Accreditations

Institutional Accreditation
Murray State University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; telephone number 404-679-4501) to award associate, bachelor, master and specialist degrees.

State Accreditation
Kentucky Education Professional Standards Board

Undergraduate Program Accreditations
AACSB-International-The Association to Advance Collegiate Schools of Business
ACEJMC-Accredited Council on Education in Journalism and Mass Communications
American Chemical Society
American Veterinary Medical Association
Applied Science Accreditation Commission of ABET (ASAC/ABET)
Commission on Accreditation for Dietetics Education of the American Dietetic Association
Commission on Accreditation of Athletic Training Education
Commission on Collegiate Nursing Education (CCNE)
Council on Academic Accreditation in Audiology and Speech-Language Pathology
Council on Social Work Education (CSWE)
Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET)
National Association of Schools of Art and Design (NASAD)
National Association of Schools of Music (NASM)
National Council for Accreditation of Teacher Education (NCATE)
Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET)
The National Kitchen and Bath Association (NKBA) (Endorsement)

Facility Accreditation
American Association of Veterinary Laboratory Diagnosticians (Breathitt Veterinary Center)

Murray State University Bulletin
General Catalog Edition
Volume LXXVII Number 1, August 2011

Published by Murray State University, Murray KY 42071.

The contents of this publication are subject to change. Anyone desiring current information and data should contact the appropriate representative of the university for accurate and up-to-date information.

Murray State University reserves the right to modify or change any rule, regulation, fee or policy stated herein. This reservation includes, but is not limited to, the right to modify or change any academic program, subject to any limitations imposed by state law.

For additional policies, procedures and information, faculty, staff and students are advised to consult all official university publications, such as the Faculty Handbook, Schedule of Fees, Personnel Policies and Procedures Manual, Student Life Handbook, and the university Bulletins. It is the responsibility of each member of the faculty and staff and each student to be aware of and comply with these policies and procedures.

Non-Discrimination Statement

Murray State University endorses the intent of all federal and state laws created to prohibit discrimination. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or the provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities equal access to participate in all programs and activities. For more information, contact the Director of Equal Opportunity, 103 Wells Hall, (270) 809-3155 (voice), (270) 809-3361 (TDD).
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- Engage in mature, independent, and creative thought and express that thought effectively in oral and written communication;

- Understand and apply the critical and scientific methodologies that academic disciplines employ to discover knowledge and ascertain its validity;

- Apply sound standards of information gathering, analysis, and evaluation to reach logical decisions;

- Understand the roles and applications of science and technology in the solution of the problems of a changing world;

- Demonstrate a critical understanding of the world's historical, literary, philosophical, and artistic traditions;

- Understand the dynamics of cultural diversity, of competing economic and political systems, and of complex moral and ethical issues;

- Understand the importance of and engage in ethical behavior and responsible citizenship;

- Understand the importance of the behaviors necessary to maintain a healthy lifestyle;

- Demonstrate mastery of a chosen field of study, and

- Value intellectual pursuit and continuous learning in a changing world.
For more than three-quarters of a century Murray State University has served students from the region, the nation, and the world. Founded in 1922, the university has grown from an enrollment of 202 students to over 10,000 today. Students receive individual attention from a qualified faculty. Murray State University has been recognized for 20 consecutive years by U.S. News & World Report’s America’s Best Colleges as one of the best schools in the country. MSU is rated in the Top 12 among all public master’s universities and seventh among all publics in the southern region. U.S. News also recognized the quality of the university’s nursing, nurse anesthesia and speech-language pathology programs on its Best Graduate Schools list. Additionally, the university has been noted for its quality and affordability by Forbes magazine. The American Council of Trustees and Alumni highlighted Murray as one of two Kentucky publics to achieve high ratings for its general studies program. Murray State has been recognized for its graduation rates, as well.

Recognition of the quality of MSU programs is reflected in accreditations. Murray State has been continuously accredited by the Southern Association of Colleges and Schools (SACS) since 1928. Program accreditations have also been attained in art, chemistry, civil engineering technology programs, communication disorders, counseling, dietetics, engineering physics, journalism and mass communications, music, nursing, occupational safety and health, school administration, social work, speech-language pathology, teacher education, and veterinary technology, as well as several business programs.

Located in the Jackson Purchase area of west Kentucky, Murray State is a state-assisted comprehensive university with five academic colleges and two schools. The university’s 236-acre main campus is in Murray, a city of 16,600.

The main campus comprises over 70 major buildings, including classroom and office buildings and two libraries. The Waterfield Library houses the circulating collection, reference sources, government documents, microforms and periodicals. The historic Pogue Library contains special materials relating to the history and culture of west Kentucky and the region.

Other notable campus facilities and programs providing high-quality instruction and regional service include:

- The Arboretum, located on a 10-acre section of Murray State’s Pullen farm, offering a fully accessible horticultural display for educational and regional use ranging from open prairie to display and community gardens. A functional educational pavilion/outdoor classroom is available for use by MSU or community groups.
- The Watershed Studies Institute (WSI) serving as one of only five designated Centers of Excellence in the Commonwealth of Kentucky. WSI conducts interdisciplinary long-term studies of rivers and reservoirs and assists with management and protection of waterways and natural ecosystems.
- The Susan E. Bauerfeind Student Recreation and Wellness Center offers the University Community, as well as alumni and family members, recreational and educational opportunities that teach the values of wellness. This facility contributes to the quality of the MSU experience, enhances personal development, and provides opportunities for cultural and social interaction.
- The Mid-America Remote Sensing Center (MARC), a component of the Center of Excellence, studying satellite-generated data for resource management and developing a geographic information system for Kentucky Lake and its surrounding environments.
- The Price Doyle Fine Arts Center, offering excellent facilities for fine arts programming and featuring year-round art exhibitions, a variety of musical performances, and a season of full-scale theatre productions.
- WKMS-FM, a 1,000,000-watt National Public Radio member station serving southernmost Illinois, western Kentucky, and northwestern Tennessee, and Channel 11, the university’s student run cable channel.
- Listed with the National Registry of Historic Sites, the Wrather West Kentucky Museum, offers programs, exhibits and collections of west Kentucky history, as well as, traveling exhibits. Three agricultural laboratory farms totalling 356 acres, an animal health technology facility, and the Wm. “Bill” Cherry Agricultural Exposition Center are all within a mile of campus. Regional veterinarians and animal owners benefit from the animal disease diagnostic services provided at the university’s Breathitt Veterinary Center in nearby Hopkinsville, Kentucky; in addition, animal health technology students receive instruction, conduct research, and perform field service investigations at the accredited facility.

Ten miles east of campus, on Kentucky Lake, is the Hancock Biological Station, one of the finest centers of its kind in the country. IBIS is the field research home for the Watershed Studies Institute and the Ecological Consortium of Mid-America: its facilities (including housing) are available year-round to ecosystem scientists. Another off-campus facility is Murphy’s Pond, a 279-acre primitive wildlife habitat 30 miles west of campus, preserved in its natural state and used as both a biological laboratory and a public outdoor recreational area.

Murray State University has a commitment to extend its educational programs throughout the region. Off-campus courses are available at a number of sites including Paducah, Fort Campbell, Henderson, Hopkinsville, and Madisonville. In addition to teaching courses on-site at these locations, the university provides a variety of distance learning alternatives for students who may not be able to attend classes on the main campus, including interactive television courses, web courses, and correspondence study.
The University

The international dimension of the university’s offerings has been dramatically broadened in recent years. In addition to summer study-abroad programs in several countries, direct exchange programs have been developed for students and faculty with universities on five continents — Africa, Asia, Australia, Central America and Europe. On campus, the English as a Second Language program prepares nonnative speakers of English for full-time study and for future professional careers.

In its ninth decade of service, Murray State University’s mission focuses on undergraduate, graduate and professional instruction and continuing education programs as well as enhancement of the educational, economic, and cultural opportunities of the people of west Kentucky.

Visiting the University

Murray State encourages and welcomes visitors to campus. Visitors have the opportunity to meet with an admission counselor, tour campus and meet with faculty in their areas of interest. During the tour you will visit the library, wellness center, bookstore and see a room in one of our resident halls. You may schedule your campus visit on line at www.murraystate.edu/campus/plansvisit or by calling the Office of Recruitment at 800.272.4678 ext. 2. During the fall and spring semesters, office hours are 8:00 a.m. to 4:30 p.m. (CST) Monday through Friday, and at 10:00 a.m. on selected Saturdays. Office hours vary during summer sessions and holidays.

Mission

The following mission statement was adopted by the Murray State University Board of Regents on September 26, 2003.

Murray State University serves as a nationally recognized residential comprehensive university, offering high-quality baccalaureate and master’s degree programs. Academic programs are offered in the core areas of arts and sciences, agriculture, business, health and human services, teacher education, communications, engineering, and applied technologies. Teaching, research, and service excellence are core values and guiding principles that promote economic development and the well-being of the citizens of the Commonwealth of Kentucky and the region.

Murray State University places a high premium on academic outreach, collaborative relationships with alumni, the public schools, business and industry, governmental agencies, and other colleges and universities at home and abroad.

Murray State University prepares graduates to function in a culturally diverse, technologically oriented society and increasingly interdependent world. The university is committed to international education as an integral dimension of the university experience.

Murray State University emphasizes student-centered learning and educational experiences that include first year experience, the honors program, internships, study-abroad programs, service learning, research and creative projects, residential colleges, and student organizations.

In sum, Murray State University fosters an exciting and challenging learning environment.

Values

• Accessibility
  Murray State values broad, equal, and affordable educational access for all.

• Academic Freedom
  Murray State values the generation and free exchange of ideas in a peaceful and orderly environment that encourages communication and the resolution of differences.

• Accountability
  Murray State values a comprehensive accountability system through outcomes assessment and institutional effectiveness, supporting our primary mission as a university.

• Diversity
  Murray State values attracting, developing, and maintaining a diverse, high-quality faculty, staff, and student body.

• Excellence
  Murray State values a sustained commitment to teaching, research, and service excellence.

• Integrity
  Murray State values an environment that demands high levels of professional and academic ethics.

• Nurturing Environment
  Murray State values a safe, friendly, and supportive campus and community environment.

• Shared Governance
  Murray State values a culture of shared governance, open communication, and understanding among administration, faculty, staff, and students.

• Student-Centered Learning
  Murray State values an environment that fosters the engagement of the student in the learning process both in and beyond the classroom.

