL 131.* Investigation of school and community health services, including; screening for visual, hearing, nutritional and emotional disorders; the role of school personnel in the health appraisal, referrals and follow-up techniques, recognition and control of communicable diseases, first aid and emergency care, and health screening techniques. Emphasis on coordination of school and community health services.

**PH 365. HUMAN SEXUALITY. (3)** *Prerequisites: PH 100 and junior standing.* Examines sociological, physiological, and psychological aspects of human sexuality in relation to family life, courtship, marriage, reproduction, education, and aging. Includes information on sexual assault, sexually transmitted infections (STIs), and HIV/AIDS.

**PH 381. COMMUNITY HEALTH. (3)** *Prerequisites: PH 261 or appropriate background.* Study of international, national, state and local health problems, and the governmental, voluntary and private sectors of the health care system. Emphasis is placed upon preventative strategies appropriate for contemporary public health concerns.

**PH 382. PEER HEALTH EDUCATION. (3)** *Prerequisites: Instructor permission required. Admission based upon academic background and interview.* Course focuses on health concerns specific to college students with a strong emphasis on alcohol and other drug issues, and methods of addressing these issues through peer health education.

**PH 383. BIostatISTICS IN THE HEALTH SCIENCES. (3)** *Prerequisites: MATH 109 or MATH 116 or higher.* Introduction to statistical methods, scientific structure of study design, hypothesis formation and verification and study classification. Includes descriptive statistics, data presentation, data sources, questionnaire construction, interviewing techniques and use of computer technology.

**PH 384. INTRODUCTION TO EPIDEMIOLOGY. (3)** *Prerequisite: PH 383.* Explores the distribution and determinants of health and diseases, illnesses, injuries, disability, and death in populations. Examines the application of epidemiologic procedures to the understanding of the occurrence and control of conditions such as infectious and chronic diseases, mental disorders, community and environmental health hazards, accidents, and geriatric problems.

**PH 385. ENVIRONMENTAL HEALTH. (3)** *Prerequisites: PH 384, 3 hours CHEM and 3 hours BIOL.* This course examines the environment and its relationship to health status. Areas of emphasis include food protection, air, water and land pollution, hazardous wastes, and noise and radiation hazards.

**PH 390. WELLNESS AND FITNESS ASSESSMENT. (3)** *Prerequisites: BIOL 131, FACS 111, CPR certification and junior standing.* Techniques of wellness and fitness assessment, evaluations of various populations including identification of individual health risk factors, and personal goals for cardiovascular health and fitness.

**PH 402. WORKSITE HEALTH PROMOTION. (3)** *Prerequisite: PH 390 or permission of instructor.* Provides specific concepts and skills needed in worksite health promotion using comprehensive health promotion and education techniques. Also discusses policy issues, program planning and special population interactions that are unique to the worksite setting.

**PH 443. HEALTH AND AGING. (3)** *Prerequisites: PH 261 and junior standing.* Examines the multiple factors affecting health of older adults. The course will discuss normal changes in aging and how to promote health of older adults. Students are required to have hands-on field experience. Students are responsible for their own off-campus transportation.

**PH 444. DEATH, DYING AND BEREAVEMENT. (3)** *Prerequisites: 3 hours of social or behavioral science, junior standing.* A study of the universal experience of dying and death, within societal, cultural, philosophical and spiritual contexts, designed to help people make sense of their mortality and the development of coping skills to assist with dealing with the death of loved ones.

**PH 447. HUMAN VALUES AND THE HEALTH SCIENCES. (3)** *Prerequisites: PH 261, PH 381, or appropriate background in the social behavioral, biological, or allied health sciences.* An analysis of the difficult ethical, legal, and social dilemmas confronting the health care delivery system, patients, medical practitioners and other health care professionals in contemporary American society.

**PH 450. RURAL HEALTH AND SAFETY. (3)** Students will explore a variety of health and safety issues unique to rural populations. The interdisciplinary team concept will be used throughout the course to foster collaboration that facilitates sharing of the expertise of the students and faculty. One Saturday meeting will be required for a team building activity. A fee is required for this course.

**PH 456. INDEPENDENT STUDY IN HEALTH AND SAFETY. (1-3)** *Prerequisites: Junior standing and permission of instructor.* Specific and detailed analysis of practical problem areas in health and safety. Designed specifically for independent study.

**PH 460. SCHOOL AND COMMUNITY HEALTH WORKSHOP. (3)** *Prerequisite: Permission of instructor.* Coordination of school and community health programs and personnel in seeking solutions for common health problems. May include field trips to health agencies.

**PH 461. COMPREHENSIVE SCHOOL HEALTH PROGRAM. (3)** *Prerequisite: PH 381.* Examines the instructional component of a comprehensive school health program. Discusses the role of administrators, teachers, counselors, health service personnel and policy issues in coordinating and evaluating a comprehensive school health program.

**PH 462. FOLKLORE AND MEDICINE. (3)** This course examines the role of traditional culture in shaping attitudes and behavior related to sickness, health, and healing. Institutional, alternative, and informal medical settings are discussed. Equivalent to FLK 462.

**PH 463. CONSUMER HEALTH. (3)** *Prerequisites: PH 261 and junior standing.* This course examines the benefits and/or hazards associated with health related products, services and information presently available to the consumer. The methods and techniques of health frauds are analyzed. Emphasis is placed on the development of individual criteria for the potential selection and purchase of health products and services. Field trips may be required.

**PH 464. WOMEN'S HEALTH. (3)** *Prerequisites: Junior standing and permission of instructor.* An analysis of the major health problems of contemporary women, with a special emphasis on health promotion, disease prevention, and consumer health concerns.



## Course Descriptions

### PH 465. HEALTH AND SAFETY IN THE ELEMENTARY SCHOOL. (3)

*Prerequisite:* PH 100 or a similar course. An exploration of the nature and purpose of school health and safety in the elementary school, including curriculum development, instructional content areas, appraising students health and evaluation.

**PH 466. CLINICAL HEALTH EDUCATION. (3)** *Prerequisites:* 12 semester hours health course work. A course designed to prepare health educators to function in wellness or patient education programs located in a clinical or industrial setting. May include field trips.

**PH 467. DRUG ABUSE EDUCATION. (3)** *Prerequisite:* PH 100 or equivalent. A drug abuse education and prevention course designed to provide current and documented information about abused substances. Includes study of the development, implementation and evaluation of drug prevention programs in the home, school, community and workplace.

**PH 468. SEXUALITY EDUCATION. (3)** *Prerequisites:* PH 365 or permission of instructor. A critical review of programs designed to promote sexuality education in community and school settings. Forces that impact on the adoption of various curricula and the development of new curricula are examined. Students are taught to utilize scientific and cultural considerations in preparing and adopting curricula for different populations.

**PH 469. CRITICAL ISSUES IN HEALTH AND SAFETY. (3)** *Prerequisites:* PH 261 and PH 381. Analysis of current health problems from both school and community viewpoints. The purpose of the course is to permit in-depth exploration, through research and discussion, of specific local, national and worldwide health and safety problems.

**PH 483. ADMINISTRATION OF HEALTH PROGRAMS. (3)** *Prerequisite:* PH 384. Introductory study of the basic principles, theories and practices of public health administration. Emphasis will be placed on the development and organization of health programs from voluntary and official agencies to meet the health needs of the community.

**PH 484. COMMUNITY ORGANIZATION FOR HEALTH EDUCATION. (3)** *Prerequisite:* Junior standing and permission of instructor. Examines the role of the health educator in solving community health problems. Emphasis is placed on appropriate methods and techniques of communication, processes by which a community identifies its needs and the importance of cultural and social factors in community organization and community development. Principles of community organization and planning as a process will be stressed as well as the importance of public health policy.

**PH 485. METHODS IN COMMUNITY HEALTH EDUCATION. (3)** *Prerequisite:* PH 483. The roles and functions of the community health educator in planning, implementing, and evaluating health education programs.

**PH 490. INTERNSHIP. (3-6)** *Prerequisite:* Permission of instructor. Supervised, 400-hour field experience planned with various agencies, organizations, facilities, industries, and businesses with health related missions or programs, and approved by the Department of Public Health. Off-campus travel required, and students are responsible for their own transportation.

### PHIL / PHL – PHILOSOPHY

DEPARTMENT OF PHILOSOPHY AND RELIGION (PHIL)  
DEPARTMENT OF LIBERAL ARTS AND SCIENCES (PHL)

**PHIL 101. ENDURING QUESTIONS: TRUTH AND RELATIVISM. (3)** The study of central positions and arguments concerning the nature and character of Truth: Is there such a thing as Truth? What is real? If there is Truth and reality, how can we know them? [GEN ED B-II]

**PHIL 102. ENDURING QUESTIONS: THE GOOD AND THE BEAUTIFUL. (3)** The study of fundamental questions in moral theory and aesthetics: What is good? What is beauty? On what grounds do we base moral and aesthetic judgments? How are the good and the beautiful related, and how are they different? [GEN ED B-II]

**PHIL 103. ENDURING QUESTIONS: THE COMMITTED LIFE. (3)** The philosophical study of individual and collective commitment to ideals and values in pluralistic society. [GEN ED B-II]

**PHIL 201. LOVE AND FRIENDSHIP. (3)** A study of the four classical forms of love—affection, eros, friendship, and charity—and of the cultural influences which shape and mold our understanding and experience of love. [GEN ED B-II]

**PHIL 202. RACIAL JUSTICE. (3)** An examination of (1) the major perspective that came together to form the civil rights movement of the 1950's and 1960's; (2) the accomplishments and failures of that movement; and (3) the issues of racial justice that remain today. [GEN ED C]

**PHIL 207. PHILOSOPHY AND POPULAR CULTURE. (3)** An examination of the multiple ways that philosophical inquiry can further the student of popular culture. This will include philosophical accounts of the nature and meaning of popular culture as well as the use of various philosophical approaches to interpret specific elements of popular culture such as film, television, music, and sports.

**PHIL 212. PHILOSOPHY AND GENDER THEORY. (3)** Introductory study of philosophical works as they relate to gender theory, queer theory, and feminism.

**PHIL 215. ELEMENTARY LOGIC. (3)** An introductory course in logic which presents the different uses of language and teaches students (1) to evaluate the logical status of statements and the consistency and validity of arguments using both natural and formal language techniques, and (2) to identify informal fallacies. Typically, a student who earns an "A" or "B" in 115 may go on to take 415, with the permission of the instructor of 415. [GEN ED B-II]

**PHIL 299. PHILOSOPHICAL WRITING WORKSHOP. (1)** *Prerequisite:* One philosophy course or concurrent registration in a philosophy course. A workshop designed to help students develop their writing skills and forms of argumentation in a philosophical context.

**PHIL 305. AESTHETICS. (3)** A survey of outstanding philosophies of art and a study of the principles of art criticism.

**PHIL 310. SCIENCE, RELIGION AND CONTEMPORARY LIFE. (3)** *Prerequisite:* Junior level status or permission of instructor. An exploration of the philosophical problems associated with attempts to integrate religious understanding into a cultural environment shaped by recent developments in both natural and social scientific knowledge.

**PHIL 315. PHILOSOPHY OF RELIGION. (3)** *Prerequisite:* One course in philosophy or religious studies. A systematic study of such problems as the nature and existence of God, the relation of faith and reason, human nature and destiny, immortality, evil, and the problem of religious language. Equivalent to RELS 315.

**PHIL 320. ETHICS. (3)** *Prerequisite:* One course in philosophy or sophomore status. An introduction to ethical issues using classical and contemporary texts. Among issues that may be treated are justice, rights, responsibilities, punishment, and obligations regarding the environment. [GEN ED B-II]

**PHIL 321. MORALITY AND BUSINESS. (3)** An introduction to the study of moral choice in the business world. Topics include ethical foundations of business practice in general and criteria for evaluating the moral dimensions of issues such as relations with consumers, environmental impact, quality of work life, hiring, advertising, price setting, and corporate governance. [GEN ED B-II]

**PHIL 322. BIOMEDICAL ETHICS. (3)** A philosophical analysis of ethical problems in biomedical practice and research, including patients' rights, professional responsibilities, death and dying, health care allocation, and reproductive technologies. [GEN ED B-II]

**PHIL 323. SOCIAL ETHICS. (3)** *Prerequisites:* One course in Religious Studies or Philosophy or junior status. Perspectives and issues involved in the public pursuit of justice in a religiously and philosophically diverse society. One short field trip. Equivalent to RELS 323: Social Ethics. [GEN ED B-II]

**PHIL 324. WAR AND PEACE. (3)** *Prerequisite:* One course in philosophy at the 100 or 200 level; or permission of instructor. A philosophical examination of classical and contemporary arguments concerning the use of organized violence to settle human disputes. Topics include just war theories, pacifism and nonviolence, deterrence, militarism, and peacemaking.

**PHIL 329. CONCEPTS OF GOD, GOOD AND EVIL. (3)** *Prerequisite:* Junior level status or permission of instructor. An exploration of the basic problems associated with the conceptual relationships among various concepts of God, good and evil, incorporating non-religious and non-western approaches.

**PHIL 330. PHILOSOPHY OF SCIENCE. (3)** *Prerequisite:* One course in philosophy or permission of instructor. Critical examination of the concepts, presuppositions, and methods of the natural and social sciences. Fundamental concepts such as space, time, matter, and causality are examined.

**PHIL 331. ANALYTIC PHILOSOPHY. (3)** *Prerequisite:* One course in philosophy or permission of instructor. A study in Anglo-American/Analytic philosophy in the 20<sup>th</sup> century focusing on the works of representative figures like Carnap, Frege, Moore, Russell, Quine, and Wittgenstein.

**PHIL 333. MARX AND CRITICAL THEORY. (3)** *Prerequisite:* One course in philosophy or permission of instructor. A study of 19<sup>th</sup> and 20<sup>th</sup> century critical social thought focusing on Marxism and the Frankfurt School.

**PHIL 341. ANCIENT GREEK ENLIGHTENMENT. (3)** *Prerequisite:* One course in philosophy or permission of instructor. The study of primary texts to assess and compare the contributions of Plato and Aristotle and related figures to issues in metaphysics, epistemology, ethics, and political philosophy.

**PHIL 342. REASON AND THE DIVINE IN HELLENISM AND LATE ANTIQUITY.**

(3) *Prerequisite:* One course in philosophy or permission of instructor. A selective study to assess and compare the views of Stoics, Skeptics, Epicureans, and others on issues that include reality, knowledge, natural law, well-being, and soul.

**PHIL 343. RENAISSANCE AND RENEWAL IN THE MIDDLE AGES. (3)**

*Prerequisite:* One course in philosophy or permission of instructor. A selective study to assess and compare the contributions of medieval thinkers such as Peter Abelard, Roger Bacon, and William of Ockham to issues including language, knowledge and science, reality and God, virtues and conscience, well-being, and political order.

**PHIL 344. EARLY MODERN MORAL PHILOSOPHY. (3)** *Prerequisite:* One course in philosophy or permission of instructor. A selective study of moral problems and movements in early modern European philosophy between the Reformation and the late eighteenth century.

**PHIL 345. DESCARTES AND HUME. (3)** *Prerequisite:* One course in philosophy or permission of instructor. A comparative treatment of the major works and doctrines of Descartes and Hume and their importance for subsequent philosophical developments.

**PHIL 346. KANT AND IDEALISM. (3)** *Prerequisite:* One course in philosophy or permission of instructor. A focused study of the philosophy of Kant and reaction to that philosophy by such figures as Hegel, Schelling, Fichte, or Kierkegaard.

**PHIL 347. LEIBNIZ AND LOCKE. (3)** *Prerequisite:* One course in philosophy or permission of instructor. A comparative treatment of the major works and doctrines of Leibniz and Locke and their importance for subsequent philosophical developments.

**PHIL 348. 20<sup>th</sup> CENTURY PHILOSOPHY. (3)** *Prerequisite:* One course in philosophy or permission of instructor. A study of one or more of the philosophical movements of the 20<sup>th</sup> century.

**PHIL 350. ETHICAL THEORY. (3)** *Prerequisite:* One course in philosophy or permission of instructor. A study of the major normative systems in the history of ethics, and of selected problems in contemporary metaethics, including moral reasoning, skepticism, rights, and theories of justice.

**PHIL 401. READINGS IN PHILOSOPHY. (3)** *Prerequisite:* One course in philosophy or permission of instructor. An intensive study of selected philosophic classics or readings in a selected area of philosophy. May be repeated for different topics.

**PHIL 404. METAPHYSICS AND EPISTEMOLOGY. (3)** *Prerequisites:* Junior status, PHIL 215, and one course in philosophy at the 100 or 200 level; or permission of instructor. Selective study of topics about reality and knowledge, such as existence, appearance and reality, causality, persons, certainty, theory and evidence, explanation and understanding and justification.

**PHIL 415. ADVANCED LOGIC. (3)** *Prerequisite:* PHIL 215 or equivalent. Advanced topics in First Order Logic and topics in the Philosophy of Logic.

**PHIL 426. PHILOSOPHY AND OLD AGE. (3)** *Prerequisite:* Junior level or above or permission of instructor. Examination of philosophical themes bearing on old age, such as: meaning, memory, selfhood, autonomy, immortality, euthanasia, filial obligation, intergenerational justice, authority, dignity, virtue/vice and beauty.

**PHIL 432. PHILOSOPHY AND EARLY MODERN SCIENCE. (3)** *Prerequisite:* One philosophy course or instructor permission. A study of the links between natural philosophy, jurisprudence, and the rise of experimentalism in the seventeenth century.

**PHIL 433. HISTORY OF PHILOSOPHY OF SCIENCE. (3)** *Prerequisite:* One philosophy course or instructor permission. A treatment of the philosophical analyses of problems in science, such as Realism, Instrumentalism, Hypothetico-Deductivism, Models, Empiricism, Experimental Design, and Scientific change or Progress, studies in historical context.

**PHIL 496. SENIOR SEMINAR. (3)** *Prerequisite:* Senior standing and major in philosophy or consent of instructor. A capstone course designed for senior philosophy majors. Students will complete projects that demonstrate their research, writing, and analytical skills. Content areas of the seminar will vary by semester and instructor.

**PHIL 499. RESEARCH IN PHILOSOPHY. (3)** *Prerequisite:* Open only to philosophy majors with at least a 3.0 grade point average in their senior year. Directed study and research in one area of philosophy. The research will culminate in an acceptable thesis.

**PHYS—PHYSICS****DEPARTMENT OF PHYSICS AND ASTRONOMY****NON-SCIENCE MAJORS**

These courses do not count toward physics major credit.

**PHYS 100. ENERGY. (3)** A one-semester survey of the concepts of energy applicable to the understanding of energy in our environment. Topics covered are the nature of energy, sources, transmission, consumption, energy and the environment, and prospects for the future. Experiments will be conducted as part of the classroom work. [GEN ED D-I]

**PHYS 101. CONCEPTS OF MOTION. (3)** A one-semester introduction to motion and matter. Topics include the analysis of motion, Newton's Laws of motion, work, energy, the structure and properties of solids, liquids and gases, wave motion and sound. Laboratory experiments are an integral part of this course. [GEN ED D-I (DL)]

**PHYS 103. LIGHT, COLOR AND VISION. (3)** A descriptive account of the nature and properties of light, color and the process of seeing including descriptions of some important optical instruments, such as the eye, the camera and the telescope. Laboratory experiments are an integral part of the course. [GEN ED D-I (DL)]

**PHYS 105. CONCEPTS OF THE PHYSICAL WORLD. (3)** A one-semester introduction to the concepts of physics for students planning to teach in elementary and middle schools. Topics include structure and properties of matter, mechanics, electricity, magnetism, heat, light and sound. Laboratory experiments are an integral part of this course. [GEN ED D-I]

**PHYS 130. ACOUSTICS OF MUSIC AND SPEECH. (3)** The fundamental laws of mechanics and wave motion are studied with particular emphasis being placed upon their application to the production and control of music and speech. Laboratory experiments and field trips are an integral part of the course. Does not count toward credit for the physics major or minor. [GEN ED D-I (DL)]

**SCIENCE AND MATH MAJORS AND MINORS**

**PHYS 140. FOUNDATIONS OF PHYSICS. (3)** *Co-requisite:* Math 118 or consent of instructor. Preparatory course for calculus-based physics. Reasoning, analysis, and problem-solving are developed through introduction to important topics in physics, including relativity, quantum mechanics, and atomic physics. Basic physics concepts such as motion, energy, and waves are also introduced. Does not count towards a major or minor in physics.

**PHYS 175. UNIVERSITY EXPERIENCE FOR PHYSICS MAJORS. (2)** *Prerequisite:* For beginning college freshmen or transfer students with less than 24 hours of degree credit. Transition to university experience. Topics include study skills, critical thinking skills, library education, exploration of majors and careers, degree programs, campus resources and personal development. Issues specific to physics majors, degree requirements, specializations within physics, career trends and resources are addressed.

**PHYS 180. INTRODUCTORY MODERN PHYSICS. (3)** *Prerequisite:* MATH 117 or 118. *Corequisite:* PHYS 181. A survey of the physics revolution responsible for laptop computers, fiber optics, and nuclear power. Follows the change in physical theory from the 1870's through the 1920's, from geometrical optics and thermodynamics through the theories of relativity and the basic ideas behind quantum mechanics. [GEN ED D-I]

**PHYS 181. INTRODUCTORY MODERN PHYSICS LABORATORY. (1)** *Prerequisite:* MATH 117 or 118. *Corequisite:* PHYS 180. Required for students enrolled in PHYS 180. Laboratory experience focusing on applications of optics, thermodynamics, the structure and behavior of atoms, wavelike properties of particles, and quantization of light, charge and energy. [GEN ED D-I (DL)]

**PHYS 201. COLLEGE PHYSICS I. (4)** *Prerequisites:* High School algebra, geometry and right triangle trigonometry. An introductory course for students majoring in the applied sciences, emphasizing the application of basic physics principles through problem solving. Topics covered include mechanics, heat and thermodynamics, properties of matter and waves. Includes both lecture and laboratory components. (No calculus is used). [GEN ED D-I]

**PHYS 202. COLLEGE PHYSICS II. (4)** *Prerequisite:* PHYS 201. *Co-requisite:* PHYS 208 (Course and laboratory must be taken together or dropped together.) A continuation of PHYS 201. The following topics are covered: electrostatics, electric field strength, electric potential difference, resistance, capacitance, DC circuits, magnetism, electromagnetic induction, electromechanical devices, simple AC circuits, reflection, refraction, geometrical optics, physical optics, interference and diffraction. Includes both lecture and laboratory components. (No calculus is used).

## Course Descriptions

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**PHYS 227. ENGINEERING STATICS. (3)** *Corequisite: MATH 237.* Study of external forces acting on particles and rigid bodies in equilibrium including force systems in two and three dimensions, distributed loading, applications to trusses, beams, frames and cables using vector algebra. Also covers centroids and moments of inertia. Equivalent to MET 227.

**PHYS 231. INTRODUCTION TO PHYSICS AND BIOPHYSICS I. (3)** *Prerequisites: High school algebra and geometry. Corequisite: PHYS 232 (Course and laboratory must be taken together or dropped together.)* The first half of a basic course for students of the life sciences, covering the topics of mechanics, heat and thermodynamics, properties of matter, waves and sound. Emphasis is on an understanding of the physical principles operative in biological systems and on the application of physical methods in biology and medicine. [GEN ED D-I]

**PHYS 232. LABORATORY FOR PHYSICS AND BIOPHYSICS I. (1)** *Corequisite: PHYS 231.* Required for students enrolled in 231. Students perform physics experiments on mechanics, fluids, sound, heat and thermodynamics. (course fee) [GEN ED D-I (DL)]

**PHYS 233. LABORATORY FOR PHYSICS AND BIOPHYSICS II. (1)** *Corequisite: PHYS 332.* Required for students enrolled in 332. Students perform physics experiments in electricity, magnetism and optics. (course fee)

**PHYS 255. UNIVERSITY PHYSICS I. (4)** *Prerequisite: MATH 136 with a grade of C or better. Corequisite: MATH 137 and PHYS 256.* This is the first half of a year-long course in calculus-based physics suggested for students in the physical sciences and mathematics. Definitions, concepts, and problem solving will be emphasized. Topics include kinematics, dynamics, energy, conservation laws, rotation, harmonic motion, mechanical waves and thermodynamics. (course fee) [GEN ED D-I]

**PHYS 256. UNIVERSITY PHYSICS I LAB. (1)** *Corequisite: PHYS 255.* Required for students enrolled in PHYS 255. Students perform physics experiments in mechanics and thermodynamics which stress the fundamental definitions and laws developed in the lecture course. Students gain experience in computerized data acquisition and data analysis using modern techniques and equipment. (course fee) [GEN ED D-I (DL)]

**PHYS 265. UNIVERSITY PHYSICS II. (4)** *Prerequisites: PHYS 255 and MATH 137, both with grades of C or better. Corequisite: PHYS 266.* This is the second half of a year-long course in calculus-based physics suggested for students in the physical sciences and mathematics. Definitions, concepts, and problem solving will be emphasized. Topics include electricity and magnetism, (electrical and magnetic fields, forces, energy, potential, charged particle motion, induction, and circuits), sound waves and optics.

**PHYS 266. UNIVERSITY PHYSICS II LABORATORY. (1)** *Prerequisites: PHYS 255 and MATH 137. Corequisite: PHYS 265.* Required for students enrolled in PHYS 265. Students perform physics experiments in electricity and magnetism, waves and optics which stress the fundamental definitions and laws developed in the lecture course. Students gain experience in computerized data acquisition and data analysis using modern techniques and equipment. (course fee)

**PHYS 270. UNIVERSITY PHYSICS III. (3)** *Prerequisite: MATH 136 or equivalent. Co-requisites: PHYS 271 and MATH 137 or equivalent (Course and laboratory must be taken together or dropped together.)* This is the third course in the general physics sequence (250-260-270) suggested for students in the physical sciences and mathematics. Topics include fluids (hydrostatics and hydrodynamics), thermodynamics, vibrations, wave motion, sound, physical optics (interference, diffraction and polarization), and geometrical optics (reflection, refraction, and image formation).

**PHYS 271. LABORATORY FOR UNIVERSITY PHYSICS III. (1)** *Co-requisites: PHYS 270 and MATH 137 or equivalent.* Required for students enrolled in PHYS 270. Students perform physics experiments on elasticity, mechanics of fluids, heat, thermodynamics, ideal gases, simple harmonic motion, sound and optics. Students gain experience in computerized data acquisition and data analysis using modern techniques and equipment.

**PHYS 275. ASTRONOMY RESEARCH METHODS. (3)** *Prerequisite: MATH 117 or equivalent; and permission of department.* Intensive project-based course to introduce students to the fundamentals of astronomy using scientific research investigations as examples. Includes familiarization with astronomical instrumentation for imaging and spectroscopy of celestial objects, digital image reduction and analysis, and interpretation of results. Additional topics include the process and nature of scientific research and professional ethics. This course does not count toward a major or minor in physics or astronomy.

**PHYS 295. INTRODUCTION TO RESEARCH METHODOLOGY. (1)** To familiarize Ogden Research Scholars and other research oriented students with the fundamentals of choosing a research topic, performing a bibliographical search on a subject, topic, classification of instruments, data taking, data reduction, professional ethics and other research oriented topics. The common points of research methodology in the different scientific areas will be accentuated. Examples will be drawn from the various disciplines. Use of computers will be emphasized. (Course does not count towards any major or minor.) Equivalent to BIOL 295, CHEM 295, CS 295, GEOL 295, MATH 295, and PHYS 295.

**PHYS 332. INTRODUCTION TO PHYSICS AND BIOPHYSICS II. (3)** *Prerequisite: PHYS 231. Co-requisite: PHYS 233 (Course and laboratory must be taken together or dropped together.)* The second half of a basic course for students of the life sciences, covering the topics of electricity, magnetism, light optics, atomic and nuclear physics. Emphasis is on an understanding of the physical principles operative in biological systems and on the application of physical methods in biology and medicine.

### EDUCATION MAJORS AND MINORS

**PHYS 312. LABORATORY PRACTICE AND PROCEDURE. (1)** *Prerequisite: PHYS 270.* A course to assist prospective high school physics teachers in being able to plan, design, equip and teach a high school physics laboratory.

**PHYS 325. CURRENT PROGRAMS IN PHYSICS. (3)** *Prerequisite: One year of college physics.* A systematic study of several current systems of organizing and presenting introductory physics. The prospective teacher will become familiar with various program materials, and will explore the history and philosophy of physics. The student will compare these systems and consider adapting them to different classroom situations.

**PHYS 410. PHYSICS FOR TEACHERS. (3)** *Prerequisite: PHYS 105 or PHYS 201 or PHYS 231 or PHYS 255.* A broad study, including laboratory experiences, of the areas of physics relevant to science teaching in grades K-12. For pre-service or in-service teachers who have a minimal physics background. Instruction will be differentiated according to student needs. Applicable toward a major or minor in physics only for those students obtaining teacher certification.

### DEPARTMENTAL MAJORS AND MINORS

**PHYS 301. ELECTRICAL MEASUREMENTS LABORATORY. (1)** *Prerequisites: PHYS 265 and 266.* Laboratory experiments in fundamental techniques of electrical measurements.

**PHYS 302. ATOMIC PHYSICS LABORATORY. (1)** *Prerequisite: PHYS 321.* Fundamental experiments of historical importance in modern physics.

**PHYS 303. ELECTRONICS LABORATORY. (1)** *Corequisite: PHYS 340.* Required for students enrolled in PHYS 340. Laboratory experiments in basic techniques of analog and digital electronics.

**PHYS 316. COMPUTATIONAL PHYSICS. (3)** *Prerequisites: PHYS 265 or equivalent; CS 240.* Use of computers to solve physics problems, model physical systems, and analyze data. Topics include: realistic motion, data analysis, Fourier transform, solutions to Laplace's equation, and Monte Carlo methods.

**PHYS 318. DATA ACQUISITION USING LABVIEW. (3)** *Prerequisites: PHYS 265 and CS 240 or permission of instructor.* A study of computer-assisted measurement and automation techniques. Students receive hands-on experience in measuring and controlling physical phenomena through laboratory exercises and projects. Recognized as a LabVIEW Academy course by National Instruments. Offers students the opportunity to become certified LabVIEW associate developers.

**PHYS 320. INTRODUCTORY MODERN PHYSICS I. (3)** *Prerequisites: PHYS 270 or equivalent; MATH 136 or equivalent. Co-requisite: MATH 137.* An introductory study of the breakdown of classical physics at the atomic level (quantization) and at high speeds (relativity). Emphasis is placed upon observable effects of the interaction between matter and radiation and the new theories created to explain these effects. The topics include elements of special relativity; particle-like behavior of radiation; wave-like behavior of particles; the hydrogen spectrum and the Bohr theory; elements of quantum mechanics; magnetic properties of atoms and electron spin; the periodic table; spectra of hydrogen-like atoms; and other selected topics of modern physics.

**PHYS 321. INTRODUCTORY MODERN PHYSICS II. (3)** *Prerequisites: PHYS 180 and 265.* A study of the quantization phenomena describing the many electron atoms; statistical distribution laws, conductivity, superconductivity and band theory of solids; nuclear structure, nuclear reactions and other selected topics of modern physics.

**PHYS 330. THERMODYNAMICS. (3)** *Prerequisites: PHYS 321, MATH 237 and 331.* A study of thermodynamic systems, equations of state, entropy, Maxwell-Boltzmann and quantum statistics.

**PHYS 335. GENERAL BIOPHYSICS. (4) [(3) LECTURE; (1) LAB.]** *Prerequisites:* PHYS 231, 332; BIOL 120/121; or permission of instructor. An introduction to the major fields of biophysics in quantitative terms, with emphasis on the physical techniques applied in biomedical practice and research.

**PHYS 337. MEDICAL IMAGING. (4)** *Prerequisites:* BIOL 120, MATH 136, and PHYS 332 or PHYS 256. An introduction to the fundamental and quantitative principles underlying major medical imaging techniques.

**PHYS 340. CIRCUIT THEORY AND ELECTRONICS. (3)** *Prerequisites:* PHYS 265, 301; MATH 137. *Co-requisite:* PHYS 303. This course is suitable for all science majors who will use electronic devices in their work. It is a study of circuit analysis, active devices (such as diodes, transistors, silicon controlled rectifiers) and integrated circuits. Particular emphasis is placed on design and use of simple power supplies, transistor circuits, and operational amplifier circuits.

**PHYS 350. CLASSICAL MECHANICS I. (3)** *Prerequisites:* PHYS 265. *Prerequisites or Co-requisites:* MATH 331 and MATH 237. A study of classical mechanics including equations of motion, coordinate systems, the simple harmonic oscillator, damping forces, vector algebra, momentum and energy theorems.

**PHYS 389. PRACTICUM IN PHYSICS AND ASTRONOMY. (3-6)** Practical experience in a supervised work situation. Application of basic knowledge and skills from the student's major discipline or area of career interest, with opportunities in learning the social, psychological, cultural and communication aspects of work. The student is placed under the direction of a supervisor of a cooperating business, industry, agency or institution. Includes specific, learning objectives and evaluation of the student using one or more of the following formats: (1) written reports, (2) seminar presentations, or (3) tests over selected readings. May be repeated with departmental approval.

**PHYS 398. JUNIOR SEMINAR. (0.5)** *Prerequisite:* PHYS 321 and PHYS 350. Weekly seminar series in current topics in physics. Each student will also prepare for and take a comprehensive examination in physics.

**PHYS 399. RESEARCH PROBLEMS IN PHYSICS AND ASTRONOMY. (1-3)** *Prerequisite:* PHYS 321. Assigned reading or research for qualified undergraduates. May be repeated with change of content, but only three hours will count toward a major.

**PHYS 404. OPTICS LABORATORY. (1)** *Co-requisite:* PHYS 441. Required laboratory for students enrolled in PHYS 441. Fundamental laboratory experiments in geometrical and physical optics.

**PHYS 406. LAB/SOLID STATE. (1)** *Corequisite:* PHYS 460. Fundamental lab experiments in solid state physics.

**PHYS 407. NUCLEAR PHYSICS LAB. (1)** *Corequisite:* PHYS 470. Fundamental lab experiments in nuclear physics.

**PHYS 431. RADIATION BIOPHYSICS (4) [(2) LECTURE; (2) LAB.]** *Prerequisites:* PHYS 201-202 or PHYS 231-332. A treatment of the properties of the various forms of radiation and their interaction with, and effects on, living matter. The laboratory offers training in the monitoring of ionizing radiations and in the techniques of radioactive isotopes as applied in biological and clinical work. Equivalent to BIOL 431.

**PHYS 440. ELECTRICITY AND MAGNETISM I. (3)** *Prerequisites:* PHYS 350 and MATH 237 and 331. A study of classical electricity and magnetism with emphasis on fields, potentials, conductors, dielectrics, steady currents and radiation.

**PHYS 441. OPTICS. (3)** *Prerequisites:* PHYS 180 and 265 and MATH 137. *Co-requisite:* PHYS 404. A study of geometrical and physical optics including wave propagation, refraction, dispersion, diffraction and polarization.

**PHYS 445. ELECTROMAGNETISM II. (3)** *Prerequisites:* PHYS 440. The study of classical electrodynamics with emphasis on Maxwell's equations, electromagnetic waves, dispersion, and radiation.

**PHYS 450. CLASSICAL MECHANICS II. (3)** *Prerequisites:* PHYS 350 and MATH 237 and 331. A study of rigid body motion, moving coordinate systems, Lagrange's equations, small vibrations and the special theory of relativity as applied to mechanics.

**PHYS 460. SOLID STATE PHYSICS. (3)** *Prerequisites:* PHYS 321, MATH 237 and 331. *Corequisite:* PHYS 406. An introductory course in the theory of solids including geometrical and x-ray crystallography, Maxwell-Boltzmann and Fermi-Dirac statistics, free electron theory of metals, Brillouin Zones, band-model of semiconductors and the Hall Effect.

**PHYS 465. GEOPHYSICS. (3)** *Prerequisites:* GEOL 111 and one year of college physics or permission of the instructor. The basic fundamentals of general and exploration geophysics. The initial topics discussed include the origin of the earth and the solar system, the earth's interior, geochronology, gravity and isostasy, seismology, the earth's heat, geomagnetism, upper atmosphere, continents and ocean basins, ridges and island arcs, and continental drift. The theory and applications of exploration geophysics are also covered, especially gravity, magnetic and seismic methods. Equivalent to GEOL 465.

**PHYS 470. NUCLEAR PHYSICS. (3)** *Prerequisites:* PHYS 302, 321 and MATH 331. *Corequisite:* PHYS 407. The properties of the nucleus including radioactivity, radiation detectors, nuclear reactions, nuclear mass and size determination, alpha, beta, and gamma decay, nuclear models, particle accelerators, fission and elementary particles.

**PHYS 475. SELECTED TOPICS IN PHYSICS. (1-3)** *Prerequisites:* Senior standing and permission of the instructor. Each topic is a course in directed study under the supervision of a faculty member. Available for full credit in subsequent sessions with change of content.

**PHYS 480. QUANTUM MECHANICS. (3)** *Prerequisites:* PHYS 321, 350, MATH 237; and one of the following: PHYS 440, 450 or MATH 435. A study of the fundamental principles of quantum mechanics including the hydrogen and helium atoms, the harmonic oscillator, and the Schrödinger wave equation.