Characteristics of the Murray State University Graduate

The excellence of a university’s baccalaureate program is ultimately best demonstrated by the qualities, characteristics, and performance of its graduates. Murray State University sets as its goal a baccalaureate experience that ensures graduates who:

• Engage in mature, independent, and creative thought and express that thought effectively in oral and written communication;

• Understand and apply the critical and scientific methodologies that academic disciplines employ to discover knowledge and ascertain its validity;

• Apply sound standards of information gathering, analysis, and evaluation to reach logical decisions;

• Understand the roles and applications of science and technology in the solution of the problems of a changing world;

• Demonstrate a critical understanding of the world’s historical, literary, philosophical, and artistic traditions;

• Understand the dynamics of cultural diversity, of competing economic and political systems, and of complex moral and ethical issues;

• Understand the importance of and engage in ethical behavior and responsible citizenship;

• Understand the importance of the behaviors necessary to maintain a healthy lifestyle;

• Demonstrate mastery of a chosen field of study, and

• Value intellectual pursuit and continuous learning in a changing world.

Organization of the University

The government of the university is vested in the Board of Regents of Murray State University, a corporate body established by statute and enjoying all immunities, rights, privileges and franchises of an educational governing body.

The president serves as the chief executive officer of the university and as such is ultimately responsible to the Board of Regents for all matters pertaining to the institution. The president reports directly to the board.

Following the organizational structure established by the Board of Regents, responsibility for most operational units of the
The mission of Murray State University is comprised of five academic colleges and two schools. The colleges are Business, Education, Health Sciences and Human Services, Humanities and Fine Arts, and Science, Engineering and Technology. The Hutson School of Agriculture and the School of Nursing complete the academic structure. Each college/school offers a unique program of human endeavor with interdisciplinary study among the colleges/school to provide students broad educational perspectives.

University Libraries
The university libraries—the Harry Lee Waterfield Library, the James O. Overby Law Library and the Forrest C. Pogue Library—contain approximately 570,000 resource materials, including 120,000 bound volumes and approximately 2,200 current journal and newspaper subscriptions.

Waterfield Library, the main library of the University, houses the circulating and reference collections, government documents, microforms, and journals. The Libraries also provide access to numerous electronic resources ranging from databases to full text articles to newsgroup articles supporting all University curricula. Full Internet search capabilities are available on computers in all three Library facilities; in addition, the Waterfield Library lobby houses a computer lab with 44 computers loaded with Internet browsers and Microsoft Office software.

In addition, as a service to students who desire directed instruction in the use of library resources, library faculty teach an information literacy course, LOR 101 Research in the Information Age. LOR 101 supports the University’s goal of ensuring that each MSU graduate will “apply sound standards of information gathering, analysis and evaluation to reach logical decisions.” This two-credit-hour course is taught in multiple sections during each eight-week session in the fall and spring semesters, with one section offered during the summer.

The reserve collection, housed at Waterfield Library’s Circulation Desk, consists of materials assigned by faculty members for class use in the library or for a limited checkout period. A patron-initiated electronic interlibrary loan service for faculty, staff, and students is maintained for the borrowing of materials from other libraries. Photocopying services for print and microform materials are available for self-service use.

The Special Collections are located in the Forrest C. Pogue Library, housing materials relating to the history and culture of western Kentucky, Tennessee and those states from which the early settlers of this area came. Holdings include books, journals, newspapers, state documents, manuscripts, rare books, prints and paintings, tape recordings, maps, and microforms. Especially noteworthy are its outstanding collections of local and regional history, TVA materials, and Civil War materials, as well as the political papers of Harry Lee Waterfield, Robert A. Everett, Noble J. Gregory, Edward T. Breathitt, and Frank Albert Stubblefield. Additional holdings include materials relating to Kentucky authors Irvin S. Cobb and Jesse Stuart. The Forrest C. Pogue War and Diplomacy Collection, including personal papers, books and other materials donated by noted historian and Murray State University graduate Dr. Forrest C. Pogue, is available for research purposes. The James O. Overby Law Library, located on the lower level of the Pogue Library, consists of basic legal materials governing the United States and the Commonwealth of Kentucky.

International Student Services
International Education Policy. The mission of Murray State University includes as a priority the commitment to international education in order to prepare students to function in an increasingly interdependent world. Through its Institute for International Studies and related efforts, the university supports and encourages the development of international content across the curriculum, the provision of opportunities for international experience for both students and faculty, the active and continuous exploration of international issues on campus, and the meaningful involvement in the life of the university of international students and scholars.

Institute for International Studies. The Institute for International Studies (IIS) was designated in 1998 for the unified coordination of international programs and activities at Murray State University. Evolving from the separately created Center for International Programs (1981) and the English Language Institute (1993), IIS supports Murray State’s commitment to international education as an integral dimension of the university experience. IIS provides the following services to students, faculty and the community:

- Assistance to International Students and Scholars. Full-time international student advisors provide assistance in addressing the academic, personal, intercultural, and immigration needs of international students. Additionally, IIS provides students, research scholars and visiting faculty with orientation programs, immigration advising; and cultural enrichment activities. The International Student Organizations offer an active, caring community of support for almost 500 students from more than 60 countries.
- Information Clearinghouse. The institute maintains a library of materials on study, work, research, teaching and travel abroad. IIS publishes brochures and announcements of study and teaching abroad opportunities, and newsletters on international programs. An international speakers bureau serves as a resource to regional public schools in support of KERA, while events are publicized by press releases and the web site’s calendar.
- Special Program Development. IIS is involved in initiating special programs with an international emphasis. Internal and external groups can work to develop programs to support their specific interests. These have ranged from lecture series to longer curricular programs designed for language study, ESL training, or professional development.
- Curriculum Support. With IIS support, the university has also developed and refined a international affairs curriculum on campus, initiated an English-as-a-Second-Language Program, created professional development seminars abroad, supported the development of a graduate TESOL program, and worked toward the creation of degree programs abroad.
- English as a Second Language Program. The ESL Program prepares nonnative speakers of English for full-time study at Murray State or other North American schools. Through careful assessment, intensive instruction, and out-of-class activities such as field trips, seminars, and a mentoring program, international students receive the personal attention they need to advance their English skills. For more information, see the section on International Student Admission in Chapter 2.
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Student Affairs

The primary concern of Student Affairs is the student. This concern encompasses retention, welfare, and growth and development in all dimensions of student life including educational, vocational, social-cultural, civility and tolerance, psychological, values clarification and physical. Student Affairs provides a variety of educational and administrative services, programs and activities in support of the Strategic Plan of the university. It is committed to excellence in and the integration of curricular and co-curricular activities to ensure a supportive living-learning environment.

Student Affairs offices include Adventures in Math and Science; Multicultural Affairs; Campus Recreation; Career Services; Counseling and Testing; Curris Center; Dining Services; Enrollment Management; Financial Aid; Governor’s Minority Student College Preparation Program; Greek Affairs; Health Services; Housing; Judicial Affairs; Office of Student Disability Services; Recruitment; Student Activities; Student Government; Student Organizations; Student Support Services; Undergraduate Admissions, University Scholarships; University Store; and Upward Bound. These units are coordinated through the Office of Student Affairs, located on the first floor of Ordway Hall, 270-809-6831. Students, their families, and the public are encouraged to contact any of these offices for information and assistance with any student-related concern.

Campus Life

Student life on the MSU campus is enriched by an array of opportunities both inside and outside the classroom. Activities, campus organizations, extracurricular learning experiences, residential college life, sports and student services are all designed to complement the academic focus and complete the university experience.

• Learning and Cultural Experiences

Murray State University has achieved national recognition by providing continuing educational opportunities throughout western Kentucky, utilizing such unique educational resources as Land Between the Lakes, Murphy’s Pond, Kentucky and Barkley Lakes, and the surrounding environment.

Special learning opportunities exist through the Forrest C. Pogue Public History Institute, the Jesse Stuart Creative Writing Symposium, the Alben Barkley Distinguished Lecture Series, the Clifton Sigsbee Lowry Distinguished Lecture Series, the Harry M. Sparks Distinguished Lecture Series in Educational Administration, the Waterfield Center for Business and Governmental Research, the Distinguished Lecture Series in Business Administration, the Harry Lee Waterfield Lecture in Government, and the MSU Presidential Lecture Series.

Murray State’s faculty members research, teach, advise student organizations, and work with students on a personal level to help them achieve success. The faculty is respected in the higher education community. Each faculty member is prepared to challenge students in learning and inspire lifelong self-development.

Cooperative Center for Study Abroad (CCSA). As a member of CCSA, MSU provides several options for study in English-speaking countries including winter break, summer, and fall semester programs. These programs involve formal academic coursework, excursions and independent travel.

International Business Seminars (IBS). Business students may participate in one of several multi-country business seminars in Europe. The seminars, offered during winter and summer academic breaks, focus on marketing and management.

Lectures, Recitals, Concerts, and Movies. Outstanding artists give concerts, lectures, and other programs throughout the year. Activities range from major speakers, large concerts and local cultural activities to coffeehouse entertainment. Most activities are free to students with ID cards. A semester calendar of events may be obtained from the Student Government Office located in the Curris Center.

Musical Organizations. Students have access to many musical opportunities on campus. All musical organizations are open to non-music majors, some through audition. Interested students are encouraged to contact the Department of Music for information regarding the following activities: Concert Choir, University Chorale, Chamber Singers, Opera Workshop, Orchestra, Racer (Marching) Band, Wind Ensemble, Symphonic Band, Concert Band, Pep Band, Jazz Ensemble, and numerous small chamber music ensembles.

Radio and Television. Participation in productions of WKMS-FM and MSU-TV 11 is open to interested and qualified students.

Religious Life. Nine campus ministry programs, many staffed by full-time clergy, and 22 churches in Murray representing 19 different faiths provide rich and diverse opportunities for the student’s spiritual growth and faith enrichment.

Special and Traditional Events. Great Beginnings Week kicks off the year with a variety of social events. Homecoming is the most notable and colorful of traditional campus events, featuring a parade, football game, entertainment, and scores of open houses, receptions, dances, reunions and special observances. Family Weekend is a special fall event featuring activities to honor Racer families.

“Campus Lights” is an all-student musical production which takes place each February. The Ms. Murray State Scholarship Pageant is held early in the spring. Another spring event is the “All Campus Sing,” in which campus organizations vie for trophies in an outdoor singing competition. The Senior Breakfast recognizes the achievements of and marks the end of an era for the university’s senior class members. Honors Day, held the week of May Commencement, is a time when the university pauses to pay tribute to the campus’ most outstanding scholars.

Speech and Debate Union. The Union is comprised of the eight residential college debate societies, the Executive Council of society captains and officers, the travel team and recruitment team. Workshops are conducted throughout the year to enhance leadership, analytical, and communication skills. A formal on-campus debate is held each semester and cash prizes are awarded to the top participant teams and colleges. The travel team competes regionally and nationally in all areas of forensics including debate, informative speaking and interpretive speaking. Officers visit schools and promote Murray State University and the Union to prospective students. The Union is open to all students and is housed in the Department of Organizational Communication within the College of Business.