**PHYS 489. INTERNSHIP IN PHYSICS AND ASTRONOMY. (3-6)** (May be repeated with department approval.) Practical experience in a supervised work situation. Application of advanced knowledge and skills from the student's major discipline or area of career interest, with opportunities in learning the social, psychological, cultural, and communication aspects of work. The student is placed under the direction of a supervisor of a cooperating business industry, agency or institution. Includes specific learning objectives and evaluation of student using one or more of the following formats: (1) written reports, (2) seminar presentations, or (3) tests over selected readings.

**PHYS 498. SENIOR SEMINAR. (.5)** *Prerequisite:* PHYS 398. Weekly seminar series in current topics in Physics. Each student will also prepare and give an oral presentation of current research in physics.

#### PLS – PARALEGAL STUDIES DEPARTMENT OF PROFESSIONAL STUDIES

**PLS 190C. INTRODUCTION TO THE PARALEGAL PROFESSION. (3)** Introduces state and federal judicial systems and paralegal roles and careers. Emphasizes rules of professional conduct, legal ethics and unauthorized practice of law by non-lawyers.

**PLS 195C. LEGAL RESEARCH AND WRITING. (3)** *Prerequisite:* PLS 190C. The sources and techniques of performing legal research using primary and secondary authorities in a law library and writing a legal argument with correct form and citations.

**PLS 280C. CONTRACT LAW AND THE PARALEGAL. (3)** *Prerequisite:* PLS 293C. Academic and practical instruction in the law of contracts, with a focus on contract formation, performance and breach.

**PLS 281C. MEDIATION FOR THE PARALEGAL. (3)** *Prerequisite:* PLS 293C. Academic and practical instruction in the law of alternative dispute resolution including the rationale behind mediation, the rules of procedure and the relation to the trial process.

**PLS 282C. TORT LAW AND THE PARALEGAL. (3)** *Prerequisite:* PLS 293C. Academic and practical instruction in the law of torts, including intentional torts, negligence and strict liability to prepare students for law practice focused on assault/battery, personal injury, professional malpractice and/or property loss claims.

**PLS 283C. REAL ESTATE LAW FOR THE PARALEGAL. (3)** *Prerequisite:* PLS 293C. Instruction in basic concepts of property law as well as practical application of the law to title examinations, real estate closing transactions and land disputes.

**PLS 291C. CRIMINAL LAW AND PROCEDURE. (3)** *Prerequisite or corequisite:* PLS 195C. Introduces criminal law and procedure, forms and documents, and all stages of criminal litigation preparation by a paralegal using the systems approach. Emphasizes application of Kentucky law.

## Course Descriptions

**PLS 292C. CORPORATE LAW. (3)** *Prerequisite: PLS 195C.* This course will review the substantive corporate law and tax law as is necessary to understand and draft several corporate documents, to include Articles of Incorporation, Corporate Bylaws, Shareholder's and Director's Minutes, name change of corporation, annual verification reports, and shareholder's agreements. This course will also include instruction regarding mergers, acquisitions, common and preferred stock, voting by proxy, stock dividends, sole proprietorship, partnerships, liquidations and dissolutions, and the ethical guidelines to which a paralegal should adhere will be pursued.

**PLS 293C. CIVIL PROCEDURE. (3)** *Prerequisite: PLS 195C.* The course is designed to follow the procedures of a civil lawsuit from the first client contact through discovery, settlement negotiations or trial, and appeal. Course work will focus on the role and responsibilities of the paralegal in preparing court documents, investigation, client and witness contact, discovery, and trial assistantship. Federal and state rules governing the conduct of a civil lawsuit will be examined in detail.

**PLS 294C. ADMINISTRATIVE PRACTICE AND PROCEDURES. (3)** *Prerequisite: PLS 195C.* Detail laws pertaining to Medicaid, Medicare and related topics, and Kentucky unemployment law. Uses hands-on approach, including mock federal and state administrative hearings.

**PLS 295C. ESTATE PLANNING AND ADMINISTRATION. (3)** *Prerequisite or corequisite: PLS 195.* Paralegal estate planning and probate practice under Kentucky statutes, including initial steps, asset management and distribution, tax issues, will and trusts, and drafting related documents.

**PLS 296C. FAMILY LAW. (3)** *Prerequisite or corequisite: PLS 195C.* This course will involve preparation of various contested and uncontested divorce pleadings to include petition for dissolution of marriage; findings of fact, conclusions of law and decree of dissolution; simple and complex separation agreements; settlement agreements; petitions for temporary custody and change in child support. Preparation of other documents to include petition for adoptions and application for AFDC. In addition, the student will receive instruction regarding skills needed in client interviewing, organization of financial records, answering of interrogatories and request for production of documents and ethical guideline to which a paralegal should adhere.

**PLS 298C. ADVANCED LEGAL RESEARCH AND WRITING. (3)** *Prerequisites: PLS 195C, PLS 293C.* The sources and techniques of performing sophisticated independent research, including application of computer-assisted legal research methods and drafting advanced legal documents.

**PLS 299C. INTERNSHIP IN PARALEGAL STUDIES. (3)** *Prerequisites: PLS 195C, PLS 293C, PLS 298C. Completion of all other PLS courses is suggested. Program advisor approval and advanced registration is required. One hundred fifty hours of practical experience in a legal setting under an attorney's supervision. Meetings emphasize professional legal ethics. Develops job placement and evaluation skills. (Grading: Pass/Fail)*

### POP – POPULAR CULTURE STUDIES POTTER COLLEGE OF ARTS AND LETTERS

**POP 201. INTRODUCTION TO POPULAR CULTURE STUDIES. (3)** *Prerequisite: ENG 100 or the equivalent or permission of instructor.* An interdisciplinary, team-taught introduction to the major theories and subjects of the study of popular culture. The course offers a range of theoretical and methodological approaches to considering the procedures, audiences and meanings of the culture of everyday life in a variety of historical and cultural contexts.

**POP 399. SPECIAL TOPICS IN POPULAR CULTURE STUDIES. (3)** A detailed study of special topics in popular culture studies.

**POP 498. SENIOR SEMINAR IN POPULAR CULTURE STUDIES. (4)** *Prerequisites: POP 101 and at least 21 hours in major and senior standing, or permission of instructor.* A capstone course designed for popular culture studies major. Under the guidance of a faculty mentor, students will complete a substantial independent research or creative project and share their work with peers in a seminar setting.

### PS / POLS – POLITICAL SCIENCE DEPARTMENT OF POLITICAL SCIENCE (PS) DEPARTMENT OF LIBERAL ARTS AND SCIENCES (POLS)

#### GENERAL COURSES

**PS 201. CONCEPTS OF POLITICAL SCIENCE. (3)** *Prerequisite: PS 110 or permission of instructor.* Examines the linkage between politics and political thought in modern societies. Students apply a variety of theoretical concepts to specific policy areas.

**PS 299. CONTEMPORARY TOPICS IN POLITICAL SCIENCE. (1-3)** Examination of significant current issues in political science not covered in regular departmental offerings.

**PS 300. MODEL ASSEMBLY (SEMINAR). (1)** *Prerequisites: PS 250.* Explores the workings of a major international organization (e.g., NATO, OAU, Arab League, or UN). Students portray delegates to the organization at a simulation involving university students from around the country. The country being portrayed, the organization being simulated, and cost to student vary year by year.

**PS 301. RESEARCH METHODS IN POLITICAL BEHAVIOR. (3)** *Prerequisite: PS 110.* The understanding and application of scientific research methods for the analysis of political behavior; theoretical and applied skills in research development and analysis using contemporary computer techniques.

**PS 303. POLITICS AND FILM. (3)** Explores the relationship between politics and film. Demonstrates how film serves as a political archive and agent of social change and how film affects political views and representations of reality.

**PS 311. PUBLIC POLICY. (3)** *Prerequisite: PS 110.* Examines how issues get on the government agenda; how policy decisions are made; who implements policy and how well.

**PS 330. INTRODUCTION TO POLITICAL THEORY. (3)** *Prerequisite: PS 110.* A survey of the great thinkers and issues of politics that have shaped western civilization.

**PS 331. POLITICS OUTSIDE THE BOX. (3)** *Prerequisite: PS 110.* Provides insight into the social construction of power by investigating political symbols, characters and argument in popular culture and public policy.

**PS 400. SELECTED TOPICS IN AMERICAN GOVERNMENT. (3)** *Prerequisite: Junior or senior class standing or permission of instructor.* Course provides advanced students with an opportunity to analyze important substantive problems and current issues not presently covered by departmental offerings. May be repeated once.

**PS 403. FIELD STUDIES IN POLITICS. (3)** *Prerequisites: PS 110 and permission of the instructor.* Course is designed to involve students in practical problems of political research. Students are directed through the design and execution of a major field study. May not be repeated toward major or minor credit. (Grading: Pass/fail)

**PS 405. WASHINGTON INTERNSHIP AND ACADEMIC SEMINARS. (3-6)** An individualized internship and/or seminar experience in Washington, D.C. tailored to the student's area of interest. Placement is determined by the department academic advisor in collaboration with Washington professionals. May not be repeated toward major or minor credit. (Grading: Pass/fail.)

**PS 407. DIRECTED STUDIES IN GOVERNMENT. (3)** *Prerequisites: 3.0 grade point average; PS 110 or permission of the instructor.* Allows students to work independently with a specific instructor on an approved topic, issue or political concept/theme.

**PS 430. SELECTED TOPICS IN POLITICAL THEORY. (3)** *Prerequisite: PS 330.* Examination of specialized topics in political theory not covered in regular departmental offerings.

**PS 435. AMERICAN POLITICAL THOUGHT. (3)** *Prerequisite: Junior standing or permission of the instructor.* A study of American political theory from the American Revolution to the present, including issues such as slavery, civil rights, and the meaning of political and economic freedom.

**PS 497. SENIOR SEMINAR IN INTERNATIONAL AFFAIRS. (3)** *Prerequisite: Senior standing or permission of instructor.* A capstone seminar that strengthens students' research, written and oral communication skills in international affairs and engages students and faculty in sustained consideration of significant international issues/questions.

**PS 499. SENIOR SEMINAR IN GOVERNMENT. (1)** *Prerequisite: Senior standing.* Integrates concepts and approaches learned during study of government. Engages students and faculty in sustained consideration of significant political issues/questions. (Grading: Pass/fail)

#### AMERICAN GOVERNMENT AND POLITICS

**PS 110 / POLS 110C. AMERICAN NATIONAL GOVERNMENT. (3)** The essentials of the political system and processes, particularly at the national level, in the United States. Approved for general education credit. [GEN ED C]

**PS 304. STATE GOVERNMENT. (3)** *Prerequisite: PS 110.* Political features of the American states and their governments. Explores similarities and differences among the states' constitutions and key governmental institutions.

**PS 310. THE AMERICAN PRESIDENCY. (3)** *Prerequisite: PS 110 or permission of the instructor.* An examination of the American presidency as a political institution; and the development of the presidential office, its powers and functions.

**PS 316. THE LEGISLATIVE PROCESS. (3)** *Prerequisite: PS 110 or permission of instructor.* A study of legislatures and their role in the American government system. The emphasis is on the U.S. Congress but other legislative bodies are also studied.

**PS 320. AMERICAN STUDIES I. (3)** *Prerequisite: Junior standing or permission of instructor.* This course is designed to examine the diverse origins and the decisive elements in the development of American culture. It should also provide a wide appreciation and a greater understanding of the mainstream of American thought. These goals are accomplished through the coordinated application of numerous viewpoints drawn from the contributing disciplines of English, Political Science and History.

**PS 321. AMERICAN STUDIES II. (3)** *Prerequisite: Junior standing or permission of instructor.* This course is designed to examine the diverse origins and the decisive elements in the development of American culture. It should also provide a wide appreciation and a greater understanding of the mainstream of American thought. These goals are accomplished through the coordinated application of numerous viewpoints drawn from the contributing disciplines of English, Political Science and History.

**PS 370. AMERICAN POLITICAL PARTIES AND INTEREST GROUPS. (3)** *Prerequisite: PS 110.* Explores the role that political parties and interest groups play in American politics.

**PS 412. KENTUCKY GOVERNMENT AND POLITICS. (3)** *Prerequisite: PS 110 or permission of instructor.* A general survey course tracing the government and political development of the state from its constitutional beginning to the present. Primary focus will be on the major factors and issues in the state's political development within the context of the national governmental setting. The course will trace the role and influence of various political and social institutions in the state's political development and their implications for the current political and governmental situation.

#### **PUBLIC ADMINISTRATION**

**PS 338. GOVERNMENT AND ETHICS. (3)** *Prerequisite: PS 110 or permission of the instructor.* Course examines ethical issues and controversies emerging from the behavior and decisions of public officials within the American political system. A variety of pedagogical techniques are employed to stimulate and develop ethical thinking, moral reasoning and written and oral communication skills.

**PS 440. ELEMENTS OF PUBLIC ADMINISTRATION. (3)** *Prerequisite: PS 110 or permission of the instructor.* Introductory survey of governmental administration; emphasizes relationships between political issues and the practice of administration in areas such as organizational structures, personnel and financial management, control and accountability, and ethical issues.

**PS 441. PUBLIC PERSONNEL ADMINISTRATION. (3)** *Prerequisite: PS 440 or permission of instructor.* A systematic survey of public personnel administration in the U.S. Discusses the development of modern personnel systems in the public sector and emphasizes contemporary trends at the state and local level as well as the national level of government.

**PS 442. GOVERNMENTAL FINANCIAL ADMINISTRATION. (3)** *Prerequisite: PS 440 or permission of instructor.* A study of the financial administration process of government, with emphasis on local government. Subjects covered range from budgeting to risk management.

**PS 480. SELECTED TOPICS IN PUBLIC POLICY. (3)** *Prerequisite: PS 440 or permission of the instructor.* Seminar on special topics in public policy and public administration.

**PS 498. INTERNSHIP IN PUBLIC ADMINISTRATION. (3)** *Prerequisites: PS 301 and 440 and permission of the instructor.* Designed to provide the student with work experience in a public sector or non-profit agency combined with faculty direction. May not be repeated. (Grading: Pass/fail)

#### **PUBLIC LAW**

**PS 220. JUDICIAL PROCESS. (3)** *Prerequisite: PS 110.* An introduction to the American legal system, the process of legal reasoning and legal resolution of value conflicts.

**PS 324. MOCK TRIAL I. (1.5-3)** *Prerequisite: PS 110 or permission of instructor.* Introductory study of trial techniques used by lawyers in the courtroom. Students gain an appreciation for courtroom procedure, legal issues and public speaking by taking on the roles of attorneys and witnesses in a fictitious courtroom trial. (Grading: Pass/Fail)

**PS 325. MOCK TRIAL II. (1.5-3)** *Prerequisites: PS 324 and PS 110 or permission of the instructor.* Continuation of study of trial techniques used by lawyers in the courtroom. Students will concentrate on trial strategy, examination of witnesses and the presentation of arguments by taking on the roles of attorneys in a fictitious courtroom trial. (Grading: Pass/Fail)

**PS 326. CONSTITUTIONAL LAW. (3)** *Prerequisite: PS 110.* Study and analysis of leading constitutional decisions dealing with judicial review, government powers over domestic and foreign affairs, federalism and the relationships between the functional branches of government.

**PS 327. CIVIL LIBERTIES. (3)** *Prerequisite: PS 110.* Study and analysis of leading constitutional decisions and other materials concerning individual liberties in the U.S.

**PS 328. CRIMINAL JUSTICE PROCEDURES. (3)** *Prerequisite: PS 110.* A study of constitutional criminal procedure, principally under the Fourth, Fifth, Sixth, Eighth, Ninth, and Fourteenth Amendments to the U.S. Constitution.

**PS 424. ADMINISTRATIVE LAW. (3)** *Prerequisite: Junior standing or permission of instructor.* A study of the development of and trends in administrative law with emphasis on the problems caused by the exercise of quasi legislative and quasi judicial powers by administrative agencies, including the rights, duties and liabilities of public officials, relief against administrative action, jurisdiction, conclusiveness and judicial control.

#### **POLITICAL CAMPAIGN MANAGEMENT**

**PS 371. PUBLIC OPINION AND ELECTORAL BEHAVIOR. (3)** *Prerequisite: PS 110.* A study of the formation and expression of public opinion, of the attitudes and experiences which influence voting, and of the manner in which public policy is related to opinion and elections.

**PS 372. POLITICS AND THE MASS MEDIA. (3)** *Prerequisite: PS 110.* A study of the impact of television, newspapers, news magazines, and radio on national political institutions and political processes.

**PS 373. MINORITY POLITICS. (3)** *Prerequisite: PS 110 or permission of instructor.* A study of the contemporary status and efforts made by African Americans, Hispanics and other minority groups to organize for political action; discusses political and socioeconomic constraints on the development of that power.

**PS 374. WOMEN AND POLITICS. (3)** *Prerequisite: PS 110, WOMN 200 or permission of the instructor.* An examination of the political, economic and social status of American women from an historical and contemporary perspective; explores issues of concern to women in a political context.

**PS 375. FUNDAMENTALS OF POLITICAL CAMPAIGN MANAGEMENT. (3)** *Prerequisite: PS 110 or permission of instructor.* Provides students with an orientation to the basic systems and interrelated roles, which must be managed in order to produce electoral victory.

**PS 376. POLITICAL MANAGEMENT. (3)** Applied course with focus on developing skills related to political management including fundraising, issue advocacy, and media strategy.

**PS 488. SEMINAR IN POLITICAL COMMUNICATION. (3)** *Prerequisite: Senior standing, or permission of instructor.* The role, processes, and effects of communication within the context of politics. This course is required of all Political Communication Certificate students.

#### **INTERNATIONAL RELATIONS**

**PS 250. INTERNATIONAL POLITICS. (3)** An introductory course in international relations which is designed to acquaint the student with basic theories, terminology, motivations, inter-relationships and problems on an international scale. [GEN ED C]

**PS 350. POLITICAL TERRORISM. (3)** *Prerequisite: PS 250 or permission of the instructor.* A survey of terrorism, recent trends, organizational structure, negotiations, role of the media, counter terrorism, and the impact on modern democracies.

**PS 355. INTERNATIONAL ORGANIZATION AND LAW. (3)** *Prerequisite: PS 250 or permission of the instructor.* Explores how the behavior of nominally sovereign countries is constrained or otherwise influenced by international law and other efforts to "organize" international relations. International institutions such as the United Nations and the Organization for Security and Cooperation in Europe are examined.

**PS 357. U.S. FOREIGN POLICY. (3)** *Prerequisite: PS 110 or permission of the instructor.* Analysis of the pattern and process of U.S. foreign policy, particularly in the contemporary era. Includes study of the major internal and external factors, which shape foreign policy decisions.

**PS 449. INTERNATIONAL POLITICAL ECONOMY. (3)** *Prerequisites: PS 250, 260 or permission of instructor.* Explores the role of governments, corporations, non-governmental entities and multilateral institutions in the global economy. Discusses issues of free trade and protectionism, both tariffs and non-tariff barriers to trade. Examines issues of monetary policy in national and international contexts.

## Course Descriptions

### PS 450. SELECTED TOPICS IN INTERNATIONAL RELATIONS. (3)

*Prerequisite:* PS 250 or permission of instructor. Based in a seminar setting, this course facilitates an extensive exploration of particular aspects of international relations in the contemporary world.

### PS 457. THEORIES OF WAR AND PEACE IN INTERNATIONAL RELATIONS. (3)

*Prerequisite:* PS 250 or permission of the instructor. Explores the various theories of the outbreak, conduct and causes of war and theories of war termination and international peace.

### COMPARATIVE GOVERNMENT AND POLITICS

**PS 200. INTRODUCTION TO LATIN AMERICA. (3)** This course is a broad interdisciplinary introduction to the study of Latin America, emphasizing its regions, peoples and cultures. [GEN ED E]

### PS 260/ POLS 260C. INTRODUCTION TO COMPARATIVE POLITICS. (3)

*Prerequisite:* PS 110 or permission of instructor. This course examines various characteristics of different political systems around the world. It introduces contending theories which seek to explain differences and similarities in governments and politics. [GEN ED C]

**PS 267. INTRODUCTION TO EAST EUROPEAN STUDIES. (3)** An introduction to the political, social and economic development of Eastern Europe. [GEN ED C]

### PS 360. GOVERNMENT AND POLITICS OF BRITAIN AND CANADA. (3)

*Prerequisite:* PS 260 or permission of the instructor. A comparative analysis of the political cultures, institutions and processes of Britain and Canada. Course includes a comprehensive study of the parliamentary executive system and reference to major topical problems.

### PS 361. GOVERNMENT AND POLITICS OF WESTERN EUROPE. (3)

*Prerequisite:* PS 260 or permission of the instructor. Structured comparative analysis of various Western European states. Includes an examination of political cultures, institutional organizations, and the policy processes in selected states.

### PS 362. LATIN AMERICAN GOVERNMENT AND POLITICS. (3)

*Prerequisite:* PS 260 or permission of the instructor. Basic governmental and political processes in Latin America. Emphasis on social and economic problems, political development, leadership recruitment, political instability and change.

### PS 363. POLITICS OF DEVELOPING NATIONS. (3)

*Prerequisite:* PS 260 or permission of the instructor. A study of the political culture, processes and problems of nations that have become independent since World War II.

### PS 365. GOVERNMENT AND POLITICS OF THE MIDDLE EAST. (3)

*Prerequisite:* PS 260 or permission of instructor. A comparative analysis of the political culture, institutions and processes of key Middle Eastern states. Focuses on issues of international and geostrategic significance of the region. [GEN ED E]

### PS 366. GOVERNMENT AND POLITICS IN EAST ASIA. (3)

*Prerequisite:* PS 260 or permission of the instructor. An analysis of political development in selected East Asian nations, including Japan, Korea, China, Singapore and Thailand. Includes study of the interrelationship between politics, economics and culture primarily in the post-World War II period. [GEN ED E]

### PS 367. GOVERNMENT AND POLITICS OF RUSSIA AND EASTERN EUROPE. (3)

*Prerequisite:* PS 260 or permission of the instructor. An analysis of government and politics of Russia and Eastern European countries with emphasis on political processes and institutions, political and economic reforms, and the prospects for democratic government.

**PS 368. AFRICAN GOVERNMENT AND POLITICS. (3)** *Prerequisites:* PS 250, PS 260 or permission of the instructor. Examines sub-Saharan African political and economic development. Focuses on several selected countries and explores the common political and economic problems and opportunities confronting African states. [GEN ED E]

**PS 460. SELECTED TOPICS IN COMPARATIVE POLITICS. (3)** *Prerequisites:* PS 250, 260 or permission of instructor. Based on a seminar setting, this course facilitates an extensive exploration of particular aspects of comparative politics in the contemporary world.

*The following courses are offered only in Frankfort for students who are participating in the Kentucky Legislative Intern Program:*

**PS 490. INTERNSHIP IN STATE GOVERNMENT. (6)** Evaluation by the academic coordinator and agency supervisors of the intern's performance of assigned agency functions. Interns are full-time employees (40 hr/wk) for the duration of their internship program. Job assignments are made with the mutual consultation and consent of the intern, the agency and the academic coordinator.

**PS 491. RESEARCH IN STATE GOVERNMENT. (3)** Submission of a major research paper by the intern to an academic coordinator. Research is supervised by the academic coordinator in conjunction with the agency supervisor. May deal with assigned agency research function or may be independent of intern's role, but related to the agency need.

**PS 492. KENTUCKY LEGISLATIVE PROCESSES. (3)** *Prerequisite:* Acceptance into the Kentucky Legislative Intern Program. Focuses on contemporary problems and processes of the state legislative process. Discusses and analyzes state legislative affairs through discussion of issues by key state government personnel as well as through textbook materials.

**PS 493. ISSUES IN HUMAN RESOURCE MANAGEMENT. (3)** Focuses on Kentucky public personnel practices; examines the Kentucky merit system in theoretical and applied context; extensive emphasis on practical knowledge and use of State personnel for class lectures and projects.

### PSY / PSYC – PSYCHOLOGY

### DEPARTMENT OF PSYCHOLOGY (PSY)

### DEPARTMENT OF LIBERAL ARTS AND SCIENCES (PSYC)

**PSY 100 / PSYC 100C. INTRODUCTION TO PSYCHOLOGY. (3)** An introductory course dealing with principles of behavior, scientific methods of psychology, measurement, learning, perception, motivation, development, personality, abnormal behavior, social behavior, intelligence, and other topics. [GEN ED C]

**PSY 175. UNIVERSITY EXPERIENCE. (3)** *Special Requirements:* For beginning college freshman or transfer students with fewer than 24 semester hours of credit. Transition to university experience. Topics include study skills, library education, exploration of majors and careers, degree programs, campus resources and personal development. Special attention is given to educational requirements, careers and resources in the field of psychology.

**PSY 199 / PSYC 199C. INTRODUCTION TO DEVELOPMENTAL PSYCHOLOGY. (3)** A general course in developmental psychology covering the entire life span. Included are a description of growth stages, theories of development, and research methods of development. [GEN ED C]

**PSY 210. RESEARCH METHODS IN PSYCHOLOGY. (3)** *Prerequisites:* PSY 100 with a grade of C or higher. *Corequisite:* PSY 211. Introduction to scientific thinking, research design, and research methods in psychology. Includes the nature of scientific explanations, validity, reliability, measurement scales, the rationale underlying hypothesis testing, critical evaluation of scientific evidence presented in journals and popular media, and how to write research reports.

**PSY 211. RESEARCH METHODS IN PSYCHOLOGY LABORATORY. (1)** *Prerequisite:* PSY 100 with a C or better. *Corequisite:* PSY 210. Laboratory course to accompany PSY 210. Laboratory exercises involving research design, methodology, data collection, methods of organizing and presenting data, and research report writing.

**PSY 250 / PSYC 250C. ADJUSTMENT AND PERSONAL GROWTH. (3)** Individual, social, and cultural determinants of personal growth and healthy life adjustment. Topics include stress and coping, relationships, values, career development, and decision-making. [GEN ED F]

**PSY 290. SUPERVISED STUDY IN PSYCHOLOGY. (1-3)** *Prerequisite:* PSY 100. Directed readings or research under faculty supervision. Students must make their own arrangements in advance for supervision by a faculty member. May be repeated for a total of up to six hours, with no more than three hours counted in the first 36 hours of a psychology major.

**PSY 299. SELECTED TOPICS IN PSYCHOLOGY (SEMINAR). (1-3)** *Prerequisite:* PSY 100. Study and discussion focusing on various issues in psychology; topics will vary based on faculty and student interest. May be repeated for a total of up to six hours, with no more than three hours counted in the first 37 hours of a psychology major.

**PSY 301. STATISTICS IN PSYCHOLOGY. (3)** *Prerequisites:* PSY 210, 211, and MATH 116 (or higher math course) all with a grade of "C" or better. . Methods of organizing, describing, and analyzing psychological data.

**PSY 310. EDUCATIONAL PSYCHOLOGY: DEVELOPMENT AND LEARNING. (3)** *Prerequisite:* PSY 100. A required educational psychology course for students seeking teacher certification. Educational psychology is designed to give the student a thorough understanding of the theories and principles of psychology as applied to teaching and learning. The students will demonstrate knowledge, understanding, and application of theories and principles of development, learning, memory, motivation, individual differences, instruction, classroom management, and measurement and evaluation. PSY 310 may not be counted toward the psychology major or minor.

**PSY 321. CHILD DEVELOPMENTAL PSYCHOLOGY. (3)** *Prerequisites: PSY 100 or 199.* An introduction to the factors influencing normal psychological development during infancy and childhood. Theories, methodology, and current research in child development, including prenatal, physical, language, cognitive, social, and personality development, are considered.

**PSY 340. SPORT PSYCHOLOGY. (3)** *Prerequisite: PSY 100.* Theory, topics and applications within the field of sport and exercise psychology.

**PSY 345. PSYCHOLOGY OF SEXUALITY. (3)** *Prerequisite: PSY 100 or PSY 199.* Explores psychological, social, emotional, spiritual and cultural aspects of sexuality including sexual development across the life span, consensual and coercive sexual behavior, sex and gender, sexual orientation, sexuality and religious traditions, and sexuality education.

**PSY 350. SOCIAL PSYCHOLOGY. (3)** *Prerequisite: Sophomore standing.* A general introduction to social psychology for majors and non-majors in psychology. The psychology of how people think about and relate to others. Topics include love, altruism, aggression, conformity, behavior in groups, leadership, intergroup conflict, aggression, prejudice, and persuasion. **[GEN ED C]**

**PSY 355. ISSUES IN CROSS-CULTURAL PSYCHOLOGY. (3)** *Prerequisite: PSY 100 or equivalent and sophomore standing.* Examines the impact of culture on major principles, theories, and applications of psychology, including social behavior, gender, communication, development and abnormal psychology. Involves interacting with people from diverse cultural backgrounds.

**PSY 361. PSYCHOLOGICAL TESTS AND MEASUREMENTS. (3)** *Prerequisites: PSY 210 and 211, or permission of the instructor.* The consideration of methodological, theoretical, and ethical problems involved in test construction and use. Topics which are covered include reliability, validity, predictive efficiency, structure of human abilities, achievement tests, and projective techniques.

**PSY 365. INTELLIGENCE AND CREATIVITY. (3)** *Prerequisite: PSY 100.* A survey of the history, theories, nature, measurement, origins in heredity and environment, contemporary research, social influence, and uses and abuses of the concepts of intelligence and creativity.

**PSY 370. INDUSTRIAL/ ORGANIZATIONAL PSYCHOLOGY. (3)** *Prerequisite: PSY 100.* The application of psychological principles and research techniques to industrial and personnel problems including selection, efficiency, management models, and organizational behavior.

**PSY 371. THE PSYCHOLOGY OF SALES BEHAVIOR. (3)** *Prerequisite: PSY 100.* This course includes the psychology of consumer behavior and its implications for sales ethics, psychology of the behavior of sales personnel, the psychology and techniques of the sales process, sales motivation advertising psychology, and the psychology of sales management.

**PSY 390. FIELD EXPERIENCE IN PSYCHOLOGY. (3-6)** *Prerequisites: Junior standing; Psychology major or minor with 12 hours in psychology and approval of the department, or Gerontology minor with twelve hours in the minor including PSY 423 and approval of the department; 2.5 GPA in psychology or gerontology. Field placement sites are approved based on consistency with the student's academic preparation.* Practical work experience in a supervised psychology-related work setting with a cooperating psychology or human services agency, private business, or industry. PSY 390 may be taken for three hours credit at one time. Only three hours will count within the first 37 hours of a psychology major or within the first 12 hours of a psychology or gerontology minor. Students are responsible for arranging their own transportation to designated or assigned sites.

**PSY 405. COGNITIVE PSYCHOLOGY. (3)** *Prerequisites: PSY 100 and junior standing or permission of the instructor.* Overview of theory and research in human cognition, with primary emphasis on attention, memory, judgment and decision-making, and problem solving. Cognition in special populations (e.g. elderly, brain-injured, mentally disordered) is also covered.

**PSY 410. PSYCHOLOGY OF LEARNING. (3)** *Prerequisites: PSY 100 and junior standing or permission of the instructor.* Facts and principles of human and animal learning, especially as these have been treated in theories attempting to provide a general framework for understanding what learning is and how it takes place.

**PSY 411. PSYCHOLOGY OF SENSATION AND PERCEPTION. (3)** *Prerequisites: PSY 100 and junior standing or permission of the instructor.* Basic sensory mechanisms involved in taste, smell, hearing, and sight, with primary emphasis on auditory and visual perception. Topics include speech perception; visual illusions; color vision; perception of form, shape, movement, time, and space; perceptual motor coordination; and the development of perception.

**PSY 412. PSYCHOLOGY OF MOTIVATION AND EMOTION. (3)** *Prerequisites: PSY 100 and junior standing or permission of the instructor.* A study of the principal theories of motivation and emotion. Examination of needs, cognition, and social aspects. Includes a critical review of research and application of these theories to human behavior.

**PSY 421. PSYCHOLOGY OF EARLY ADOLESCENCE. (3)** *Prerequisites: PSY 100 and junior standing or permission of the instructor.* Focuses on theory and research related to cognitive, personality, and social development in early adolescence. Theories are applied to important developmental contexts such as peers, families, and learning environments. Designed for students planning to meet middle grades certification requirements. Either PSY 421 or PSY 422, but not both, may be taken to satisfy the requirements of the psychology major or minor. PSY 421 may not be used to satisfy the Developmental Course Category restricted elective requirement of the major.

**PSY 422. ADOLESCENT PSYCHOLOGY. (3)** *Prerequisites: PSY 100 and junior standing or permission of the instructor.* Introduction to behavior and development from early adolescence to adulthood, emphasizing a critical review of research and literature. Either PSY 421 or PSY 422, but not both, may be taken to satisfy requirements of the Psychology major or minor.

**PSY 423. PSYCHOLOGY OF ADULT LIFE AND AGING. (3)** *Prerequisites: PSY 100 and junior standing or permission of the instructor.* Psychological processes in adulthood and aging. Emphasis on contemporary theories, methodological issues, and interactions of psychological, biological, social, and environmental factors in adulthood and aging.

**PSY 424. TOPICS IN DEVELOPMENTAL PSYCHOLOGY. (3)** *Prerequisite: PSY 199 or PSY 321 and junior standing or permission of the instructor.* A consideration of special topics to acquaint students with theoretical and research issues of particular interest in developmental psychology. May be repeated for credit provided the topic differs.

**PSY 430. PSYCHOLOGY OF WOMEN. (3)** *Prerequisites: Six hours in psychology, including PSY 100, and junior standing.* Scientific study of the behavior and mental processes of girls and women. Topics include gender differences and similarities, inclusion of females in psychological research, psychological development of girls and women, sexuality, and mental health issues.

**PSY 432. PSYCHOLOGY OF THE GIFTED AND CREATIVE. (3)** *Prerequisite: PSY 100 and junior standing or permission of the instructor.* The course covers identification of gifted children and adults with an emphasis upon the development of educational programs which maximize the development of giftedness. Included will be a critical review of research and literature in the areas of giftedness and creativity.

**PSY 435. MORAL DEVELOPMENT AND EDUCATION. (3)** *Prerequisites: PSY 100 and junior standing or permission of the instructor.* An in-depth study of and reflection upon psychological theories of morality, moral development, moral functioning and current models of moral education and professional identity.

**PSY 440. ABNORMAL PSYCHOLOGY. (3)** *Prerequisites: Six hours in psychology, including PSY 100, and junior standing or permission of instructor.* Introduction to abnormal psychology emphasizing forms of abnormal behavior, etiology, developmental factors, interpretations, behavioral manifestations and treatment programs.

**PSY 441. PSYCHOLOGICAL ASPECTS OF ALCOHOLISM. (3)** *Prerequisites: PSY 100, 440 and permission of instructor.* Intensive study of theories and research regarding alcoholism; emphasis on application of psychological theories to the treatment of alcoholism and on psychological research regarding alcoholism.

**PSY 442. BEGINNING SKILLS IN PSYCHOLOGICAL INTERVIEWING. (3)** *Prerequisites: Six hours in psychology, including PSY 100, junior standing and permission of instructor.* Paraprofessional skills for conducting structured and unstructured interviews in non-therapy settings. Emphasizes skills development in addition to theoretical material.

**PSY 443. BEHAVIOR MODIFICATION. (3)** *Prerequisites: Six hours in psychology, including PSY 100, and junior standing or permission of the instructor.* Introduction to theory and application of behavioral modification techniques. Emphasizes the use of behavior modification in education, child rearing, clinics, and self-modification. Course activities or assignments may require the individual to disclose personal information.

**PSY 450. PSYCHOLOGY OF PERSONALITY. (3)** *Prerequisites: Six hours of psychology, including PSY 100 and junior standing or permission of instructor.* Overview of the major theoretical approaches to the study of personality, including historical as well as contemporary theorists, avenues of analysis, and concepts.



## Course Descriptions

**PSY 455. INTRODUCTION TO CLINICAL PRACTICE OF PSYCHOLOGY. (3)** *Prerequisites: PSY 440 or 450, and junior standing or permission of the instructor.* Survey of theories, models, and techniques in clinical, counseling, and school psychology. Includes emphasis on professional ethics for psychologists. Field experiences in appropriate off-campus settings may be required. Students are responsible for arranging their own transportation to designated or assigned sites.

**PSY 470. PSYCHOLOGY AND LAW. (3)** *Prerequisites: PSY 100 and junior standing or permission of instructor.* Psychological knowledge that is pertinent to the legal system. Emphasis on how human characteristics and psychological factors influence attitudes, decisions, and behavior throughout the legal process. Field trips to off-campus locations will be required. Students are responsible for arranging their own transportation.

**PSY 473. TRAINING IN BUSINESS AND INDUSTRY. (3)** *Prerequisites: PSY 100 and 370 or MGT 310 and 311 or permission of the instructor.* An introduction of theories, research, and methods of training needs analysis, program design, implementation, and evaluation.

**PSY 475. GRANT WRITING. (3)** *Prerequisite: ENG 300 or equivalent, with grade of "C" or higher.* In depth exploration of researching grant opportunities, writing and submitting grant proposals, administering grants and developing evaluation plans for collecting, analyzing and reporting data.

**PSY 480. PHYSIOLOGICAL PSYCHOLOGY. (3)** *Prerequisites: PSY 100, and junior standing or permission of the instructor.* Study of physiological mechanisms underlying behavior with an emphasis on current research on neurological, biochemical, and sensory mechanisms as they influence behavior.

**PSY 483. EVOLUTIONARY PSYCHOLOGY. (3)** *Prerequisites: PSY 100 and junior standing or permission of the instructor.* A survey of the research methods and core concepts of evolutionary psychology as they apply to human adaptive problems, including problems of survival, sex and mating, parenting and kinship, and aggression.

**PSY 485. PSYCHOLOGY OF RELIGION. (3)** *Prerequisites: Nine hours of psychology, including PSY 100, and junior standing; or permission of the instructor. PSY 210, 301, and 450 are preferred but not essential.* Classical theories and current research in the psychology of religion.

**PSY 490. RESEARCH, READINGS OR SPECIAL PROJECTS IN PSYCHOLOGY. (1-3)** *Prerequisites: PSY 100, junior standing, and permission of the faculty project supervisor.* Advanced students will conduct research and/or readings or projects concerning issues in psychology under the direction of faculty members. The course may be repeated. Only three hours will count within the first 37 hours of an undergraduate psychology major.

**PSY 495. HISTORY AND SYSTEMS OF PSYCHOLOGY. (3)** *Prerequisites: Nine hours in psychology, including PSY 100, and junior standing or permission of the instructor.* Overview of the main historical systems of psychology: introspectionist, functionalist, purposive, psychoanalytic, behaviorist, gestalt, existentialistic, and humanistic. Emphasizes the recent history of psychology and the identification of important systematic trends in contemporary writings in psychology and their underlying assumptions.

**PSY 499. SENIOR SEMINAR IN PSYCHOLOGY. (3)** *Prerequisites: 12 hours in psychology, including PSY 100, and senior level classification.* Seminar in which major concepts and issues in psychology are considered. Directed reading, guest lectures, field trips, and/or oral reports by students are utilized.

### RE – REAL ESTATE DEPARTMENT OF PROFESSIONAL STUDIES

**RE 170C. ESSENTIALS OF REAL ESTATE. (3)** *This course is a prerequisite to ALL 100 and 200 level Real Estate courses.* A course designed to introduce the student to the economic, social, environmental, governmental and legal setting of real estate in the United States. The unique aspects of real estate as a commodity, an investment medium, and a provider of shelter are discussed. The course explores the many career areas in the real estate industry as well as the informational needs of the homeowner.

**RE 171C. REAL ESTATE BROKERAGE OPERATION. (3)** *Prerequisite: RE 170C.* A course designed to teach the theory and mechanics of real estate brokerage operations. The preparation of the many contracts used in real property transactions is covered. Proficiency is developed in preparing and executing closing statements, applying the fundamentals of advertising and salesmanship to real estate, and understanding the ethical responsibilities of market participants.

**RE 172C. REAL ESTATE MARKETING. (3)** *Prerequisite: RE 170C.* Both the theory and practices of real estate market analysis are covered. Market trends and opportunities are studied within the context of the legal, political, physical, aesthetic and ethical constraints and alternatives faced. A variety of approaches are studied including land use, cost benefits, economic base, input, output, compatibility, highest and best use, and property productivity studies.

**RE 272C. REAL ESTATE FINANCE. (3)** *Prerequisite: RE 170C.* This course examines the various methods of financing real estate transactions from the point of view of lenders, developers, builders, speculators and owners. The institutional structure within which they operate as well as the decision processes of these parties as they choose the form of business entity and negotiate terms and conditions in order to achieve yield objectives within the constraints of acceptable risk levels are studied.

**RE 273C. REAL ESTATE LAW. (3)** *Prerequisite: RE 170C.* Examines the legal aspects of the real estate business, including brokerage, legal real estate instruments, contracts, and obligations.

**RE 274C. REAL ESTATE APPRAISALS. (3)** *Prerequisite: RE 170C.* This course is designed to introduce the student to the theory and practice of real property valuation. Students will be required to complete a demonstration appraisal report on a residential property. Basic concepts in income capitalization are also studied.

**RE 275C. PROPERTY MANAGEMENT. (3)** *Prerequisites: RE 170C and 172C.* The theory and techniques of real estate resource utilization. Specific applications to various types of property are presented. Topics such as tenant selection, maintenance, landlord-tenant relations, credit and collections, and lease negotiation techniques are included.

**RE 276C. REAL ESTATE INVESTMENT ANALYSIS AND MANAGEMENT. (3)** *Prerequisites: RE 170C, 172C, and 272C.* Application of investment principles and analytical techniques to real property. This course concentrates upon the determination of the financial feasibility of realty investments and the effects of financing, income taxes, and entity selection upon investment profitability. Concepts of individual and corporate portfolio management are included.

**RE 278C. INTERNSHIP-REAL ESTATE. (3)** *Prerequisite: Consent of department.* A structured internship to provide the advanced student with a practical working learning experience.

**RE 280C. ADVANCED REAL ESTATE APPRAISAL. (3)** *Prerequisites: RE 170C and 274C.* Principles of income property valuation and analysis of the equity position in real estate investment. Cash-flow analysis, mortgage-equity analysis, the impact of debt restructuring or refinancing, and property sale on value are studied.

**RE 281C. LAND DEVELOPMENT PROCESS. (3)** *Prerequisites: RE 170C, 172C, 272C and 276C.* The development process within the constraints imposed at various levels of government is viewed. The student is taken through the process from idea to post design evaluation. Elements of cost effective and creative land use, design standards, building arrangements, parking and street design are studied.

### REC / REC N – RECREATION DEPARTMENT OF KINESIOLOGY, RECREATION AND SPORT (REC) DEPARTMENT OF LIBERAL ARTS AND SCIENCES (REC N)

**REC 200 / REC N 200C. INTRODUCTION TO RECREATION. (3)** Introduces the student to recreation, parks and leisure history, philosophical concepts, and trends with attention to recreation sectors and employment opportunities. [GEN ED C]

**REC 220. INTRODUCTION TO NONPROFIT ORGANIZATIONS. (3)** Survey of nonprofit organizations emphasizing: history, ethics, personnel and volunteer management, human development, program development, risk management, customer service, and career development.

**REC 222. RECREATION ACTIVITY FACILITATION. (3)** Materials and techniques for planning, implementing, leading and evaluating recreation activities for groups of various sizes, ages and abilities in a variety of social recreation and leisure settings.

**REC 235. OUTDOOR RECREATION ACTIVITIES. (3)** To acquaint the student with basic outdoor recreation activities and related environmental practices. A variety of outdoor experiences are conducted in classroom and laboratory settings. Environmental values and impact considerations of outdoor experiences are emphasized throughout the course.

**REC 302. RECREATION LEADERSHIP. (3)** Leadership in recreation with emphasis placed on history, theory, decision-making, group management, communication and motivation. Course will facilitate leadership experiences.

**REC 304. TECHNOLOGY IN EVALUATION. (3)** Utilization of technology and computer software to assist with creating instruments, analyzing data, and reporting results from recreation needs assessments and program evaluation.

**REC 306. RECREATION PROGRAM PLANNING. (3)** Methodologies, skills and materials needed for designing, planning, implementing and evaluation of recreation programs for diverse populations in multiple settings. Includes the application of concepts and theories and an exploration of recreation trends.

**REC 320. RECREATION SEMINAR. (3)** *Prerequisite: REC 200.* Career development, current problems, trends and issues in recreation services.

**REC 326. CHURCH RECREATION. (3)** Recreation programming in religious organizations with emphasis placed on recreation delivery systems, event scheduling, interest and talent surveys, church facilities and church recreation committees.

**REC 328. INCLUSIVE RECREATION. (3)** Study of diverse leisure requirements of people with special needs. Attention given to outcome-based alternative programming, including special recreation and inclusion in mainstream recreation.

**REC 330. FOUNDATIONS OF OUTDOOR RECREATION. (3)** Outdoor recreation programming and resources including relevant history, philosophy, legislation, geographic factors, land use, standards, agencies and economics.

**REC 332. OUTDOOR EDUCATION. (3)** Multi-use natural resource management concepts, issues in resource management and the synthesis of concept and practical knowledge into real and simulated applications of land use and environmental problems related to the leisure service industry. Field trips required.

**REC 335. OUTDOOR SKILLS-LAND. (3)** Skill development in outdoor recreation land-based activities (camping, land navigation and backpacking) and related environmental practices. Overnight field trips required. Students are responsible for their own transportation to off-campus meetings. University transportation provided when possible.

**REC 337. OUTDOOR SKILLS- WATER. (3)** Skill development in outdoor recreation water-based activities (canoeing and kayaking) and related environmental practices. Focuses on outdoor leadership development. Overnight, multi-day camping required. Students are responsible for their own transportation to off-campus meetings. University transportation provided when possible.

**REC 402. FISCAL PRACTICES IN RECREATION. (3)** *Prerequisite: REC 304.* Financial principles and practices relevant in recreation settings. Topics include economic principles, financial management and organization, income sources, fundraising, pricing and budgeting. (Equivalent to SPM 402.)

**REC 404. RECREATION FACILITY MANAGEMENT. (3)** A practical orientation to management for a variety of recreation facilities. Equivalent to SPM 404.

**REC 406. RECREATION ADMINISTRATION. (3)** *Prerequisites: REC 200, 302, 304, 306.* Recreation administration with emphasis on personnel, planning, maintenance, legal issues and public relations.

**REC 420. COMMERCIAL RECREATION AND TOURISM. (3)** An overview of commercial recreation and tourism with particular attention to business principles, trends, and job opportunities.

**REC 422. CAMPUS RECREATION. (3)** Campus recreation administration with emphasis on facility management and program delivery formats including recreational sports, fitness, wellness, outdoor adventure and university center programs. Field experience is required.

**REC 424. CAMP AND CONFERENCE CENTER ADMINISTRATION. (3)** Organization and administration of camp and conference center programs and facilities including history, trends, staffing, client needs, finance, marketing, and legal issues.

**REC 426. FACILITY PLANNING AND DESIGN. (3)** Facility planning and design process with emphasis on the unique features of many different areas and types of facilities. Field experiences required. Students are responsible for their own transportation to off campus meetings. University transportation provided when possible.

**REC 428. COMMUNITY CENTERS AND PLAYGROUNDS. (3)** An intensive investigation of playground and community center operations.

**REC 430. RECREATION RESOURCE MANAGEMENT. (3)** Multi-use natural resource management concepts, issues in resource management and the synthesis of concepts, and practical knowledge into real and simulated applications of land use and environmental problems related to the leisure service industry. Field trips required. Students are responsible for their own transportation to off-campus meetings. University transportation provided when possible.

**REC 434. ENVIRONMENTAL INTERPRETATION. (3)** Environmental interpretation in leisure and educational settings. Includes interpretive design of exhibits and facilities. Emphasizes the development of presentation and program skills.

**REC 435. OUTDOOR EXPEDITION PLANNING. (3)** *Prerequisites: REC 335 and 337 or instructor's permission. May be corequisite.* Principles and techniques for planning, designing, implementing and evaluating extended outdoor expedition programs. Students will need to provide transportation for off-campus field-based instruction. Overnight field trips required. Students are responsible for their own transportation to off-campus meetings. University transportation provided when possible.

**REC 437. OUTDOOR LEADERSHIP EXPEDITION. (3)** *Prerequisites: REC 335, 337, 435 or instructor's permission. May be co-requisite.* Outdoor Leadership capstone course involving a back country expedition, leadership development and teaching techniques. Successful students will receive the Wilderness Education Association Outdoor Leader Certification. Overnight extended field trips required. Students are responsible for their own transportation to off-campus meetings. University transportation provided when possible. (course fee)

**REC 439. CHALLENGE COURSE FACILITATION. (3)** *Prerequisite: Junior standing or instructor's permission.* Understanding and applying experiential education theory in individual and group settings. Focus is on designing and facilitating safe and effective low and high challenge course experiences that incorporate personal growth, critical reflection, and skills in problem-solving, decision-making, and teambuilding. Recommended industry standards are followed. Field experience required. Students are responsible for their own transportation to off campus meetings. (course fee)

**REC 460. GRANT WRITING FOR NONPROFIT ORGANIZATIONS. (3)** *Prerequisite: ENG 300 or appropriate equivalent.* Thorough investigation of the grant writing process and the application of related skills. Includes how to research, identify, plan, organize, write and submit grants.

**REC 482. RECREATION WORKSHOP. (1-3)** A study of special areas relating to the recreational profession. May be experimental in nature or may follow a traditional class format. Field experiences and/or study at extended campus locations are usually required.

**REC 484. ADVANCED STUDIES IN RECREATION. (3)** *Prerequisite: Permission of instructor.* Specific and detailed analysis of issues in recreation. Incorporates individualized instruction between student and faculty.

**REC 490. INTERNSHIP IN RECREATION. (3-12)** *Prerequisite: REC 402, 404, 406, and permission of instructor.* Experience in recreation planning, leadership, supervision, and program evaluation through work in recreation, park, and other leisure oriented settings. This in-service experience is supervised and controlled by the University faculty members and personnel from area recreation agencies.

**REC 493. RECREATION PRACTICUM. (3)** *Prerequisite: Junior or senior standing and instructor permission.* Cooperative field experiences in approved recreation settings where students obtain professional administrative and/or programming experience with agency and faculty supervision. This course may require off-campus travel. Repeatable up to 6 hours of credit.

**REC 494. AMERICAN HUMANICS MANAGEMENT INSTITUTE. (1)** *Prerequisites: REC 220 and instructor's permission.* Focuses on developing nonprofit leaders. Several nonprofit workshops, agency simulations and a career fair facilitate networking with students and nonprofit executives. This course requires off-campus travel to the Management Institute.

**REC 496. NONPROFIT INTERNSHIP. (3-6)** *Prerequisites: REC 220, MGT 333, and instructor's permission.* A cooperative field experience in an approved nonprofit setting where the student obtains pre-professional administrative and/or programming experience with agency and faculty supervision. This course requires off-campus travel.

**RELS / RLST – RELIGIOUS STUDIES**  
**DEPARTMENT OF PHILOSOPHY AND RELIGION (RELS)**  
**DEPARTMENT OF LIBERAL ARTS AND SCIENCES (RLST)**

**RELS 100 / RLST 100C. THE NEW TESTAMENT. (3)** An introduction to the historical, literary, and cultural approaches to the New Testament with a view toward understanding and interpretation. [GEN ED B-II]

**RELS 101 / RLST 101C. THE OLD TESTAMENT/ HEBREW SCRIPTURES. (3)** An introduction to the historical, literary, and cultural approaches to the Hebrew Bible (Old Testament) with a view toward understanding and interpretation. [GEN ED B-II]

## Course Descriptions

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**RELS 102 / RLST 102C. INTRODUCTION TO RELIGIOUS STUDIES. (3)** An introduction to the study of religion from Western and non-Western cultures. The course surveys and critiques definitions of religion and examines topics such as the historical, social, psychological, and ethical implications of a number of religious traditions. [GEN ED B-II]

**RELS 103. RELIGIONS OF ASIA. (3)** Introduction to the history, doctrines, and practices of the major religions of India, China and Japan. [GEN ED E]

**RELS 202. RACIAL JUSTICE. (3)** An examination of (1) the major perspective that came together to form the civil rights movement of the 1950's and 1960's; (2) the accomplishments and failures of that movement; and (3) the issues of racial justice that remain today. [GEN ED C]

**RELS 300. THE LIFE OF JESUS. (3)** An investigation of the nature, content, and major interpretations of the sources for the life and teachings of Jesus.

**RELS 301. LIFE AND TEACHINGS OF PAUL. (3)** A study of the life and thought of Paul in its historical and cultural setting; concentration on the principal themes in Pauline thought which have been influential in Christian tradition.

**RELS 302. BUDDHIST RELIGIOUS TRADITIONS. (3)** Introduction to the history, fundamental doctrines, and practices of the three main Buddhist traditions (Theravada, Mahayana, Vajrayana) in their global contexts. [GEN ED E]

**RELS 303. HINDU RELIGIOUS TRADITIONS. (3)** A study of the central beliefs, ethical practices, symbols, and institutions of the Hindu traditions, examining patterns of their unity, diversity, and encounter with modernity. [GEN ED E]

**RELS 304. JUDAIC RELIGIOUS TRADITIONS. (3)]** A survey of Jewish religious traditions, Jewish history and literature from the Greco-Roman period to the present. [GEN ED E]

**RELS 305. CHRISTIAN RELIGIOUS TRADITIONS. (3)** A survey of the doctrines, ethical codes, rituals, and institutions of the three main Christian traditions: Orthodoxy, Roman Catholicism, and Protestantism. [GEN ED B-II]

**RELS 306. ISLAMIC RELIGIOUS TRADITIONS. (3)** Terminology, history, social institutions, beliefs, rituals, ethical systems, and world views associated with the religious tradition of Islam. Examination of the West's views of Islam and Islamic views of the West. [GEN ED E]

**RELS 307. NATIVE AMERICAN RELIGIOUS TRADITIONS. (3)** A survey of North American Indian religious traditions from European contact to present, including beliefs, practices, and cultural institutions. [GEN ED E]

**RELS 308. EAST ASIAN RELIGIOUS TRADITIONS. (3)** Introduction to the history, fundamental doctrines, and practices of the three classical East Asian traditions: Confucianism, Taoism, and Buddhism. Attention will be directed toward how the three traditions become interpreted in China, Korea, and Japan. [GEN ED E]

**RELS 311. THE QUR'AN. (3)** An introduction to the Qur'an and its contemporary and historical roles in the lives of Muslims as well as in their societies and cultures.

**RELS 312. ANCIENT NEAR EAST TEXTS. (3)** The course surveys a broad number of ancient Mesopotamian and other Western Asian genres of literature which shed light upon the literary remains of Israel found in the Hebrew Scriptures. Included are cosmologies, cosmogonies, flood narratives, prophecies, historical annals which deal with the kings of Israel and Judah, wisdom literature, theodicy, omen texts and others.

**RELS 315. PHILOSOPHY OF RELIGION. (3)** *Prerequisite: One course in philosophy or religious studies.* A systematic study of such problems as the nature and existence of God, the relation of faith and reason, human nature and destiny, immortality, evil, and the problem of religious language. Equivalent to PHIL 315.

**RELS 320. RELIGIONS OF THE MIDDLE EAST. (3)** A thematic study of Judaism, Eastern Christianity, and Islam as these religions are practiced in Middle Eastern societies today. There is a focus on the concept of sacred place and on the ways in which this concept links the ancient past of the tradition with its modern expression. [GEN ED E]

**RELS 323. SOCIAL ETHICS. (3)** *Prerequisite: One course in Religious Studies or Philosophy or junior status.* Perspectives and issues involved in the public pursuit of justice in a religiously and philosophically diverse society. One short field trip. Equivalent to PHIL 323: Social Ethics. [GEN ED B-II]

**RELS 324. CHRISTIANITY IN AFRICA. (3)** The development of Christianity in Africa from the first century to the present, with special emphasis on the post-colonial period. [GEN ED E]

**RELS 325. RELIGION IN CONTEMPORARY AMERICA. (3)** A study of the ways religion is understood and expressed by varying segments of American society. [GEN ED C]

**RELS 326. SECOND TEMPLE JUDAISM. (3)** Introduction to the history, literature, and religion of the Jewish people from the beginning of the Persian period (mid-6th c. B.C.) to the Bar Kokhba Revolt (132-135 A.D.)

**RELS 330. RELIGION IN THE AMERICAN SOUTH. (3)** Survey of the religious cultures of the American South from the colonial period to the present. The course will look at a variety of religious expressions in institutional life, thought, literature, and music.

**RELS 333. WOMEN AND RELIGION. (3)** The examination of primary and secondary sources on women's contributions to western and non-western religious thought.

**RELS 382. BIBLICAL LANGUAGES I: INTRODUCTORY HEBREW. (3)** A study of the vocabulary, grammar, and syntax of Biblical Hebrew. May be taken either as a foreign language course or as a RELS elective. Equivalent to BLNG 382. [GEN ED A-II]

**RELS 383. BIBLICAL LANGUAGES II: INTERMEDIATE HEBREW. (3)** *Prerequisite: RELS 382.* Further development of an understanding of the fundamentals of the Hebrew language with special attention to the reading of selected portions of the Old Testament. May be taken either as a foreign language course or as a RELS elective. Equivalent to BLNG 383. [GEN ED A-II]

**RELS 384. BIBLICAL LANGUAGES III: INTRODUCTORY GREEK. (3)** A study of the vocabulary, grammar, and syntax of Koine Greek. May be taken either as a foreign language course or as a RELS elective. Equivalent to BLNG 384. [GEN ED A-II]

**RELS 385. BIBLICAL LANGUAGES IV: INTERMEDIATE GREEK. (3)** *Prerequisite: RELS 384.* Further development of an understanding of Koine Greek with readings in the New Testament and Hellenistic literature. May be taken either as a foreign language course or as a RELS elective. Equivalent to BLNG 385. [GEN ED A-II]

**RELS 390. INTRODUCTORY PALI I. (3)** A study of the grammar, syntax, and vocabulary of the Pali language with a stress on reading primary textual material from a variety of Pali sources. May be taken as a RELS elective.

**RELS 391. PALI II. (3)** Further study of the grammar, syntax, and vocabulary of the Pali language with a stress on reading a wide variety of canonical, commentarial, and post-canonical texts. May be taken as a RELS elective.

**RELS 399. STUDY ABROAD. (3)** Supervised study of religion in a study abroad program. May be repeated for different study abroad locations.

**RELS 401. RELIGIOUS STUDIES SEMINAR. (3)** *Prerequisite: One course in religious studies or permission of instructor.* A seminar with rotating topics designed primarily for advanced students in religious studies. May be repeated for different topics.

**RELS 403. POSTCOLONIAL CHRISTIANITY. (3)** *Prerequisite: One RELS course or permission of the instructor.* The study of postcolonial interpretations of Christianity in Africa, Asia and Latin America.

**RELS 408. RELIGION AND ECOLOGY. (3)** *Prerequisite: One course in Religious Studies or permission of instructor.* The study of different religious perspectives on ecology.

**RELS 426. THE DEAD SEA SCROLLS. (3)** *Prerequisite: One course in Religious Studies.* Introduction to the discovery, authentication, contents, and main ideas of the Dead Sea Scrolls; the community that produced them; the controversies that have surrounded them; and the archaeology of the nearby ruins.

**RELS 430. CHRISTIANITY TO 1517. (3)** *Prerequisite: One course in religious studies or permission of instructor.* An investigation of the development of Christian thought and institutions from the first century of the Church until the Reformation.

**RELS 431. CHRISTIANITY FROM 1517 TO THE PRESENT. (3)** *Prerequisites: One course in religious studies or permission of instructor.* An investigation of the development of Christian thought and institutions from the beginning of the Reformation to the present.

**RELS 496. SENIOR SEMINAR. (3)** *Prerequisites: Senior standing and major in the department or consent of the instructor.* A capstone course designed for senior religious studies majors. Students will complete projects that demonstrate their research, writing, and analytical skills. Content areas of the seminar will vary by semester and instructor.

**RELS 499. RESEARCH IN RELIGIOUS STUDIES. (3)** *Prerequisite: Open only to religion majors with a 3.0 grade point average in their senior year.* Directed study and research in one area of religious studies.

**RUSS – RUSSIAN**  
**DEPARTMENT OF MODERN LANGUAGES**

**RUSS 101. ELEMENTARY RUSSIAN I. (3)** A beginning course designed to teach the four language skills of understanding, speaking, reading and writing, with emphasis on understanding and speaking. (course fee) [GEN ED A-II]

**RUSS 102. ELEMENTARY RUSSIAN II. (3)** *Prerequisite: RUSS 101 or one year of high school Russian.* Further development of the four language skills. (course fee) [GEN ED A-II]

**SBM – SMALL BUSINESS MANAGEMENT**  
**DEPARTMENT OF PROFESSIONAL STUDIES**

**SBM 235C. COMPUTERIZED ACCOUNTING. (3)** *Prerequisites: BUS 110C.* A course designed to focus on computerizing a business. Includes general ledger, accounts payable, accounts receivable, invoicing, inventory control, ordering, payroll, and financial statements.

**SEC – SECONDARY EDUCATION**  
**SCHOOL OF TEACHER EDUCATION**

**SEC 351. TEACHING STRATEGIES FOR SECONDARY SCHOOLS. (3)** *Prerequisites: EDU 250, PSY 310.* Designed to develop a working knowledge of planning, implementation of instruction, assessment, and classroom climate for a student population. Field experiences in public schools are required for this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**SEC 352. PLANNING FOR STUDENT DIVERSITY. (3)** *Prerequisites: EDU 250, PSY 310 (SEC 351 pre- or corequisite).* Designed to apply students' knowledge of teaching strategies and assessment in diverse learning environments. Field experiences in public schools are required. Students are responsible for arranging their own transportation to designated or assigned sites.

**SEC 453. MANAGEMENT OF INSTRUCTION. (3)** *Prerequisites: Must be admitted to the Teacher Education Program. EDU 250, PSY 310, (SEC 351, SEC 352 or EXED 330) with a grade of C or higher. Prerequisite or corequisite: Methods course.* Designed to expand and refine the abilities of preservice teachers to create and maintain a positive learning environment, and to implement and manage instruction for diverse student populations. Field experiences in public schools are required. Students are responsible for their own transportation to designated or assigned sites.

**SEC 472. TEACHING ART. (3)** *Prerequisites: EDU 250, SEC 351, SEC 352 and PSY 310.* Develops skills, procedures, and strategies for teaching art in the secondary school. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**SEC 473. TEACHING BUSINESS EDUCATION. (3)** *Prerequisites: Senior standing and instructor permission. Corequisite: BE 486.* Develops the skills, procedures, and strategies for teaching business and marketing education in the middle and secondary school. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**SEC 474. TEACHING FOREIGN LANGUAGE. (3)** *Prerequisites: EDU 250, EXED 330, SEC 351, and PSY 310. Recommended Corequisite: SEC 453.* Develops skills, procedures, and strategies for teaching foreign language in middle and secondary schools. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites. Equivalent to MLNG 474.

**SEC 475. TEACHING LANGUAGE ARTS. (3)** *Prerequisites: EDU 250, SEC 351, SEC 352, LTCY 444, PSY 310, ENG 304 and ENG 410. Recommended Corequisite: SEC 453.* Develops skills, curriculum, and strategies for teaching English in secondary schools. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**SEC 477. TEACHING MATHEMATICS. (3)** *Prerequisites: EDU 250, SEC 351, SEC 352, and PSY 310. Recommended corequisite: SEC 453.* Develops the skills, procedures, and strategies for teaching mathematics in the secondary school. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**SEC 478. TEACHING PHYSICAL EDUCATION. (3)** *Prerequisites: EDU 250, PSY 310, EXED 330, and SEC 351. Recommended corequisite: SEC 453.* Develops the skills, procedures, and strategies for teaching physical education in the secondary school. Field experiences in public schools and/or other appropriate

settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**SEC 479. TEACHING SCIENCE. (3)** *Prerequisites: EDU 250, SEC 351, SEC 352, and PSY 310. Recommended corequisite: SEC 453.* Develops the skills, procedures, and strategies for teaching science in secondary schools. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**SEC 481. TEACHING SOCIAL STUDIES. (3)** *Prerequisites: EDU 250, SEC 351, SEC 352 and PSY 310. Recommended corequisite: SEC 453.* Develops skills, procedures, and strategies for teaching social studies in secondary schools. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**SEC 483. TEACHING HEALTH. (3)** *Prerequisites: EDU 250, PSY 310, EXED 330, and SEC 351. Recommended corequisite: SEC 453.* Develops skills, procedures, and strategies for teaching health in the secondary school. Field experiences in public schools and/or other appropriate settings away from campus are required in this course. Students are responsible for arranging their own transportation to designated or assigned sites.

**SEC 490. STUDENT TEACHING. (5-10)** *Prerequisites: Admission to Teacher Education and admission to student teaching. Corequisite: EDU 489.* Supervised assignment in approved school setting. Must complete a minimum of sixteen weeks in one or two placements depending on certification requirements. Students follow the academic calendar of the school district in which they are placed and are responsible for providing their own transportation to assigned site(s). (course fee)

**SEC 491. LECTURE IN LIEU OF STUDENT TEACHING. (5)** Seminar in current issues in teaching for certified teachers seeking additional endorsement. Director of student teaching approval required.

**SFTY – SAFETY**  
**DEPARTMENT OF PUBLIC HEALTH**

**SFTY 171. SAFETY AND FIRST AID.(1)** The course is designed to prepare students to provide immediate and temporary care in emergency situations involving accidents or sudden illness. The symptoms and appropriate first aid for shock, wounds, heart problems, fractures, heat and cold injuries, poisons, and proper methods of transportation will be covered. The course is applicable to all students, especially those pursuing a teaching career where they will be responsible for other students entrusted to their supervision and care. (course fee) [GEN ED F]

**SFTY 270. GENERAL SAFETY. (3)** Introduction to the history of safety in America. Examines steps involved in analyzing the causes and prevention of accidents. Emphasizes programs designed to educate the student in general safety concepts and principles, and an overview of statistical analysis, theories, and models used in hazard pre-planning and post-incident analysis and/or mitigation. Major topics include traffic, home, recreational, fire, and occupational safety.

**SFTY 271. EMERGENCY CARE AND TRANSPORTATION. (6)** Students will learn how to evaluate, provide emergency care, and properly move and transport ill or injured people utilizing equipment available in an ambulance. Successful completion of this course and a skills evaluation leads to certification as an Emergency Medical Technician (EMT). (course fee)

**SFTY 370. DRIVER EDUCATION AND TRAFFIC SAFETY I. (3)** *Prerequisite: SFTY 270.* Critical analysis of traffic accidents, attitude factors, essential knowledge of automobile operation and traffic laws and regulations. Includes laboratory experience for developing driving skills.

**SFTY 470. DRIVER EDUCATION AND TRAFFIC SAFETY II. (3)** *Prerequisite: SFTY 370 or equivalent.* This course deals with the management of the classroom and laboratory phases of the high school driver and traffic safety education program. Simulation and range programs are given special emphasis.

**SFTY 471. ADVANCED STUDIES IN DRIVER EDUCATION. (3)** *Prerequisite: SFTY 470 or equivalent.* This course deals with the advanced instructional technology needed to meet the needs of the driver and traffic safety education programs. Major emphasis will be placed on motorcycle safety education and the behavioral approach to traffic safety education.

## Course Descriptions

### SM – SYSTEMS MANAGEMENT

#### DEPARTMENT OF COMPUTER INFORMATION SYSTEMS

**SM 300. SYSTEMS MANAGEMENT AND PRACTICE. (3)** A foundational study of systems management and technology from theoretical, managerial and practical perspectives. (course fee)

**SM 346. BUSINESS RESOURCE DEVELOPMENT. (3)** An introduction to the principles and concepts of business resources development and management. Emphasis on developing strategic advantage through deployment of appropriate systems. (course fee)

**SM 347. INTRODUCTORY BUSINESS TELECOMMUNICATIONS. (3)** Introduction to telecommunications, network, and related system issues and applications in an organizational setting. (course fee)

**SM 348. BUSINESS SYSTEMS ARCHITECTURES. (3)** An introduction to the various system architectures common to modern business systems. (course fee)

**SM 443. BUSINESS INTELLIGENCE. (3)** Examination of tools and systems used to support strategic planning and decision making. (course fee)

**SM 444. INFORMATION SYSTEMS MANAGEMENT. (3)** Management of the organization's data resources and information flow, including: project management, systems planning, control and operations. (course fee)

**SM 446. SECURITY, RISK, AND THREAT MANAGEMENT. (3)** Examination of security and risk management in organizational systems. Cost-benefit issues, access, availability and efficiency will be analyzed. (course fee)

**SM 447. ELECTRONIC COMMERCE SYSTEMS. (3)** Examination of electronic commerce systems, processes and technologies, and how such systems may be used to develop competitive advantage. (course fee)

### SMED – SCIENCE AND MATHEMATICS EDUCATION

#### SCHOOL OF TEACHER EDUCATION

**SMED 101. STEP 1: INTRODUCTION TO INQUIRY-BASED APPROACHES TO TEACHING. (1-1.5)** Introduction to theory and practice necessary to design and deliver high quality inquiry-based math and science instruction. Students explore and practice the guided inquiry process, create lesson plans and implement them during visits to elementary classrooms. Fieldwork required; students are responsible for arranging their own transportation to sites.

**SMED 102. STEP 2: INTRODUCTION TO INQUIRY-BASED LESSON DESIGN. (2-3)** Further exploration of inquiry-based learning experiences, developing skills designing, teaching, analyzing, and assessing inquiry-based math and science lessons. Students design lesson plans and implement them during visits to middle school classrooms. Fieldwork required; students are responsible for arranging their own transportation to sites.

**SMED 210. KNOWING AND LEARNING IN MATHEMATICS AND SCIENCE. (3)** *Prerequisite: SMED 101.* Introduction to theories and principles of cognition and learning with emphasis on knowing and learning in math and science. Introduction to research on learning, memory, individual development, motivation and intelligence. Applications of learning theory will be explicitly tied to design of lesson plans, instruction and assessment.

**SMED 301. DESIGNING AND TEACHING INQUIRY-BASED MATHEMATICS AND SCIENCE UNITS. (3)** *Prerequisites: Sophomore standing and 9 hours of math/science coursework.* Develops students' skills in designing, teaching, analyzing, and assessing inquiry-based math and science lessons and units within multiple and diverse field experiences. Fieldwork required; students are responsible for arranging their own transportation to sites.

**SMED 320. CLASSROOM INTERACTIONS. (3)** *Prerequisite: SMED 210.* Designed to expand students' abilities to understand how learning theories are applied in instructional settings as students develop, implement and evaluate activities and strategies for teaching diverse students equitably. Fieldwork required; students are responsible for arranging their own transportation to sites.

**SMED 340. PERSPECTIVES ON MATHEMATICS AND SCIENCE. (3)** *Prerequisite: SMED 210.* Introduction to the historical, social, and philosophical implications of math and science through investigations of pivotal experiments and findings. Includes integrated laboratory experiences that replicate significant discoveries.

**SMED 360. RESEARCH METHODS FOR MATH AND SCIENCE TEACHERS. (3)** *Prerequisite: SMED 210.* Laboratory-based introduction to the tools and techniques used by scientists and mathematicians to further an understanding of the natural world and application of this knowledge to math and science education. Students will design and carry out laboratory investigations, and present written and oral reports of results.

**SMED 470. PROJECT-BASED INSTRUCTION. (3)** *Prerequisite: SMED 320.* Methods, techniques, and technologies used to implement and assess problem-based investigations in math and science classrooms. Fieldwork required; students are responsible for arranging their own transportation to sites.

**SMED 489. SMED STUDENT TEACHING SEMINAR. (3)** *Prerequisite: Approved for admission to student teaching. Co-requisite: MGE 490 or SEC 490.* Provides a bridge between the theory and practice of math and science teaching. Methods, techniques, technologies and issues pertinent to math and science instruction in middle grade and secondary classrooms. Field experiences in public schools and/or other appropriate settings away from campus are required. Pre-Service Teachers are responsible for their own transportation to designated or assigned sites.

### SOCL / SOC – SOCIOLOGY

#### DEPARTMENT OF SOCIOLOGY (SOCL)

#### DEPARTMENT OF LIBERAL ARTS AND SCIENCES (SOC)

**SOCL 100 / SOC 100C. INTRODUCTORY SOCIOLOGY. (3)** Introduction to the basic concepts of society and culture, group behavior, population, class, minorities, community, social institutions and social changes. [GEN ED C]

**SOCL 210 / SOC 210C. INTERACTION: SELF IN SOCIETY. (3)** *Prerequisite: SOCL 100 or consent of instructor.* Study of the individual in social context. Emphasis is on group, social, and cultural factors and their consequences for self-development, role perception, role performance and value orientation. [GEN ED C]

**SOCL 220 / SOC 220C. MARRIAGE AND FAMILY. (3)** *Prerequisite: SOCL 100 or consent of instructor.* Analysis of the family institution, its structure and function and the dynamics of social change in family interaction and organization. [GEN ED C]

**SOCL 231. SURVEY OF CRIMINAL JUSTICE. (3)** Survey of criminal justice systems, including police, courts, and corrections.

**SOCL 232. INTRODUCTION TO LAW ENFORCEMENT. (3)** An introduction to policing—including the history of law enforcement, the police and the criminal justice system, principles of law enforcement, and professional issues in law enforcement.

**SOCL 233. ALTERNATIVES TO CONFINEMENT. (3)** An examination of community treatment options in the correctional process with emphasis on contemporary probation and parole practices for adult offenders. Diversion, halfway houses, drug and alcohol treatment, restitution, house arrest, and community service and new community-based programs for women will be discussed.

**SOCL 234. SECURITY AND CRIME INVESTIGATION (3).** *Prerequisite: SOCL 100 or consent of instructor.* Current issues faced by safety responders, primarily focusing on homeland security and criminal investigations.

**SOCL 240 / SOC 240C. CONTEMPORARY SOCIAL PROBLEMS. (3)** *Prerequisite: SOCL 100 or consent of instructor.* Survey of social disorganization and public descensus in contemporary societies. Emphasis is placed on social change, conflicts in cultural values and the impact of technology. Field trips required in some sections.

**SOCL 245. SOCIOLOGY OF POPULAR CULTURE. (3)** *Prerequisite: SOCL 100 or consent of instructor.* Investigation of various forms of popular culture, including television, film, music, fashion, sports, computers, and language from a sociological perspective.