Study Abroad. Through IIS, Murray State University maintains cooperative agreements with institutions in over 20 countries as well as consortial membership with several organizations, which provide international experience and education for its students. Each year, through these various venues, MSU students may select from over 60 study abroad programs. Because new programs are always being reviewed and added, students interested in study abroad may inquire at any time at IIS for information, or they may visit the Study Abroad Resource Room (175 Woods Hall) at their leisure. The Institute also develops and maintains partnerships with over 30 institutions in 20 different countries. The relationships provide opportunities for students, faculty, and staff to engage in international study, teaching, research, and work activities throughout the year.
Student Publications. The Murray State News, the University’s award-winning newspaper, is published by students under the direction of an adviser in the Department of Journalism and Mass Communications. In addition to being published weekly during the fall and spring semesters, The News produces special publications regarding events and topics of interest to the University and community. The paper and thenews.org, its website, cover campus news, events and Racer sports.

Theatre. In addition to the course offerings for the Department of Theatre as outlined in the College of Humanities and Fine Arts, there is a complete schedule of productions offered to the public. Children’s Theatre and student-directed one-act plays are presented along with regular University Theatre productions. Participation in these activities is open to all students.

University Galleries. The Clara M. Eagle Gallery comprises three distinct and dynamic exhibition spaces, annually featuring nationally juried exhibitions, local and regional artwork, and recent work produced by faculty, students, and alumni of the Department of Art and Design. Through the presentation of an engaging exhibition series, the Eagle Gallery functions as a vibrant and welcoming center for the arts. As a leading producer of dynamic programming the gallery provides its audiences with a rewarding experience of historical and contemporary art, reflecting current social and cultural issues, and the spirit of academic life at Murray State. All exhibitions and presentations are free and open to the public and to the university community.

Student Organizations

These leadership organizations.

The following organizations are open to all students and generally have more liberal membership requirements such as GPA, class standing or rank.

111 Curris Center.

Honor Societies, National honor societies at Murray State and the University:

• Sigma Alpha Lambda, recognizes upperclassmen with a GPA of 3.0 or higher.
• Alpha Sigma Lambda, a national service-oriented academic society for nontraditional students who have achieved sophomore status with a GPA of 3.2 or higher;
• Gamma Beta Phi, a national service-oriented academic society.
• Alpha Sigma Alpha, for nontraditional students who have achieved sophomore status with a GPA of 3.2 or higher;
• Beta Alpha Psi, recognizes scholastic and professional excellence in the business information field;
• Gamma Beta Phi, a national service-oriented academic society selecting members from among the outstanding campus scholars;
• Omicron Delta Kappa (ODK), a national leadership fraternity for junior and senior men and women based on character, scholarship, leadership and service in campus life;
• Sigma Lambda Upsilon, recognizes upperclassmen with a GPA of 3.0 or higher.

Honors Program Student Council, participating in activities and governance of the Honors Program;

Judicial Board, a part of the Student Government Association, which holds hearings in cases involving the SGA constitution and traffic violation appeals and assists in cases involving the Code of Conduct;

Residential College Association, sponsoring social, recreational and educational programs and advising the university administration on the operation of residential colleges and food service;

Student Government Association, voicing student opinion, promoting cooperative effort and fostering an academic and social climate;

Campus Activities Board, a branch of the Student Government Association, which sponsors annual events such as Homecoming and the Ms. Murray State University Scholarship Pageant, as well as movies, lectures and concerts throughout the year.

Interest Organizations. The following organizations are primarily special interest or independent religious, social or service groups: Alliance, Amnesty International, Baptist Campus Ministry, Black Student Council, Canterbury Club, Coexist, Friends of Anime, Gamma Sigma Sigma, Growing into Respectable Outgoing Women, International Student Organization, Latter Day Saints, Lion’s Club, Lutheran Student Fellowship, Ministry Open to All, MiSFits, MSU Campus Scouts, MSU College Democrats, MSU College Republicans, New Life Campus Ministry, PEER, Rotaract Club, SPARK, Students in Free Enterprise, Up ‘Til Dawn, Voices of Praise.

Greek Organizations. The following national social fraternities have chapters at Murray State and are members of the Interfraternity Council: Alpha Gamma Rho, Alpha Sigma Phi, Alpha Tau Omega, Lambda Chi Alpha, Phi Kappa Tau, Pi Kappa Alpha, Sigma Chi, Sigma Phi Epsilon, Sigma Pi, Tau Kappa Epsilon.

The following national social sororities have chapters at Murray State and are members of the Panhellenic Council: Alpha Delta Pi, Alpha Gamma Delta, Alpha Omicron Pi, Alpha Sigma Alpha, Sigma Sigma Sigma.
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The following historically black Greek organizations have chapters at Murray State and are members of the National Pan-Hellenic Council. Fraternities: Alpha Phi Alpha, Iota Phi Theta, Kappa Alpha Psi, Phi Beta Sigma. Sororities: Alpha Kappa Alpha, Delta Sigma Theta, Zeta Phi Beta.

Gamma Sigma Alpha is an honor society for members of national Greek organizations.

•Sports and Recreation

Intercollegiate Athletics. Murray State is a charter member of the Ohio Valley Conference and is a Division I member of the National Collegiate Athletic Association. The Racer athletic teams are perennial challengers for major honors in the sponsored seven men’s sports and ten women’s sports. Rifle is sponsored as a coeducational sport at MSU. Sponsored sports for the men include football, basketball, baseball, golf, cross-country, tennis, and rifle. Intercollegiate competition is available to women in cross-country, tennis, basketball, rifle, soccer, softball, golf, indoor track and field, outdoor track and field, and volleyball.

Statement of Philosophy: As the primary purpose of the University, the educational experience for the student-athlete will be stressed at all times, which is to state that, academic achievement precedes any participation in intercollegiate athletics. Thus, Murray State University recognizes its athletics program as a substantial adjunct to the accomplishments of university objectives in education, research and service. In like manner, the athletics department embraces a wide variety of interests and believes that intercollegiate athletics offers a more attractive environment for prospective students seeking admission while enhancing retention of those students already admitted.

Additionally, athletics fosters a positive atmosphere for the student body, the university community, the alumni and the regional community, and as such is greatly affected by the image portrayed by our student-athletes both on and off the playing surface. Therefore, athletics has a substantial responsibility and obligation to these constituencies for outreach and community service coupled with an obligation to the Ohio Valley Conference as well as the National Collegiate Athletic Association to adhere to all collectively held principles of ethical conduct and sportsmanship.

To meet both of these primary objectives of athletics for Murray State University, athletics will seek to recruit student-athletes who are capable of academic success while providing support and development opportunities that will allow the physically as well as academically gifted and talented environment to express themselves to their maximum potential.

The Murray State University athletics program will be conducted in a manner that exercises fair and equitable treatment of student-athletes as well as personnel regardless of gender or race. The department of athletics will undergo regular and periodic evaluations to maintain its course in meeting these stated objectives.

Campus Recreation. The Campus Recreation office is responsible for the management of all recreational sports programming including intramural sports, sport clubs, and special events. A wide variety of leagues, such as softball, flag football, volleyball, soccer and basketball, are offered throughout each semester.

Outdoor Recreation. Murray State students can spend many hours in the vast recreational area of Kentucky and Barkley Lakes and the Land Between the Lakes national recreational area, all located within a short drive from campus. Here students enjoy swimming, fishing, water skiing, golfing, camping, horseback riding, hiking, and just soaking up the sun on the beaches.

Murray State University, its officers, agents, and employees disclaim any responsibility for injury to a student engaged in an activity not directly supervised by university personnel, and if supervised, only to the extent permitted by law.

Sport Clubs. Sport clubs at Murray State are both student- and university-initiated and compete on both an intramural and an extramural basis. Students can gain valuable organizational and coaching experiences as well as just healthy fun through participation in a sport club. Bowling, crew, chess, fencing, soccer, rodeo and volleyball are presently organized.

Murray State University, its officers, agents, and employees disclaim any responsibility for injury sustained by a student participating in a sport club unless the sport is directly supervised by university personnel, and then only to the extent of the law.

Sports and Physical Fitness Facilities. Murray State has a great number of facilities to meet the sporting and fitness needs of faculty, staff and students. The Susan E. Bauernfeind Student Recreation and Wellness Center includes basketball courts, aerobics studio, free weights, selectorized machines, cardio workout equipment, swimming pool with whirlpool, racquetball courts, walking/jogging track, and a café/lounge with Internet access. A multipurpose room is also available for meetings and classes. In the Carr Health Building/Racer Arena, there are four racquetball courts, three multipurpose gymnasia, a gymnastics room, an indoor jogging track, a swimming pool, and dressing rooms. Outdoor facilities include four basketball courts, 16 lighted tennis courts, two sand volleyball courts, and numerous athletic fields for team sports. The CFSB Center houses a jogging track and numerous courts for basketball, volleyball, and other indoor activities. The Miller Memorial Golf Course is available to Murray State students, faculty, and staff as well as the community.

•Student Services

Adults Student Services. Adult Student Services is a division within Continuing Education and Academic Outreach. One branch of the Adult Student Services area is a program called Adults Belong in College. This program provides services to those students who have had a break in their formal education and who are entering or reentering college. The services include information about admission, registration, placement testing, review classes, and campus support services; adult orientations; a lounge and resource center located in Ordway Hall; Alpha Gamma Epsilon, a nontraditional students’ organization; and Alpha Sigma Lambda, a national honor society for adult students. The Adult Student Services liaison is located on the 3rd floor of the Lowry Center. The phone number is 270-809-5796 or 1-800-669-7654.

Alumni Association. Membership privileges of the Murray State University Alumni Association are extended automatically to all graduates and any individual attending MSU for two consecutive semesters who did not graduate. Activities sponsored by the Alumni Association include chapter meetings and receptions, events during Alumni Recognition and Reunion weekends and Homecoming, and recognition programs such as Distinguished Professor, Distinguished Researcher, Emerging Scholar, Golden Horseshoe and Distinguished Alumnus. The Association encourages graduates and attendees to continue a close relationship with the organization and the University and also seeks ways to educate future alumni on the various ways they can support the goals and mission of the University after graduation. Interested individuals may telephone 270-809-5600, visit online at www.raceralumni.com, or visit the Alumni Center located adjacent to Roy Stewart Stadium.

Career Services. The Career Services Office supports the institution’s mission in educating individuals to become productive citizens in society by serving as a liaison between students, alumni, faculty and the world of work, while providing integrated career placement services. These services include career counseling, job search strategies, credential building opportunities and
information on employment trends and current hiring procedures, which will ultimately result in meaningful and satisfying employment upon graduation.

An essential part of the job search process is experience. Through cooperative education and internship opportunities available through Career Services, students can find the right employment that will add value to their degree. Several career fair events are designed and sponsored by the office throughout the year to connect students to employment opportunities.

Career Services also provides other resources for students. These include a list of part-time employment for both on and off campus employers through work-study programs, a list of full-time position vacancies, the National Student Exchange program, where students can attend another college or university for up to one year. Additional services include: workshops, seminars, presentations, on-campus and mock interviews, cover letter and resume assistance, individual career counseling, the online recruiting services which features Racer Track Job Search Database powered by Experience and the GoinGlobal networks.