**SOCL 260. RACE AND ETHNIC RELATIONS. (3)** *Prerequisite: SOCL 100.* Designed to acquaint students with the historical and contemporary experiences of racial and ethnic groups in America. Explores social class and gender variations in the experiences of these various groups.

**SOCL 300. USING STATISTICS IN SOCIOLOGY. (3)** *Prerequisite: MATH 109 or 116 or equivalent.* Techniques of statistical description and elementary statistical inference as applied to social data.

**SOCL 302. STRATEGIES OF SOCIAL RESEARCH. (3)** *Prerequisite: SOCL 300 or other introductory statistics course.* Survey design and analysis, scaling techniques, methods of analyzing data with emphasis on hypothesis-testing, statistical inference and tests of relationship.

**SOCL 304. SOCIOLOGICAL THEORY: PERSPECTIVES ON SOCIETY. (3)** *Prerequisite: Six hours of sociology.* Study of the leading developments of schools of sociological theory from Durkheim to the present.

**SOCL 309. SOCIAL DEVIANCE. (3)** Examines how social groups define certain behaviors, beliefs, and conditions as normative violations and the resulting stigmatization and sanctioning of norm violators. Topics include conceptual and theoretical issues, physical deviance, sexuality, and alcohol/drug use.

**SOCL 310. BEHAVIOR IN SMALL GROUPS. (3)** *Prerequisite:* Six hours of sociology or consent of instructor. The study of communication and interaction patterns within small groups, including analysis of power, status, cohesion, and leadership.

**SOCL 312. COLLECTIVE BEHAVIOR AND SOCIAL MOVEMENTS. (3)** *Prerequisite:* Six hours of sociology. Analysis of collective behavior and social movements, focusing on individual participation and social consequences.

**SOCL 322. RELIGION IN SOCIETY. (3)** *Prerequisite:* Six hours of sociology or consent of instructor. Study of the various forms and content of religious organizations and movements and the behavioral and attitudinal concomitants of religious affirmation.

**SOCL 324. SOCIOLOGY OF SPORT. (3)** *Prerequisite:* SOCL 100 or consent of instructor. An examination of the sociological perspective of sport as an institution. Particular emphasis is placed on the impact of sport on the individual, small groups, other institutions, and society.

**SOCL 330. CRIMINOLOGY. (3)** *Prerequisite:* SOCL 100 or consent of instructor. Study of the personal, structural and ideological bases of law-violating behavior in American society.

**SOCL 332. JUVENILE DELINQUENCY. (3)** *Prerequisite:* SOCL 100 or consent of instructor. An examination of the socio-legal aspects of delinquency, including a critical analysis of trends and contemporary treatment modes. Field trips required.

**SOCL 342. AGING IN SOCIETY. (3)** *Prerequisite:* SOCL 100 or consent of instructor. An analysis of the elderly and their position in society. Attention is directed to aging as it relates to various social institutions and to the social aspects of aging in contemporary American society.

**SOCL 345. THE SOCIOLOGY OF POPULAR MUSIC. (3)** *Prerequisite:* SOCL 100 or consent of instructor. A sociological examination of contemporary music. Focus is on the social organization of popular music performance, production and consumption.

**SOCL 346. SPECIAL TOPICS. (3)** *Prerequisite:* SOCL 100. Significant sociological topics, issues, or developments in the discipline of sociology. May be repeated with different topic.

**SOCL 350. SOCIAL INEQUALITY. (3)** *Prerequisite:* Six hours of sociology. Analysis of how societies differentially distribute social rewards. Includes inequality, mobility and life styles in caste, class, and other systems.

**SOCL 352. TECHNOLOGY, WORK AND SOCIETY. (3)** *Prerequisite:* SOCL 100 or consent of instructor. Analysis of technology's impact on work systems, relationships between work and society, and management-worker interaction in varied industrial settings.

**SOCL 353. SOCIOLOGY OF MODERN JAPAN. (3)** *Prerequisite:* SOCL 100 or consent of instructor. Examination of social and cultural changes in contemporary Japanese society with particular focus on gender, race, and class in context of global capitalism. [GEN ED E]

**SOCL 355. SOCIOLOGY OF GENDER. (3)** *Prerequisite:* SOCL 100 or consent of instructor. Examination of the social construction of women's and men's roles in society and of the concepts of masculinity and femininity.

**SOCL 359. SEXUALITY AND SOCIETY. (3)** Sociological examination of issues, debates, and research on pornography, prostitution, sexual orientation, and sex and the law.

**SOCL 360. THE COMMUNITY IN RURAL AND URBAN SETTINGS. (3)** *Prerequisite:* Six hours of sociology. Study of the structure and function of community life and the process of balancing community needs and resources.

**SOCL 362. SOCIAL INSTITUTIONS: RACE, CLASS, AND GENDER. (3)** *Prerequisite:* Junior standing or consent of instructor. The five primary institutions (family, religion, economy, education and government) as they affect and are affected by race, class, and gender in America. Explores interrelationships among those institutions and between various racial and other groups. [GEN ED E]

**SOCL 363. POPULATION AND SOCIETY. (3)** *Prerequisite:* SOCL 100 or consent of the instructor. Causes and consequences of the population explosion and other population problems in the United States and developing countries are examined. Emphasis is placed on the interrelationships of population variables (fertility, mortality and migration) and social, economic, political and ecological variables.

**SOCL 375. DIVERSITY IN AMERICAN SOCIETY. (3)** *Prerequisite:* SOCL 100 or consent of instructor. Sociological analyses of ways societal institutions create and shape intergroup diversity. Focuses on the elements of social organization and their relationships to diversity. [GEN ED E]

**SOCL 376. INTERNATIONAL SOCIOLOGY. (3)** Survey of causes, effects, and implications of globalization on societies and individual lives. There will be optional field trips.

**SOCL 380. PENOLOGY. (3)** *Prerequisite:* Undergraduate course in criminology or juvenile delinquency. Survey of theories and forms of punishment, community-based corrections and prisons. Field trips to prisons required.

**SOCL 404. QUALITATIVE RESEARCH METHODS. (3)** *Prerequisites:* Junior standing and 6 hours of sociology or permission of instructor. A study of the methods and techniques used in qualitative sociological research. Topics include observational research, in-depth interviewing, hermeneutic content analysis and discourse analysis.

**SOCL 408. SURVEY APPLICATIONS. (3)** *Prerequisites:* SOCL 300 and 302 or their equivalent and consent of instructor. Course pass required. Students will be involved in the design, conduct, analysis, and dissemination of an actual social survey research project.

**SOCL 410. SOCIALIZATION: CHANGES THROUGH LIFE. (3)** *Prerequisite:* SOCL 100 or consent of instructor. Study of the theories and research techniques in the area of socialization with summary of the findings dealing with changes over the life cycle.

**SOCL 420. POLITICAL SOCIOLOGY. (3)** *Prerequisites:* Junior standing and 6 hours of sociology. The study of political behavior within a sociological perspective, examining such concepts as social cohesion, legitimacy, political socialization, and power structures.

**SOCL 432. SOCIOLOGY OF CRIMINAL LAW. (3)** *Prerequisite:* SOCL 330 or consent of instructor. An examination of the sociological research and theory focusing on social structural factors affecting the creation of criminal codes, the enforcement of criminal law and the imposition of penal sanctions.

**SOCL 434. ORGANIZED CRIME. (3)** *Prerequisites:* Junior standing and 6 hours of sociology or permission of instructor. The study of both traditional and nontraditional organized crime from a sociological perspective.

**SOCL 435. FAMILY VIOLENCE. (3)** *Prerequisite:* Six hours of sociology. This course is designed to provide the student with a sociological perspective on family violence in the United States. Emphasis is placed on child abuse and wife abuse. Research, theory, laws, treatment, and prevention are analyzed.

**SOCL 438. VICTIMOLOGY. (3)** Survey of major theories and research in victimology. Topics include violent victimization, sexual assault, child abuse, and response of criminal justice system to victims.

**SOCL 439. INTERNSHIP IN CRIMINOLOGY. (3-6)** *Prerequisites:* Eighty hours of completed college course work and a minimum of 15 hours toward the minor in Criminology or major in Sociology. Course pass required. Practical experience in criminology or deviance in a supervised work situation with a cooperating agency.

**SOCL 440. MEDICAL SOCIOLOGY. (3)** *Prerequisite:* SOCL 100 or consent of instructor. A comprehensive introduction to sociological factors in disease etiology and illness behavior; the organization and operation of health delivery systems; and the social interaction between organization administrators, health professionals and semi-professionals, patients, and the public.

**SOCL 442. SOCIOLOGY RESEARCH PROJECT. (3)** Course pass required.

**SOCL 446. GENDER, CRIME, AND JUSTICE. (3)** *Prerequisite:* Consent of the instructor. Explores effects of gender shapes reactions toward victims, offenders, and professionals working within the criminal justice system.

**SOCL 450. OCCUPATIONS AND PROFESSIONS. (3)** *Prerequisite:* SOCL 100 or consent of instructor. Analysis of the meaning of trends in occupational activities and careers through investigation of various occupations and professions.

**SOCL 451. WHITE-COLLAR CRIME. (3)** An overview of the definitions, history, nature and extent of white-collar crime as well as theories and explanations that address its causes, correlates, and efforts at control.

**SOCL 452. SOCIAL CHANGE. (3)** *Prerequisite:* Nine hours of sociology or consent of instructor. Examination of the nature and theories of social change and of the factors affecting it. Emphasis on the process of modernization and contemporary social changes.

**SOCL 460. URBAN SOCIOLOGY. (3)** *Prerequisite:* Nine hours of sociology or consent of instructor. The impact of city life on social actions, social relationships and social institutions. Emphasis is placed on the rise and significance of cities in America life with attention to modification of educational, political and religious institutions as well as housing, transportation and communication.

**SOCL 466. GENDER, FAMILY, AND SOCIETY. (3)** *Prerequisite:* SOCL 100. Sociological, historical and feminist examination of gender inequality in the context of the family. Issues examined include mate selection, single-parent families, paid work and families, gender and domestic work, ethnicity and family relations, social class and family relations, costs and rewards of parenting, divorce, battering.

## Course Descriptions

**SOCL 470. ENVIRONMENTAL SOCIOLOGY. (3)** *Prerequisite: ENG 300 and 3 credit hours of sociology, or consent of instructor.* Explores environmental thought within the sciences and the general public, including shifting worldviews, social movements, and social structural change associated with sustainability, and environmental justice, and the rights of nature. Students are responsible for arranging their own transportation for optional field trips.

**SOCL 489. SOCIOLOGY STUDY ABROAD. (1-6)** *Prerequisite: Consent of instructor.* Sociological and cultural study in international locations. May be repeated for credit. No more than six hours may be applied toward the major or minor.

**SOCL 494. COOPERATIVE EDUCATION IN SOCIOLOGY. (3-6)** *Prerequisites: Application for or enrollment in Cooperative Education plan, approval of departmental co-op faculty advisor, and development of a Learning Plan. Course pass required.* Practical experience in a supervised work situation.

**SOCL 495. DIRECTED STUDY. (1, 2 OR 3)** *Prerequisites: Junior standing and consent of department head. Course pass required.* Available to superior students who wish to conduct individual, intensive reading and research in a specific area of sociology in close cooperation with supervising faculty. Submission of such projects to student sections of regional professional meetings is encouraged.

**SOCL 496. DIRECTED STUDY. (1, 2 OR 3)** *Prerequisites: Junior standing and consent of department head. Course pass required.* Available to superior students who wish to conduct individual, intensive reading and research in a specific area of sociology in close cooperation with supervising faculty. Submission of such projects to student sections of regional professional meetings is encouraged.

**SOCL 499. SENIOR SEMINAR. (1)** *Prerequisite: Senior standing.* Integrates concepts, theories, research methods, and data analysis techniques learned during study of sociology. (Grading: Pass/Fail)

### SPAN / SPN- SPANISH DEPARTMENT OF MODERN LANGUAGES (SPAN) DEPARTMENT OF LIBERAL ARTS AND SCIENCES (SPN)

**SPAN 100. SPANISH LANGUAGE AND CULTURE ON-SITE. (1-3)** *Prerequisite: Permission of instructor.* An introduction to Spanish and Spanish-speaking culture in conjunction with study abroad for students with little or no previous language study. Does not fulfill the general education foreign language requirement. May be repeated for a total of 3 credits.

**SPAN 101 / SPN 101C. ELEMENTARY SPANISH I. (3)** A beginning course designed to develop skills in understanding, speaking, reading and writing and to provide cultural insights. (course fee) [GEN ED A-II]

**SPAN 102 / SPN 102C. ELEMENTARY SPANISH II. (3)** *Prerequisite: SPAN 101 or one year of high school Spanish.* Continuation of development of four skills and of cultural insights. (course fee) [GEN ED A-II]

**SPAN 105. INTRODUCTION TO HISPANIC CULTURE. (3)** Survey of the contemporary values of Spain and Latin America, with emphasis on values, behavioral characteristics, social and political structures, and achievements of the Spanish-speaking peoples. Taught in English; only taught abroad.

**SPAN 200. INTRODUCTION TO LATIN AMERICA. (3)** This course is a broad, interdisciplinary introduction to the study of Latin America, emphasizing its regions, peoples and cultures. Since this course is taught by various departments, see Latin American studies advisor for enrollment. Not for major or minor credit. [GEN ED E]

**SPAN 201 / SPN 201C. INTERMEDIATE SPANISH I. (3)** *Prerequisite: SPAN 102 or two years of high school Spanish.* A systematic review of grammar and development of reading skills. (course fee) [GEN ED A-II]

**SPAN 202. INTERMEDIATE SPANISH II. (3)** *Prerequisite: SPAN 201.* Further review of grammar and development of reading skills. (course fee) [GEN ED A-II]

**SPAN 210. INTERMEDIATE SPANISH CONVERSATION ABROAD. (1-3)** *Prerequisite: SPAN 102 or equivalent.* Course designed to develop the vocabulary and communication skills of a student with one year of college Spanish or equivalent, with emphasis on contact with Spanish native speakers. SPAN 210 may not substitute for SPAN 201 or 202, but may count as an elective for the major or minor. Taught in Spanish. May be repeated for a total of three credits.

**SPAN 211. INTERMEDIATE SPANISH CULTURE ABROAD. (1-3)** *Prerequisite: SPAN 102 or equivalent.* Course designed to develop an appreciation for different aspects of Spanish-speaking countries and their people and cultures, for a student with one year of college Spanish or equivalent. SPAN 211 may not substitute for SPAN 201 or 202, but may count as an elective for the major or minor. Taught in Spanish. May be repeated for a total of three credits.

**SPAN 220. SPANISH FOR CRIMINAL JUSTICE PROFESSIONALS. (3)** *Prerequisite: SPAN 102 or equivalent.* Course designed to develop the specific vocabulary and oral communication skills essential for a student who is intending to pursue a career in criminal justice and who has a background in one year of college Spanish or the equivalent. SPAN 220 will primarily be taught in study abroad programs in Mexico.

**SPAN 230. SPANISH FOR MEDICAL PROFESSIONALS. (3)** *Prerequisite: SPAN 102 or equivalent.* Course designed to develop the specific vocabulary and oral communication skills essential for a student who is intending to pursue a career in medicine or nursing who has a background of one year of college Spanish or the equivalent. SPAN 220 will primarily be taught in study abroad programs in Mexico.

**SPAN 306. EXPERIENCING SPANISH ABROAD. (1-6)** *Prerequisites: SPAN 202 or equivalent and permission of instructor. Corequisite: Enrollment in supervised language study while abroad.* Supervised language and cultural studies accomplished during a study abroad program. Students who receive transferable credit for language study done during the study abroad program will receive credit only for cultural study. May be repeated once for a maximum of six hours of credit.

**SPAN 331. BUSINESS SPANISH. (3)** *Prerequisite: SPAN 202 or equivalent.* Introduction to business communication in the Spanish-speaking countries: Linguistic structures and vocabulary, forms of business communication, reading and discussion of business texts, social customs. (course fee)

**SPAN 370. SPANISH CONVERSATION. (3)** *Prerequisite: SPAN 202.* Exercises in pronunciation, comprehension and oral expression. (course fee)

**SPAN 371. SPANISH COMPOSITION AND GRAMMAR. (3)** *Prerequisite: SPAN 202.* Controlled written compositions and oral expression. Systematic and intensive review of grammar. (course fee)

**SPAN 372. LATIN AMERICAN CIVILIZATION AND CULTURE. (3)** *Prerequisite: SPAN 370 or 371 or equivalent.* Survey of the historical and cultural background of Latin America and its people from the Discovery to the present. (course fee) [GEN ED E]

**SPAN 373. SPANISH CIVILIZATION AND CULTURE. (3)** *Prerequisite: SPAN 370 or 371 or equivalent.* Survey of historical and cultural background of Spain and its people from the Roman colonization to the present. (course fee) [GEN ED B-II]

**SPAN 374. LITERATURE AND CULTURE OF SPAIN. (3)** *Prerequisite: SPAN 370 or 371 or equivalent.* An introduction to the culture of Spain through the study of literary texts. The course will discuss the historical contexts and cultural milieu that produced selected texts. The analysis of literary texts will be introduced. [GEN ED B-I]

**SPAN 376. LITERATURE AND CULTURE OF LATIN AMERICA. (3)** *Prerequisite: SPAN 370 or 371 or equivalent.* An introduction to the culture of Latin America through the study of their literary and cultural production. The course will discuss the historical contexts and cultural milieu that produced selected texts. The analyses of literary texts will be introduced. [GEN ED B-I]

**SPAN 381. SPANISH GRAMMAR THROUGH CULTURAL READINGS. (3)** *Prerequisite: SPAN 371.* Students will read a variety of texts in order to increase reading comprehension, acquire a broader vocabulary, and enhance grammatical proficiency in preparation for the study of literature.

**SPAN 389. INTERNSHIP IN SPANISH. (1-3)** *Prerequisites: One 300-level Spanish course or the equivalent, and permission of instructor.* Supervised work using Spanish in a professional setting. Open only to Spanish majors or minors. May be repeated once for elective credit in the major or minor for a maximum of six hours.

**SPAN 455. TOPICS IN HISPANIC LITERARY AND CULTURAL STUDIES. (3)** *Prerequisite: SPAN 372 or 373 or 374 or 376 or equivalent.* Examines different literary and cultural topics of interest in Hispanic Studies. May be repeated for different topics..

**SPAN 470. ADVANCED ORAL SPANISH. (3)** *Prerequisite: SPAN 370 or equivalent.* Conversation units, dramatic sketches, original oral topics. (course fee)

**SPAN 471. ADVANCED SPANISH COMPOSITION. (3)** *Prerequisite: SPAN 371 or equivalent.* Examination of selected literary works; original compositions on selected topics. (course fee)

**SPAN 476. TWENTIETH CENTURY SPAIN. (3)** *Prerequisite: SPAN 373 or 374 or equivalent.* A chronological study of the culture of Spain through the study of representative works. The course will discuss the historical contexts and cultural milieu that produced selected texts. The analyses of literary texts will be introduced.

**SPAN 490. HISPANIC CINEMA. (3)** *Prerequisites: SPAN 370 or SPAN 371 plus one other 300-level class.* Introduction to the cinematic work of Latin American, Spanish, and US-Hispanic-Latino film artists and development of critical interpretative skills that enhance appreciation of films.

**SPAN 499. ADVANCED STUDIES IN SPANISH. (1-4)** *Prerequisites: Junior or senior standing and permission of instructor.* For guided independent study in culture, language, or literature. May be used with consent of full-time program faculty members for work accomplished during study abroad. Number of credit hours will be determined in consultation with instructor. May be repeated for a maximum of six hours of credit.

**SPM – SPORT MANAGEMENT**  
DEPARTMENT OF KINESIOLOGY, RECREATION AND SPORT

**SPM 200. INTRODUCTION TO SPORT MANAGEMENT. (3)** The history, principles, and objectives within the sport management profession, overview of sport delivery systems, study of sport as a microcosm of society, and career options with sport organizations.

**SPM 402. FISCAL PRACTICES IN RECREATION. (3)** Financial principles and practices relevant in recreation settings. Topics include economic principles, financial management and organization, income sources, fundraising, pricing and budgeting. (Equivalent to REC 402.)

**SPM 404. RECREATION FACILITY MANAGEMENT. (3)** A practical orientation to management for a variety of recreation facilities. (Equivalent to REC 404.)

**SPM 450. SPORT LAW. (3)** *Prerequisites: Junior or senior classification and admitted to Sport Management major.* Legal systems and the concepts of tort law, risk management, product liability, constitutional law, administrative/statutory law, and crowd control and security of sport organizations.

**SPM 452. SPORT LEADERSHIP AND MANAGEMENT. (3)** *Prerequisites: Junior or senior classification and admitted to the Sport Management major.* Knowledge of various skills, roles, and functions of the sport manager, leadership theory and practices as they relate to various sport managerial responsibilities.

**SPM 454. SPORT GOVERNANCE. (3)** *Prerequisites: Junior or senior classification and admitted to Sport Management major.* Familiarization of sport organization governing bodies, including identifying those in amateur and professional sports, their organizational structure, authority, requirements for membership, sanctions and appeals, and the influence of outside political organizations.

**SPM 456. ADVANCE STUDIES IN SPORT. (1-3)** *Prerequisites: Senior classification, permission of advisor, and admitted to Sport Management major.* Research, workshop or project related to the sport industry in collaboration with a faculty member.

**SPM 490. INTERNSHIP IN SPORT. (12)** *Prerequisites: Senior classification, admitted to the Sport Management major and completion of all major courses.* Supervised internship with community, interscholastic, intercollegiate, amateur, or professional sport industry organizations. This experience is supervised and controlled by university faculty members and personnel from sport industry agencies. Students will be responsible for their own transportation to off-campus meetings.

**STAT – STATISTICS**  
DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

**STAT 301. INTRODUCTORY PROBABILITY AND APPLIED STATISTICS. (3)** *Prerequisite: MATH 136 or MATH 142 with a grade of C or higher.* A calculus-based introduction to applied statistics, with emphasis on analysis of real data. Curve fitting, probability models, estimation and testing for means and proportions, quality control; use of computers for data analysis and simulation.

**STAT 330. INTRODUCTION TO STATISTICAL SOFTWARE. (3)** *Prerequisite: 3 hours of undergraduate statistics with a grade of C or better, or consent of instructor.* Using proprietary and open-source statistical software for data analysis. Interactive techniques for data management, manipulation and transformation. Interactive techniques for data error checking, descriptive statistics, basic inferential statistics, and basic report generation such as tabular and graphical displays. Introduction to scripts and batch processing when applicable. Proper use and interpretation of the methods are emphasized.

**STAT 401. REGRESSION ANALYSIS. (3)** *Prerequisite: A grade of C or better in STAT 301 or permission of instructor. Prerequisite or corequisite: STAT 330.* Regression topics including simple and multiple linear regression, least squares estimates, inference, transformations, diagnostic checking, and model selection methods. Selected special regression topics will also be introduced. Statistical software packages will be used for analyses.

**STAT 402. EXPERIMENTAL DESIGN. (3)** *Prerequisite: STAT 301 with a grade of C or better or permission of instructor. Prerequisite or corequisite: STAT 330.* Experimental design and analysis topics including single- and multiple-factor designs, factorial and fractional factorial designs, fixed vs. random effects models, response surface, nested designs, and special topics. Statistical software packages will be used for analyses.

**SWAH – SWAHILI**  
DEPARTMENT OF MODERN LANGUAGES

**SWAH 101. ELEMENTARY SWAHILI. (3)** Prepares students to communicate verbally and in writing in simple routine tasks; to understand written or spoken communication on everyday topics and develop cultural awareness.

**SWAH 102. ELEMENTARY SWAHILI II. (3)** *Prerequisite: SWAH 101.* Continuation of the development of communication skills on everyday topics and of cultural insights. [GEN ED A-II]

**SWRK – SOCIAL WORK**  
DEPARTMENT OF SOCIAL WORK

**SWRK 101. FOUNDATIONS OF HUMAN SERVICES. (3)** Starting with the basic principles, concepts and a historical perspective, the course will examine problems addressed by diverse social service programs and explore their activities. [GEN ED C]

**SWRK 205. INTRODUCTION TO SOCIAL WORK. (3)** An introduction to the social work profession and its value, skill and knowledge bases. The history, development, and current status of the social work profession are explored. This introductory course emphasizes appreciation of and respect for human diversity as core concerns of professional social work practice.

**SWRK 270. MENTAL HEALTH AND SOCIAL POLICY. (3)** A survey course of the mental health delivery system in the United States. Services and issues will be discussed.

**SWRK 326. SERVICES FOR THE OLDER AMERICAN. (3)** *Prerequisite: Junior standing or consent of instructor.* This course focuses on individual and societal aspects of aging with emphasis on programs, resources and services to meet the social tasks of later life.

**SWRK 330. HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT I. (3)** *Prerequisites: SWRK 101 and 205. Prerequisite for majors: Admission to the program.* The social, natural, and behavioral sciences are used to examine human behavior across the life span, especially as influenced by ethnicity, class, gender, sexual orientation, and ability.

**SWRK 331. HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT II. (3)** *Prerequisite: SWRK 330.* Human behavior in the social environment with emphasis on families, groups, organizations, communities, and cultures. The importance of diversity and the human environment as factors in influencing behavior will be highlighted.

**SWRK 344. SOCIAL WORK STATISTICS AND DATA ANALYSIS. (3)** *Prerequisites: MATH 116 or equivalent, SWRK 101 and 205. Enrollment limited to a social work major or minor.* An introduction to descriptive and inferential statistics, focusing on integrating research and social work practice, and computer applications in research.

**SWRK 345. SOCIAL WORK RESEARCH METHODS. (3)** *Prerequisite: SWRK 344.* An introduction to concepts, research design, and program evaluation in social work research. Emphasis will be placed on developing skills in utilizing research information in social work practice.

**SWRK 356. SERVICES FOR JUVENILE OFFENDERS AND THEIR FAMILIES. (3)** *Prerequisite: Junior standing or consent of instructor.* The nature and extent of delinquency, structure, and function of the juvenile court will be stressed. Emphasis will be on the provision of services to the juvenile offenders and their families.

**SWRK 375. SOCIAL WORK PRACTICE I. (3)** *Prerequisites: SWRK 101, SWRK 205 and admission to the program. Corequisite: SWRK 330.* The first of three practice classes that equip students with theory and skills for effective generalist social work practice with individuals and their interpersonal networks.

**SWRK 378. SOCIAL WORK PRACTICE II. (3)** *Prerequisites: SWRK 330 and 375, restricted to social work majors.* The second of three practice classes that equip students with theory and skills for effective generalist social work practice with groups.

**SWRK 379. INTRODUCTION TO SOCIAL WORK COMMUNICATION SKILLS. (3)** *Prerequisites: SWRK 330 and SWRK 375.* Study and practice of interviewing individuals, families, and groups. The skill of relationship building as it relates to both micro and macro practice of social work is emphasized.



## Course Descriptions

**SWRK 381. SOCIAL WORK PRACTICE III. (3)** *Prerequisites:* SWRK 379. The third of three practice classes that equip students with theory and skills for effective generalist social work practice with organizations and communities.

**SWRK 395. SOCIAL WELFARE POLICY AND ISSUES. (3)** *Prerequisites:* SWRK 330. An understanding of the historical perspectives of social welfare policies as they affect current policy issues. Includes examination of the processes of policy formulation. Models of policy analysis assist students in identifying, and their impact on citizens representing a diversity of backgrounds.

**SWRK 433. ETHICAL ISSUES AND DILEMMAS IN SOCIAL WORK. (3)** *Prerequisites:* SWRK 101 and SWRK 205, or permission of the instructor. An examination of professional ethics and common ethical dilemmas in social work. Models of ethical decision making are applied in case vignettes.

**SWRK 436. SERVICES TO CHILDREN. (3)** *Prerequisite:* Junior standing or consent of instructor. A survey of institutional and community services with focus on principles of social services for children and their families.

**SWRK 450. CHILD MALTREATMENT. (3)** *Prerequisite:* Junior standing. Comprehensive introduction to child abuse and neglect from a social work perspective. The extent of the problem, effects on children, treatment issues, the social worker's role, and advocacy on behalf of individuals and families are explored. This course is the first of two specific course requirements for the Public Child Welfare Certification Program available through WKU and the Kentucky Cabinet for Families and Children.

**SWRK 451. CHILD MALTREATMENT INTERVENTIONS. (3)** *Prerequisites:* SWRK 375 and 450. Second of two specific course requirements for the Public Child Welfare Certification Program available through WKU and the Kentucky Cabinet for Families and Children. Covers various practice skills and treatment interventions related to social work with abused neglected children and their families. Students will have several opportunities to develop their own skills through a variety of teaching methods.

**SWRK 480. SOCIAL WORK FIELD PRACTICUM I. (3)** *Prerequisites:* SWRK 345, 378, 381, field director approval and senior standing. *Corequisite:* SWRK 481. Social Work practice experience in a social service agency.

**SWRK 481. SOCIAL WORK FIELD SEMINAR I. (3)** *Prerequisites:* SWRK 345, 378, 381, and admission to the field internship, and senior standing. *Corequisite:* SWRK 480. Integration of the knowledge, skills, values, and experiences gained in the internship.

**SWRK 482. SOCIAL WORK FIELD PRACTICUM II. (3)** *Prerequisites:* SWRK 480/481. *Corequisite:* SWRK 483. Continued social work practice experience in a social service agency.

**SWRK 483. SOCIAL WORK FIELD SEMINAR II. (3)** *Prerequisites:* SWRK 480/481. *Corequisite:* SWRK 482. Integrates the knowledge, skills, values, and experiences gained during the second semester of the internship.

**SWRK 485. INTEGRATED GENERALIST SOCIAL WORK PRACTICE. (3)** *Prerequisites:* SWRK 331, 375, and 379. Overview of social work practice theories, skills, cultural competencies, values and policies. Provides a framework for contextualizing social work practice interventions across multilevel client systems. Includes preparation for the field practicum experience and professional development.

**SWRK 490. SELECTED TOPICS IN SOCIAL WORK. (3)** *Prerequisite:* Consent of instructor. This course permits in-depth examination of selected topics in social work. The specific topics vary. May be repeated with different topics.

**SWRK 495. DIRECTED STUDY. (1-3)** *Prerequisites:* Junior standing and consent of director. Available to students who wish to conduct individual, intensive reading and research in a specific area of social work, in close cooperation with supervising faculty. Approval required prior to enrollment.

**SWRK 496. DIRECTED STUDY. (1-3)** *Prerequisites:* Junior standing and consent of director. Available to students who wish to conduct individual, intensive reading and research in a specific area of social work, in close cooperation with supervising faculty. Approval required prior to enrollment.

### THEA / THE – THEATRE DEPARTMENT OF THEATRE AND DANCE (THEA) DEPARTMENT OF LIBERAL ARTS AND SCIENCES (THE)

**THEA 101. ACTING I. (3)** Improvisation, theatre games, and simple scene and/or monologue work intended to develop fundamental performance and ensemble collaboration skills.

**THEA 141. STAGE MAKEUP. (1)** Fundamental theory and application of standard and character stage makeup.

**THEA 151 / THE 151C. THEATRE APPRECIATION. (3)** A study of the literary, historical and creative aspects of the theatre. It is designed to develop an understanding and appreciation of the art of theatre from the point of view of the audience. [GEN ED B-II]

**THEA 203. ACTING AUDITION WORKSHOP. (1)** A developmental studio workshop designed to help students select and prepare effective audition monologues, learn and apply performance techniques unique to the auditioning, and successfully navigate the audition application process. Required for all students needing written departmental recommendation on audition application forms. Repeatable once for credit. (Grading: Pass/Fail)

**THEA 219. DESIGN I. (3)** *Prerequisite:* THEA 252 or permission of instructor. An introduction to the fundamental design concepts, techniques and processes common to all areas of theatre production.

**THEA 222. STAGECRAFT. (3)** *Prerequisites:* PERF 120: Rehearsal & Production I, or permission of instructor. Students enrolling in this course must also concurrently enroll in a section of Rehearsal & Production. This course presents the fundamental tools, materials and methods of scenery construction. Other topics include stage rigging, drafting and scene painting. Practical experience is gained by assisting with the construction of scenery for the department's mainstage productions.

**THEA 230. STAGE COMBAT I: UNARMED. (3)** *Prerequisites:* THEA 101, PERF 205, or permission of instructor. A study of unarmed violence for the stage including punches, slaps, kicks, falls, and rolls. Classics vs. contemporary approaches to staging violence will also be covered. Repeatable once for a total of 6 credit hours, only three of which may be applied towards a major.

**THEA 241. COSTUME TECHNOLOGY. (3)** *Prerequisite:* PERF 120, or permission of instructor. Students enrolling in this course must also concurrently enroll in a section of Rehearsal and Production. A basic study of construction techniques for complete stage costumes with emphasis on historical costumes for the theatre.

**THEA 250. STAGE ELECTRICS. (3)** *Prerequisite:* PERF 120 or permission. Students enrolling in this course must also concurrently enroll in a section of Rehearsal and Performance. Introduction to the fundamentals of lighting and sound for theatre.

**THEA 252. FUNDAMENTALS OF THEATRE. (3)** An introductory course in theatre. It provides the student with a study of play analysis and its practical application by means of theatre production projects.

**THEA 300. ACTING II. (3)** *Prerequisites:* THEA 101 and PERF 205 or permission of instructor. A combined studio/theory course introducing the fundamentals of characterization and rehearsal techniques, from basic scene analysis through performance.

**THEA 301. ACTING III. (3)** *Prerequisites:* THEA 101 and 300. An advanced acting studio course focusing on text and character analysis, characterization and performance.

**THEA 303. ACTING FOR THE CAMERA. (3)** A fundamental approach to auditioning and acting for the camera.

**THEA 306. MUSICAL THEATRE ENSEMBLE. (1)** Musical theatre vocal ensemble. Repeatable 7 times for a total of 8 credit hours.

**THEA 307. MUSIC THEATRE WORKSHOP I. (2)** *Prerequisites:* THEA 101 or permission of instructor. Practice in integrating singing, acting, and movement using musical theatre repertoire from 1920 to present. Repeatable three times for up to 8 hours of credit. (course fee)

**THEA 312. STAGE MANAGEMENT PRACTICUM. (3)** *Prerequisites:* Permission of instructor. Requires a concurrent stage management assignment. A practical application course designed to dovetail with an actual stage management assignment providing theoretical grounding and practical "on-the-job" experience in stage management.

**THEA 319. DESIGN II. (3)** *Prerequisite:* THEA 219 or permission of the instructor. Application of fundamental design concepts and techniques to the design of scenery, costumes and lighting for the theatre.

**THEA 322. STAGE DESIGN. (3)** *Prerequisite:* THEA 222, 319 or permission of instructor. This course presents basic principles for designing theatre scenery. The student will create designs for three plays, including one complete design with drafting, sketches and a model.

**THEA 330. STAGE COMBAT II. (3)** *Prerequisite:* THEA 230 or permission of instructor. Staged swordplay technique and choreography featuring single rapier. Repeatable 2 times for credit.

**THEA 354. HISTORY OF DRAMA TO 1640. (3)** A comprehensive course which traces the major developments in drama from the ancient Greeks to 1640. Emphasis is placed on representative dramatists and plays.

**THEA 355. HISTORY OF DRAMA SINCE 1640. (3)** A continuation of THEA 354.

**THEA 358. DRAMA WRITING. (3)** *Prerequisite:* ENG 200, 203 or permission of instructor. A concentrated study of the techniques of drama writing emphasizing contemporary theory and practice.

**THEA 360. SUMMER THEATRE. (3)** Faculty supervision of students' work with an approved summer stock theatre.

**THEA 363. WORLD THEATRE HISTORY I. (3)** A study of influential, worldwide theatrical movements, ideas, technologies and personalities that shaped the development of theatre from origin theories through 17th century.

**THEA 364. WORLD THEATRE HISTORY II. (3)** A study of influential, worldwide theatrical movements, ideas, technologies and personalities that shaped the development of theatre from the 18th century to the present.

**THEA 371. DIRECTING I. (3)** *Prerequisite:* THEA 252. A combined theory/studio course designed to provide both a theoretical framework and practical experience with the stage director's pre-production process, including, dramaturgical research and analysis, production conceptualization, promptbook preparation, the fundamentals of stage composition, organic blocking and the director/designer collaboration.

**THEA 372. DIRECTING LAB. (1)** *Corequisite:* THEA 371 or permission of instructor. Studio for THEA 371. Applied practice in ground-plan development and implementation, organic blocking, coaching actors and rehearsal management. Repeatable once for credit.

**THEA 375. TOPICS IN DRAMA. (3)** *Prerequisite:* THEA 252 or ENG 354 or ENG 355. Topics-based course focusing on a particular area of dramatic theory and/or literature. May be repeated twice for a total of 9 credit hours.

**THEA 380. DIRECTING II. (3)** *Prerequisite:* THEA 371 and permission of instructor. Applied practice in ground-plan development and implementation, organic blocking, coaching actors, and rehearsal management.

**THEA 385. APPLIED VOCAL STYLES. (1)** *Prerequisite:* Instructor permission. Topic based individual or small group instruction in applied vocal styles for the theatre. Repeatable 5 times for a total of 6 credit hours.

**THEA 391. CHILDREN'S THEATRE/ CREATIVE DRAMATICS. (3)** *Prerequisite:* THEA 252 or permission of instructor. An examination of the selection, preparation, and presentation of plays for children, and the study of creative dramatics. Emphasis on analysis of children's plays, script sources and production planning.

**THEA 392. PRODUCTION OF THEATRE FOR CHILDREN. (3)** *Prerequisites:* THEA 371, THEA 372 and THEA 391 or permission of instructor. A practical application of children's theatre training by means of a traveling children's theatre production company performing on campus and in the surrounding area.

**THEA 401. PERIOD STYLES LAB. (3)** *Prerequisite:* THEA 301 or THEA 371 or permission of instructor. Intensive, collaborative scenework, focusing on the special demands of analyzing, conceptualizing and performing period plays, with an emphasis on verse drama.

**THEA 407. MUSICAL THEATRE WORKSHOP II. (2)** *Prerequisite:* THEA 307 or permission of instructor. A continuation of musical theatre study begun in THEA 307, this course offers advanced character study for both songs and scenes in the American musical theatre repertoire from 1920 to present. Repeatable two times for up to six hours of credit.

**THEA 410. PLAYING SHAKESPEARE. (3)** *Prerequisite:* THEA 301 or permission of instructor. Advanced acting course focusing on the application of performance and characterization skills in the performance of Shakespearean/Jacobean dramatic literature. Repeatable once for credit.

**THEA 412. SPECIAL TOPICS IN ACTING. (3)** *Prerequisite:* THEA 301. Topics-based course focusing on a particular area of advanced acting craftsmanship. May be repeated twice for a total of 9 credit hours.

**THEA 415. DIRECTING STUDIO. (3)** *Prerequisites:* THEA 371 and permission of instructor. Offers advanced stage directing students an opportunity to learn and apply the stage directing skills needed in the rehearsal and performance phases of live theatre production under actual production conditions.

**THEA 422. STAGE LIGHTING DESIGN. (3)** Lighting equipment is demonstrated and the student is provided practical experience in working with lights for the major productions, at a time other than the class period. Each student will design the lighting for a full-length play.

**THEA 424. SPECIAL PROBLEMS IN TECHNICAL THEATRE. (3)** Repeatable once with a different topic. A special-problems course for advanced study in the area of technical theatre: scenery, costume, lighting and sound. The topic and project organization are to be submitted by the student and approved by the faculty during the semester prior to the project.

**THEA 425. PLAY PRODUCTION IN THE SCHOOLS. (3)** Offers practical instruction in the fundamentals of theatrical production at the secondary school level. Emphasis on providing current and future teachers with resource materials and practical solutions to the challenge of producing and directing high quality theatre in the schools.

**THEA 431. MUSICAL THEATRE HISTORY AND REPERTOIRE. (3)** A study of the development of the musical theatre; the style and form of its music; dance and drama; and its impact on the modern theatre. (course fee)

**THEA 441. COSTUME DESIGN. (3)** *Prerequisite:* THEA 319. An advanced course for theatre majors as well as those interested in understanding the concept of costuming. Emphasis is placed upon the historical and practical aspects of theatrical costume design.

**THEA 455. AMERICAN DRAMA. (3)** This course deals with the development of American drama from colonial productions to present-day plays.

**THEA 459. MODERN DRAMA. (3)** A selected study of dramatic literature since Ibsen, with emphasis on evolving developments and trends in world theatre.

**THEA 499. STUDIES IN BRITISH THEATRE. (3)** A study of the British theatre highlighted by a tour to England and viewing of representational plays of the English theatre, including visitations to supplementary historical and cultural sites.

#### UC / UCC – UNIVERSITY COLLEGE

##### DEPARTMENT OF INTERDISCIPLINARY STUDIES (UC) DEPARTMENT OF LIBERAL ARTS AND SCIENCES (UCC)

**UC 175 / UCC 175C. UNIVERSITY EXPERIENCE. (2-3)** *Special Requirements:* For first year students or transfer students with fewer than 23 semester hours of credit. Introduction to university life. Topics include: Study skills, critical, reading and thinking skills, library education, exploration of majors and careers, of campus resources and personal development. Individual departments may offer sections for their majors addressing additional topics relevant to their field of study (e.g. PSY 175, BIOL 175). Some department specific sections are offered for three credit hours.

**UC 176/ UCC 176C. SPECIAL TOPICS. (1)** *Corequisite:* UC 175. UC 176 provides special topics emphasis to UC 175. Students will receive three credit hours for the combined UC 175 and 176.

**UCC 200C. INTRODUCTION TO AMERICAN ACADEMIC CULTURE. (3)** Open to international nonnative-English-speaking international students with graduate student status; or with instructor permission. A course for international nonnative – English– speaking–graduate students to strengthen skills in academic English and to assist their acclimation to American academic culture. May not be applied toward completion of any graduate program.

**UCC 250C. SEMINAR IN PEER MENTORING. (2)** *Prerequisite:* UC 175 or UCC 175C equivalent or sophomore class standing (30 hours) or instructor permission. An introduction to effective mentoring techniques and leadership skills including an examination of mentoring and leadership theories and styles. (Grading: Pass/Fail)

**UCC 251C. PRACTICUM IN PEER MENTORING. (1)** *Prerequisite:* UCC 250C with a grade of B or higher and instructor permission. Supervised mentoring experience in an appropriate first-year student setting. Students may repeat this course up to a maximum of 3 credit hours. (Grading: Pass/Fail)

#### UM – WATER UTILITIES MANAGEMENT

##### DEPARTMENT OF ARCHITECTURAL AND MANUFACTURING SCIENCES

**UM 101. WATER UTILITY MANAGEMENT. (3)** Overview of water and wastewater utility activities and functions leading to professional designation in utility management.

**UM 205. WATER UTILITY ORGANIZATION, REGULATION AND LAW. (3)** *Prerequisite:* UM 101. Overview of the organization, structure, and legal aspects of water and wastewater utilities.

**UM 215. WATER UTILITY FINANCE AND ADMINISTRATION. (3)** *Prerequisite:* UM 101. Overview of the financial and administrative aspects of water and wastewater utilities.

**UM 225. HUMAN RESOURCE MANAGEMENT FOR WATER UTILITIES. (3)** *Prerequisite:* UM 101. Overview of the staffing, compensation, and human resource utilization aspects of water and wastewater utilities.

## Course Descriptions

### UM 235. WATER UTILITY MANAGEMENT AND HUMAN RELATIONS. (3)

*Prerequisite:* UM 101. Overview of the management and human relations aspects of water and wastewater utilities including board/manager, employee, public, and other utility relations.

### UM 245. MODERN TECHNOLOGY AND WATER UTILITY MANAGEMENT. (3)

*Prerequisite:* UM 101. Overview of the essential functions of public drinking water and wastewater utilities focusing on the emerging technologies and evolving legislation that drive quality and quantity issues.

### UM 290. INTERNSHIP: UTILITY MANAGEMENT. (3) *Prerequisite:* WTTI 200.

*Requires placement by the WTI Program Coordinator and instructor's permission.* Internship in water/wastewater management. May be paid or unpaid.

Coordination required via WTI Program Coordinator. May be repeated one time for credit.

## WMN – WOMEN'S STUDIES

### DEPARTMENT OF LIBERAL ARTS AND SCIENCES (WMN)

**WMN 200C. INTRODUCTION TO WOMEN'S STUDIES. (3)** Drawing on historical perspectives and cultural analysis, this course examines such topics as women and work, violence against women, family, and the social construction of gender, sexuality, race, and class. [GEN ED C]

## WTTI – WATER/WASTEWATER TECHNOLOGY

### DEPARTMENT OF ARCHITECTURAL AND MANUFACTURING SCIENCES

**WTTI 200. WATER SUPPLY AND WASTEWATER CONTROL. (3)** This course is designed to familiarize the student with water supply and wastewater control. Emphasis is on the operational aspects of water supply, water distribution, wastewater collection, and wastewater treatment and disposal. Upon completion, students should be able to apply technical concepts and principles of water supply and wastewater control.

**WTTI 201. HYDROLOGY FOR WATER OPERATIONS. (.5)** The properties, distribution, and circulation of water as it moves through the atmosphere, across and below the earth's surface, with emphasis on water and wastewater operations. Topics include the hydrologic cycle, groundwater, rainfall, droughts, and volume and flow.

### WTTI 202. DRINKING WATER SOURCES, QUALITY AND STANDARDS. (.75)

Examination of sources of drinking water, including identification of the various types and courses of contaminants in natural and artificial water systems, and standards used to establish drinking water quality.

### WTTI 203. INTRODUCTION TO DRINKING WATER TREATMENT. (.5)

Introduction to the processes and equipment used to create safe drinking water, including treatment at the source, preliminary treatment, and purification.

### WTTI 204. INTRODUCTION TO WASTEWATER TREATMENT. (.5)

Introduction to the equipment, structures, and processes used in the treatment of wastewater. Examines various legislation and regulations pertaining to wastewater treatment and effluent standards.

### WTTI 205. INTRODUCTION TO DRINKING WATER DISTRIBUTION. (.5)

Introduction to the equipment and structures used in drinking water transmission and distribution systems. Topics include system design and maintenance, the use of centrifugal pumps and water mains, and computer applications.

**WTTI 206. INSTRUCTION TO WASTEWATER COLLECTION. (.5)** Introduction to the equipment, structures, and design of wastewater collection systems. Topics include the layout and construction of sanitary sewers, lift stations, infiltration and inflow, and treatment methods.

### WTTI 210. WATER TREATMENT PROCESSES. (3) *Prerequisite:* WTTI 200C.

This course is designed to train prospective water treatment plant operators and managers in the practical aspects of operating and maintaining water treatment plants, with emphasis on the use of safe practices and procedures. Students will learn how to safely operate and maintain coagulation, flocculation, sedimentation, filtration, and disinfection processes. They will also learn how to control tastes and odors in drinking water, control corrosion to meet the requirements of the Lead and Copper Rule, perform basic water laboratory procedures, and solve arithmetic problems commonly associated with water treatment plant operations.

**WTTI 211. WASTEWATER TREATMENT PROCESSES. (3)** This course is designed to train prospective wastewater treatment plant operators and managers in the practical aspects of operating and maintaining wastewater treatment plants, with emphasis on the use of safe practices and procedures. Students will learn how to safely operate and maintain racks, screens, comminutors, sedimentation tanks, trickling filters, rotating biological contractors, package activated sludge plants, oxidation ditches, ponds, chlorination facilities. Students will also learn how to analyze and solve operational problems and how to perform mathematical calculations relating to wastewater treatment process control.

### WTTI 212. WATER DISTRIBUTION AND WASTEWATER COLLECTION

**SYSTEMS. (3)** This course is designed to enable students to understand the operation and maintenance of a waterworks distribution system and to familiarize students with the components of wastewater collection systems. Overview of design installation, operation, monitoring, maintenance and repair/rehabilitation of sewer pipelines, pump stations and related facilities.

### WTTI 213. BASIC DRINKING WATER TREATMENT PROCESSES. (.75)

*Prerequisite:* WTTI 203. The effects of characteristics of water that hinder quality and treatment techniques which improve water quality. Topics include fluoridation, and the treatment and control of iron, manganese, and hard water.

### WTTI 214. COAGULATION AND FLOCCULATION PROCESSES IN WATER

**TREATMENT. (.5) *Prerequisite:* WTTI 203 or 204.** Examination of the processes that remove suspended solids from drinking water and wastewater. Topics include chemicals used, rapid-mix facilities, flocculation facilities, regulations, dosage control, safety precautions, and record keeping.

### WTTI 215. SEDIMENTATION BASINS AND CLARIFIERS IN WATER

**TREATMENT. (.5) *Prerequisite:* WTTI 203 or 204.** Course outlining the use sedimentation processes in water treatment. Topics include equipment and structures utilized in the process, operation, other clarification processes, and record keeping.

### WTTI 216. WATER FILTRATION PROCESSES. (.5) *Prerequisite:* WTTI 203 or

204. Equipment, structures, and operational factors used in filtration systems for water and wastewater treatment facilities. Topics include approaches to filtration, gravity filters, pressure filtration, regulations, safety precautions, and record keeping.

### WTTI 217. WATER DISINFECTION PROCESSES. (1) *Prerequisite:* WTTI 203 or

204. Equipment, structures, and processes used during the disinfection process in water and wastewater treatment. Topics include chlorination processes, other oxidant processes, disinfection regulations, control tests, safety precautions and record keeping.

### WTTI 220. CALCULATIONS AND HYDRAULICS FOR WATER. (3) *Prerequisite:*

WTTI 200. This course is designed to provide the student with an understanding of the mathematical principles and practical hydraulic design related to water supply. Topics include the treatment and distribution of water. Study includes solving problems related to treatment systems including hydraulic volumes, dimensional analysis, calculations and chemic dose rates as it relates to water treatment and distribution. Provides information and procedures necessary to predict and manipulate the hydraulics of water transmission. The primary work assignments involve the reading and using of hydraulic principles and them applying them in real-life cause analysis. Upon completion, students should be able to apply principles of mathematics and hydraulics systems to water management practices.

### WTTI 221. CALCUTIONS AND HYDRAULICS FOR WASTEWATER AND

**STORMWATER. (3) *Prerequisite:* WTTI 220.** This course is designed to provide the student with an understanding of the mathematical principles and practical hydraulic design related to wastewater and stormwater control. Topics include the collection and treatment of domestic and industrial wastewater, wastewater collection and stormwater. Study includes solving problems related to treatment systems including hydraulic volumes, dimensional analysis, primary and secondary sewage treatment, calculations and chemical dose rates as it relates to wastewater and stormwater technology. Provides information and procedures necessary to predict and manipulate the hydraulics of wastewater and stormwater collection. The primary work assignments involve the reading and using of hydraulic principles and then applying them in a real-life case analysis. Upon completion, students should be able to apply principles of mathematics and hydraulic systems to wastewater and stormwater management practices.

### WTTI 222. WATER AND WASTEWATER INSTRUMENTATION AND CONTROL.

**(3) *Prerequisite:* WTTI 200.** This course focuses on the basic fundamentals of instrumentation applicable to water and wastewater management. The application, maintenance, and calibration of instruments in water and wastewater systems are emphasized. Upon completion, students should be able to read, calibrate and maintain mechanical, electrical, hydraulic, and pneumatic sensing equipment; and indicating, recording, and control equipment.

### WTTI 223. BASIC CALCUATIONS FOR WATER OPERATIONS. (1.25)

Introduction to calculations used by operators to determine load, demand, and other quantities critical to water and wastewater operations. Topics include per capita water use, domestic water use based on household fixture rates, water use per unit of industrial product produced, demand analysis, and load estimation.

### WTTI 224. BASIC HYDRAULICS FOR WATER OPERATIONS. (1) Basic

hydraulic concepts and calculations necessary for operating water and wastewater systems. Topics include basic properties of fluids, pressure and force, head and head loss, pumping calculations, flow, thrust control, and computer applications.

**WTTI 225. BASIC HYDRAULICS IN DRINKING WATER DISTRIBUTION NETWORKS. (.5)** *Prerequisites:* WTTI 223 and 224. Basic hydraulic concepts driving the planning, design, construction, and operation of a pressurized network.

**WTTI 226. WATER CHEMISTRY. (3)** *Prerequisite:* WTTI 200. This course is designed to explore basic chemical concepts and principles such as elements, compounds, states of matter and reactions that are applicable to evaluating and regulating water quality and applies them to water and wastewater treatment. Students also examine laboratory techniques, equipment, quality assurance, and recordkeeping and reporting.

**WTTI 227. BASIC HYDRAULIC CONCEPTS IN WASTEWATER COLLECTION SYSTEMS. (.5)** *Prerequisites:* WTTI 223 and 224. Basic hydraulic concepts driving the planning, design, construction, and operation of wastewater collection systems. Topics include the function and operation of open channel and gravity flow collection system networks.

**WTTI 230. ADVANCED WATER TREATMENT PROCESSES. (3)** *Prerequisite:* WTTI 210. This course is a continuation of WTTI 210 and is designed to train prospective water treatment plant operators and managers in the practical aspects of operating and maintaining water treatment plans, with emphasis on the use of safe practices and procedures. Information is presented on drinking water regulations (including the Safe Drinking Water Act), iron and manganese control, fluoridation, softening, trihalomethanes, demineralization, handling and disposal of process wastes, maintenance, instrumentation, and advanced laboratory procedures.

**WTTI 231. ADVANCED WASTEWATER TREATMENT PROCESSES. (3)** *Prerequisite:* WTTI 211. This course is a continuation of WTTI 211 and is designed to train prospective wastewater treatment plant operators and managers in the practical aspects of operating and maintaining wastewater treatment plans, with emphasis on the use of safe practices and procedures. Topics covered include conventional activated sludge processes, sludge digestion and solids handling, effluent disposal, plant safety and good housekeeping, plant and equipment maintenance, laboratory procedures and chemistry, use of computers of plan operation and maintenance, analysis and presentation of data, and records and report writing. Students will also learn how to analyze and solve operational problems and how to perform the mathematical calculations relating to wastewater treatment process control.

**WTTI 232. WASTEWATER MICROBIOLOGY. (.5)** *Prerequisite:* WTTI 204. Bacteria and other microscopic organisms in wastewater, the equipment and structures used to grow or remove microorganisms, and the role microorganisms play in the breakdown of waste material.

**WTTI 233. NATURAL WASTEWATER TREATMENT SYSTEMS. (.5)** *Prerequisites:* WTTI 204. Examination of the equipment, structures, and operating factors in natural wastewater treatment systems.

**WTTI 234. BASIC INFRASTRUCTURE FOR WATER DISTRIBUTION & WASTEWATER. (1)** *Prerequisite:* WTTI 205 or 206. Basic components of drinking water distribution systems and wastewater collection systems, including equipment, structures, and operating factors affecting the planning, design, and construction.

**WTTI 235. WATER DISTRIBUTION SYSTEM COMPONENTS. (.75)** *Prerequisite:* WTTI 205. Introduction to the components used in drinking water distribution systems and the factors involved in planning, operating, and maintaining them. Topics include hydrants, meters, cross-connections, backflow control methods and devices, and records and reporting.

**WTTI 236. WATER DISTRIBUTION SYSTEM OPERATION AND MAINTENANCE. (1.25)** *Prerequisite:* WTTI 205. Examination of the procedures used in the operation and maintenance of water distribution networks. Topics include pipe shipment and handling, excavation, laying pipe, pressure and leak testing, flushing and disinfection, inspections, site restorations, water main installation, maintaining water quality, maintaining flow and pressure, meter locations, service lines, and thawing.

**WTTI 237. WASTEWATER COLLECTION SYSTEM ASSESSMENT AND REPAIR. (.5)** *Prerequisite:* WTTI 206. Procedures used in the operation and maintenance of wastewater collection systems. Topics include operation and maintenance, inspecting and testing components, pipeline and manhole cleaning and inspection methods, and underground repair.

**WTTI 238. WASTEWATER COLLECTION SYSTEMS MANAGEMENT. (.5)** *Prerequisite:* WTTI 206. Management concepts and considerations in the wastewater industry. Topics include operation and maintenance, information management, system design, construction, and assessment, public policy and community relations, budgeting and financial planning, and safety and security.

**WTTI 239. STORMWATER MANAGEMENT FOR OPERATORS. (.5)** *Prerequisite:* WTTI 206. Control and mitigation of stormwater runoff via wastewater treatment facilities. Topics include estimating stormwater runoff, storm sewer systems, best management practices, floodplains, control of combined sewer overflows, controlling constituent discharges, and computer applications.

**WTTI 240. MOTORS, ENGINES, AND CONTROLS IN WATER OPERATIONS. (.5)** Investigation of motors, engines, and controls used in water and wastewater treatment operations. Topics include electric motors, combustion engines, electrically driven pumps, motor and engine records, and motor and engine safety.

**WTTI 241. INTRODUCTION TO INSTRUMENTATION & CONTROL SYSTEMS IN WATER. (.75)** Introduction to the instrumentation and control systems used in water and wastewater operations. Topics include instrumentation, telemetry, control systems, Supervisory Control and Data Acquisition (SCADA) system components, operation and maintenance, flow, pressure, and level measurement, and automation.

**WTTI 242. BASIC ELECTRICITY FOR WATER OPERATIONS. (.5)** Investigation of the basic concepts and applications of electricity in water and wastewater operations.

**WTTI 243. FLOWMETERS, SENSORS AND PROCESS MEASUREMENTS. (.5)** Investigation of the equipment and techniques used to measure flow and other process information in water and wastewater operations.

**WTTI 244. AUTOMATIC PROCESS CONTROL FOR WATER OPERATIONS. (.75)** *Prerequisite:* WTTI 243. Analysis of the equipment and procedures used in the automated control processes in water or wastewater facilities.

**WTTI 249. BASIC WATER CHEMISTRY FOR OPERATORS. (1)** Assessment of the essential chemical properties of water and how they can affect water quality.

**WTTI 250. DRINKING WATER SAMPLING AND ANALYSIS. (1)** *Prerequisite:* WTTI 249. Study of techniques of sampling and laboratory testing of drinking water resources.

**WTTI 251. WASTEWATER SAMPLING AND ANALYSIS. (1)** *Prerequisite:* WTTI 249. Investigation of the procedures for effectively sampling and analyzing wastewater. Topics include operating laboratory equipment, analyzing in accordance with NPDES permit requirements, and recording laboratory results.

**WTTI 252. WATER OPERATOR SAFETY. (.75)** Basic process of ensuring a safe working environment for water and wastewater operators. Topics include inspections, procedures, and programs which ensure safety in the workplace.

**WTTI 253. WASTEWATER REGULATIONS. (.5)** Analysis of all major forms of regulation that apply to the wastewater industry. Topics include the evolution of the Clean Water Act, pretreatment program requirements, permit compliance, safety regulations, and the National Pollutant Discharge Elimination System (NPDES).

**WTTI 254. CORROSION CONTROL IN WATER OPERATIONS. (.5)** *Prerequisite:* WTTI 203. Investigation of the methods and techniques used to minimize corrosion in water treatment facilities. Topics include corrosion control methods, facilities, regulations, record keeping, and safety precautions.

**WTTI 255. ION EXCHANGE PROCESSES IN WATER TREATMENT. (.5)** *Prerequisite:* WTTI 203. Process and equipment used in ion exchange treatment of water. Topics include ion exchange softening, operation of ion exchange processes, and record keeping.

**WTTI 256. ADSORPTION PROCESSES IN WATER TREATMENT. (.5)** *Prerequisite:* WTTI 203. Analysis of the process and equipment used in the adsorption process in water treatment. Topics include the principles of adsorption, adsorption facilities, regulations, operating procedures, safety precautions, and record keeping.

**WTTI 257. AERATION PROCESSES IN WATER TREATMENT. (.5)** *Prerequisite:* WTTI 203. Investigation of the process and equipment used during the aeration process in water treatment. Topics include process description, types of aerators, regulations, control tests, operating problems, safety precautions, and record keeping.

**WTTI 258. MEMBRANE PROCESSES IN WATER TREATMENT. (.5)** *Prerequisite:* WTTI 203. Exploration of the processes and equipment used in membrane filtration. Topics include microfiltration facilities, pleated membrane facilities, nanofiltration and reverse osmosis facilities, operating programs, and record keeping.

**WTTI 259. INTRODUCTION TO RESIDUALS MANAGEMENT IN WATER OPERATIONS. (.5)** *Prerequisite:* WTTI 203 or 204. Equipment, structures, and processes associated with residual management in water and wastewater systems. Topics include sludge calculations, removal of sludge by traditional sedimentation processes, softening sludge, and solids separation technology.

## Course Descriptions

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**WTTI 260. SUSPENDED GROWTH SYSTEMS IN WASTEWATER OPERATIONS. (.5) Prerequisite: WTTI 204.** Design and processes of suspended growth systems in wastewater treatment facilities. Topics include the operation of activated sludge plants, controlling biomass inventory, energy use and saving opportunities, aerobic digestion, and solids handling.

**WTTI 261. ATTACHED GROWTH SYSTEMS IN WASTEWATER OPERATIONS. (.5) Prerequisite: WTTI 204.** Facilities and processes used in attached growth systems. Topics include trickling filters, biological filters, rotating biological contactors, and operation of attached growth systems.

**WTTI 262. NUTRIENT REMOVAL PROCESSES IN WATER OPERATIONS. (1) Prerequisite: WTTI 203 or 204.** Equipment, structures, and design factors used in nutrient removal. Topics include nutrients and their effects on the environment, regulations, structured process models for nutrient removal, troubleshooting for full-scale nutrient removal facilities, and aquatic natural treatment systems.

**WTTI 263. INDUSTRIAL WASTEWATER PRETREATMENT PROCESSES. (.5) Prerequisite: WTTI 204.** Equipment, structures, and process involved in pretreatment of wastewater. Topics include regulations governing industrial pretreatment, troubleshooting, and maintaining pretreatment operations.

**WTTI 264. WASTEWATER RESIDUALS MANAGEMENT. (.5) Prerequisite: WTTI 259.** Equipment, structures, and processes used in wastewater residuals management. Topics include the stabilization, thickening, dewatering, drying, and composting of sludge, and biosolids reduction processes.

**WTTI 265. RECORD KEEPING AND REPORTING FOR WATER OPERATIONS. (.5) Prerequisite: WTTI 203 or 204.** Techniques for keeping effective records and reports for a water or wastewater utility. Topics include computer recordkeeping systems, equipment and maintenance records, plant operations data, procurement and inventory records, personnel records, and disposition of plan and system records.

**WTTI 266. CUSTOMER SERVICE AND PUBLIC RELATIONS IN WATER OPERATIONS. (.5) Prerequisite: WTTI 203 or 204.** Analysis of methods by which water and wastewater and wastewater utilities deal with customers and the public. Topics include the roles of water distribution personnel and informed employees in public relations, formal public relations programs, and general principles of customer inquiries and complaint investigation.

**WTTI 291. INTERNSHIP: UTILITY OPERATIONS. (3) Prerequisites: WTTI 200C.** Requires placement by the WTI Program Coordinator and instructor's permission. Internship in water/wastewaters operations. May be paid or unpaid. May be repeated one time for credit. (Grading: Pass/Fail)

# Special Programs & Divisions



## Honors College

The Honors College at WKU exists to provide high-achieving students with enriched courses and other opportunities for intellectual growth. The Honors curriculum is designed to encourage students to expand their intellectual curiosity and worldview, as well as to develop their abilities to read with insight, think logically and abstractly, write with precision, and engage in original scholarly research or creative activity. Participation in the Honors College thus complements students' academic preparation in their major and minor disciplines, and proves to be an asset when applying for graduate/professional schools.

The Honors College offers enhanced classes, colloquia and opportunities for independent study and research in an environment that is intellectually challenging as well as tailored to students' individual interests and needs. Honors classes and colloquia are kept small in order to promote interactive learning and free discussion of ideas.

The Honors capstone experience/thesis process allows students to work with a faculty mentor on an original, substantive project in their major or minor discipline. Students can, in almost all cases, complete any baccalaureate degree program and the Honors College without increasing the number of hours required for graduation.

### Admission Requirements

Please see the Prospective Student section of the Honors College website for admission requirements.

### Honors Curriculum

**College Requirements**—There are three tracks within the Honors College: the 33-hour thesis option, the 33-hour non-thesis option, and the 18-hour Honors in the Major track.

Please note that a student may earn no more than six hours of lower-division Honors credit as part of the Honors in the Major curriculum.

Students who complete the Thesis Honors curriculum option and graduate with a minimum 3.2 GPA are designated as graduates of the University Honors College on their final transcripts. Students who complete the Non-Thesis Honors curriculum option and graduate with a minimum 3.2 GPA are designated as graduates of the University Honors Program on their final transcripts. Students who complete the Honors in the Major curriculum option and graduate with a minimum 3.2 GPA are designated as Honors in the Major graduates on their final transcripts. Honors College and Honors Program graduates also receive medallions to be worn at Commencement and Honors certificates recognizing their achievement. Medallions and certificates are typically presented to Honors graduates at a banquet at the end of the spring semester.

*Dr. Craig Cobane, Executive Director*

### Honors Center

**Phone:** (270) 745-2081

**Fax:** (270) 745-3568

**Website:** [www.wku.edu/honors](http://www.wku.edu/honors)

**e-mail:** [Honors@wku.edu](mailto:Honors@wku.edu)

Thesis Option		Non-Thesis Option		Honors in the Major	
<b>General Education</b> <i>*Must include at least one course from three of the six general education categories (A, B, C, D, E or F).</i>	9 hrs.	<b>General Education</b> <i>*Must include at least one course from three of the six general education categories (A, B, C, D, E or F).</i>	9 hrs.	<b>Minimum Honors Credit in First major</b> <i>*includes 3-6 hours of CE/T credit.</i>	12 hrs.
<b>Colloquia</b>	3 hrs.	<b>Colloquia</b>	3 hrs.	<b>Honors Elective</b> (any level/major)	6 hrs.
<b>Honors Elective</b> (any level/major)	6 hrs.	<b>Honors Elective</b> (any level/major)	6 hrs.		
<b>Honors Upper-Division Electives</b>	6 hrs.	<b>Honors Upper-Division Electives</b>	6 hrs.		
<b>Honors Upper-Division in Major</b>	3 hrs.	<b>Honors Upper-Division in Major</b>	9 hrs.		
<b>Capstone Experience/Thesis</b>	6 hrs.				
<b>Total Hours</b>	<b>33 hrs.</b>	<b>Total Hours</b>	<b>33 hrs.</b>	<b>Total Hours</b>	<b>18 hrs.</b>

## Special Programs and Divisions

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### Program Features

**Honors Classes**—Participation in Honors classes is limited to Honors-eligible students, and enrollments are generally restricted to 25 or less. Small class sizes and presence of highly motivated students lead to a more peer-like interaction between faculty and students. Students are encouraged to challenge and debate issues respectfully, and generally have greater responsibility for and control over how course information is disseminated. Development of critical thinking and communication skills is emphasized.

**Honors Colloquia**—Honors colloquia are interdisciplinary in nature, and emphasize student-directed learning. Colloquia deal with issues of contemporary, historical or intellectual significance, often with ethical implications to be weighed and debated. Students participate in and lead discussions on various aspects of the broad topic, and select specific issues on which to base analytical writing projects.

**Honors Augmented Credit**—Students enrolled in non-Honors upper-division courses in their major or minor may contract with the faculty member, academic department, and Honors College to receive Honors credit. This allows students to more fully pursue subjects of particular interest or importance to their career goals.

**Honors Capstone Experience/Thesis**—The Honors Capstone Experience/Thesis (CE/T) represents the product of sustained original research or creative activity in a student's major or minor discipline. The nature and form of the CE/T is open, to be determined based on the interests and background of the student and CE/T advisor. Past CE/T projects have included library and laboratory research projects, short story and poetry collections, computer programs, and original musical compositions. Upon completion, the title of the CE/T appears on the student's official transcript.

**Honors Self-Designed Studies**—The Honors self-designed studies major and minor permit Honors students with specific goals or interdisciplinary interests to design unique programs of study when WKU's existing programs do not adequately fit the student's needs. The self-designed major requires at least 48 hours when used as a major that does not require a 2<sup>nd</sup> major or minor, 36 hours when used as a first major, and 30 hours when used as a second major; the area study minor requires 24 hours.

**Honors Priority Registration**—Returning Honors students in good standing may enroll for each semester on the first day of priority registration. Honors students must attend an Honors Advising Workshop each academic year to be eligible for priority registration. Priority registration allows students greater flexibility and choice in planning their schedule. Incoming students register as part of the Academic Transition Program (ATP) process.

**Honors Housing**—Honors students may choose to live (space permitting) in an Honors co-educational residence hall. A request for Honors housing must be indicated on a student's housing application.

**Honors Development Grants**—Students may apply to the Honors College for grants to defray costs associated with Honors Capstone Experience/Thesis or other undergraduate research, or to permit travel that will advance their career training or educational experience. Grants may be used to defer costs associated with attendance at professional meetings.

**Travel Abroad Grants**—Students may apply to the Honors College for grants to defray costs associated with study abroad programs. Funding is determined partially by the length of the program.

### The Carol Martin Gatton Academy of Mathematics and Science in Kentucky

WKU houses the Carol Martin Gatton Academy of Mathematics and Science in Kentucky. The mission is to offer a residential program for bright, highly motivated Kentucky high school students who have demonstrated interest in pursuing advanced careers in science, technology, engineering, and mathematics. The Gatton Academy is one of sixteen state-sponsored residential schools with an emphasis in science and mathematics.

The goal of the Gatton Academy is to enable Kentucky's exceptional emerging scientists and mathematicians to learn in an environment that offers advanced educational and research opportunities, preparing them for leadership roles in the Commonwealth of Kentucky.

The Gatton Academy also seeks to provide its students with the companionship of peers; to encourage students to develop the creativity, curiosity, reasoning ability, and self-discipline that lead to independent thought and action; and to aid students in developing integrity that will enable them to benefit society.

Each year the Gatton Academy admits Kentucky students who apply during their sophomore year and are awarded admission based on standardized test scores, grades, responses to essay questions, recommendations, and personal interviews. Instead of spending their junior and senior years in traditional high schools, students enroll in

*Tim Gott, Director*

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**Website:** [www.wku.edu/academy](http://www.wku.edu/academy)

the Gatton Academy and live in a uniquely dedicated Gatton Academy residence hall, taking courses offered by WKU. Their classmates are fellow Gatton Academy students and WKU undergraduate students.

At the end of two years, Gatton Academy students will have earned a minimum of sixty college credit hours in addition to completing high school.

### Office of International Programs

The Office of International Programs (OIP) leads initiatives and develops programs to help WKU achieve its goal to “prepare productive, engaged leaders in a global society.”

WKU's vision is to be "a leading American university with international reach." The foundation for this vision is built upon the knowledge, dedication, and commitment of its faculty, the support of its administrators, and the intellectual curiosity of its students. OIP provides opportunities for faculty, staff, and students to incorporate global perspectives into all aspects of academic life.

**Mission:** The Office of International Programs at Western Kentucky University will provide leadership in the development of a strong international profile that is recognized both nationally and globally for its excellence. The office will advocate for the strengthening of the international dimensions of the curriculum; development of innovative ways to provide globally educative experiences both at home and abroad; development of active and sustainable international agreements; pursuit of innovative grants; and the creation of community partnerships that center on quality of life issues and economic development for the community, region, and state. The office will support the internationalization agenda of all university departments by providing high-quality student, scholar, and faculty support services. In all of our work we will be guided by the core values of professionalism and ethical behavior.

Two units of OIP are central in carrying out this mission. The Office of Study Abroad and Global Learning is responsible for advising and guiding students through the process of studying in foreign countries. The Office of International Student and Scholar Services provides support for students, scholars and faculty visiting WKU from other countries.

OIP coordinates and fosters the university's international aspirations through three advisory councils. The International Education Council represents each of WKU's six colleges and recommends policies and programs. The Coordinating Council on International Programs brings together the many operational areas of WKU's global activities, including study abroad, international students, and public events. The Coordinating Council on Global Curriculum represents all academic units that offer majors, minors, and certificates in international fields.

WKU maintains active partnerships with more than fifty universities around the world, creating opportunities for student exchange, faculty mobility, collaborative research, and global engagement. WKU is a founding member of several international education organizations and an active participant in major international education associations.

### Academics

WKU offers a rich variety of internationally focused majors, minors, certificates, and courses available to WKU students. Undergraduate majors include International Affairs, International Business, Asian Religions and Cultures, Cultural Geography, German, French, and Spanish. Many other majors incorporate international components into their degrees, and there are special opportunities for students in the Honors College. Area studies options feature interdisciplinary programs in Latin American, Asian, and Middle Eastern Studies, among others, with instruction in nearly a dozen foreign languages. Students can earn the “Emphasis in Global Studies” designation, which can be combined with any major. Visit the Office of International Programs website for a complete listing of international studies programs at WKU.

OIP is an administrative unit and does not offer its own courses. All academic oversight is conducted by the colleges through the International Education Council and other structures. OIP collaborates closely with academic departments to strengthen the international dimensions of teaching and learning, so that all WKU students have the opportunity to earn a college degree that fully reflects WKU's international reach.

**Dr. Richard C. Sutton**  
**Executive Director of International Programs**

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**Phone: (270) 745-7002**



### International Student and Scholar Services

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The Office of International Student and Scholar Services (ISSS) serves WKU's international students, scholars, and faculty through immigration services, cultural advising, advocacy, cross-cultural programming, and training.

The office welcomes and assists international students, scholars, and faculty through advisement, programming, and support services. As the primary point of contact for prospective students, scholars, and faculty, the Office of International Student and Scholar Services generates immigration documents necessary for them to secure the appropriate F-1, J-1, or H-1B visa that is required to study or work at Western Kentucky University. Once students and scholars have arrived on campus, the office offers orientation workshops and programming to promote acculturation, adaptation, and personal adjustment to WKU and the Bowling Green community.

ISSS is responsible for ensuring WKU's compliance with U.S. federal laws and regulations that pertain to immigration requirements of the U.S. Department of Homeland Security (DHS), the U.S. Department of Labor (DOL), the U.S. Department of State (DOS), and other federal agencies. ISSS serves as WKU's official liaison and primary point of contact for these federal offices. Based on their directives and regulations, ISSS advises students, scholars, and faculty members on matters related to maintaining/changing immigration statuses, transferring to/from WKU, student/scholar/faculty visa issues, work authorization, and other issues.

### International Club

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The very active "iClub" is WKU's international student club. It is the largest student-run organization on campus and is comprised of both international and domestic students. ISSS works closely with the iClub, supporting its activities to help foster interactions between domestic and international students. For more information about joining, stop by the ISSS office.