Choosing a career is one of life’s most important decisions. The Career Services Office provides important career-oriented assistance, of which “Discover” is the centerpiece. The Discover program is a comprehensive, computer-based career information and planning system, which has been designed to assist in career and educational planning needs. This program can quickly assess and identify a student’s work-related interests, abilities and values and compare those to data provided by individuals in those occupations. Individual career counseling and the use of a comprehensive career library housed in Waterfield Library is provided in conjunction with “Discover” to assist students in their selection of a career action plan. To schedule an appointment, contact Career Services at 270-809-3735.

Center for Academic Advising. This center advises all students who have not decided on an academic major. A wide range of services are provided to help the undeclared student choose a suitable major. Contact 270-809-3895 or olympia.stewart@murraystate.edu.

Counseling and Testing Center. Located in 104 Applied Science Building, the center has a full-time staff available for educational, career, and personal counseling. Students with concerns of a personal or emotional nature should feel free to contact the Counseling and Testing Center for confidential assistance. Appropriate referrals to additional mental health services will also be provided to students. The Counseling Center also extends its counseling and referral services to faculty and staff through an employee assistance program. Interested faculty and staff should call the Counseling and Testing Center for more information. You may also check our website at www.murraystate.edu/counseling.

A wide range of admission tests used nationally, such as the American College Test (ACT), Graduate Record Examination (GRE), and College Level Examination Program (CLEP) series, are available to students through the testing service. In addition, appropriate tests to assist students with career exploration and self-understanding are available. We are an Educational Testing Service Computer Based Testing Center and offer a variety of computer delivered assessments. For more information, please see testing information on the web at www.murraystate.edu/testing.

A full range of credit by examination opportunities is available at Murray State University through the CLEP and APP programs. Our policy on accepting credit through these programs may be found at www.murraystate.edu/clep.

The Counseling Center offers computer-assisted career guidance through the use of the DISCOVER computer system. This resource can assist an individual in identifying potential career areas and provide detailed information regarding job characteristics and employment outlook. Instructions on obtaining an access code are provided on the Counseling Center’s website.

Dining Services. Murray State Dining Services operates eight retail dining facilities, catering services, and all-you-care-to-eat Winslow Dining Hall to meet the needs of student living on campus. Dining Services is committed to serving nutritional menu choices as well as buying high quality products and running an environment-friendly kitchen. Further information is available from the Dining Services Office, 101 Curris Center, 270-809-4600 or www.murraystate.edu/dining.

Disability Services. The Office of Student Disability Services, located on the fourth floor of the Wells Hall, offers accommodations and academic support services for students who have disabilities. These disabilities include cognitive (i.e., learning disabilities, attention deficit disorders, and traumatic brain injuries), psychological impairments, seizure disorders, autism, sensory, mobility, or other physical or health impairments. Accommodations may include: textbooks in alternate format, notetakers, testing accommodations, classroom and course accommodations, and housing and parking accommodations. All accommodations are based on each student’s documented disability.

Project for Achieving Student Success – Project PASS provides a more comprehensive level of academic support for entering freshmen and new transfer students with disabilities. Enhanced support services include: scheduling assistance during summer orientation, an early move-in program to help freshmen students with disabilities make the transition from high school to college, specialized English and World Civilization classes, three semesters of study skills courses designed specifically for students with disabilities, and conferences with students during their first three semesters at MSU to review mid-term grades and develop a plan to achieve academic success. Finally, Project Mentor is an academic support program that offers enhanced support through trained mentors, which allows students with disabilities to receive individualized assistance with learning difficulties, strategies for organizing, and studying course-related materials and assignments. Fees for Project Mentor are based on the number of hours each week the student meets with his/her academic mentor. Please see the SDS website for more information: www.murraystate.edu/studentdisabilityservices. Telephone number: 270-809-2018.

Health Services. Health Services is located at ground level in the north wing of Wells Hall. The clinic is open for student visits from 8:00 a.m. to 11:30 a.m. and from 1:00 p.m. to 4:00 p.m. on weekdays when classes are in session, with the exception of Wednesday afternoons. Primary health care is offered on a drop-in outpatient basis. Students are screened and assessed by professional nurses. They may be treated or referred to the physician, depending on the nature of the visit. The local hospital provides physician services on a 24-hour basis for emergencies.

Multicultural Affairs. The Office Multicultural Affairs was established to provide ongoing assistance and support to Murray State’s student population prior to and following their enrollment. The office serves as a clearinghouse, a referral service, and a liaison among administration, academic units and the community. For additional information contact the Office of Multicultural Affairs in the Marvin D. Mills Multicultural Center, Room 110 in the Curris Center, call 270-809-6836 or email the office at msc.multicultural.affairs@murraystate.edu.

Psychological Center. Located in 401 Wells Hall, the Center serves as a training facility for graduate students in the Clinical Psychology Master’s program. Clinicians provide psychotherapy free of charge for Murray State students, faculty, and staff. Psychodiagnostic assessment is offered to students, faculty, and staff.
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for a minimal charge. Psychological services are also offered to children and adults in the community for fees charged on a sliding-scale basis. For more information, www.murraystate.edu/psychologicalcenter or 270-809-2504.

Public Safety and Emergency Management Department. (University Police) Located at the corner of North 16th and Chestnut Streets and is open 24-hours-a-day, seven-days-a-week. Telephone number: 270-809-2222. Emergency number: 911.

The mission of the Public Safety and Emergency Management Department, in cooperation with the university community, is to provide an orderly environment conducive for students to learn while also assuring the safety and protection of the students, faculty, staff and visitors on the campus.

The University Police are state certified police officers responsible for a full range of public safety services, including crime reports, investigations, medical emergencies, fire emergencies, traffic accidents, enforcement of state and local laws and all other incidents requiring police assistance. The Public Safety and Emergency Management Department is also responsible for escort services after dark, guest and visitor information, enforcement of traffic and parking regulations, and lost and found.

Murray State University’s annual security report includes statistics for the previous three years concerning reported crimes that occurred on campus; in certain off-campus buildings owned or controlled by Murray State University; and on public property within, or immediately adjacent to and accessible from campus. The report also includes institutional policies concerning campus security, such as policies concerning alcohol and drug use, crime prevention, the reporting of crimes, sexual assault, and other matters. You can obtain a copy of this report by contacting Public Safety and Emergency Management or by accessing the following web site: www.murraystate.edu/publicsafety/crime99.htm. The Murray State University web-based Crime Log has information regarding recent crime and is available at: www.murraystate.edu/publicsafety/crimelog. For emergency information, please access our website at www.murraystate.edu/headersmenu/offices/public-safetyandemergencymanagement.

Rehabilitation Services. Located at 117 Wells Hall, the Office of Vocational Rehabilitation provides services to individuals who have a physical or mental impairment which constitutes or results in a substantial impediment to employment. Reasonable expectation that vocational rehabilitation services will benefit the individual in terms of employment outcome must exist. Services provided can include vocational assessment, vocational counseling, rehabilitation technology, training (tuition, books, fees, etc.), job placement, and other services as needed on an individual basis. The amount provided is based on financial needs assessment and availability of funds. Telephone number: 270-809-3371.

Residential Colleges. Residential colleges are at the center of Murray State University, redefining collegiate living and educational experiences for undergraduate students. Every undergraduate student will belong to one of the eight residential colleges. At the heart of each residential college is the residence hall, which is the focal point for all residential college activities.

Each residential college is composed of students from a variety of academic majors, grade classifications, ethnic backgrounds, and extracurricular interests. Residential colleges are designed to celebrate the rich diversity of Murray State University students, staff, and faculty. Each residential college offers a stimulating living-learning environment for students.

Residential colleges provide students with opportunities to interact with faculty on a daily basis outside of the classroom. The small community atmosphere allows students the chance to establish a sense of pride and common purpose. After being assigned to a residential college, the student is connected with that community throughout the undergraduate years. Students, staff, and faculty establish enduring friendships through the experience. The residential college develops traditions and lasting bonds that remain with students years after graduation. The eight residential colleges are Elizabeth College, Clark College, Hart College, Hester College, Regents College, Richmond College, Springer/Franklin College, and White College.

Speech and Hearing Clinic. This clinic, part of the Department of Wellness and Therapeutic Sciences, is located on the first floor of the north end of Alexander Hall. The clinic provides a full range of professional evaluation and treatment services in speech, language disorders, and audiology for Murray State University faculty, staff, and students and area residents. There is no charge for Murray State students, faculty, staff, or dependents. Telephone number: 270-809-2446.

Summer Orientation. Summer Orientation is a program to assist new students in becoming more familiar with the campus, topics covered include student life, housing, dining, financial aid, and fee payment along with academic information. Students schedule classes and have their student ID picture made while at orientation. There are six one-day sessions to choose from and parents are also encouraged to attend with their student. Summer O is required for incoming freshmen, if you do not attend a session, you must wait until after the last orientation before you can schedule classes. There is a fee for orientation that covers all meals and materials for the student and accompanying parents or guests.

University Store. Located on second floor of the Curris Center, the University Store is a full service bookstore and is committed to helping students accomplish their educational goals. The store offers both new and used textbooks with a daily book buyback service. Select courses offer a textbook rental option in an effort to reduce textbook prices. The University Store also serves as the Official Headquarters for unique university logo gifts and apparel for men, women and Little Racers. Visit the University Store Monday through Thursday from 8:00 a.m. to 6:30 p.m., Friday 8:00 a.m. to 6:00 p.m., Saturday 10:00 a.m. to 4:00 p.m. and Sunday 1:00 to 4:00 p.m. Shop online www.varyshops.net/murraystate, call 1-800-749-8580 or e-mail books@murraystate.edu.

Veterans Affairs. The primary mission of the office is to assist the veteran student with the successful transition from military to university campus life. Eligible candidates should contact the office immediately concerning general procedures and documents required to complete enrollment certification with the VA regional office. This will help ensure prompt payment of education benefits.

Veterans under the Vietnam-era Montgomery G.I. Bill (Chapter 34) should be aware that this program was terminated on December 31, 1989. Active-duty personnel (Chapter 34) entering the service after June 1, 1988, and those who entered after July 1, 1985, will qualify for educational assistance under the new Montgomery G.I. Bill (Chapter 30). A six-year commitment is required with the National Guard or Selected Reserve for the Montgomery G.I. Bill (Chapter 1606). People who have a disability rating will receive funding through the rehabilitation program (Chapter 31). Those who have served between January 1, 1977, and July 1, 1985, and participated in the matching funds program (Chapter 32 VEA) also have educational benefits. Children, spouses and widow(er)s of veterans who, while serving in the armed forces, were killed on active duty, or have died as a result of a service-connected disability, or are permanently and totally disabled, or were prisoners of war, or are missing in action qualify for benefits under the Survivors’ and Dependents’ Educational Assistance
Program (Chapter 35). Students eligible for the Post 9/11, Chapter 33 must have served on active duty after September 10, 2001 for a minimum of 90 aggregate days (excluding entry level and skill training); or a minimum of 30 continuous days if discharged for a service-connected disability. Active duty members are eligible the 90th day after completion of entry level training. For the most current and up to date information on all VA programs, benefits, and eligibility, please visit the U. S. Department of Veterans Affairs website: www.gibill.va.gov.