### Study Abroad and Global Learning

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The Office of Study Abroad and Global Learning (SAGL) serves the WKU community by engaging students, faculty, and staff in diverse, educational, and cultural experiences through faculty-led, exchange, consortia, and other study abroad opportunities.

Study abroad allows WKU students to incorporate cross-cultural experiences into their education. WKU offers study abroad programs in more than thirty countries around the world, of varied durations and times, and across the entire spectrum of academic disciplines. All SAGL-approved programs carry academic credit. Some programs are short and held during the winter and summer terms. Other programs offer the chance to study abroad for an entire semester or year. Consult the Office of Study Abroad and Global Learning for complete information.

When planning a study abroad experience, each student should be aware of the university's academic requirements and regulations contained in this catalog in the chapter "Academic Information." Study abroad courses taken as part of a student's academic program may be taught directly by academic departments, by faculty who are part of WKU's consortia partners, or through exchange programs with partner universities. Specific attention should be given to the sub-sections in the chapter entitled (a) Academic Programs, (b) General Education Requirements, and (c) Academic Requirements and Regulations.

#### Types of Study Abroad Programs

WKU students wishing to study in another country have a variety of options from which to choose. These options can be divided into three major categories: short-term faculty-led programs, immersion exchange programs, and third-party provider/consortia partnerships. More detailed information on all study abroad options can be found on the Office of Study Abroad and Global Learning web site, but a short introduction about each type of program follows.

- **Faculty-Led Programs**

The majority of WKU students study abroad by taking a course while traveling to another country on a trip personally led by a WKU professor. These courses provide an option for an international education experience to students who may have a specific academic need or a preference for a specific opportunity. Normally these courses occur during the winter or summer months, and are usually for 3 credits. Tuition for these short courses is waived, making these courses more affordable for students.

**Mr. Tarek Elshayeb, Director**

**International Student and Scholar Services  
Sofia-Downing International Center  
1536 State Street**

**Website: [www.wku.edu/iss](http://www.wku.edu/iss)**

**Email: [iss@wku.edu](mailto:iss@wku.edu)**

**Phone: (270) 745-4857**

**Mr. Thomas Millington, Director**

**Study Abroad and Global Learning  
Grise Hall 128**

**Website: [www.wku.edu/studyabroad/](http://www.wku.edu/studyabroad/)**

**Email: [study.abroad@wku.edu](mailto:study.abroad@wku.edu)**

**Phone: (270) 745-5334**

- **Direct Exchange Programs**

WKU has formal agreements with nearly two dozen institutions of higher education in other countries that permit student exchange. Relationships currently exist in the United Kingdom, France, Germany, Austria, Belgium, Sweden, China, Taiwan, Japan, South Korea, Mexico, Canada, Belize, and Ecuador. Exchange programs are typically for a semester or a year, and they offer students the opportunity to become fully integrated into a foreign university. Shorter term opportunities exist with some exchange partners. Students are often surprised to learn that studying abroad for a semester on an exchange program typically costs the same or less than studying for a regular semester at WKU.

- **Partnership Programs**

WKU works with consortia of universities and with independent providers to complement the array of study abroad options available to WKU students. WKU is currently affiliated with the following partners: Harlaxton College, Kentucky Institute for International Studies (KIIS), Cooperative Center for Study Abroad (CCSA), College Consortium for International Studies (CCIS), Semester at Sea, and the American University in Rome.

### Financing Study Abroad

Studying abroad is often viewed as too expensive for many students. This is not true. Most WKU exchange programs cost the same or less than a regular semester at WKU. Even the most expensive program can become affordable if you use all of the resources available to you. If you are eligible for financial aid and/or are receiving scholarships, those awards may be applied towards a study abroad program. There are other funding sources available. The Office of Study Abroad and Global Learning can help you plan financially for this important investment in your college education.

WKU has created a significant scholarship fund of its own called the **World Topper Scholarship**. This fund is dedicated to supporting study abroad opportunities for WKU students. Awards range from \$250 to \$1500.

### Safety & Code of Conduct

The safety of our students is of paramount importance. While abroad, WKU students are held to the standards put forth in the university's Student Life Policies Statement on Student Rights and Responsibilities. In addition, students will be provided with documents pertaining to insurance requirements, emergency procedures, and orientation sessions.

### English as a Second Language International (ESLI) University Language Center

The ESLI University Language Center on the WKU campus prepares students in academic English for entrance into WKU. Students may enroll and begin study in ESLI courses at any time prior to mid-terms of the fall, spring, or summer semesters.

**Terry Hall, Director**  
**Tate Page Hall 317**  
**Phone: (270) 745-8871**  
**e-mail: [Terry.Hall@wku.edu](mailto:Terry.Hall@wku.edu)**

The ESLI program is an intensive language program with 25 hours of instruction each week in reading, writing, listening, speaking, grammar, and vocabulary. ESLI techniques include cultural context that students need by involving them in academic excursions, conversation partners and recreational activities. ESLI has a caring and empathetic staff that provides a friendly, professional, and individualized learning environment. They also assist students in airport pick-up, banking, and general orientation. All activities are part of the interactive immersion in the ESLI program. Prospective students should contact ESLI directly by e-mail for further information and an application.

### Fulbright Faculty and Student Programs

The Fulbright international exchange of scholars provides opportunities for selected WKU and foreign university professors to teach and conduct research abroad for up to a full academic year. Interested faculty should contact Dr. Cecile Garmon.

Fulbright student grants for study, research, or teaching abroad are available to well-qualified applicants holding a bachelor's degree or the equivalent before the beginning date of the grant. Selection is based on academic record, validity of the proposed study, language preparation, and personal qualifications. Interested students should contact Audra Jennings, Office of Scholar Development.

**Faculty Contact: Dr. Cecile Garmon**  
**Fine Arts Center 104**  
**Phone: (270) 745-5373**  
**e-mail: [Cecile.Garmon@wku.edu](mailto:Cecile.Garmon@wku.edu)**

**Domestic Student Contact: Audra Jennings**  
**Office of Scholar Development;**  
**WKU Honors Center; Phone: 270-745-5043**  
**e-mail: [audra.jennings@wku.edu](mailto:audra.jennings@wku.edu)**

**International Student Contact: Beth Murphy**  
**Zuheir Sofia-Dero Downing International Center**  
**(1536 State Street); Phone: (270) 745-4857**  
**e-mail: [Beth.Murphy@wku.edu](mailto:Beth.Murphy@wku.edu)**

**Division of Extended Learning and Outreach**

The Division of Extended Learning & Outreach (DELO) at WKU is made up of several units that take the educational resources of WKU to the citizens of Kentucky and around the world. We are the outreach arm of the university, offering both credit and non-credit classes to students of all ages. We partner with University faculty and departments to offer convenient and flexible learning opportunities to students. We work with businesses and organizations to provide customized training, to plan special events, and to develop degree programs that meet their specific needs. For more details about the services DELO provides, visit our website at [www.wku.edu/delo](http://www.wku.edu/delo).

**Dr. Beth Laves, Associate Vice President for Extended Learning and Outreach**

**Carroll Knicely Conference Center  
2355 Nashville Road  
Bowling Green, KY 42101  
Office 105, Phone: (270) 745-1900  
Fax: (270) 745-1903  
Website: [www.wku.edu/delo](http://www.wku.edu/delo)  
Email: [delo@wku.edu](mailto:delo@wku.edu)**

DELO units work both separately and together to support the mission of the University:

- Carroll Knicely Conference Center
- Center for Training and Development (CTD)
- Cohort Programs & Dual Credit
- Continuing Education
- Distance Learning (includes Online, Independent Learning, and the DELO Testing Center)
- Study Away
- Winter Term/Summer Sessions

**Distance Learning**

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**Online Learning**

Garrett Conference Center 104  
Toll Free: 888-4WKUWEB (888-495-8932)  
Bowling Green area: 270-745-5173  
E-mail: [learn.online@wku.edu](mailto:learn.online@wku.edu)  
Visit: [www.wku.edu/dl](http://www.wku.edu/dl)

**Independent Learning**

Garrett Conference Center 101  
Toll Free: 800-535-5926  
Bowling Green area: 270-745-4159  
E-mail: [il@wku.edu](mailto:il@wku.edu)  
Visit: [www.wku.edu/il](http://www.wku.edu/il)

WKU offers educational opportunities to meet a variety of schedules and needs of our students through Online programs and courses and through Independent Learning courses. The Office of Distance Learning provides administrative support to departments and faculty as they develop and teach online WKU course offerings. Distance Learning (DL) also coordinates WKU courses and programs with Southern Regional Education Board's Electronic Campus and Kentucky Virtual Campus.

Independent Learning (IL) provides self-paced, asynchronous distance learning courses for students to pursue educational experiences outside the traditional college classroom. IL opportunities are offered to help undergraduate and graduate students who, because of distance or time constraints, cannot participate in traditional on-campus or semester-based online courses. The IL program is uniquely qualified to serve students living across the state, across the country, and around the world. Independent Learning offers over 100 courses by web, e-mail, or print, and each course is taught by WKU faculty. Students may register any day of the year, because IL courses are on continuous enrollment, not semester enrollment. Students complete their course at their own pace. Students do not have to be formally admitted to WKU to take these courses; however if you intend to pursue a degree, you will need to be formally admitted. All registrations are considered in-state for tuition purposes. A list of available courses can be found on our website at <http://www.wku.edu/il> or by viewing WKU's Schedule of Classes and searching by the campus, "Independent Learning."

**IVS Interactive Video Service**

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Interactive Video Service (IVS) courses are distance courses that are videoconference based. IVS technology provides a familiar traditional classroom experience for students, while eliminating the need for travel. IVS courses provide a unique way for full, real-time interaction between the originating site and the remote classroom locations at one or more of WKU's Regional Campuses. Students from each location actively participate in the course together. For a list of available courses, visit WKU's Schedule of Classes and search by Campus or by Session, "ITV (Interactive TV)." For further information, please call (270) 745-5020.

**Telecourses**

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Telecourses use professionally produced video lessons that can be viewed by online streaming, DVD, VHS, cable TV (WKYU TV), or on videotape at the Commonwealth School's Learning Assistance Center. Telecourses allow students to earn undergraduate college credit at a distance. All courses are taught by WKU faculty. All learning and

assignments are completed from home. Some class meetings may be required throughout the semester. For a list of available courses, visit WKU's Schedule of Classes and search by campus, "Telecourse." For further information, please call the telecommunications office at (270) 745-4158.

### **Winter Term and Summer Sessions**

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The Division of Extended Learning and Outreach provides administrative support for Summer Sessions and Winter Term. These are optional terms offering short, intensive courses allowing students to devote concentrated study to one or two courses at a time. Winter and Summer sessions are excellent opportunities for students to move more quickly through their degree programs or catch up after changing majors. For more information, check our website [www.wku.edu/summer](http://www.wku.edu/summer) or [www.wku.edu/winter](http://www.wku.edu/winter) or contact our office at (270) 745-2478.

### **Dual Credit**

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The Dual Credit Program is a partnership between WKU's Division of Extended Learning and Outreach (DELO) and area high schools to offer qualified high school students the opportunity to earn college credit as part of their high school curriculum. The program provides enrichment opportunities to academically talented students who are ready for the challenge of university coursework.

High school administrators recommend students for participation in the Dual Credit Program based on the student's potential for academic success in a college level program; however, it is not a "gifted and talented" program. Students receive both high school and college credit upon successful course completion.

Dual Credit students are registered and enrolled in WKU as a "non-degree seeking student prior to high school graduation." Participation in a dual credit course does not guarantee admission to WKU as a "degree-seeking freshman." Grades received in Dual Credit courses are recorded as part of the student's official college transcript with WKU and will transfer to most colleges and universities throughout the United States. Courses are offered at a substantially reduced tuition rate and provide a means of preparing college bound students to make a successful transition to post secondary education.

For more information about WKU's Dual Credit Program, visit [www.wku.edu/dualcredit](http://www.wku.edu/dualcredit) or call (270) 745-2386. The Dual Credit Program is located in the Office of Cohort Programs at the Carroll Knicely Conference Center, Room 118.

### **Study Away**

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Study Away programs offer a great way to earn credit through off-campus, practical learning. We provide winter term and summer session programs led by WKU faculty and partners that take you beyond the classroom into new learning experiences. Study Away includes WKU credit courses with travel to domestic destinations (within the United States and U.S. territories). For-credit programs include at least one WKU credit-bearing course.

The Study Away Office is responsible for program development, including working with WKU program leaders and external providers; site assessment and preparation; budget and risk management; marketing and assessment. We will manage program details, including application management, acceptance, registration, travel, billing, and emergency response. For more information about WKU Study Away, visit [www.wku.edu/studyaway](http://www.wku.edu/studyaway) or call (270) 745-2231. The Study Away office is located in the Carroll Knicely Conference Center, Room 121.

### **Army and Air Force ROTC**

WKU offers students an opportunity to pursue course work that can lead to commissions with the U.S. Army or U.S. Air Force. The Army ROTC program is available on the WKU main campus and is administered through the Department of Military Science and Leadership in the College of Education and Behavioral Sciences. For more information on the Army ROTC program contact CPT Joseph Huggins ([joseph.huggins@wku.edu](mailto:joseph.huggins@wku.edu)) at 270-745-6054, or visit <http://rotc.wku.edu>.

Air Force ROTC courses may be taken by WKU students at Tennessee State University through a cross-town agreement that permits local registration and WKU credit for Aerospace courses. For more information on the Air Force ROTC program contact the Air Force ROTC advisor ([andrew.ernest@wku.edu](mailto:andrew.ernest@wku.edu)) or call (615) 963-5977, or visit [www.tnstate.edu/rotc](http://www.tnstate.edu/rotc).

### University Lecture Series

**Rodes-Helm Lectures:** The Rodes-Helm Lecture Series was endowed in 1961 by Mr. and Mrs. Harold H. Helm of Montclair, New Jersey. Both Mr. and Mrs. Helm were natives of Bowling Green. The lecture series honors the memories of Judge John B. Rodes, former Circuit Judge of Warren County, and Miss Margie Helm, former Director of Library Services at what was then known as Western Kentucky State College. Income from the endowment fund is devoted to bringing outstanding lecturers to the WKU campus.

**L.Y. Lancaster Lectures:** Annual lectures by outstanding professionals in the biological sciences field are sponsored by the L.Y. Lancaster Lectureship Society through endowment income. The lectures honor the memory of Dr. Lancaster, an outstanding biology professor and pre-med advisor at Western Kentucky University for 37 years.

**W.K.U. - Cultural Enhancement Series:** Designed to enrich the academic life of the university, the Cultural Enhancement Series brings prominent artists and intellectuals to campus. Series events give faculty and students the opportunity to interact with visitors informally as well as in public presentations. For more information on the current Series, e-mail [cultural.enhancement@wku.edu](mailto:cultural.enhancement@wku.edu).

**W.K.U. - University Center Board Lectures:** Several lectures are sponsored jointly by Western Kentucky University and the University Center Board.

**W.K.U. - Department Lectures:** Frequently, the university joins with departments in sponsoring lecturers on campus.

### Suzanne Vitale Clinical Education Complex (CEC)

**Dr. Ronda Talley, Director**  
Email: [ronda.talley@wku.edu](mailto:ronda.talley@wku.edu)

Phone: 270-745-4232  
Website: [www.wku.edu/wkucec](http://www.wku.edu/wkucec)

The Suzanne Vitale Clinical Education Complex (CEC) is a collaboration project between the College of Health and Human Services and the College of Education and Behavioral Science. The Suzanne Vitale CEC houses the Acquired Brain Injury Resource Program, the Communication Disorders Clinic, the Early Childhood Center, the Family Counseling Clinic, the Family Resource Program, and the Kelly Autism Program. It provides applied research opportunities for both graduate and undergraduate students and valuable services to the community at large. This complex is a comprehensive clinical setting for education and health and human services professionals. It builds upon a strong tradition at Western Kentucky University to meet community needs, fill service delivery gaps, provide opportunities for applied research, and enrich both undergraduate and graduate students' educational experiences through an interdisciplinary teaching approach. Following is a short description of the units housed in the CEC:

**Preston Family Foundation Acquired Brain Injury Resource Program:** The program offers information, services, and support to individuals with acquired brain injury and their families throughout Kentucky. Dr. Richard Dressler, Director, Phone: 745-2520.

**Communication Disorders Clinic:** The CDC, a Kentucky licensed rehabilitation clinic, provides outpatient services to individuals with communication disorders, offers evaluation and treatment services supervised by certified and licensed faculty in language, articulation, voice, fluency, hearing and swallowing disorders. Mary Lloyd Moore, Clinical Director, Phone 745-2183.

**Vickie and Dan Renshaw Early Childhood Center:** The Vickie and Dan Renshaw ECC provides multidisciplinary education for training, research, and service to health and education professionals for the development of learning potential of children; provides services for children with health, development and learning disabilities; expands community partnerships; and links community and university resources, which address the needs of children. Lisa Murphy, Director, Phone: 745-4125.

**Betty and Dr. Page Talley Family Counseling Clinic:** The clinic offers help to families and individuals who desire counseling for managing their personal and relationship problems and provides family and marriage counseling, substance abuse counseling, and assistance in improving family dynamics. Director's Office, Phone: 745-2419.

**Family Resource Program:** The FRP is a service/resource program staffed with social work faculty, students and family volunteers. Staff will be available to meet with family members and significant others to provide information, resource material, screening services, and referrals. The program serves as a unifying point of the entire CEC. Dr. Sandra Starks, Director, Phone: 745-2784.

**Linda and John M. Kelly Autism Program:** The KAP prepares autistic adolescents, ages 14 and older, to transition to a purposeful, fulfilling life after completion of their public school years, and has five goals: education support, social/leisure activities, community involvement, parent training, and the most important, school-to-work transition, Dr. Marty Boman, Director, Phone: 745-4527.

## Graduate Studies and Research

Western Kentucky University offers the following degrees and programs at the graduate level: Master of Arts, (Applied Economics, Communication, Criminology, English, Folk Studies, History, Leadership Dynamics, Mathematics, Psychology, Religious Studies, Social Responsibility and Sustainable Communities, and Sociology); Master of Arts in Education (Adult Education, Art Education, Teacher Leader; Biology Education, Teacher Leader; Chemistry Education; Counseling; Education and Behavioral Science Studies; Elementary Education Teacher Leader; Geography Education, Teacher Leader; History Education; Instructional Leader-School Principal; Interdisciplinary Early Childhood Education Birth to Primary; Literacy Education; Middle Grades Education; Middle Grades Education Teacher Leader; Music Education Teacher Leader; School Counseling; Secondary Education; Secondary Education Teacher Leader; Special Education-LBD; Special Education-MSD; and Student Affairs in Higher Education); Master of Science (Agriculture, Biology, Chemistry, Communication Disorders, Computer Science, Engineering and Technology Management, Geoscience, Homeland Security Sciences, Instructional Design, Library Media Education, Mathematics, Physical Education, and Recreation and Sport Administration); Master of Business Administration; Master of Public Administration; Master of Public Health; Master of Health Administration; Master of Science in Nursing; Master of Social Work; Specialist in Education (Counselor Education, Elementary Education, School Administration, School Psychology, and Secondary Education), a doctorate in Educational Leadership and a doctorate in Nursing Practice; and non-degree rank and certification programs in professional education; and various graduate certificates (Addictions Counseling and Education, Aging Studies, Autism Spectrum Disorders, Career Counseling; Community College Faculty Preparation, Complementary Health Care (Post MSN), Educational Technology, Environmental Health and Safety, Gender and Women's Studies, Geographic Information Science, Historic Preservation, History, Instructional Design, International Student Services, Leadership Studies, Nurse Administrator (Post MSN), Nursing Education (Post MSN), Nursing Primary Care (Post MSN), Organizational Communication, Religious Studies, and Teaching ESOL.

Additional information may be obtained by referring to the Graduate Studies Catalog, visiting the website at [www.wku.edu/graduate](http://www.wku.edu/graduate), or by contacting the Office of Graduate Studies and Research. See Graduate Studies Catalog for complete listing of majors and minors.

## Information Technology

Effective and innovative use of information technology, particularly in support of teaching and learning, is a strategic priority at Western Kentucky University. The institution has always been a leader in using interactive television for delivery of instruction, in web-based distance learning, in public radio and television broadcasting and production, and in achieving the status of a totally networked campus with computer connections available in every classroom, laboratory, office, and residence hall room. We have implemented several enhancements to our technology infrastructure that include making the campus totally wireless inside and outside all buildings; maintaining wide Internet bandwidth; utilizing the Internet 2 high speed network; increasing support services with a Help Desk and with Resnet Services; providing each student with 1Gb of on-line file storage; providing open student computer labs (one is open 24 hours a day when classes are in session); providing a Student Technology Resource Center where students can create audio/video media and check out digital devices; and e-mail while you are enrolled at WKU and for life after you graduate.

The Division of Information Technology supports the university's mission through the application of computing and telecommunications resources. The division is organized into five departmental areas: Academic Technology, Administrative Systems and Applications, Educational Telecommunications, Technical Support Services, and Communication Technologies. These services are described in more detail in the WKU web page [www.wku.edu](http://www.wku.edu) under Info Tech.

**Dr. Robert Owen, Vice President**

**244 Mass Media and Technology Hall**

**Phone: (270)745-2243**

**Fax: (270)745-6577**

**email: [bob.owen@wku.edu](mailto:bob.owen@wku.edu)**

## Career Services Center

The mission of the Career Services Center is to assist students and alumni in identifying and reaching their career and employment goals, to help employers access an educated and highly trained workforce, and to support faculty and staff in providing opportunities to increase student learning and skill development. The Career Services Center offers the following:

- Career Advising to assist students in gaining self-awareness regarding goals and preferences, and to use that awareness in decision-making related to career planning and professional development. Individual appointments are available to review results of career and personality inventories, to provide assistance in setting career goals, to review majors and occupations that match interests and abilities, and to help students plan for and obtain career related experience prior to graduation.
- Career Library and Computer Lab to assist students with identifying career interests, preparing resumes and cover letters, improving interview skills, researching job openings, locating employers, reviewing employment trends, accessing online job vacancies, and conducting research related to the job market and potential employers.
- Career and Employment Management Online System, **TopJobs**, to allow students and alumni to search job postings, create and manage an online portfolio of their employment credentials, communicate with potential employers, and schedule interviews with recruiters coming to campus.
- Internships/Cooperative Education/Practical Work Experience to help students enhance classroom learning and validate their career decisions through career-related work experience and opportunities. Students are able to test their career choice in “real world” settings prior to graduation, earn college credit for career related work experience, receive pay for career-related employment, build their professional network, and increase their employability upon graduation.
- Graduate and Professional School information is available via the Center’s website. Students may make an appointment with a career counselor to obtain help in preparing for grad school interviews and the application process.
- Job Fairs to provide students and alumni a chance to meet with hundreds of employers to discuss the skills required on-the-job, and to apply for co-op, internship, full-time, part-time, summer and other employment related opportunities.
- Job Search Counseling to assist students with the preparation and review of resumes, cover letters, and job application materials. Assistance is available for locating company/employer information and learning job search techniques and strategies. Counselors can also assist with employment interview preparation and, by appointment, can conduct and critique mock interviews.
- Job Vacancy Postings to help make students and alumni aware of employment opportunities. Vacancies are posted and updated daily on **TopJobs**. Students and alumni may access **TopJobs** and listings for full-time, part-time, co-op, volunteer and other opportunities.
- On-Campus Recruiting to allow employers to recruit, interview and hire students to fill vacancies that exist within their individual organizations. Students and alumni may post their resumes online and schedule interviews with employers recruiting on campus – all through **TopJobs**, the Career Services Center’s web-based career and employment management system.
- Online Employment Portfolio to allow students and alumni to upload versions of their resume and other employment credentials and make them accessible to potential employers through **TopJobs**. Individuals may create multiple versions of their resume, update resumes at any time, and submit credentials electronically to employers. Employers registered with the Center may use **TopJobs** for recruiting potential employees among WKU applicants who have their resumes in the system.

*Dr. Lynne Holland, Director*

**Student Success Center**  
**DUC A230, Phone: (270) 745-3095**  
**Fax: (270) 745-3094**

**Website:** [www.wku.edu/career/](http://www.wku.edu/career/)  
**e-mail:** [Career.Services@wku.edu](mailto:Career.Services@wku.edu)  
**TopJobs:** [www.wku.edu/topjobs](http://www.wku.edu/topjobs)

Career Services Center services are available to all WKU students and alumni and to employers who maintain EEO compliance, follow affirmative action principles in recruiting activities, and adhere to the recruiting policies established by WKU and the Career Services Center.

## Check Cashing Services

Two types of personal checks (maximum \$50) may be cashed by the University Cashier's Office in room 208 of Potter Hall.

1. The check may be written by the student and made payable to WKU.
2. The check may be written by the student's parent and made payable to the student.

Western Kentucky University student payroll checks in any amount will be cashed. A student I.D. is required for check cashing services.

Checks may be cashed from 8:00 a.m. to 4:00 p.m., Monday through Friday, at Potter Hall.

A charge of \$20.00 will be made for each check returned because of insufficient funds, closed account, or stop payment. The check cashing service will be denied to all students who have more than one check returned for non-payment. Failure by a student to make prompt payment on returned checks may jeopardize his/her status with the university. Any unpaid, returned checks are subject to being turned over to the County Attorney's Office for collection. Students are advised that the passing of bad checks is a violation of Kentucky statute.

## Counseling & Testing Center

College should be challenging, not overwhelming. The Counseling and Testing Center provides assistance for a broad spectrum of student needs at Western Kentucky University. The responsibilities of the center include:

1. Provide individual, couples, and group counseling services for students.
2. Provide outreach services to the University community to promote positive mental health and to enhance productive educational/academic endeavors.
3. Provide consultation to the total University community.
4. Serve as a referral agency for students who might need counseling services available outside the University.
5. Serve as a primary training site for graduate students.
6. Pay a onetime \$20.00 fee for Counseling Services, which covers their entire academic career at WKU.
7. Administer the national testing programs the College Level Examination Program (CLEP), Chemistry placement exams, MAT, DSST, HESI and Nursing Specialty Exams. See [www.registerblast.com/wku](http://www.registerblast.com/wku) for tests fees and registration.

*Dr. Brian Van Brunt, Director*

**Potter Hall**  
**Office 409, Phone: (270) 745-3159**  
**Website: [www.wku.edu/heretohelp](http://www.wku.edu/heretohelp)**

## Office of Diversity Programs

The Office of Diversity Programs is intentional in its service delivery (i.e., leadership workshops, mentoring, co-operations, collaborations, etc.) and our programs (i.e. lectures, speakers, forums, etc.) will be marketed university wide for the benefit of the entire WKU population.

**VISION:** The Office of Diversity Programs will be nationally recognized for incorporating diversity into the total educational experience of the Western Kentucky University.

**MISSION:** The Office of Diversity Programs will serve as a resource and change agent in pursuit of our core values; Diversity, Social Justice, Leadership Development and Intellectual Growth.

**CORE VALUES:** 1. Diversity 2. Social Justice 3. Leadership Development 4. Intellectual Growth

**PILLARS:** 1. Students 2. Faculty & Staff 3. Alumni 4. Community.

We will accomplish this by:

1. Providing students with the awareness, knowledge and skills necessary to succeed in a pluralistic society.
2. Maintaining and or creating mutually beneficial relationships with WKU's Alumni and the Bowling Green community.
3. Collaborating with faculty and staff to advance our core values.

*Ricardo Nazario y Colón, Director*

**Potter Hall**  
**Office 425, Phone: (270) 745-5066**  
**Fax (270) 745-5273**  
**Webpage: <http://www.wku.edu/odp>**



## Student Services

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The Office of Diversity Programs hosts and co-sponsors a variety of programs designed to educate, retain, motivate, and challenge the campus culture.

### **The Governor's Minority Student College Preparation Program Project: A.I.M.S. (Activating Interest in Minority Students)**

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The Office of Diversity Programs is also responsible for Project: AIMS. This program is an initiative by WKU and the state of Kentucky to complement other campus/local activities in better preparing minority students for entry into college.

Junior high and middle school students participate in enrichment programs designed to promote academic achievement, career and cultural awareness, leadership skills, and the development of long-term educational goals beyond high school. Through role models, mentoring, parental involvement, and guidance counselor support, participants better understand the benefits of a college education, broaden their horizons, and strengthen their analytical skills. The program includes academic enrichment courses in reading, mathematics, and science, cultural enrichment activities, and a summer educational and cultural enhancement component.

### Health Services

Health Services is a full service primary care center dedicated to providing the WKU campus community with quality medical care and health promotion services. Services include physician and nurse practitioner office visits, psychiatric mental health, women's and men's health, ECG, laboratory, x-ray, allergy shot administration, immunizations, pharmaceutical dispensary, STI testing/treatment, contraceptives, colposcopy services, travel clinic, physicals, drug screenings, occupational health, and health education and wellness services.

The staff includes Board Certified Medical Doctors (Family Medicine and Internal Medicine), Nurse Practitioners, staff nurses, x-ray and lab technicians, health educators, billing personnel and various support staff. Our services are provided based on a fee-for-service schedule. Patients are encouraged to have a current copy of their health insurance card, photo id, and applicable co-pay when checking in. To purchase student health insurance, please contact the billing coordinator at Health Services at 745-5034 or e-mail: [healthservices-billing@wku.edu](mailto:healthservices-billing@wku.edu). As a courtesy, we will file insurance when appropriate or bill the patient directly. We are currently unable to accept Medicare, Medicaid or any State Medicaid Insurance Plan. During the fall/spring semester business hours are Monday - Thursday, 8:00 am - 4:30 pm and Friday, 10:00 am - 4:30 pm. During the summer we follow the University hours of operation.

For additional information please call (270) 745-5641, visit our website [www.wku.edu/healthservices](http://www.wku.edu/healthservices) or e-mail us at [wkuhealthservices@wku.edu](mailto:wkuhealthservices@wku.edu).

For after hours emergencies contact Medical Center Urgent Care (270) 781-3910, Greenview Hospital (270) 793-1000, or Medical Center Hospital (270) 745-1000.

### Identification Card

All full-time and part-time students are issued a personal identification card (WKU ID Card). The ID card contains a photo image, the student's name, and WKU ID number. The ID card entitles the full-time student to admission to campus athletic events, use of recreational facilities in the University Center at student rates, admission to the Preston Center, check-out privileges at the library, and other general University services. It can also be used as a debit card at all WKU Dining Services facilities, the Western Kentucky University Bookstore, WKU Postal Services, Student Health Services, Student Telephone Services, WKU Police, selected vending machines, laundry machines, and more. The ID card for part-time students provides similar privileges as received by full-time students detailed above with the exception of admission to some recreational activities unless an additional fee is paid.

The ID card is not transferable and is valid for the duration of one's college career at WKU. Students are expected to carry their ID card at all times and to present the card upon request by University Officials. The WKU ID Card must be surrendered upon demand if revoked by a University Official. The University is not responsible for any loss or expenses resulting from the loss, theft, or misuse of this card. If the card is lost or stolen, it must be replaced at a cost

**ID Center**  
**Department of Auxiliary Services**  
**Operation Hours: Mon.-Fri. 8:00 a.m. – 4:00 p.m.**  
**Downing University Center**  
**Office 126, Phone: (270) 745-2417**  
**Fax: (270) 745-2650**  
**Website: [www.wku.edu/idcenter](http://www.wku.edu/idcenter)**

to the student. Application for replacement of an ID card should be made at the ID Center located on the ground floor, Room 126 of Downing University Center. The ID card is the property of Western Kentucky University.

## Postal Services

The University operates a post office, which is located on the first floor of the Downing University Center. The Post Office is open 8:30 a.m. to 4:30 p.m., Monday through Friday, except when the University is closed. The University Post Office offers the same services as any other United States Post Office, except C.O.D.'s and passports. The University Post Office delivers official campus mail to residence halls Monday through Friday. All posted mail from off campus is delivered to residence halls by the Bowling Green Post Office. Therefore, it is imperative that a student furnishes his/her complete mailing address as early as possible to all correspondents.

**Downing University Center**  
Office 127, Phone: (270) 745-3093  
Fax: (270) 745-5651  
Website: [www.wku.edu/postal](http://www.wku.edu/postal)

## Student Affairs

### The Student

Western Kentucky University students have a significant role in the internal governance of the University. Elected or appointed representatives of the student body serve with members of the faculty and administration on policy-recommending councils and committees. Student members of internal governance councils and committees are selected by the Student Government Association. For more information about the membership and function of these committees and councils, contact the Office of the Vice President for Student Affairs.

### Student Life Policies

All university citizens enjoy the rights and liberties assured by the constitutions of the Commonwealth of Kentucky and the United States of America. Likewise, they are subject to the responsibility and obligation to accord respect to the rights of others.

Student Life policies are intended to foster student development and responsibility. Guided by these principles, the Office of the Vice President for Student Affairs maintains the mission of the University by ensuring that students are afforded opportunities for civic engagement with respect to the rights of others.

Students' rights, responsibilities, and the Student Code of Conduct are outlined in the Western Kentucky University Student Handbook on the Western Kentucky University website.

### Student Activities and Organizations

Student organizations, activities and leadership programs make a great contribution to student life at WKU. All students are encouraged to become involved in organizations whose purposes and activities will contribute to their personal growth and development.

For more information on student activities and organizations, visit [www.wku.edu/sao](http://www.wku.edu/sao).

### Intercollegiate Competition

WKU sponsors 19 sports and is a member of the Sun Belt Conference and the National Collegiate Athletic Association. WKU has won 76 Sun Belt Conference championships since the 1999-2000 season, 34 more than the next closest school. During this same period, 85% of WKU's student-athletes who have fulfilled their eligibility have graduated. Ten of WKU's 15 athletic programs have a cumulative grade point average of 3.0 or higher, and the

**Howard Bailey, Vice President for Student Affairs**  
Potter Hall; Office 442, Phone: (270) 745-2791

**Charley Pride, Director of Student Activities and Organizations; Downing University Center; Office 326**  
Phone: (270) 745-2459

**Brian Kuster, Director of Housing and Residence Life; Southwest Hall; Office 18, Phone: (270) 745-2037**

**Lynne Holland, Director of Career Services Center and Student Disability Services**  
Downing University Center; Office A230  
Phone: (270) 745-3095

**Brian Van Brunt, Director of Counseling and Testing Center; Potter Hall; Office 409, Phone: (270) 745-3159**

**Michael P. Crowe Jr., Director of Judicial Affairs**  
Potter Hall; Office 431, Phone: (270) 745-5429

**Robert Deane, Director of WKU Police Department**  
WKU Police; Phone: (270) 745-2548

**Steven Rey, Director of Intramural – Recreational Sports; Raymond Preston Health and Activities Center; 203 Preston Center, Phone: (270) 745-6060**

## Student Services

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average GPA of the 378 student-athletes is 3.04. WKU has had more individuals honored for their academic success by the Sun Belt Conference than any other league institution in each of the last six years.

A comprehensive program of intercollegiate competition in forensic activity is afforded to qualifying students at WKU. Western Kentucky University's speech and debate team is number one in the nation (having won both the American Forensic Association national title and the National Forensic Association national title in 2011). WKU's forensic team is the only team in the country to win the AFA title, the NFA title, and the world championship in the same year, a feat it has accomplished multiple times. The WKU Forensics team is a competitive speech and debate team that offers the student an opportunity to demonstrate academic excellence and to excel in competition of the intellect. The forensics team is a member of Delta Sigma Rho-Tau Kappa Alpha, a forensics honor society; the International Forensic Association; American Forensics Association; National Forensics Association and the Kentucky Forensics Association.

Other forms of intercollegiate competition include business teams and agricultural teams in Equitation, Livestock, Dairy and Horse judging.

### Intramural-Recreational Sports

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The Department of Intramural-Recreational Sports is located in the Raymond B. Preston Health and Activities Center. "Recreation, Fitness, and Fun...Steps To Life Long Activity" expresses the philosophy of this office and is implemented by providing recreational and healthy lifestyle opportunities for the university community.

The Raymond B. Preston Health and Activities Center is an 126,000 square foot facility that opened in 1992. It houses six basketball/volleyball/badminton courts, six racquetball courts, two indoor tennis courts, a swimming pool, a fitness center containing cardiovascular, selectorized, strength, and weight equipment, a suspended indoor running track, a dance studio, separate faculty/staff and student locker rooms, multipurpose room, a smart class room, a Health and Fitness Lab, an Outdoor Recreation and Adventure Center, a pro-shop, a bike repair shop, and the Intramural-Recreational Sports Office.

The Raymond B. Preston Health and Activities Center just recently completed an extensive expansion and renovation of the facility. This is inclusive of a 14,000 square foot fitness center, a 5,000 square foot multipurpose room, an 800 square foot smart class room, a men's and women's bath room, and day lockers through the expansion project. In addition there has been a renovation of our intramural-recreational sports administrative offices, the health and fitness lab, men's and women's locker rooms, and the Bill Powell Natatorium (swimming pool) in addition to upgrades to all operating systems.

Preston Center membership fees for all full-time students are included in their tuition during the fall and spring semesters. Part-time students carrying three or more hours may choose to pay for membership (\$35.00) on a semester basis. Memberships are available for students' spouses and their children. Summer memberships are also available.