Tuition fees may be waived at any state-supported institution of higher education in Kentucky for those children, spouses and widow(er)s of Kentucky residents who, while serving in the armed forces or the Kentucky National Guard, were killed on active duty, or who have died as a result of a service-connected disability, or who are permanently and totally disabled, or who were prisoners of war, or who have been declared missing in action. Dependents of living qualifying veterans must be between the ages of 17 and 23. Tuition fees are waived for up to 36 months, or until age 23, whichever comes first. Neither the age restriction nor the 36-month limitation applies to dependents of deceased veterans.

The Veteran Affairs Office and the Certifying Officer is located in the Basement of Sparks Hall or call 270-809-3754. The Veteran Affairs Liaison who assists students with admission to the University and other support services is located in the Transfer Center and can be reached at 270-809-5796. A Veteran Student Services organization is now available to all Veterans. Contact the Veteran Affairs Liaison for more information.

Policy on Academic Honesty
(Adopted by Board of Regents, February 14, 1975)

Cheating, plagiarism (submitting another person’s material as one’s own), or doing work for another person which will receive academic credit are all impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure or give help during an examination, the unauthorized copying of examinations, assignments, reports, or term papers, or the presentation of unacknowledged material as if it were the student’s own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.

Note: Faculty reserve the right to invalidate any examination or other evaluative measures if substantial evidence exists that the integrity of the examination has been compromised.

Policy on Attendance
Students are expected to attend all classes in which they are enrolled for credit or audit purposes. An instructor may establish attendance policies for each class so long as they: (1) are clearly published in the course syllabus, (2) distinguish between excused and unexcused absences and (3) are consistent with university policies as outlined in this Bulletin. Excused absences fall into two broad categories:

1. Absence due to personal illness or death in the immediate family or other extraordinary personal circumstance. Faculty may require appropriate authentication or documentation.
2. Absence due to student participation in a University Sanctioned Event in which the student serves as a representative of the institution.

University Sanctioned Events shall include those officially scheduled activities (practice and training sessions NOT included) related to intercollegiate athletics, performing groups, and teams who represent the university in debate, forensics or other academic competitions. Other activities and events may be added to this listing upon recommendation of the Sanctioned Events Commit-tee and approval by the Provost. This committee shall consist of the Vice President for Student Affairs, the Director of Athletics, the Faculty Senate President, a student appointed by the President of the Student Government Association, and the Provost or his designee. The official list of approved, sanctioned activities and events shall be maintained in the Office of the Provost.

Attendance and participation in class activities is essential to success in college. Absences, for whatever purposes, can potentially undermine the shared goal of student learning. In cases where student absences are clearly unavoidable, it is essential that students and faculty alike approach the resolution of the difficulty with a clear commitment to the mutual goal of student learning.

Responsibilities of Students: Students missing class(es) as a result of activities covered above shall notify the instructor in writing at the beginning of the semester and, in the case of scheduled events, this notification shall not be less than one week prior to the absence. Students with excused absences are excused from class attendance but are not excused from work assigned or expected as a part of that class period. Students, in conjunction with each course instructor, are required to develop a plan for alternative assignments or the make-up of all work missed and must complete this work within a time frame mutually agreed upon with the instructor.

Responsibilities of Faculty: Faculty are expected to plan with students who have excused absences to develop alternatives and make-up assignments. Such alternatives are not expected to diminish faculty expectations of students, nor may they reduce opportunities for students to demonstrate performance.

Responsibilities of Others: Deans and department chairs share the responsibility for ensuring proper orientation of all full and part-time faculty regarding the provisions of this policy. Administrators, sponsors and coaches of various student activities share an important role in ensuring that students understand their responsibilities with respect to this aspect of student performance. Specific guidelines and procedures should be developed for each sport or activity to ensure timely communication between students and faculty. Advance lists of varsity/participating students along with schedules of away or off-campus activities or matches should be provided to students so that they, in turn, can share this information with faculty at the beginning of the semester.

Questions and Appeals: In the event of questions or concerns regarding the implementation of this policy in specific classroom situations, students and faculty should be guided by the following:

1. If there is a question regarding whether a specific activity is an officially sanctioned event for which terms of this policy might apply, the inquiry should be addressed to the Office of the Provost.
2. In the event a student is concerned with the implementation of this policy in a specific course, the student should try to resolve the matter by discussing it first with the instructor, then with the department chair, and if resolution is still not reached, then with the collegiate dean. If the matter is not settled through this process, the student may seek resolution through the appropriate collegiate grievance/appeal process.
3. Instances of student abuse or violation of the terms of this policy should be reported to the dean or director responsible for the sanctioned event and to the Vice President for Student Affairs.

Policy on Racial Harassment
It is the policy of Murray State University to conduct and provide programs, activities and services to students, faculty and staff in an atmosphere free from racial harassment. Racial harassment is any behavior that would verbally or physically threaten, torment, badger, heckle or persecute an individual because of
The University

his/her race. Isolated instances of misconduct, although never condoned, do not necessarily constitute racial harassment, nor a hostile environment.

Racial harassment of university faculty, staff, students or visitors is prohibited and shall subject the offender to appropriate disciplinary action ranging from disciplinary warning to expulsion.

The administration has an open-door policy for any student who feels he or she has been subjected to racial harassment or discrimination. Students are urged to contact the Office of Student Affairs, Ordway Hall, in the event that racial harassment arises outside of the employment setting. All others should contact the Office of Equal Opportunity, 103 Wells Hall.

Policy on Combating Sexual Harassment

It is the policy of Murray State University to maintain the university community as a place of work and study for faculty, staff and students, free from sexual harassment and all forms of sexual intimidation and exploitation. All faculty, staff and students should be aware that the university is concerned and prepared to take action to prevent and correct such behavior, and that individuals who engage in such behavior are subject to discipline.

Behaviors which constitute sexual harassment can be classified in three categories: (1) repeated and unwanted sexual behavior involving physical contact; (2) verbal comments or suggestions of a sexual nature which adversely affect the working or learning environment; (3) coercive behavior, including suggestions that academic or employment reprisals or rewards will follow the refusal or granting of sexual favors. These constitute gross misconduct and will not be tolerated. In such cases, a single incident would establish grounds for action.

Misconduct involving students in a non-employment setting is governed by the University Codes of Conduct, and complaints about such behavior should be referred to the Office of Student Affairs. Anyone who is subject to offensive sexual behavior in the employment setting is encouraged to pursue the matter through the Office of Equal Opportunity.

Policy on Hazing

Murray State University recognizes that student organizations exist for the purpose of extending opportunities for education, social interaction, leadership and skill development, and personal growth beyond the classroom. Therefore, the practice of hazing pledges, associate members, initiates or members is antithetical to the purposes of registered student organizations at Murray State University and is strictly prohibited by the university. Furthermore, as of July 1986, hazing is a violation of Chapter 164 of the Kentucky Revised Statutes. In pertinent part, the statute reads as follows:

“[This statute] prohibits any action or situation which recklessly or intentionally endangers mental or physical health or involves the forced consumption of liquor or drugs for the purpose of initiation or affiliation with any organization... In the case of a student or faculty violator, (violation of this statute shall result in) his suspension, expulsion, or other appropriate disciplinary action and, in the case of an organization which authorizes such conduct, (violation shall result in) revocation of permission for that organization to operate on campus property. Such penalties shall be in addition to any penalty pursuant to the penal law or any other chapter (of Kentucky Revised Statutes) to which a violator or organization may be subject.”

Specifically, on the campus of Murray State University, hazing is defined as any on-campus or off-campus activity which results in mental or physical harassment, humiliation, degradation, ridicule, shock, endangerment, physical disfigurement, excessive fatigue, danger to health, or the involuntary consumption of alcohol or drugs.

This prohibition against hazing applies equally to student organizations, individual students, faculty, and staff members, visitors to the campus, and licensees and invitees on the campus.

Any student who participates in hazing as defined above has violated the Murray State University Code of Conduct and will be subject to disciplinary action as described in the Standards in Disciplinary Proceedings of the Student Life Policies. Any organization which authorizes or permits hazing to occur has violated the policy statement on Regulation of Student Groups and will be subject to group disciplinary action as outlined in that policy.

Policy on Intolerance

The university is committed to creating an educational environment which is free from intolerance directed toward individuals or groups and strives to create and maintain an environment that fosters respect for others. As an educational institution, the university has a mandate to address problems of a society deeply ingrained with bias and prejudice. Toward that end, the university provides educational programs and activities to create an environment in which diversity and understanding of other cultures are valued.

A. Intolerance refers to an attitude, feeling or belief wherein an individual shows contempt for other individuals or groups based on characteristics such as race, color, national origin, gender, sexual orientation or political or religious belief.

B. Actions motivated by intolerance violate the principles upon which American society is built and serve to destroy the fabric of the society we share. Such actions do untold and unjust harm to those who experience this kind of discrimination and threaten the reputation of the university.

C. The expression of diverse views and opinions is encouraged in the university community. Further, the First Amendment of the United States Constitution assures the right of free expression. In a community which recognizes the rights of its members to hold divergent views and to express those views, sometimes ideas are expressed which are contrary to university values and objectives. Nevertheless, the university cannot impose disciplinary sanctions upon such expression when it is otherwise in compliance with university regulations.

D. When any violation of a university policy, rule or regulation is motivated by intolerance toward an individual or group based on characteristics such as race, color, national origin, gender, sexual orientation or political or religious beliefs, the sanction will be increased in severity and may include separation from the university.

Policy on Use of University Facilities

The intent of the following guidelines is to permit appropriate use of university facilities. Murray State University is committed to both the practice and the philosophy of equal opportunity. The principles contained in the guidelines for use of university facilities will be followed without regard to and in a non-discriminatory manner as to race, religion, and/or political affiliation. The guidelines shall also be applicable to all faculty, staff, students, and non-university persons or groups. In addition, persons who are not students or employees of the university are expected, while on university property, to adhere to the standards of usage and conduct applicable to faculty, staff, and students. The facilities of the university shall mean buildings and structures, land, equipment, utilities, walks, streets and recreational areas. The following guidelines apply to all university facilities.
The basic requisite for granting the use of university facilities is relevancy to the educational purpose as determined by the university. Facilities may be used for non-educational activities when it is considered to be in the best interest of the university. However, the university reserves the right to make final determination as to the true educational value or appropriateness of the event being scheduled and whether or not the university will make its facilities available. University facilities may not be used for non-educational programs unrelated to the university when adequate private facilities are available. Generally speaking, facilities will be made available on a “first come, first served” basis.