The Intramural-Recreational Sports program provides students, faculty and staff an opportunity for participation in constructive recreational activities. This program consists of men's and women's competitive sports, co-recreational sports, faculty/staff activities, recreational free-play, outdoor recreation, sport club activities, instructional programs and fitness classes. The men and women's intramural sport programs are designed to give each student the opportunity to compete in sports and games of his/her choice. Activities included in these programs are badminton, basketball, billiards, bunny hop 5K challenge, dodgeball, flag football, football skills challenge, holiday hoops tournament, kickball, March Madness bracket challenge, mystery event, pickleball, Pro Pick 'em, putt putt golf, racquetball, soccer, softball, table tennis, team handball, 2 ball and 3 point challenge, turkey trot, ultimate Frisbee, volleyball, wiffleball, and several extramural events. The faculty/staff intramural program offers recreational activities for those people employed by WKU. Basketball and golf are the two major activities.

The sport club programs help students develop a higher skill level in a particular sport or activity. Each club must be organized and motivated through students' interests and has a faculty advisor. Active sport clubs include badminton, bowling, Brazilian Jiu Jitsu, disc golf, dodge ball, fencing, field hockey, lacrosse, paintball, racquetball, roller hockey, rugby, soccer, sports officials, tae kwon do, tennis, triathlon, ultimate frisbee, and volleyball. Other sports can be represented if there is sufficient student interest.

The WellU® program is a student wellness incentive program that is offered free to all WKU students. Incentives are given to those who participate in health related events and programs on campus. Thanks to support and funding from

**Stephen Rey, Director**  
e-mail: [Steve.Rey@wku.edu](mailto:Steve.Rey@wku.edu)

**Department of Intramural-Recreational Sports**  
**Raymond B. Preston Health and Activities Center**  
**Office 54a, Phone: (270) 745-6060**  
**FAX: (270) 745-2006**  
**Website: [www.wku.edu/imrec](http://www.wku.edu/imrec)**

the J. Clifford Todd endowment, the College Heights Foundation, the WKU College of Health & Human Services, and program sponsors, we are able to provide scholarships and prizes to active student members of the WellU@ program. After registering for this FREE program on-line, students are issued their own personal wellness web page. Here students can view health related events, track progress, view their personal health information, track their body composition/weight and blood pressure and check out the current leader board. WellU@ program registration begins the first day of fall semester and ends before spring semester exams. Check out the program at [www.wku.edu/awellu](http://www.wku.edu/awellu).

The Hattie L. Preston Intramural Sports Complex, located two miles from campus on the corner of Campbell Lane and Industrial Drive, presents a significant addition to the Intramural-Recreational Sports Department's facilities. Twenty-four acres were developed and include eight flag football fields, four softball fields and a combination soccer, rugby, and lacrosse field. In the Fall of 2000, state of the art lighting, scoreboards and irrigation systems were added. The centerpiece of the Sports Complex is the two-story field house, which has administrative offices, a lounge, scorekeeping areas, a concessions area, restrooms and a storage area.

The Health & Fitness Lab, located in the Preston Center, provides clinical and educational services to students, faculty and staff of WKU. The Health & Fitness Lab is staffed by degreed and certified fitness professionals, and trained students who are eager to help you address your personal health & fitness needs. The Lab provides all the fitness programming in the Preston Center including group fitness classes and various fitness assessments, exercise prescriptions, weight training orientations and healthy lifestyle counseling. Other programs offered are personal training, massage therapy and instructional programs such as yoga, salsa lessons, swimming lessons, and much more! (A separate fee is required for these services).

The Outdoor Recreation Adventure Center (ORAC) at Western Kentucky University offers a variety of outdoor programs for the university community for a minimal cost. These include the following programs: adventure trips, outdoor equipment rentals, skill clinics, outdoor resource library, and adventure, challenges, and team building. Trip destinations have included: Backpacking the Appalachian Trail, Big Bend National Park, Big South Fork, Frozen Head State Park, Grand Canyon National Park, and South Cumberland State Park; Bouldering in Clifty Hollow and Horse Pens 40; Canoeing the Barren River, Green River and the Rio Grande; Ice Climbing in Iowa; Kayaking in Elkhorn Creek; Mountain Biking in Gallatin, TN and Oak Mountain; Scuba Diving in Hopkinsville; Whitewater Rafting the Ocoee River; and a Study Abroad Class to Costa Rica. The ORAC manages the WKU Challenge Course which features both high and low ropes elements. The WKU Challenge Course is located at the WKU Agricultural Farm.

Student employment is available in the Intramural-Recreational Sports Department in the following areas: receptionists, front desk attendants, facility supervisors, fitness center attendants, lifeguards, group exercise instructors, personal fitness instructors, office assistants, outdoor adventure attendants and trip leaders, challenge course instructors, intramural supervisors, sport club supervisors, and sport officials. We also have employment in the areas of website design, graphic design, data programming, public relations, and marketing.

Students interested in any aspect of the Intramural-Recreational Sports programs may come to the Intramural-Recreational Sports offices to obtain information or may phone the office at 745-6060. The offices are located on the 2nd floor of Preston Center, and are open Monday through Friday from 8am-4:30pm.

### **Dero Downing University Center**

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The Downing University Center is the hub of WKU's recreational and entertainment programs. The four-story structure is a multi-purpose facility for the entire University community. The first floor houses the administrative offices of WKU Dining Services, the Student Government Association, SIFE Print Shop, the ID Center, the Post Office, Niteclass, and Subway. The second floor houses the Food Court (containing Papa Johns, Chick-Fil-A, the Red Zone sport restaurant, and the Fresh Food Company), Freshens yogurt and coffee shop, a 608-seat auditorium, operations office, and information desk, the main lobby, and meeting rooms. The WKU Store, office for Campus Activities Board, and Spirit Masters, meeting rooms, and the offices for Student Activities/Organizations and Leadership/Volunteerism Programs are located on the third floor. A recreation center (REDZ) equipped with 12 bowling lanes, billiards tables, video games, and vending machines are on the fourth floor.

### **Lost and Found**

A centralized lost and found service is located in Dero Downing University Center, office 228. The telephone number is 745-5793.

### Student Activities

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#### Campus Activities Board

The Campus Activities Board, through its various committees, has the responsibility for planning and presenting a campus-wide program of activities and events in the following areas: diverse music and lecture programs, leisure learning programs, and special and cultural presentations. Campus Activities Board serves in an advisory capacity to the Office of Student Activities.

Campus Activities Board committee membership is composed of as much diversity from our student population as is possible. There are no prerequisites for membership. The Executive Board of C.A.B. is comprised of three executive officers, C.A.B. committee chairs, representatives from all major student organizations and appointed faculty and full-time staff.

For more information, call (270) 745-5809 or stop by the Student Activities office in room 326, Downing University Center.

#### Leadership and Volunteerism

The Leadership and Volunteerism office provides a variety of opportunities to students that allow them to engage in developmental activities. This office sponsors the Dynamic Leadership Institute, Volunteer Initiative Program, High School Leadership Conference(s), numerous student retreats, WKU's Leadership Celebration Week, and a variety of leadership oriented activities. The office engages students in numerous service projects including Up 'Til Dawn for St. Jude's Hospital, Alternative Spring Break, Red Cross blood drives and Relay for Life activities. For more information call the office at 270-745-2060, stop by room 325 Downing University Center, or visit our website at: [http://www.wku.edu/StuAffairs/SAUC/uclp/leadership\\_vol.htm](http://www.wku.edu/StuAffairs/SAUC/uclp/leadership_vol.htm).

#### Dynamic Leadership Institute

WKU students are invited to apply for admission in the Institute. The Institute consists of four phases. Each phase is a semester with six workshops or activities that address a variety of leadership topics. Students are selected to represent a diverse group of ages, interests, and levels of leadership ability. Applications are available at the Leadership & Volunteerism office located in DUC 325.

#### High School Leadership Conference

The Kentucky High School Leadership Conference is held on the campus of Western Kentucky University each semester. This conference helps educate high school students on the importance of leadership and active involvement. Students from across Kentucky, Tennessee and Indiana gather to obtain information, insight and an understanding of leadership skills.

#### Volunteer Initiative Program (VIP)

The VIP exists to provide students with information about community service and volunteer opportunities in the Bowling Green area. Students have the opportunity to volunteer their time to local service agencies and get involved in the community. Volunteer opportunities range from one day events to semester long activities. There is something out there for everyone and the experience is priceless. The program is open to all WKU students, faculty and staff.

#### Weekend in the Woods

A special retreat is conducted each fall for selected campus freshmen to transfer information, focus on special topics, and promote campus unity. This retreat is part of an invaluable process that helps ensure student groups and their leaders are working toward the same goal—a better WKU.

### Student Disability Services

Students with disabilities sometimes need assistance to ensure an adequate academic and social environment while attending the University. This assistance is usually provided through the Office for Student Disability Services. SDS coordinates its activities through individual faculty members, other campus offices, and public agencies. Students with disabilities receive accommodations specific to their individual disability and/or impairment. These accommodations may include: note takers, extended time on tests, a distraction-free testing area, textbooks on CDs, priority in academic advising/registering, etc. Particular attention relates to assuring accessibility in classrooms, laboratories, and housing. Interpreting and captioning services are available for Deaf and Hard of Hearing students.

**Matthew Davis, Coordinator**  
e-mail: [Matt.Davis@wku.edu](mailto:Matt.Davis@wku.edu)

**Downing University Center, A-200**  
Phone: (270) 745-5004, Fax: (270) 745-6289  
TDD: (270) 745-3030

If a student with a disability has special concerns or needs before he/she attends the University, or if he/she encounters problems while enrolled on campus, he/she is encouraged to contact the SDS office.

The office hours are from Monday through Friday, 8:00 a.m. to 5:00 p.m. Both consultation and technical assistance are available.

### Student Ombuds Officer

The Student Ombuds Officer serves as an information source and point of communication for students who believe they may have a personal grievance. The Ombuds Officer's role does not replace existing University policies for academic complaints or conflict/grievance resolution. For additional information or to contact the Student Ombuds Officer, call (270) 745-6169.

### TRIO Programs

The following programs are made possible through grants awarded to Western Kentucky University from the United States Department of Education and administratively report to the Office of Educational Enhancement Programs.

#### Student Support Services

Created for the express purpose of increasing the retention and graduation rates of program participants, the Student Support Services program provides comprehensive continuing academic assistance for 225 undergraduate students with academic potential who meet financial guidelines, and/or are from families where neither parent holds a bachelor's degree or are a student with a documented disability. The project offers individualized peer tutoring in a wide variety of developmental courses; professional counseling for academic, personal, and career concerns; restricted sections of UE 175 (University Experience) that are limited to 20 fall freshman participants; and provides access to campus and community cultural events. In addition, participants in good standing earn priority status each semester during the course registration process and are eligible to share in supplemental grant monies awarded annually by the US Department of Education earmarked exclusively for Student Support Services participants. The program, in coordination with the Office for Student Disability Services, also offers individual assistance to qualified students with disabilities (including learning disabilities) in need of accommodation. All services are free of charge to qualifying students. Students seeking assistance who have yet to achieve junior standing can determine their eligibility and apply for services at the program offices or call (270) 745-4308. Applications are reviewed on an on-going basis. Admission to the program is not guaranteed. A successful applicant must be academically motivated and committed to participating in all aspects of the program.

**T. Chris George, Director**  
e-mail: [chris.george@wku.edu](mailto:chris.george@wku.edu)

**Jones-Jaggers Hall**  
**Office 132, Phone: (270) 745-4308**  
**Fax: (270) 745-6850**  
**Website: [www.wku.edu/sss](http://www.wku.edu/sss)**

#### Upward Bound

An educational outreach program, Upward Bound provides academic classes, counseling, tutoring, and cultural/social enrichment activities to eligible high school students in a five-county area (Allen, Butler, Edmonson, Hart and Logan). Program participants, who have potential to succeed in college and/or career-technical school with some additional academic/motivational support, must meet federal financial guidelines and/or be from families where neither parent holds a bachelor's degree. Specific individual/group activities covered throughout a student's participation in the program include career information, study skills information, ACT preparation sessions, college admissions information, and financial aid workshops. Individual counseling sessions take place with each student at his/her high school throughout the academic year with tutoring and cultural enrichment sessions being offered one Saturday per month. Students participate in a six-week summer residential program at WKU, which emphasizes academics and cultural/social enrichment. After high school graduation, participants have the opportunity to enroll in up to six college credit hours for which Upward Bound is financially responsible. In this way, participants get a "first-hand look" at college life and an academic boost from the Upward Bound program.

**Linda Gaines, Director**  
e-mail: [linda.gaines@wku.edu](mailto:linda.gaines@wku.edu)

**Jones Jaggers Hall**  
**Office 100, Phone: (270) 745-4873**  
**Fax: (270) 745-2031**  
**Website: [www.wku.edu/upwardbound](http://www.wku.edu/upwardbound)**

### Educational Opportunity Centers

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The Educational Opportunity Centers (EOC) program is designed to provide information regarding financial and academic assistance to individuals, age 19 and older, who desire to pursue a program of post-secondary education. The program assists these adults in preparing necessary applications for use by admissions and financial aid officers. Additional services include financial aid and career exploration workshops. To be eligible for the program, a participant must reside in one of the following counties: Allen, Barren, Butler, Edmonson, Hart, Logan, or Warren. The individual must meet federal income guidelines and/or qualify as a first generation college student. All services are free of charge to eligible individuals. Individuals who are interested in receiving information about the program are encouraged to contact the main office at (270) 745-4441. Outreach Centers are located in Allen, Barren, Butler, Hart, Logan, and Simpson counties. Individuals outside Warren County can contact the EOC at 1-877-753-0005 to receive locations and office hours of the Outreach Centers.

**Charlene Manco, Director**  
e-mail: [Charlene.Manco@wku.edu](mailto:Charlene.Manco@wku.edu)

**Jones-Jaggers Hall**  
Office 107  
Phone: (270) 745-4441  
Fax: (270) 745-2003  
Website: [www.wku.edu/eoc](http://www.wku.edu/eoc)  
e-mail: [EOC@wku.edu](mailto:EOC@wku.edu)

### Educational Talent Search

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Educational Talent Search (ETS) provides educational guidance services to assist eligible middle and high school youth in achieving their full educational and career potential. Services are free to all participants. Participants of the program must reside in one of eleven south central Kentucky counties: Allen, Barren, Butler, Cumberland, Edmonson, Hart, Logan, Metcalfe, or Monroe. Both group and individual educational, career, and financial aid counseling services are provided to middle and high school participants at their schools. Examples of topics covered in group sessions are ACT preparation, study skills, career decision-making, college life orientation and financial aid information. Middle school and high school participants may take field trips to colleges and to other educational settings. ETS also offers assistance to participants with special needs by identifying support services. For more detailed information, contact the ETS office.

**Martha Sales, Director**  
e-mail: [Martha.Sales@wku.edu](mailto:Martha.Sales@wku.edu)

**Jones Jaggers Hall**  
Office 100B, Phone: (270) 745-3757  
Website: [www.wku.edu/etc](http://www.wku.edu/etc)  
E-mail: [etc@wku.edu](mailto:etc@wku.edu)

### Veterans Upward Bound

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The Veterans Upward Bound program is a pre-college program that provides academic services and activities and pre-application advisement to prepare eligible veterans to enter post-secondary school. All participants must reside within an eight county area that includes: Allen, Barren, Butler, Edmonson, Hart, Logan, Simpson and Warren. Participants must have better than a dishonorable discharge with at least 180 days of active service (or have a service related disability), and must meet federal income guidelines and/or come from a family where neither parent possesses a baccalaureate degree.

**Martha R. Kenney, Director**

**Jones-Jaggers Hall Room 127**  
Phone: (270) 745-5310  
FAX: (270) 745-5987  
Website: [www.wku.edu/vub](http://www.wku.edu/vub)  
e-mail: [Veterans.Upward.Bound@wku.edu](mailto:Veterans.Upward.Bound@wku.edu)

Primary goals of the program include enhancement of academic skills and advising about postsecondary enrollment. Individuals may also receive help with educational and career goal setting, postsecondary school admission advising and financial aid application assistance.

All services are provided free of charge to eligible participants. Anyone interested in receiving additional information may contact the program at: Veterans Upward Bound, Western Kentucky University; 1906 College Heights Blvd #11098, Jones-Jaggers Hall 127, Bowling Green, Kentucky 42101-1098

## WKU Police Department

The mission of the Western Kentucky University Police Department is to provide a safe and secure atmosphere that is conducive to learning and teaching.

The Western Kentucky University Police Department is dedicated to supporting this environment through the protection of life and property, preservation of peace, providing proactive Crime Prevention Programs, and enforcing the regulations of Western Kentucky University, the ordinances of the City of Bowling Green, and the statutes of the Commonwealth of Kentucky, in a fair and impartial manner.

Further, the Western Kentucky University Police Department is committed to providing a “Community Policing” Philosophy in its approach to law enforcement, which is a partnership between faculty, staff, students and police officers that is predominantly service oriented.

The Western Kentucky University Police Department pledges to:

- Maintain a “Service Oriented” department, providing the university community with an exceptional level of law enforcement resources.
- Continue to be an integral part of the university community, by tailoring officer training to areas that will better prepare us to meet the varied needs of our faculty, staff, and students, and guests.
- Continue to be an integral part of the larger Warren County Law Enforcement Community, so that all available resources can be used to benefit and inform the university community of relevant information.
- Be more sensitive to the needs of a diverse university community, making our faculty, staff, students, and guests feel welcome on our campus.
- Increase proactive approaches to the level of law enforcement on campus that will discourage repeated criminal activity.

**Robert L. Deane, Chief of Police**

**Business Number: (270) 745-2548**

**Emergency Number: 911**

**Fax Number: (270) 745-5275**

**e-mail: [wkupolice@wku.edu](mailto:wkupolice@wku.edu)**

**Website: [www.wku.edu/police/](http://www.wku.edu/police/)**

**LOCATION: Police Building; ground floor of the 7 story Parking Structure, which is located between University Blvd and the Avenue of Champions. The WKU Police Department is at the base of this 7 story Parking Structure facing E.A. Diddle Arena.**

## WKU Restaurant & Catering Group

WKU Restaurant & Catering Group offers a wide variety of dining options...many that will fit your wants and needs.

**Fresh Food Company** Providing our guests with the highest quality foods prepared right before your eyes, The Fresh Food Company offers one of the most exciting dining experiences on campus. It features authentic upscale foods from ‘mini-restaurants’ – American Diner, Café Roma, American Bistro, The Produce Market, Mongolian Grille and more. Our chefs are ready to serve you a changing menu of specialties including home-style comfort foods, hand-tossed pizza, a full salad bar, deli offerings, fresh whole fruits and daily vegetarian options just to name a few. Continuous Dining from 7 am to 8 pm most nights! Located on the main level of DUC.

**Garrett Food Court** Located at the top of the hill, Garrett Food Court has something for everyone from Bene Pizza and Pasta to Izzi’s Southwest, Grille Works, and Home Zone. With lots of grab and go items, you are sure to find what you are looking for.

**DUC Food Court** Now students can enjoy Izzi’s Southwest in DUC too – just like Garrett Food Court! For a healthier option create your own salad at Greens To Go. Combine fresh vegetables, pasta and cheese at our made-to-order Bene Pasta station or choose something special at Chick-fil-A. Scrumptious baked goods and breakfast foods make this location a very popular destination.

**Java City Library** Serving EcoGrounds coffee and pastries along with fresh made hot breakfast, this is the place for a quick bite. In the afternoon try a Smoothie or baked good for that late day craving. Located in the Helm Library.

**Freshens Energy Zone | Java City DUC** Need a pick-me-up? No matter what time of year, Java City coffee and specialty drinks are always a hit. Java City coffee shops serve EcoGrounds coffee! For an extra special treat, have a fruit or yogurt Smoothie from the Freshens Energy Zone. Look for the NEW savory and sweet crepes this fall at



## Student Services

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Freshens; another healthy option for breakfast, lunch or dinner. Stop by the main floor of DUC and get your daily treat.

**Subway** Eat fresh! With two on-campus locations, you can always find time to stop in at either DUC SUBWAY located in Niteclass or at SUBWAY in Garrett.

**RedZone featuring Papa John's Pizza** Visit Red Zone, WKU's sports themed restaurant, for great food and sports. Red Zone is fully equipped with flat screen televisions and a 123-inch projection screen and surround sound. Papa John's combines total commitment to quality with superior ingredients, and the result is pure pizza excellence at Papa John's in Red Zone. Come join us and see for yourself; we promise you will have a great time! Located on the main level of DUC.

**The Bate Shop** Offering a variety of products including grocery items, snacks, drinks, laundry detergent, personal items, and much more! Buy your organic and green products here! Check us out! Located in Bates Runner Hall.

**Einstein Bros. Bagels** High-quality food is the standard, with a diverse menu ranging from bagels and breakfast sandwiches to gourmet coffee and specialty coffee drinks. Also enjoy freshly baked goods, salads, made-to-order sandwiches and decadent desserts. Located at Mass Media and Technology Hall.

**South Campus Food Court** Located at the WKU South Campus, this food court has many different offerings. Grille Works offers many grill items including burgers, chicken and more. At World's Fare options include a rotation of hot entrees and sides every day. Grab and Go items are also available for purchase.

**Tower Court & Pit Stop Convenience Store** At Burger Studio, turn your sandwich into a masterpiece with your own creative combination of toppings and sauces, all served on a freshly baked bun. Tower Court also features Popeyes Chicken and a Greens To Go. Grab items to take back to your room in the convenience store located next to Tower Food Court. Located at the bottom of the hill next to PFT.

**DaVinci's** Modeled after the look and feel of a Panera Bread style restaurant, DaVinci's offers fresh baked muffins, stuffed croissants, bagels and hot bagel breakfast sandwiches and wraps each morning; easy for the student that is on the go. The lunch menu includes a wide variety of soups, salads, gourmet chips and signature selection sandwiches and wraps made-to-order. The original menu provides a diverse selection of convenient ready-to-go salads and sandwiches, making it especially well-suited for customers on a tight schedule. The options at DaVinci's are available for breakfast and lunch as well as for a mid morning or afternoon snack.

We offer economical and convenient Meal Plans for all students. For additional information or to sign up for a Meal Plan or Dining Dollars account, visit [www.wkudining.com](http://www.wkudining.com) or stop by our office at DUC Room 124. Questions may be answered by calling (270) 745-2416.

### WKU Store

The WKU Store is the official bookstore for Western Kentucky University. It carries the largest selection of used textbooks with the guaranteed lowest prices in town. The WKU Store is also the #1 retailer of WKU apparel and merchandise.

**Phone Number:** (270) 745-2466  
**Website:** [www.wkustore.com](http://www.wkustore.com)

It offers a Textbook Reservation Program to both new and returning students for Fall and Spring semesters. The WKU Store is the only place where students can bill textbooks and supplies to their University Bill at the beginning of each semester.

Conveniently located at Main Campus (3<sup>rd</sup> Floor DUC), South Campus, Glasgow and Owensboro Regional Campuses, The WKU Store connects students to all aspects of the WKU experience.

## Student Life Policies Statement on Student Rights and Responsibilities

### General Philosophy and Guidelines

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Students are citizens and members of the University academic community. A citizen's rights and liberties under the Constitution must always be applied in light of the special characteristics of the environment in which the rights are to be exercised. Central to the special characteristics of the environment of a state supported university campus is the special authority of University officials designated by the Board of Regents to control, preserve, and manage University property and affairs and to maintain order and discipline. Therefore, the WKU Student Code of Conduct was established to ensure that disruptions to the University community are handled in an educational, fair, and dignified manner. The University expects students, parents, and the greater community to respect its rules and procedures governing the WKU community and will resist any unwarranted attempts to influence University policies and procedures.

The University demands high standards of personal conduct and encourages each student to maintain integrity through self-discipline. The University adopts rules and regulations that are necessary for the orderly, harmonious, and beneficial functioning of the University community. Accordingly, each student must respect the rights of others and should abide by the spirit as well as the letter of regulations of the University and laws of the community, state, and nation.

Any question of interpretation regarding the WKU Student Code of Conduct shall be referred to The Office of Judicial Affairs, 431 Potter Hall. The WKU Student Code of Conduct shall be reviewed every two years under the direction of the Director of Judicial Affairs.

### Maintenance of Student Records

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The Office of Judicial Affairs maintains disciplinary records on students of Western Kentucky University. All student records maintained by the Office of Judicial Affairs are held in compliance with the Family Educational Rights and Privacy Act (FERPA). These records are kept under lock and in confidence in said office with access to these records being available only to the appropriate University officials. Non-Current records, more than five years old, shall be destroyed or expunged. Current disciplinary records which are pending or resulted in a suspension or expulsion shall be retained.

### Purpose of the Student Code of Conduct

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Western Kentucky University developed a Student Code of Conduct in order to fulfill its mission and promote a positive environment for all members of the University community. As a member of the University community, a student is granted rights and responsibilities, which are defined within the Student Handbook. It is the responsibility of every student to become familiar with the WKU Student Code of Conduct and the rights and responsibilities of students. Ignorance of the WKU Student Code of Conduct is not acceptable justification for violation of any campus policies or procedures.

The regulations within the Student Code of Conduct are intended to govern the student conduct at Western Kentucky University. The University will take judicial action against a student for an off-campus offense only when the nature of the offense is such that, in the judgment of the Director of Judicial Affairs, the continued presence of the student on campus is likely to interfere with the educational process and the orderly operation of the University. Students who violate the law may incur penalties prescribed by civil and criminal authorities. However, the University reserves the right to review student incidents independent of action by civil and criminal authorities and apply the University judicial process as it serves the educational mission of WKU, a function separate and distinct from civil and criminal proceedings. The University may proceed with judicial action before a trial or postpone action until after a trial, depending on the circumstances of the case. Below are statements of policy regarding the rights, responsibilities, and code of conduct for Western Kentucky University. The policies or procedures of the Office of Judicial Affairs are designed to provide students with fair and equitable solutions of their involvement in the alleged misconduct.

### Rights

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1. The right of respect for personal feelings, freedom from indignity, and to expect an education of the highest quality.
2. The right to speak on University property provided that his/her behavior does not infringe on the rights of others as further defined in the University policy on time, place, and manner of meetings, assemblies, and demonstrations.
3. The right of freedom to hear and participate in dialogue and to examine diverse views and ideas.
4. The right to participate in all areas and activities of the university, free from any form of discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, sexual orientation, or veteran status in accordance with applicable federal and state laws.
5. The right to engage, either individually or in association with others, in off-campus activities, exercising rights as a citizen. When so engaged, in a context in which the participant is identified as a student, there exists a responsibility to make clear that the student does not represent the University.
6. The right of due process in the judicial procedure in accordance with rules of procedures prescribed in the Student Code of Conduct.

### Rights of Student Organizations

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Students associating into organizations may secure registration of the organizations provided they comply with the regulations for registration as stipulated in the regulations for student organizations.

Registered student organizations may use campus facilities, provided the facilities are used for the purpose contracted, subject to regulations of the University.

Registered student organizations may invite and hear speakers of their choice subject to the University's speaker's policy.

### Responsibilities

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1. The responsibility of assuming the consequences of one's own actions.
2. The responsibility to insure that no student organization, constitution or other organizational document includes discriminatory clauses pertaining to race, creed, religion, color, sex, national origin, disability, or sexual orientation.
3. The responsibility to respect the rights and property of others, including other students, the faculty and the administration.
4. The responsibility to recognize that student actions reflect upon the individuals involved and upon the entire university community.
5. The responsibility for knowledge of and observance of established University policies presented in official University publications.

### Definitions

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The term "University" means Western Kentucky University.

**"Student"** is defined as any individual who accepted an offer of admission as an undergraduate or professional graduate who has not yet graduated and is enrolled in courses at the University and persons who are or were enrolled in the current semester and registered for the next semester.

**"Behavior"** includes conduct and expression.

**"University official"** includes any administrator, faculty, staff, or any authorized individual to act on behalf of the University.

**"University premises"** includes all land, buildings, and other property owned, leased, or supervised by the University, including adjacent streets and sidewalks.

**"Student organization"** means any group that has complied with the formal requirements and registration process of the University.

**"Director of Judicial Affairs"** means a University official approved to oversee the judicial process. This person is approved to impose sanctions to all cases heard administratively.

**"Judicial Affairs"** is the University Judicial System that oversees all student conduct.

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## Student Code of Conduct

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Following the procedures of due process, if the WKU Student Code of Conduct is violated, the responsible parties will go through the University's judicial process, which is intended to be a fair and educational experience. Any WKU student may be expelled, suspended, placed on probation or given a lesser sanction for one or more of the following causes:

1. **Dishonesty.** Dishonesty, such as cheating, plagiarism, misrepresenting of oneself or an organization, knowingly furnishing false information to the University, or omitting relevant or necessary information to gain a benefit, to injure, or to defraud is prohibited.
2. **Drugs.** Use, possession, production, manufacture, sale, possession with intent to sell, trafficking or distribution of narcotics, dangerous drugs or controlled substances, as defined in KRS Chapter 218A, including marijuana, drug related activities, including those involving drug paraphernalia, anabolic steroids, and non-prescription drugs except as expressly permitted by law is prohibited. The manufacture or distribution or attempted manufacture or distribution of narcotics, dangerous drugs, or controlled substances on or off University property is prohibited.
  - a. Any student with a violation of the Drug Policy while enrolled at the institution may be removed from student housing and / or suspended from the University. Any student who is found to be manufacturing or distributing drugs on or off campus may be suspended or expelled from the University.
3. **Alcohol. Western Kentucky University complies with the alcohol regulations of the Commonwealth of Kentucky.** Violation of any federal, state and local laws governing the use and possession of alcoholic beverages, including off-campus. Examples may include but are not limited to Driving under the influence (DUI), being assessed as intoxicated in public (AI or PI) and underage consumption. The University prohibits the possession, furnishing or use of alcoholic beverages (including wine and beer) by student residents of campus housing and/or guests of students in residence halls. The University prohibits the use of rapid consumption devices or drinking games including, but not limited to, kegs, bongos, funnels, and beer pong. Any student found in violation of the Alcohol Policy three times in any one-year period may be suspended from the University for a minimum of one semester.
4. **Sexual Misconduct.** Non-consensual sexual contact, including but not limited to sexual assault or abuse, rape, acquaintance rape, or sodomy. (Please refer to the Sexual Offense Policy)
5. **Weapons.** Possession or use of firearms, explosives (including fireworks), dangerous chemicals, or other dangerous weapons, or the brandishing of any weapon or any other object in a menacing or threatening manner on institutionally owned or controlled property is prohibited. Weapons may be defined as an object, instrument, device, or substance designed to inflict a wound, cause injury, or incapacitate. Weapons may include, but are not limited to all firearms, pellet guns, stun guns, paintball guns, air guns, slingshots, martial arts devices, switchblade knives, and clubs. Weapons will be confiscated and placed in the possession of University Police for proper disposal.
6. **Identification.** Refusal to provide proper identification upon request. Students are expected to carry their valid student identification at all times and to present it upon request by University officials including, but not limited to University Police, faculty, residence life staff, and other staff of the institution. The University may confiscate any ID card that has been misused, duplicated, or altered. Cards may be retained temporarily while their validity is checked. A student may possess only one ID card. Use of the ID card by any person other than the person to whom it was issued or use of the card under false pretenses is a violation of the Code of Conduct.
7. **Theft.** Theft and/or possession of stolen property. Such property may include, but is not limited to, parking decals, and personal or university property.
  - a. Theft of property having substantial value may result in serious disciplinary action for a first offense.
8. **Hazing.** Hazing refers to practices that are a part of initiation into an affiliation with any organization. Hazing is considered a serious violation of The Student Code of Conduct and is prohibited in all forms. This code of conduct is based on fair and equal treatment with consideration and respect for all students and applies to organizations and individuals alike. Any person receiving bodily injury by hazing or mistreatment shall have a right to sue, civilly, the person or persons guilty. Western Kentucky University defines hazing as any action, physical abuse or creation of a situation that recklessly or intentionally endangers the mental or physical health of a participant by any person. A participant is defined as a university student, or any pledge. A person is defined as a university student, member, alumnus, affiliate alumnus, guest of any campus organization, or other individuals.

### Physical Abuse:

- ❖ Forced or coerced use or consumption of liquor, drugs, or any other vile substance.
- ❖ Calisthenics (push-ups, sit-ups, jogging, runs, etc.)
- ❖ Paddling
- ❖ Line-ups

### Mental Abuse:

Harassment is defined by exacting degrading and disagreeable work, ridicule or abusive and humiliating conduct that tends to bring the reputation of the organization or University into disrepute. Any action that intentionally prevents students from fully participating in the academic process is also considered hazing.

- ❖ Theft of any property
- ❖ Sleep Deprivation
- ❖ Forced Nudity
- ❖ Personal Servitude
- ❖ Forcing a violation of University policies and federal, state, or local laws

9. **Harassment.** Physical abuse, threatening comments, or intimidation of any person on University owned or controlled property or at University sponsored or supervised functions, or conduct which threatens or endangers the health or safety of any member of the University community or any other person or persons. Such conduct includes, but is not limited to stalking, cyber stalking, harassment, and retaliation as a result of complaints or alleged misconduct.
10. **Unruly Conduct.** Disorderly or lewd, any words or acts that result in physical altercation, fighting, and indecent or obscene conduct or expression that cause physical injury or threaten himself/herself or others, or interferes with any individual's rightful act. This responsibility also applies to events sponsored and supervised by recognized student organizations, on or off campus.
11. **Demonstration of Physical Harm.** Any student who demonstrates intent to seriously harm himself/herself or otherwise poses a danger causing psychological or physical harm to self.
12. **Disrupting the Academic and or Judicial Process.** Interference or disruptive activity that impedes, impairs, or obstructs teaching, research, administration, judicial process, failing to comply with the sanctions imposed under the Student Conduct Code, or other University missions, processes, functions or other authorized activities including its public service function of other authorized activities on University premises or which inhibits full exercise of rights by others.
13. **Class Attendance and Classroom Conduct.** Regular classroom attendance is expected of all students. Although role may not be taken grades are based on the performance of assigned work and this may include class participation and attendance. A professor has the authority to determine acceptable classroom conduct for his or her students as long as those decisions do not infringe on the student's rights. Disruptive classroom behavior may also be considered unruly conduct (see item 10).
14. **Technology Use Ethics.** Any violation of the Technology Ethics Policy as created by the Department of Information and Technology is considered a violation of the Student Code of Conduct.
15. **Shared Responsibility for Violations.** Enticing, inciting others, abetting, conspiring, being an accessory, or passively witnessing/participating in any act prohibited by the student conduct code is prohibited.
16. **Requests or Orders.** Refusal to comply with directions, requests, or orders by University officials or law enforcement or failing to identify oneself when requested to do so. Upon the request of the student questioned, the authorized university official must show identification and state the source of his/her authority. Among those officials who may request a student's ID card are staff members from: Residence Life, Downing University Center, WKU Food Services, Faculty and Staff, Book Store as well as any staff member within the Division of Student Affairs.
17. **Misuse of Property.** Unauthorized entry or use of institutional facilities and property; unauthorized possession or duplication of university keys, parking decals or access cards; tampering with fire equipment; or propping open of exterior residence halls doors or any door to any institutionally owned or controlled property. Students may not use University property for any activity prohibited by Federal, State or local laws.
18. **Destruction of Property.** Any act of vandalism, malicious, or unwarranted damage or destruction to any institutionally owned or controlled property.
19. **Recreational Mobility.** Skateboards, skates, and bicycles may be used on sidewalks for safe transportation purposes only. When using sidewalks, remember pedestrians have the right of way. They may not be used

inside buildings or within 50 feet of building entrances. Motorized scooters, mopeds, motorcycles, and similarly motorized vehicles are not to be used on sidewalks or in pedestrian traffic areas. Motorcycles, scooters, mopeds, and other motorized vehicles must park in parking lots in designated cycle parking areas. Registration with WKU Parking and Transportation Services department is required for all motorized vehicles. On campus housing residents may only bring one motorized vehicle to campus.

Excessive speed, stunt riding, or any other use of skateboards, skates, bicycles, or motorized vehicles that may cause property damage and/or endanger self or others is prohibited. Bicycles should be parked at any of the bicycle racks established throughout campus. Bicycles chained to trees, fences, handrails, etc., may be impounded. Users may not ride on stairways, patios, dock areas, benches, picnic tables, or irregular surfaces. Any person causing damage to University property through use or misuse of recreational equipment may face prosecution through the University Judicial process and/or the legal process to recover damages.

20. **Obstruction of Access.** Obstruction or disruption, which interferes with the freedom of movement, either pedestrian or vehicular on institutionally owned or controlled property
21. **Traffic and Parking Regulations.** Traffic rules and regulations as published by the university, will be administered by The Office of Traffic and Parking. Students are required to obey these regulations as a condition of their enrollment. Any behavior that is of an unruly or disrespect to their authority will be deemed a violation of the Code of Conduct.
22. **Fraud.** Knowingly passing a worthless check, money order or fraudulent use of credit cards including attempts to obtain any item of value under false pretenses or falsification of official university documents is prohibited.
23. **Forgery.** Forgery, alteration or misuse of University documents, records including, but not limited to, electronic records, transactions and /or communications, or identification, including student identification cards.
24. **Gambling.** Participation in any form of illegal gambling is prohibited.
25. **Violation of Laws.** The commission of acts which constitute a violation of local, state and federal laws. The University will review any conduct reported by members of the University community, law enforcement personnel, or citizens as being in violation of the law. Any student convicted of a criminal offense is subject to university judicial action.
26. **Violation of General Rules and Regulations.** Violation of any University policy, guideline, campus rule or regulation of conduct, which adversely affects the student's suitability as a member of the University community.

#### **Alcohol & Drug Abuse Prevention and Intervention Session (Prime for Life)**

This creative discipline sanction is an extensive eight hour-long program intended to educate students about their risks for abusing alcohol and/or drugs. The program is designed to challenge common false beliefs that college students may have with regards to alcohol and drug use. **Students assigned this sanction will be required to pay \$85.00 for educational materials provided in this nationally recognized and certified program.** Successful completion of the program will provide students with useful information encouraging responsible and appropriate behavior when considering using alcohol or drugs. University policies regarding drug and alcohol use will also be addressed within the program.

#### **Judicial Actions/Sanctions**

The following list describes University sanctions that may be administered as a result of violating the WKU Student Code of Conduct. Sanctions may be imposed only after a conference or hearing at which the student has had the opportunity to review alleged violations, review any evidence, and respond.

Sanctions may be used independently or in combination depending on the particular circumstance of the violation. Chronic and/or multiple violations during the course of an individual student's college career may increase the severity of sanctions applied.

1. **Warning and/or Reprimand** - Official notice to a student that conduct or actions are in violation. The continuation of such conduct or actions may result in further judicial action.
2. **Creative Discipline** - A sanction which may be used in lieu of, or in combination with, sanctions numbered three through six below. Creative discipline will be consistent with the offense committed. In some cases, at the discretion of the hearing officer, a student found in violation may attend special educational seminars, classes, or workshops offered in the subject area of the violation or may be sanctioned in another way which is directly related to the violation. In these cases, the student must always submit written proof of completion of the sanction to the hearing officer. The University may also contact parents or legal guardians of students found in violation of policy concerning the possession of alcohol or controlled substances if the student is under 21.

3. **Disciplinary Agreement** - Behavior contract between the University and the student whereby the student agrees, in writing, to correct inappropriate behaviors.
4. **Restricted Use of Facilities** - Denial of on campus use of an automobile for a specified period of time, removal from a living group, or other privilege including the use of specific University facilities, consistent with the offense committed. Restricted use of facilities may be accompanied by other sanctions.
5. **Restitution** - Reimbursement by transfer of property or service to the University or a member of the University community in an amount not in excess of the damage or loss incurred. Reimbursement may be accompanied by other sanctions.
6. **Restricted University Participation** - Exclusion for a period of time from participating in extra-curricular activities including recognized student organizations and/or representing the University in any manner. Classroom attendance will be unaffected.
  - The following sanction may be imposed upon groups or organizations: Deactivation – Loss of all privileges, including University recognition, for a specified period of time.
7. **Disciplinary Probation** - A period of observation and review of conduct in which the student demonstrates compliance with the provisions of University regulations.

**Any student found in violation of the Student Code of Conduct while on disciplinary probation in the same semester of academic probation may be subject to immediate suspension or dismissal from the university.**
8. **Deferred Suspension** – In some cases, a sanction of suspension may be held in abeyance for a specified period. This means that if a student is found responsible for any violation during that period, he or she will be subject to the deferred sanction without further review, in addition to the disciplinary action appropriate to the new violation.
9. **Interim Suspension** – Exclusion for a period of time, prior to a disciplinary hearing, from the residence halls or campus (including classes) and all other college activities or privileges of a University student.
  - Interim suspension may be imposed only:
    - To ensure the safety and well-being of a member of the University community or preservation of University property;
    - To ensure the student's own physical or emotional safety and well-being; or
    - If the student poses a definite threat of disruption of or interference with the normal operations of the University.
10. **Suspension** - Exclusion for a period of time, generally from one term to one year. A separation from the university is a time away for a number of academic semesters or until certain conditions are met.
  - In certain circumstances, the Director of Judicial Affairs or the Vice President for Student Affairs may impose a University or residence hall suspension.
11. **Separation** – Dismissal from the University for at least one semester. Students separated from the University are eligible to apply for reinstatement to the University through the Office of Judicial Affairs. Readmission is not guaranteed.
12. **Expulsion** - Dismissal from the University for an indefinite period of time. Any student expelled may not, thereafter, be readmitted to the University except upon application to the Board of Regents through the President.

### Sanction Determination

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The Office of Judicial Affairs will make the determination as to whether or not allegations of misconduct involve matters sufficiently serious to raise issues of suspension, separation or expulsion from the university. The following shall be considered:

1. The degree of willfulness or inadvertence;
2. The degree of injury or risk of injury to the accused or to another person, if any;
3. The extent of damage to property, if any;
4. The danger or risk of danger to the University community, if any; and

5. Any other factor or circumstance bearing reasonably upon mitigation or aggravation or the seriousness of the alleged offenses should it be established as a violation.

Within the Division of Student Affairs, direct supervisory jurisdiction of judicial matters involving violations of the Student Code of Conduct is assumed by the Office of Judicial Affairs. The Director of Judicial Affairs serves as the chief judicial officer for the university.

Any time a student is sanctioned by the University for inappropriate behavior it is considered serious. Cases involving sanctions of warning, creative discipline, disciplinary agreement, restricted use of facilities, restitution, and disciplinary probation are usually not serious enough to warrant expulsion or suspension. Cases that involve incidents occurring within a residence hall may be heard by Housing and Residence Life and the Director of Judicial Affairs. With exception, all cases involving student arrests; drug violations resulting in arrest, sexual misconduct, physical assaults and unruly conduct will be heard by the Office of Judicial Affairs. Those cases that involve incidents occurring outside a residence hall, sexual assault or more egregious violations of the Student Code of Conduct will be heard by the Director of Judicial Affairs.

Cases will be heard through informal discussion, conferences, and hearings with the accused student. Any such decision is subject to final review by the Director of Judicial Affairs. A request for final review by the Vice President for Student Affairs must be made within three business days after initial sanctioning to the Office of Judicial Affairs. It is the responsibility of the Office of Judicial Affairs to coordinate the adjudication process among various adjudicating partners.

Direct supervisory jurisdiction is assumed by the Office of Judicial Affairs.

**Off-Campus Jurisdiction**

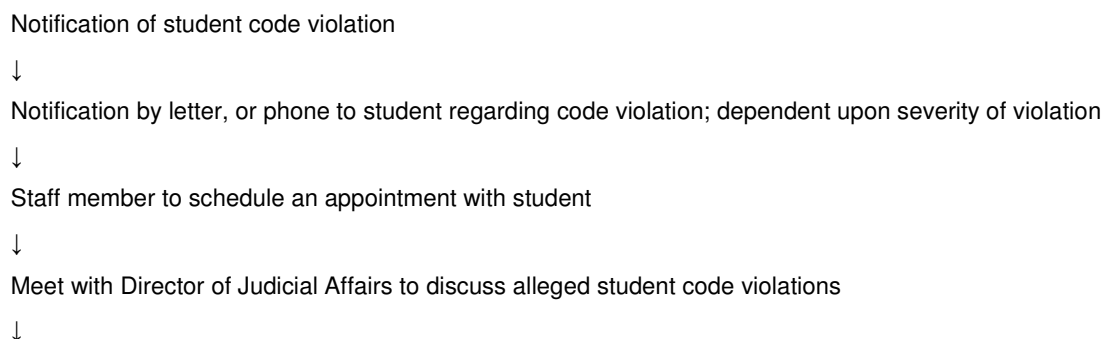
While the institution does not desire to act as a policing authority for the activities of the student off University property, and while it cannot serve as a sentencing authority for a student's violation of federal, state or local law, the University may take appropriate action in situations involving misconduct that violates the WKU Student Code of Conduct. When actions or incidents occur off campus, such conduct may call into question the student's continued membership in the educational community either because the student grossly violated elementary standards of behavior required for the maintenance of the educational community or because the student's continued presence would adversely affect the pursuit of educational goals of others.

It is the position of the Office of Judicial Affairs that among the violations of misconduct considered to be of an especially serious nature are those that represent a threat to the safety and health of members of the University Community. These include involvement with narcotics, dangerous drugs, and/or controlled substances, violence or threat of violence, non-consensual sexual contact, and the possession of firearms or the brandishing of any object in threatening manner. A student found in possession of a firearm or any other weapon or the brandishing of any object in a menacing or threatening manner will be referred to the Office of Judicial Affairs for the sole purpose of determining either suspension or expulsion.

Notwithstanding the above, the President of the University is authorized and has empowered the Office of Judicial Affairs to suspend (separate) any student if it is indicated that under the circumstances the accused student's continued presence on campus during the interim period awaiting a hearing before the University Disciplinary Committee is inimical to the best interests of the University. Any such suspension (separation) shall be for a period of not more than one semester. The student shall be furnished written notice of the actions and the reasons therefore. The notice shall also advise the student that the accusation of misconduct shall be referred to the University Disciplinary Committee upon his or her return.

**Procedures Followed in Disciplinary Cases:**

**Student Conduct Hearing Flowchart**





## Appendix

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Implement University sanction or case dismissal

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Follow-up letter of sanction or action taken

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Student to Complete Sanction

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File record of incident and sanction

In enforcing student conduct regulations, the University follows fair procedures in keeping with democratic practices and due process requirements. Judicial action will not be taken without providing the student with notice of the charges in advance to allow a reasonable period of time to prepare for the conference or hearing. Preliminary conferences with the student on any alleged violation or misconduct may occur immediately for the purpose of ascertaining the nature and extent of the problem. Because the focus is on the education of students, student hearings are conducted as informal inquiries and do not follow formalized courtroom procedures. Decisions at such hearings will be based solely upon the information produced therein. Based on the preponderance of the evidence, the level of student responsibility and/or involvement shall be determined by the institution.

In any case where the violation of University policy involves conduct that would constitute a public criminal offense upon prosecution and conviction, the burden will be satisfied by either:

- (a) The accused student's admission of responsibility to the committee, or
- (b) Information in the record, if the student denies responsibility, that a preponderance of evidence indicates responsibility.

A university disciplinary committee has been established by action of the Board of Regents of Western Kentucky University in accordance with the Kentucky Revised Statutes that authorize the Board of Regents to invest the faculty/staff or a committee of the faculty/staff with the power to suspend or expel any student for severe violations of the WKU Student Conduct Code or a gross disregard for the rights of others in the campus community. Therefore, this Committee will consider all cases involving sanctions of suspension, deferred suspension, and expulsion. In every case, the person suspended or expelled may appeal through the Vice President for Student Affairs if he or she meet the conditions for appeal.

The Committee is comprised of thirteen members, six faculty, three staff, and four students, who are appointed by the President of the University. Faculty terms are three years and are staggered so that the term of one third of the membership expires each year.

At least seven members of the Committee will be present before any official action is taken. Any decision will be made by a majority of those Committee members present. The Committee is to be notified of a meeting by the Director of Judicial Affairs or members of his staff immediately upon determination of the necessity for such a meeting.

Committee hearings are conducted in two parts. In the first part, only information that bears on whether or not the student has engaged in specified violations or misconduct may be presented. If the Committee finds no violation or misconduct, the finding is recorded and the proceeding is concluded.

If the finding is that the student has, in fact, engaged in a violation or misconduct, the Committee shall, in the second part of the proceeding, hear and consider any information bearing upon circumstances of extenuation or mitigation. After this part is concluded, the Committee shall determine the appropriate sanction. The Committee will function in accordance with the following procedures:

### **Preliminary Procedures**

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1. Director of Judicial Affairs or his/her designee shall have notified the student or students in writing as to the time and place of the hearing to be held by the university disciplinary committee and of the nature of the problem or charge and the information against the student or students.
2. Notification to the student (s) shall be made at least three days before the hearing is to be held. The student will meet the Director of Judicial Affairs or his/her designee to discuss the hearing process and sign a hearing checklist form. In the student's absence, a written report of the facts of the case and all related documents will be presented and reviewed by the University Disciplinary Committee and a decision will be made as to whether or not a violation of misconduct occurred and an appropriate sanction will be levied at that time.

3. The Director of Judicial Affairs and other persons on the staff shall provide the committee with a written report of the facts of the case.
4. If so desired, the student(s) may be accompanied at the hearing by a member of the faculty, staff, fellow student, or any third party approved by the University. Written approval must be secured two working days prior to the hearing.
5. Persons accompanying the student may advise but not represent and may not address the Committee in any fashion without permission from the Chairperson.
6. Due to the delicate nature of the hearing and because of the need to protect confidential records and the alleged victim, these meetings shall be otherwise closed.

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### Hearing Procedures

1. The Chairperson will begin the meeting by citing reasons for the call. Information bearing on whether or not a violation or misconduct has occurred will be given by the Director of Judicial Affairs or an appointed representative of the Director of Judicial Affairs.
2. The student will be given an opportunity to state the case and to present pertinent information for defense.
3. The Chairperson will call for discussion in a question and answer exchange on whether or not a violation or misconduct has occurred.
4. The Committee will make a decision in an executive session on whether or not a violation or misconduct has occurred.
5. The decision of the Committee will be reported to the student and the student's representative in a private session. If the decision is that a violation or misconduct has occurred, the Committee will then hear and consider information bearing upon the circumstances of extenuation or mitigation. The Committee will then apply sanctions in closed session. If the Committee finds that a violation or misconduct did not occur, the Committee meeting will conclude without application of sanction.
6. A record of the session proceedings will be retained by the University.

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### Conditions for Appeal

The University understands the need to have a corrective process in place to address circumstances should the University Disciplinary Committee err. One or all of the follow conditions must be met in order for an appeal to be considered. An appeal should be set forth by the accused:

1. To determine whether the original hearing was conducted fairly and in accordance with the Office of Judicial Affairs sanction determination and procedures.
2. To determine whether the decision reached regarding the accused student was based on substantial information to determine the preponderance of evidence and/or the level of responsibility.
3. To determine whether any sanctions imposed by the University Disciplinary Committee were appropriate and not unduly harsh for violation/s set forth in the Student Code of Conduct.

The appeal will be reviewed and determined by the Director of Judicial Affairs. If one of the aforementioned conditions is proven, the appeal will be forwarded to the VPSA. If all of the aforementioned conditions are proven, the appeal will be forwarded to the President and the Board of Regents for review. If one of the three conditions for appeals is not met, the decision of the University Disciplinary Committee will be upheld and the accused expected to comply immediately.

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### Procedures for Appeal through the President to the Board of Regents

1. Any student desiring to appeal a decision of the University Disciplinary Committee for review by the Board of Regents shall do so by filing a written statement of notice of intent to appeal with the President of the University. No appeal will be considered unless such notice is received in the VPSA office within five days, excluding holidays or weekends, following notification of the Committee's decision.
2. Ordinarily, the student suspended or expelled by the University Disciplinary Committee will be allowed to continue in status pending the results of the appeal.
3. The student shall include for the Board's consideration on appeal a written statement of the reasons why the student thinks the decision is erroneous, unfair or too harsh. The VPSA will submit a brief written statement of response. The student's statement shall be submitted within ten calendar days from the date on which the student is furnished a copy of the transcript of the Committee's proceedings.
4. Only information contained within the record of the proceedings of the University Disciplinary Committee will be reviewed on appeal. No information will be considered that was not furnished to the University Disciplinary Committee. The student may, within the ten-day period, instead submit any pertinent information, newly discovered or initially withheld for good cause, to the University Disciplinary Committee

with a request for another hearing or reconsideration by the Committee.

5. When an appeal is filed, the entire record of the University Disciplinary Committee's proceedings and its decision, the student's appeal statement, and the VPSA response shall be forwarded to the Office of the President.
6. The President, at his discretion, may review the record before transmitting it for Board consideration. The President is authorized to modify the decision of the University Disciplinary Committee in any manner found appropriate that serves the welfare of the student and the best interest of the University.
7. If the President does not review the decision, or after review does not modify it, the President shall transmit a copy of the record to each member of the Board of Regents for consideration as herein provided.
8. A subcommittee of the Board of Regents will serve as the official body to consider the appeal and render a decision on behalf of the Board of Regents.
9. The Committee may meet at times and places deemed by it to be necessary to provide a timely and expeditious consideration of appeals.
10. The Committee is authorized on behalf of the full Board to review the University Disciplinary Committee's record, the student's written appeal, and the VPSA response. The committee shall determine:
  - A. Whether the decision was made in accordance with the provisions of and the procedural safeguards specified in the Statement of Student Rights and Responsibilities; or
  - B. Whether, in its view of the entire information before it, the decision is erroneous; or
  - C. Whether, in its view of the entire case, the welfare of the student or the best interest of the University will be served by applying no sanction or a lesser sanction or providing that the sanction shall commence on a date different from that specified by the University Disciplinary Committee.

In addition to its consideration of the student's written statement, the Committee may upon its own motion, arrange for a personal appearance in conference with the student for the purpose of inquiring into circumstances of extenuation or mitigation. Otherwise, the review will be based upon the written record.

Upon concluding its review, the Committee may sustain, reverse, modify or return for further consideration the decision of the University Disciplinary Committee. The decision of the Disciplinary Appeals Committee shall be filed with the Secretary of the Board, and the Secretary of the Board will furnish a copy of the decision to each member of the Board of Regents. The full Board may, at its sole discretion and upon its own initiative, decide to consider the appeal en banc at its next meeting. Applications from the student for full Board en banc review are not entertained. Appropriate written notice to that effect shall be furnished the student at the time the student receives a copy of the Committee's determination, which shall constitute the final decision unless the full Board takes the action provided above.

### **Policies and Procedures for Dealing with Students Displaying Disruptive Behavior Due to Emotional Disturbance**

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The intent of the following policies and procedures is to support an appropriate living and learning environment at Western Kentucky University for faculty, staff, and students. Incidents of disruptive behavior brought on by emotional disturbances will be assessed and treated with care for their effects upon the student displaying the behavior and the total University community.

Western Kentucky University recognizes the fact that emergencies may arise due to what appears to be a student displaying disruptive behavior due to emotional disturbances. Such emergencies may create a threat to the student or others, but must be evaluated by competent medical professionals. When emergencies of this nature occur, they are reported to the Office of the Vice President for Student Affairs.

Demonstration of psychological or physical harm, or disruptive behavior caused by manifestations of a serious psychological problem include, but are not limited to:

- instances where a student engages in, or threatens to engage in, inappropriate behavior that poses a danger of causing physical harm to self or others, or inappropriate behavior that demonstrates a student's inability to care for self, and/or

- instances of inappropriate behavior that would cause significant property damage, or would directly and substantially impede the lawful activities of others, or that substantially interferes with or impedes the educational experiences of others, or would interfere with the educational process and the orderly operation of the University, and/or

- instances where a student engages in inappropriate behavior where a contributing factor is failure to follow a prescribed medical or psychological treatment plan; and/or

- instances of inappropriate behavior that causes a chronic, inordinate use of university resources including, but not limited to, staff time, psychological services, medical services, and/or emergency services, thereby resulting in an undue burden to the University.

When it has been reported or it is determined by the Vice President for Student Affairs or his/her designee that a student has allegedly participated in one or more of these behaviors, the student will be required to present himself or herself within one business day, to the Director of Counseling and Testing or his/her designee.

If the circumstances indicate that an evaluation is in the best interest of the student and the University, the Vice President for Student Affairs or the Director of Judicial Affairs shall contact one of two local psychiatrists, who are on retainer with the University.

Based on the request made by the Vice President for Student Affairs, the psychiatrist may admit the student to one of the local hospitals for treatment. Assistance may be obtained from the University Counseling and Testing Center and the WKU Police in handling such cases.

The psychiatrist will advise the University and the student of suggested further treatment after the student has an overnight stay in the hospital. After consultation with the psychiatrist and the review of past behavior of the student, the Vice President for Student Affairs will determine if withdrawal procedures should be initiated. The purpose of these procedures would be to remove the student from campus housing and/or from the University for the care of the student and the University.

The student will be notified in writing by the Vice President for Student Affairs or his/her designee to appear for a meeting.

The Office of Judicial Affairs is responsible for the University disciplinary process. This policy does not preclude a student's removal from the University, or any unit, class, or program, for disciplinary reasons in accordance with WKU's Student Code of Conduct. The Office of Judicial Affairs or the Vice President for Student Affairs and the Counseling and Testing Service and Health Services, with appropriate releases, may consult to determine whether a student accused of violating the University's Student Code of Conduct should be diverted from the disciplinary process to these procedures. Conversely, these departments, with appropriate releases, may consult to determine whether a student referred for consideration for a medical withdrawal might be more appropriately handled through the student disciplinary process. A student who is withdrawn from the university, under the provisions of this policy, has the opportunity for one appeal.

Medical Withdrawal should not be imposed when judicial, academic, or other responses are readily available and the student's situation can be addressed through those avenues. Furthermore, when possible and appropriate, efforts will be made to persuade the student to voluntarily withdraw and to follow a course of treatment needed to resume student status.

#### **A. BEHAVIORAL EVALUATION REQUIREMENTS**

When a student's behavior is sufficiently disruptive due to emotional disturbances to cause University staff members to question whether or not the student can benefit from the educational programs at Western Kentucky University, or if the student poses a potential danger to himself/herself or others, the University will require an evaluation. The evaluation will be conducted by an appropriate professional outside the University who shall serve in an advisory capacity to the University. When necessary, the cost of this required evaluation shall be the responsibility of the University. Should a student desire a second evaluation or an evaluation by a professional of his/her choice other than that provided by the University, then the student shall bear the cost of such evaluation.

The student does have the choice of obtaining the required evaluation or leaving the University. A student choosing to leave the University prior to receiving the evaluation will be withdrawn from the University under the University policy governing withdrawals. In accordance with the University Student Record Policy, the VPSA or his/her designee, may inform the student's parents, spouse, or some other member of the family regarding concerns of the student's safety or the safety of others.

Should the student choose not to meet for an evaluation, a conference of appropriate staff shall be convened to determine what action should be taken. First, the student will be informed by the VPSA or his/her designee that the student could be withdrawn from the University. If a dependent student still refuses an evaluation, his/her parents or immediate family may be informed, when appropriate, of the refusal to meet with the appropriate professional. When

appropriate and on a "need to know" basis, certain University officials and staff, such as residence hall staff, the student's academic dean, or other University personnel, shall be notified of the concern about the student and the student's refusal to withdraw or to be evaluated by an appropriate person. In the final analysis, the University has the authority to withdraw a student whose behavior is sufficiently disruptive due to emotional disturbances even though an evaluation interview with the student has not been held because of the student's unwillingness to be evaluated.

In the event that the student complies with the request for evaluation, then one of five actions will follow based upon the results of the evaluation:

1. The student may be allowed to remain enrolled at the University with no treatment;
2. The student may be allowed to remain enrolled at the University with treatment and be allowed to remain in on-campus living;
3. The student may be allowed to remain enrolled at the University with treatment but not be allowed to live in a residence hall or other University owned or controlled property; and/or he or she may be restricted from other areas of campus as appropriate;
4. The student may withdraw from the University voluntarily; or
5. The student may be withdrawn from the University involuntarily.

### **B. ENROLLMENT OPTIONS**

#### **I. Remaining Enrolled at the University with no Treatment**

Based upon the results of the evaluation and solely at the discretion of the University, the student may be allowed to remain enrolled at the University with no treatment. Any behavior problems will be corrected by the student immediately. A period of time may be designated during which the student's behavior is under review by the Office of Judicial Affairs.

#### **II. Remaining Enrolled at the University with Treatment and Remaining in On-Campus Living**

Based upon the results of the evaluation, the University has the right to require the student to meet certain conditions of treatment. The cost of any treatment (such as counseling/therapy) required of the student shall be the student's/parents' responsibility.

If the student is allowed to continue enrollment, a Behavioral Agreement or a probation period may be appropriate. Solely at the discretion of the University, a student may have his or her behavior under review for a period of time while undergoing treatment. The University will require that any behavior problem be corrected and/or terminated and/or that corrective medical or therapeutic action be taken.

#### **III. Remaining Enrolled at the University with a Facilities Restriction**

At times, the students who remain enrolled at the University and in treatment may be required to leave University residence hall and/or be restricted from using other University facilities. Requiring a student to leave the environment of a university residence hall and to live at home or in a more appropriate place while seeking treatment and, (in some cases, carrying reduced course loads) as a commuting student may be appropriate. Furthermore, the behavior of the student may be sufficiently disturbed and disturbing in a residence hall environment to make it essential that the family or others assume responsibility for the student's care; yet, the student's classroom behavior is sufficiently controlled and that he/she can be permitted to continue class work at a reduced load level. The student's behavior will be under review by the Office of Judicial Affairs during this time to insure appropriate conduct.

The intention of this policy is to provide another option for the student so that the student can receive treatment and still maintain an appropriate level of course work.

If the student agrees to engage in counseling as required and to leave the University residence hall voluntarily, the Director of Housing and Residence Life, or his/her designee, is informed and will implement the withdrawal from the residence hall. If the student is required to engage in counseling and/or to leave the residence hall and is unwilling to do so, the VPSA or his/her designee will implement involuntary withdrawal from the residence hall and/or the University as provided in the involuntary withdrawal section.

#### **IV. Voluntary Withdrawal from the University for Disruptive Emotional Health Reasons**

A voluntary withdrawal is defined as one in which the recommendation to withdraw a student for disruptive behavior related to emotional disturbance has been made by the Director of Counseling and Testing or his/her designee, or an off-campus evaluator, and the student concurs with the withdrawal recommendation. The professional staff is concerned with attempting to insure continued therapeutic help for the student outside the University community; therefore, the student's parents, spouse, or some other member of the family may be informed of the withdrawal and the need for arrangements for additional therapeutic care.

Normally, the VPSA or his/her designee will reach a decision about withdrawal in discussions with the student and the student's family. The decision is then conveyed to the Office of Judicial Affairs to authorize preparation of the University withdrawal form.

#### **V. Involuntary Withdrawal from the University for Disruptive Emotional Health Reasons**

An involuntary withdrawal is defined as one in which the recommendation of withdrawal for disruptive emotional reasons has been made by the Director of Counseling and Testing or his/her designee, or an off-campus evaluator and the student does not choose to accept this recommendation.

When the withdrawal recommendation is not accepted by the student, the VPSA will convene a Review Panel to meet with the student to review any new pertinent information.

The student has three (3) business days to provide any new information to be considered. The Review Panel will consist of the VPSA, the Director of Housing and Residence Life (if residential), the Director of Health Services, The Director of Judicial Affairs, the Director of the University Counseling and Testing Center, and the chair of the Campus Partners Committee. The Review Panel will be convened and chaired by the VPSA. The involvement of other University professionals as appropriate and necessary may be requested. The conference shall be treated by the professional staff as a priority since time may be a crucial element in implementing the withdrawal procedure in the most helpful way for the student.

This panel will convene within two (2) business days of the student's decision to reject the recommendation of the off-campus evaluator. The VPSA or his/her designee will have the authority to take appropriate interim action until the Review Panel can be convened. If the decision for withdrawal remains after the consideration of any new pertinent information presented by the student, the Vice President for Student Affairs will initiate the withdrawal process and will have the authority to take whatever action may be necessary until the student is withdrawn. If necessary, the Vice President for Student Affairs will arrange for a meeting which may include the student, the student's family, the off-campus evaluator and/or other professional staff involved in the case. The purpose of this meeting is to discuss the rationale for the withdrawal decision with the student and/or family, to make recommendations regarding the appropriate treatment for the student, and to stipulate conditions for possible readmission to the University.

#### **VI. Administrative Withdrawal**

A request for an administrative withdrawal is initiated by the university because of a disciplinary situation or when, in the professional judgment of a health care provider, psychologist and/or university administrator, there is reason to believe a student is a substantial threat to him/herself or interferes with the welfare of other members of the university, the education process, or the orderly operation of the university.

The VPSA, Director of Judicial Affairs or the Vice President for Academic Affairs, or their respective designees, will notify the student of the involuntary withdrawal, and the Registrar will be directed to withdraw the student from all classes in which the student is currently enrolled and cancel registration that has occurred for any future terms. The Office of the Registrar will notify the student's instructors of the withdrawal, and "W" grades will be recorded for the term in progress.

A student who is administratively withdrawn will have a registration hold placed by the Office of Judicial Affairs or the Vice President for Academic Affairs to prevent the student from being readmitted or re-enrolled unless cleared by the appropriate administrator or the respective designee. A student may file a written appeal of an involuntary withdrawal through the office that administered the withdrawal. Tuition refund appeals for administrative withdrawals are handled in a separate procedure, and instructions may be obtained from the Bursar's Office.

#### **VII. Medical Withdrawal**

A student may request and be considered for a medical withdrawal from all courses in a term when extraordinary circumstances, such as a serious physical or mental illness or injury, prevent the student from continuing his or her classes after the midpoint of a term, and incompletes or other arrangements with the instructors are not feasible or possible.

A medical withdrawal must be substantiated with appropriate documentation from the attending health care provider. Once the rationale for a medical withdrawal has been validated by the Office of the Registrar, the student's instructors will be sent notification of the withdrawal, and "W" grades will be recorded for each course.

A student who requests a medical withdrawal, or an individual requesting a withdrawal on behalf of the student who is physically or mentally unable to request the withdrawal, should contact the Office of the Registrar to obtain medical withdrawal procedures. Tuition refund appeals for medical withdrawals are handled in a separate procedure, and instructions may be obtained from the Bursar's Office.

#### **C. EMERGENCY REMOVAL OF A STUDENT FROM THE UNIVERSITY**

Exceptional situations may occur in which a student is judged to be out of contact with reality and unaware of the consequences of his/her actions, or where the student is potentially harmful to himself/herself or others at that time. Action to remove the student from the university is taken by one of the following: VPSA, the Director of Judicial Affairs, Housing and Residence Life staff, University Counseling and Testing Center staff, or Health Services staff, in cooperation with the student's family if possible. Hospitalization may be required. Involving the student in these actions may not be possible because of the nature and degree of the student's illness. These situations are considered emergencies and one of the following offices will coordinate the efforts of the University: the Vice President for Student Affairs, the Office of Housing and Residence Life, the University Counseling and Testing Center, Health Services, outside medical or psychiatric resources.

The VPSA will be involved in special emergency procedures and is immediately notified of the actions taken. As emergency situations, these cases fall outside the procedures stated above for voluntary withdrawals except that the student will be informed in writing of the rationale for the withdrawal recommendation and of his/her right to present any pertinent information in rebuttal to the withdrawal recommendation for consideration by the aforementioned Review Panel. The Review Panel will be convened and chaired by the VPSA. Due to the emergency nature of the situation, most often the student will be informed of his/her right to present pertinent information in rebuttal after the student has been removed from campus. The VPSA will have the authority to take whatever interim action is necessary until the Review Panel can be convened. If after consideration of any pertinent rebuttal evidence presented by the student, the decision for withdrawal remains, the VPSA will process the withdrawal. The student will have three (3) business days, or three (3) business days after his or her release from a hospital or other health institution, whichever is longer, to present rebuttal evidence to the panel.

### D. WITHDRAWAL PROCEDURES

The following steps are taken in processing all psychological withdrawals:

1. The student's I.D. card must be returned to the Office of the Vice President for Student Affairs. Residential students must be checked out of their rooms and must turn in their room keys.
2. The withdrawal is processed by the VPSA recommending appropriate refunds for tuition and other fees. The withdrawal record will show that the student withdrew "for health reasons."
3. Exceptions to the University grading policies may be recommended by the VPSA when such exceptions are deemed necessary. Final approval for such exceptions will be made by appropriate academic officials.
4. Any conditions for possible readmission to the University (such as psychiatric clearance) and any conditions to be in effect following the student's withdrawal from the University (such as ineligibility to visit the University campus) will be described in a letter prepared by the VPSA. The Registrar and the Director of Admissions will be notified that the Director of Judicial Affairs or of his/her designate must be contacted if readmission is requested. Final approval for readmission lies with the VPSA.

### E. READMISSION PROCEDURES

The VPSA is to be contacted regarding the application of students whose readmission to the University is subject to psychiatric clearance. The VPSA will notify the student and the Admissions Office of any information or evaluations that may be required. The VPSA may contact the University Counseling and Testing Center or the Director of Health Services to determine if the conditions affecting readmission have been met. The VPSA will then notify the Admissions Office that readmission may be granted if the student is otherwise eligible.

### Academic Offenses

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**Academic Offenses**—The maintenance of academic integrity is of fundamental importance to the University. Thus, it should be clearly understood that acts of plagiarism or any other form of cheating will not be tolerated and that anyone committing such acts risks punishment of a serious nature.

A student who believes a faculty member has dealt unfairly with him/her in a course involving academic offenses; such as plagiarism, cheating, or academic dishonesty, may seek relief through the Student Complaint Procedure. Questions about the complaint procedure should be directed to the Student Ombuds Officer at (270) 745-6169.

- **Academic Dishonesty**—Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the coursework in which the act is detected or a failing grade in the course without possibility of withdrawal. The faculty member may also present the case to the Office of Judicial Affairs for disciplinary sanctions.
- **Plagiarism**—To represent written work taken from another source as one's own is plagiarism. Plagiarism is a serious offense. The academic work of a student must be his/her own. One must give any author credit for source material borrowed from him/her. To lift content directly from a source without giving credit is a flagrant act. To present a borrowed passage without reference to the source after having changed a few words is also plagiarism.

- **Cheating**—No student shall receive or give assistance not authorized by the instructor in taking an examination or in the preparation of an essay, laboratory report, problem assignment, or other project that is submitted for purposes of grade determination.
- **Other Type of Academic Dishonesty**—Other types of academic offenses, such as the theft or sale of tests, should be reported to the Office of Judicial Affairs at (270) 745-5429 for judicial sanction.

## Student Complaint Procedure

The student complaint procedure for resolving a complaint concerning a faculty member is outlined below in four steps.

### Step 1 (Faculty Member)

The first step is for the student to discuss the complaint with the faculty member involved. If the faculty member is no longer employed by the University, the student should go directly to the department head who will contact and represent the former faculty member. If the complaint involves a grade, the student must take the complaint to the faculty member within the first two weeks of the first regular semester (fall; spring) following the assignment of the grade. It is hoped that the complaint may be satisfactorily dealt with at this level.

### Step 2 (Department Level)

If the student and the faculty member are unable to resolve the complaint, the student may take the complaint to the faculty member's department head. Written notification of the complaint must be given to the department head within two weeks after the meeting with the faculty member. It is the responsibility of the department head to arrange for a conference where the student, faculty member and the department head will be present for discussion. Neither the faculty member nor the student will be allowed representation at the conference. The department head shall hear both sides of the complaint and shall attempt to mediate a settlement. The department head shall keep a written record of the proceedings, including the recommended solution. The department head's recommended solution is to be considered by both the faculty member and the student as a recommendation and not as a decision that is binding.

### Step 3 (College Level)

Should the student be unable to receive the satisfaction desired at the departmental level, the complaint may be taken to the college level. Written notification of the complaint must be submitted to the college dean or his designated representative within two weeks after the conference with the department head (Step 2). Upon receipt of the notification, the college dean or his/her representative shall provide the student a copy of the procedural guidelines to be followed by the College Complaint Committee. The procedural guidelines shall provide for a conference with both the student and the faculty member present for joint discussion of the complaint with the committee.

The College Complaint Committee will be responsible for scheduling the conference within two weeks following the submission of a written complaint to the chairman of the College Complaint Committee including as much detail as the student cares to include. The written complaint should clearly state what is considered to be unreasonable and/or unfair practices or procedures. Neither the faculty member nor the student will be allowed representation at the conference. The College Complaint Committee shall hear both sides of the complaint and render a decision. The decision shall be sent in writing to the Provost and Vice-President for Academic Affairs, with a copy being sent as a matter of record to the student, faculty member, faculty member's department head and the faculty member's college dean. The Office of the Provost and Vice-President for Academic Affairs shall be responsible for enforcing the decision of the college committee. The Office of the Provost and Vice-President for Academic Affairs shall not enforce the decision until two weeks after the decision is made by the college committee. The purpose of the two week delay is to provide either the student or the faculty member an opportunity to submit a formal written notice of appeal to the University Complaint Committee.



#### Step 4 (University Level)

Should the student or the faculty member desire to appeal the decision of the College Complaint Committee, a formal written notice of appeal may be submitted to the University Complaint Committee chair, with a copy to the Provost and Vice-President for Academic Affairs, within two weeks of the decision of the College Complaint Committee. The chair of the University Complaint Committee will provide the student and the faculty member involved with a copy of the University Complaint Committee's Procedural Guidelines. The University Complaint Committee will secure copies of the written proceedings from the department head and the College Complaint Committee. The University Complaint Committee will schedule a conference where the faculty member and the student jointly discuss the issue. Neither the faculty member nor the student will be allowed representation at the conference. The committee's decision will be sent to the Provost and Vice-President for Academic Affairs, with a copy being sent as a matter of record to the student, faculty member, faculty member's department head and the faculty member's college dean. The Office of the Provost and Vice-President for Academic Affairs will see that decisions of the University Complaint Committee are carried out. The University Complaint Committee's decision is final.

### Organization of the University

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Dr. Gary A. Ransdell

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Dr. Sam Evans, College of Education & Behavioral Sciences  
Dr. Blaine Ferrell, Ogden College of Science and Engineering  
Ms. Connie Foster, University Libraries (Interim)  
Dr. Dennis George, University College  
Dr. Jeffrey Katz, Gordon Ford College of Business  
Dr. David Lee, Potter College of Arts and Letters

### Faculty of the University

To view a complete list of the faculty of the university, visit [www.wku.edu/academicaffairs/documents/ug\\_facultylist.rtf](http://www.wku.edu/academicaffairs/documents/ug_facultylist.rtf).

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