The order of classification of requesting groups will be determined by the university. The order of classification to be followed in scheduling facilities is as follows:

(a) academic departments, administrative departments and registered student organizations scheduling non-revenue-producing programs, except grant programs that are funded for facility expense;
(b) academic departments, administrative departments and registered student organizations scheduling facilities for university-sponsored, revenue-producing programs (requests must be approved by appropriate dean, vice-president, department chairman, director or organization advisor);
(c) university faculty, staff or students scheduling facilities for non-university-sponsored, revenue-producing programs;
(d) non-university groups requesting facilities for non-revenue-producing programs;
(e) non-university groups scheduling facilities for revenue-producing groups.

Only registered organizations are eligible to schedule university facilities. A non-registered group may schedule a meeting for the purpose of organization. Additional meetings or functions shall not be allowed until the group has registered with the Office of Student Activities.

Minimal charges are necessary to offset operational care of facilities. In addition, any additional necessary charges are the responsibility of the individual or group using the facility.

Guidelines for the use of university facilities, schedule of rental charges and appropriate applications are available from the Scheduling Coordinator, Administrative Services, General Services Building.

Revenue-producing shall include any program having entrance fees or generating income. Any event at which voluntary offerings are collected shall be considered revenue-producing.
General Admission Information

Applications and information are available at Murray State’s website at www.murraystate.edu. Assistance with applying may be obtained by writing Murray State University, Undergraduate Admissions, 102 Curris Center, Murray KY 42071, or by calling 270-809-3741 or toll-free 800-272-4678, menu option #1. Admission applications and related transcripts should be mailed to Undergraduate Admission, 102 Curris Center, Murray, KY 42071. 

NOTE: Criminal justice, exercise science, music, nursing, organizational communication, social work, theatre, athletic training, several programs in the College of Business and the Bachelor of Integrated Studies program all have additional admission requirements. Review their sections in this Bulletin for more information. Students participating in NCAA sports must also meet NCAA academic eligibility requirements.

Residency for Tuition Purposes. Under 13KAR2:045, the Commonwealth of Kentucky requires that all admission applications be reviewed to determine if documentation of residency is required. Each applicant is notified if documents are needed. Additional information can be obtained at the following website: www.irc.ky.gov/kar/013/002/045.htm.

Freshman Admission Procedures

Murray State University formally declares its commitment to all laws mandating affirmative action and equal opportunity regulations, together with all valid state and federal regulations enacted pursuant thereto. The policy of Murray State University is to guarantee freedom from discrimination in its operation and administration of its programs, services, and employment practices; in its relationships with students, faculty and staff; and in its interactions with the community which it serves.

Your Expectations. Students have the right to expect their schools to provide them with the best possible preparation for an increasingly competitive world. Murray State University has consistently been ranked among the top 25 percent of Southern regional and liberal arts colleges in U.S. News and World Report’s publication of America’s Best Colleges, and in 2000 was listed as one of two colleges classified as “best values.”

Our Expectations. Murray State University is committed to providing the best possible educational services to help students prepare for a successful and productive future. Students who meet the following admission standards will have a greatly increased probability of success at this university.

Entering freshmen (and certain transfer students) may be admitted, admitted with conditions, or admitted with restrictions. Those admitted may choose to pursue either a baccalaureate (four-year) or associate (two-year) degree. New freshmen may not apply for the Bachelor of Integrated Studies program.

Required Documents

A student applying for admission who withholds or gives false information or documents can be denied admission to or withdrawn from Murray State. Each freshman applying to Murray State

• must submit an application for admission with a $30 nonrefundable application fee;
• must have an official high school transcript that includes a minimum of six semesters of course work, a list of senior-year courses, and the student’s class rank mailed/sent as a PDF file by email, submitted through XAP or faxed directly to Undergraduate Admissions from the applicant’s high school counselor. (Admission is not complete until a final official transcript is mailed/sent electronically through XAP, or emailed as a PDF file by the counselor after graduation. It must include the date of graduation, all courses and grades, and the student’s final class rank. If your high school does not rank, then the applicant’s admission status will be based on GPA and Standardized Test Scores);
• must have an official ACT or SAT score report sent to Undergraduate Admissions. Official ACT/SAT scores should be on all official transcripts submitted to Undergraduate Admissions. (Applicants who have attended any college(s) other than Murray State while in high school must also have official college transcripts mailed, sent electronically, or faxed directly to Undergraduate Admissions. Faxed copies must be followed up with an official hard copy from the Registrar’s Office of each college, and must have a minimum cumulative GPA of 2.00 on a 4.00 scale. These transcripts are required even if the student withdrew or does not want the credit transferred. Applicants who have testing credit from CLEP or AP must have official score reports mailed directly to Undergraduate Admissions from the testing service in Princeton NJ.)

To be considered for full admission each applicant must have received or be receiving a high school diploma before the term for which he/she is applying. Those individuals who have not graduated from accredited high schools may be required to have a GED. Those who have earned a GED should refer to the GED Student section. Students currently in high school may be considered for early admission as part-time students. See Early High School Admission.

Compass and KYOTE Testing

Murray State utilizes two tests for placement and assessment. The Compass test is a comprehensive computerized placement and diagnostic assessment instrument. Murray State University administers the Compass for non-traditional students who are 21 years of age or older for admission purposes. KYOTE (Kentucky
Admissions

Online Testing Program) currently offers math readiness and college algebra placement tests. KYOTE writing and reading test will be available soon.

Murray State administers Compass and KYOTE tests on a limited basis. Compass tests and KYOTE placement tests are alternatives if ACT/SAT individual test scores do not meet MSU’s admission and placement requirements. If you have any questions, contact the Office of Undergraduate Admissions.

NOTE: For admission and placement use, Compass and KYOTE scores must be current—taken within the last 12 months.

To prepare for the Compass test, you may use any ACT preparation guide. Compass also has sample questions on their website, www.act.org/compass.

If you would like to schedule an appointment for the Compass test or if you have any questions, please call 270-809-6851. Compass test fees are $20.00 for the standard three test battery and $7.00 for single tests.

For information about KYOTE testing, please call 270-809-6267.

Admission Criteria

The following criteria are currently used in making an admission decision but are subject to change as deemed appropriate by the university or as mandated by the Council on Postsecondary Education:

A. Completion of the following pre-college curriculum:
   • English I, II, III and IV (or AP English)
   • Algebra I, Algebra II, and Geometry
   • 1 life science, 1 physical science, and 1 earth space science (one of these must have a lab)
   • Any three of the following:
     United States history, economics, government, world geography or world civilization
   • 1/2 unit of health
   • 1/2 unit of physical education
   • 1 unit of history and appreciation of visual/performing arts
   • 2 units of one foreign language (for KY residents only)
   • Five electives

B. Ranking in top half of graduating class or cumulative GPA of 3.00

C. ACT composite of 18 or above or SAT score of 870 or above.

Note: Kentucky residents under the age of 21 must complete the state-mandated pre-college curriculum. All other applicants must complete a comparable college-preparatory curriculum. ACT/SAT writing scores are optional.

Admission Status

An applicant who meets the requirements in A, B, and C, as listed above, qualifies for Unconditional Admission status.

All other applicants will be reviewed for possible admission as follows:

• an applicant with a minimum ACT composite of 14 or a SAT combined verbal and math score of 690 who meets A and meets the requirement in either B or C will have Conditional Admission status. These conditions include a course-load limit of no more than 16 hours a semester and a requirement to complete the following before becoming a sophomore:
   - Pass FYE 098 and ENG 105
   - Complete any required developmental courses or any courses required due to pre-college curriculum deficiencies.
   - A resident of Kentucky or the Tennessee counties of Henry, Obion, Stewart, or Weakley with a minimum ACT composite of 14 or SAT combined verbal and math score of 690 who does not meet the criteria for “Unconditional” or “Conditional” will be considered for Restricted Admission status. This is an enrollment category provided on a very limited basis during summer and spring terms only. Students allowed to enroll will be limited to 16 hours each semester and will be required to do the following:
     - Satisfactorily complete a seven-hour required block of classes (passing grades must be earned in ENG 095, REA 095 and COM 161) with only one attempt allowed. (If a student enrolled in these block courses completely withdraws from MSU for that term, that attempt will not be counted.) Block courses are only available in summer and spring terms on a very limited basis.
     - Be recommended for advancement by the director of MSU’s Community College.
     - Complete the requirements for “Conditional Admission” as stated above.

Mandatory Developmental Courses

All Kentucky state-supported colleges and universities are required by the Council on Postsecondary Education to enroll freshmen in a subject-specific developmental course when the student’s ACT/SAT scores are:

<table>
<thead>
<tr>
<th>ACT/SAT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>under 440 verbal or under 450 critical reading</td>
</tr>
<tr>
<td>Mathematics</td>
<td>under 460</td>
</tr>
<tr>
<td>Reading</td>
<td>under 450 verbal or under 470 critical reading</td>
</tr>
</tbody>
</table>

At this time, we are permitted to pull scores from multiple ACT/SAT testings. MSU meets this mandate with the following courses:

ENGLISH

Students admitted with restrictions must first enroll in ENG 095; all students with an English ACT score below 18/SAT score below 450 must enroll in ENG 100.

MATH

All students with a mathematics ACT score below 19/SAT score below 450 must enroll in MAT 100; MAT 105 is required for students with a mathematics ACT score of 19 or 20/SAT score of 460 to 490, to precede credit bearing math courses other than MAT 117. (A student’s math sequence will depend upon choice of major.)

READING

Students admitted with restrictions must first enroll in REA 095; all students with a reading ACT score below 20/SAT score 470 or below must enroll in REA 100 and REA 120.

Early High School Admission.

A student who is currently in high school may be granted permission to enroll for courses prior to graduation. Inquiries should be directed first to the student’s high school counselor and then to Undergraduate Admissions. Students seeking early admission must be able to succeed without remediation. These students are referred to as Racer Academy admits.

Home Schooled or Non-accredited High School Student.

A student who is graduated from a non-accredited high school or one who is home schooled, may be considered for admission. The same admission documents and tests are required; however GED testing may be required.

GED Student.

An applicant who is at least 19 years of age and has earned a GED diploma will be considered for admission on...
the basis of an application for admission accompanied by a $30 nonrefundable fee; an official report of the student’s GED scores, mailed directly to Undergraduate Admissions from the center where he or she was tested; an official ACT or SAT score report mailed directly to Undergraduate Admissions from the National testing site; and any additional diagnostic testing deemed necessary by the Director of Undergraduate Admissions.

Admission Appeals. A new freshman who is denied admission and would not qualify for Restricted Admission status, and is a U.S. citizen may obtain information on appealing that decision by contacting Office of Recruitment at 800-272-4678, ext. #2, for the appeals procedure. Transfer applicants who are denied admission and wish to appeal, may obtain information on appealing by contacting the Transfer Center at 1-800-669-7654.

Undergraduate Non-Degree Classification

The goal of Murray State’s policy for non-degree students is to provide appropriate access to academic courses for students who would like to continue their education but who do not wish to seek a degree. Although degree-seeking students have top priority in terms of utilization of university resources, the university does wish to provide access to these resources on a space-available basis to students who are not seeking a degree. Non-degree status affords an opportunity for individuals to enroll in a few courses of specific interest to them without the structure of degree-seeking status, and is consistent with the educational mission of the university. Non-degree students are not eligible for financial aid, scholarships or Alumni Legacy Grants.

Most non-degree students are considered “lifelong learners” and include the following groups: Donovan Scholars, students who have already earned degrees, employees wanting to gain new skills, and others who have special interests. (See information about visiting students and high school students with exceptional ability in this section.)

Non-degree applicants must submit to Undergraduate Admissions:

1. an application for admission including a list of all postsecondary institutions attended;
2. a non-refundable $30 application processing fee; and
3. any records requested by Undergraduate Admissions to determine residency and/or eligibility for non-degree status. Diagnostic testing may be required before enrolling in courses that require a minimum level of competency.

Refer to the University Calendar for admission deadlines.

To be admitted as a non-degree student, an applicant must meet the following criteria:

1. The high school class of a non-degree applicant must have graduated at least two years prior to the applicant’s anticipated semester of enrollment.
2. An applicant who has enrolled at any other college must have a minimum cumulative GPA of 2.00 (4.00 scale), as calculated by Murray State.
3. Applicants who have been denied admission as degree-seeking students may not in turn be admitted as non-degree seeking students.
4. Murray State students under academic or disciplinary suspension may not be admitted as non-degree students.
5. Students currently under suspension at other institutions may not be admitted as non-degree students. Failure to disclose a current suspension may result in forfeiture of eligibility for future enrollment.
6. Students are strongly encouraged to submit transcripts of high school or prior college work at the time of admission to facilitate advising about appropriate course work.

The following rules govern enrolling as a non-degree seeking student:

1. Non-degree students fall under the same fee, academic and grading policies as degree-seeking students, are expected to participate fully in class, and must meet course prerequisites or obtain the consent of the instructor to enroll in a course. (See the section on auditing below.)
2. Students classified as non-degree pre-schedule with students who are classified as freshmen.
3. No one may continue to enroll as a non-degree student after earning 24 semester hours in this status without the special permission of the dean of the college in which the student is registered.
4. No transfer, military, AP, CLEP, or other testing credit will be recorded on the record of a student classified as a non-degree student. An enrolled non-degree student may apply to take departmental challenge examinations.
5. If a non-degree student decides to apply for degree status, the student must contact Undergraduate Admissions for the appropriate form, and must meet the admission requirements in effect at the time of the request for review of status. Although successful completion of courses taken while a non-degree student does not ensure admission, to be considered for degree-seeking status, the student must have a minimum of a 2.00 cumulative GPA on those courses.
6. Credit earned as a non-degree student will be evaluated for applicability toward a degree by the chair of the academic department in which the student will be enrolled. No graduate or professional credit is awarded for courses taken while a student is enrolled as an undergraduate non-degree student. Acceptance of non-degree credit for transfer is at the discretion of the receiving institution.

Visiting Students

A student who is currently enrolled or working toward a degree at another college and wants to enroll at Murray State for credit that will be transferred to that college is considered a visiting student. A minimum of a 2.00 (4.00 scale) cumulative GPA is required to be eligible to enroll at Murray State as a visiting student. A student must submit a readmission application and a $30 nonrefundable fee to the Transfer Center. To complete admission, an official “letter of good standing” from the Registrar’s Office of the college from which the student will be visiting is required. It is important to remember (1) no transfer credit is posted to a visiting student’s permanent record at Murray State; (2) a visiting student who decides to transfer to Murray State must comply with all of the transfer admission requirements in force at the time the change of status is requested; (3) the acceptability of transfer credit from Murray State to another college is determined by the receiving institution; (4) visiting student status is generally valid for only one term, at which time the student must contact the Transfer Center for permission to re-enroll; and (5) Murray State transcripts are mailed only upon the written request of the student, accompanied by the appropriate fee. Transcript request forms may be obtained from the Registrar’s Office or from their link at www.murraystate.edu.

Graduate Admission for MSU Seniors

Seniors at Murray State University who are within nine hours of completing the baccalaureate degree, who have a cumulative grade point average (GPA) of at least 3.0, and are meeting all undergraduate GPA requirements, may be admitted to graduate study provided they meet departmental and general admission requirements. Seniors admitted on this basis are considered graduate
students, and they will be charged graduate tuition for all courses scheduled. Note: This type of admission may cause problems with financial aid.

Seniors enrolled at institutions other than MSU who meet the requirements outlined above may petition the Graduate Admissions Office for early admission.

Students who fail to complete all undergraduate requirements during their first semester as graduate students will be denied graduate credit. All courses taken during that term will be permanently recorded as undergraduate, with no refund of graduate tuition. Early admission graduate students may apply for graduate assistantships.

For more information visit www.murraystate.edu/admissions/grad-newapp.htm.

**Post-Baccalaureate Admission**

Individuals having successfully completed the requirements for a baccalaureate or higher degree who wish to take additional undergraduate courses may be admitted as post-baccalaureate students. A student with a degree from Murray State needs to submit a readmission application, accompanied by a $30 nonrefundable fee. All other post-baccalaureate applicants should submit an undergraduate application for admission with a $30 nonrefundable application fee, and should request an official transcript mailed directly to Undergraduate Admissions from the registrar’s office of the college that conferred his or her degree. A student pursuing a degree from Murray State must have official transcripts sent directly to Undergraduate Admissions from each college attended.

A readmitted post-baccalaureate student who has below a 2.00 cumulative GPA on all undergraduate post-baccalaureate course work will be readmitted on probation and must comply with all probation policy regulations.

Documents to verify residency may be required.

**Readmission**

An undergraduate student in good standing who has previously attended Murray State University but has been out for two full years (excluding summers) will be readmitted upon completion of the readmission application and $30 nonrefundable fee. All Re-admission applicants must apply through the Transfer Center for an initial review of their application and transcripts. Students on academic suspension or dismissal who are eligible to return, must also apply through the Transfer Center. Before applying again or requesting new transcripts, the student should call the Transfer Center to see if previous transcripts are still on file. The Transfer Center will accept electronic transcripts from other accredited institutions. Students who applied for admission to Murray State as new students but did not enroll may need to complete new applications for admission. Before applying again or requesting new transcripts, the student should call the Transfer Center to see if the materials sent before are still on file. Verification of residency for tuition purposes may be required. Submitting with the application a copy of the applicant’s driver’s licence will assist with this process. The applicant will be notified if other documents are required.

A student who was in good academic and financial standing when he or she left the university, who has a complete admission file, and who has not attended any other regionally accredited colleges since last enrolling at Murray State, is eligible for readmission. An application for readmission will not be processed if a student has any indebtedness to any university or to student loan programs. If a student left Murray State on disciplinary or academic probation, suspension or dismissal, and has no new transfer credit, the applicant may be considered for readmission on an individual basis. If the student is readmitted, any conditions will be specified in the letter of admission. Students previously admitted under an admission status that imposed conditions or restrictions who did not complete the requirements for removal of that status will be re-evaluated based on the current admission requirements and probation policy. Refer to the section on admission level requirements that appears earlier in this chapter.

A student who has been enrolled at other institutions since last attending Murray State must request that an official transcript be mailed directly to the Transfer Center from each college. Eligibility for readmission will be determined after evaluating the transfer credits. Failure to furnish such official transcripts as required will delay readmission and may affect the student’s academic standing at Murray State. A student who withholds or gives false information or documents can be denied admission or withdrawn from school. (Note: A student must be currently enrolled at Murray State before any transfer, military, or testing credit will be recorded on a permanent record.) A readmission applicant who has transfer work and is in good standing academically, financially and in all other respects at both Murray State and any other colleges attended will be admitted as long as the student’s cumulative grade point average on all courses is at least a 2.00 on a 4.00 scale. All other applicants will be considered on an individual basis. A readmission applicant who is denied admission may appeal that decision to the Academic Appeals committee. Contact the Transfer Center for that procedure. Academic bankruptcy declared at another college does not apply at Murray State. If the student is readmitted, any conditions of admission will be specified in the letter of admission. Refer to the sections in this catalog on transfer, probation, and academic second chance policies for additional information.

**Transfer Students**

**Admission.** A student who wishes to transfer to Murray State University from another regionally accredited college or university must submit an application for admission with a nonrefundable $30 fee, and have an official transcript mailed or electronically sent (not faxed) to the Transfer Center from each school attended. **Under no condition will the applicant be permitted to ignore previous college work.**

A student who withholds or gives false information or documents can be denied admission or withdrawn from school and denied a degree. Academic bankruptcy declared at another college does not apply at Murray State University.

A student who has 30 semester hours of transferable degree credit with a minimum of a 2.00 (C) cumulative grade point average on all previous courses, as calculated by Murray State, and is in good standing academically and financially at all colleges previously attended, is eligible for admission to Murray State. An applicant who has a minimum of a 2.00 (C) cumulative GPA but who has fewer than 30 semester hours of transferable degree credit may need to submit an official ACT/SAT score report and an official high school transcript mailed directly to the Transfer Center from the high school the student attended. The high school transcript should include the student’s class rank and date of graduation. Once admitted, conditions of admission will be specified in a letter of admission.

A student who has attended only colleges that are not regionally accredited and who would like to appeal the credit, may contact the Transfer Center at 1-800-669-7654 for additional information.

**Admission Appeals.** A new transfer student who is denied admission and is a U.S. citizen, should contact the Transfer Center at 1-800-669-7654, for the appeals procedure.

**Transfer of Credit.** Degree credits earned at other regionally accredited (as recognized by Murray State) American institu-
Admissions

The Transfer Credit Practices report published by the American Association of Collegiate Registrars and Admissions Officers will be the reference used for determining an institution’s accreditation status. Determination of upper-level and lower-level credit is based on the course level at the sending institution. All work is converted to semester hours and a 4.00 grading scale. Murray State’s probation and repeat policies are applied as required. Transferred incomplete grades do not carry hours attempted; i.e., they do not affect the student’s grade point average.

All acceptable transfer credit is formally evaluated, with a copy of the degree audit made available to each transfer student and to his/her advisor.

A student must be currently enrolled at Murray State before any transfer, military or testing credit will be recorded as part of a permanent record. There is no limit to the number of hours that may be transferred from a regionally accredited institution. However, it is important to remember that a certain number of hours must be completed at Murray State, and that courses taken at a two-year institution cannot be used to meet Murray State’s requirement for upper-level (junior or senior) courses. At least 20 of the last 32 semester hours required for graduation must be earned in residence at Murray State. (See Chapter 4, Academic Programs, for specifics.)

Credit for courses taken in military service schools is evaluated according to recommendations in the Guide to the Evaluation of Educational Experience in the Armed Services published by the American Council on Education. Courses listed in two other American Council on Education publications, the National Guide to Educational Credit for Training Programs and the Directory of the National Program on Non-Collegiate Sponsored Instruction (PONSI), are evaluated for credit on an individual basis.

Credits earned through educational institutions located outside the United States will be considered for acceptance after an appropriate evaluation. Students may contact the Office of International Admissions for information regarding the evaluation procedure.

University Studies. Transfer students who have completed reasonable communication and basic skills, science and mathematics, humanities and fine arts, and social science courses for the same number of hours as required at Murray State, will be credited with completion of the University Studies component of degree requirements. Any deficiencies at the time they first enroll at Murray State must be fulfilled according to MSU regulations.

Transfer Students with an Approved Associate Degree. A transfer student who has completed, as of May 1995 or later, an approved baccalaureate-oriented Associate of Arts or Associate of Science degree will (a) be accepted with junior class standing and (b) be considered to have completed the baccalaureate University Studies requirements. However, additional University Studies courses may be needed if they are required for the student’s major and/or degree and an equivalent course has not been transferred. Associate degrees completed before May 1995, will be reviewed by the Transfer Center. If the degree is determined to be baccalaureate-oriented and to have comparable content and credit hour criteria, the same benefits will be extended to those graduates.

Transfer Students Who Do Not Have an Approved Associate Degree. Students seeking a baccalaureate degree who, transfer fewer than six semester hours in the University Studies World’s Historical, Literary, and Philosophical Traditions category will be required to take HUM 211 and CIV 201 or CIV 202 toward completion of that block, unless their transfer credit includes courses which are clearly equivalent to Murray State’s HUM 211 and CIV 201 or CIV 202.

Kentucky General Education Transfer Agreement

As of Spring 1996, a policy on University Studies transfer was established to facilitate transfer among the public colleges and universities in Kentucky. The Council on Postsecondary Education and the institutions have developed a University Studies core transfer component which reflects the distribution of disciplines included in university-wide lower division University Studies requirements for the baccalaureate degree. A Fully General Education Certified student, as verified by the sending institution, is considered to have completed Murray State’s baccalaureate University Studies requirements. However, additional University Studies courses may be needed if they are required for the student’s major and/or degree and an equivalent course has not been transferred.

To be Fully Certified a student must have a minimum cumulative GPA of 2.00 (4.00 scale) and have met each of the following criteria at the time of transfer:

1. earned at least 60 hours of college-level credits;
2. completed at least 48 hours of University Studies courses;
3. completed the 33 hour core transfer component.

The 2010 General Assembly approved House Bill 160, which mandates changes in the way universities across the state handle the transfer of general education courses. These changes will take place with the 2012-2013 academic year. As of the publication of the 2011-2013 Murray State University Undergraduate Bulletin, final regulations for implementation of HB 160 had not been released. If a student plans to transfer from another Kentucky state university or community college beginning in Fall 2011 or later, please view the Transfer Center website (www.murraystate.edu/transfercenter/transfer) for updated regulations regarding transferring of general education courses or contact the Transfer Center at 270-809-3350.

Transfer Frameworks. The Baccalaureate Program Transfer Frameworks identify 12 hours of course work in a major which may be successfully transferred in addition to the general education block. Each framework represents a specific guide to the exact courses a student needs. For more information about the Transfer Frameworks or the Kentucky General Education Transfer Agreement, contact the Transfer Center

International Student Admission

University Admission. A nonrefundable application fee of $30 must accompany any application for admission as an international student. A complete packet of admission forms is available at www.murraystate.edu/libraries/iis/interapp.sflb.ashx. All international students, including transfer students from non-English speaking countries, are required to take the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS), or complete Murray State’s English as a Second Language Program. A student must request that an official score report be mailed by the testing service directly to The Office of International Admissions, 171 Woods Hall, Murray, KY 42071. These score requirements are subject to change. In addition, an applicant must certify that he or she has adequate financial support to cover at least the first year of the entire period of time that the student would be at Murray State. Each international applicant must submit official or certified copies of all previous academic records. A student who withholds or gives false information or documents can be denied admission and/or withdrawn from school. Because of mail turnaround time and the extra time needed to evaluate international educational records, students are strongly urged to apply at least six months in advance.
**ADMISSION STATUS BASED ON LANGUAGE PROFICIENCY REQUIREMENTS**

**Undergraduate Programs**

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<td>Internet-Based TOEFL (iBT)</td>
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**NOTE:** University admission with ESP Condition requires completion of a university ESP placement test and one to two ESP classes may be required concurrently with university classes. Admission with ESL Condition requires full-time enrollment and completion of Murray State’s English as a Second Language (ESL) program and achievement of the institutional TOEFL score required by the applicant’s academic program major. If determined to be eligible, students may be enrolled into a transition program in which selected university classes may be taken on a conditional basis along with further designated language study.

**English as a Second Language Program Admission.** Undergraduate students who have not taken the TOEFL or IELTS, or who have a score below the admission standard of the undergraduate program for which they wish to apply, may apply for conditional admission through the English as a Second Language (ESL) program. The ESL program offers students six levels of English language instruction to prepare them for university study.

A student who enters the ESL program is tested and placed into the appropriate level of language study, ranging from level one (beginner) to level six (high advanced). Each level of study consists of an eight-week course in nine different skill and knowledge areas which include the following: applied grammar, computer-assisted composition, error analysis, oral skills workshop, university orientation for new students, listening comprehension, conversation, speech development, academic reading, and TOEFL preparation. In total, students take 20 hours of classes per week over an eight-week term. A student who begins the ESL program at level one should expect to study English for six terms (three semesters).

The language courses are supplemented by activities outside of class, including the ESL Conversation Partners Program, which are intended to assist students in learning English and in adapting to American university life.

In order to advance through and complete all levels of language study in the ESL program, students must maintain the ESL program academic standards, which include satisfactory grades in ESL courses, appropriate exit proficiencies, and mandatory attendance.

Undergraduate applicants who satisfy all admission requirements other than English proficiency may apply for a combination of intensive language instruction and course work toward a degree. Upon successful completion of level six and the recommendation of the ESL program director, an ESL student may enroll in full-time university course work if all other admission requirements have been met.

For more information on the ESL program and fees, write to English as a Second Language, Institute for International Studies, 115 Woods Hall, Murray KY 42071-3304, USA; e-mail msu.esl@murraystate.edu; call 270-809-3265; or visit Murray State’s website at www.murraystate.edu/students/international/iis/eslmain.
Registration and Academic Records

270-809-3776 or 800-272-4678 ext. 1
msu.registration@murraystate.edu
msu.registrar@murraystate.edu

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Registrar’s Information
For information regarding registration, graduation, degree audits, myGate, and grade policies, and for instructions to request a transcript, see the Registrar’s website at www.murraystate.edu/registrar. Questions may be directed to the Registrar’s Office at 270-809-5630 or 800-272-4678 (extension 1), or in writing Registrar’s Office, 113 Sparks Hall, Murray, KY 42071-3312.

myGate
Murray State University provides a secure portal to an on-line information network (myGate) to students and faculty. The system provides up-to-date access to students enabling them to register and view their class schedules, grade reports, transcripts, degree audits, account balances, 1098T tax information, student loan notices, contact information, personal information (majors, advisors, residential college, GPA, etc.), and account holds. Students can also use myGate to request enrollment verification, apply for graduation, request transcripts, and update contact information. This system is in on-going development, so other features will be added. It is the student’s responsibility to check their myGate account regularly and to keep all contact information current. More information can be found on the Registrar's website (www.murraystate.edu/registrar) or by clicking the myGate logo on the www.murraystate.edu home page.

Degree Audit
The MSU degree audit is available to undergraduate associate and baccalaureate students to clarify the steps and courses needed to achieve a degree. This audit incorporates the requirements found in this Bulletin, and presents updated information as courses and requirements change after the Bulletin is published.

Degree audits are prepared for individual students and use file information and transcript courses to monitor a student’s progress toward any specific degree program. Degree audits are available through myGate.

Degree audits should be used in conjunction with information from the student’s advisor and the Undergraduate Bulletin to ensure all graduation requirements are being met. It is the student’s responsibility to verify all requirements have been completed and to question any information they do not understand.

Major and Advisor Assignments
Although the student advising program at Murray State University is specifically designed to assist students as they progress through a degree program, it is the responsibility of all students to be thoroughly familiar with the university’s catalogs, student handbook and all rules, regulations and requirements that apply to their programs of study, and decisions made in connection therewith are the sole responsibility of the student.

Each student is initially assigned an academic advisor based upon the major indicated by the student on his or her application for admission. Students who have not declared a specific major are assigned to the Center for Academic Advising. After enrolling, a student may apply for a change of area, major, advisor or degree objective by filling out an undergraduate change of major/advisor form, which may be obtained from any department. To have a major changed, the student must be eligible for the degree level and major selected. If approved, a faculty member in the department of the new major will be assigned as his/her advisor, the Registrar’s Office will be notified of the change, and all computer files will be updated. Current information about a student’s area or major and minor can be found on myGate. Advisors reserve the right to require the most current catalog requirements of students switching to a new major. Students who were admitted to Murray State as non-degree seeking will have to go through the admission process to change that status.

Students must declare a major or area program of study by the time they earn 60 semester hours of credit. An undergraduate student who has a major program (as opposed to an area) must also declare a second major or a minor by the time they earn 90 semester hours of credit. The completion of a second major does not constitute a second degree. This policy is applicable to all students pursuing bachelor’s degrees, including transfer students. Students may change their majors and areas after their initial declarations but need to be sure to discuss their course history with their prospective departments.

Students are expected to confer frequently with their advisors and plan academic programs prior to the actual time for scheduling of classes each semester.

Registration Procedures
Registration for qualified students at Murray State is handled through an on-line process on myGate. Questions may be directed to the Registration Office at 270-809-3776.

Students who have been enrolled at Murray State in at least one regular term within the 2 years preceding the registration term will be in the active registration file. All other students must file a formal application for readmission to determine their registration status. Refer to the section on readmission which appeared earlier in Chapter 2.

Scheduling is handled via myGate. Refer to the university calendar, available on myGate or the Murray State website, for exact dates and times. Before a student may schedule, he or she must have consulted an academic advisor about his or her proposed class schedule. Undergraduate students may require a Registration User Number (RUN) to gain registration access. RUNs may only be obtained from the student’s advisor. Intercollegiate Athlet-
ics and Honors Program students are required to have additional approval from the appropriate program advisor.

Students should check their myGate to view all current holds. These holds must be cleared prior to scheduling classes or enrolling. Students with the following situations will not be permitted to register until the related issue has been resolved: a student classified as a senior who is completing a major and has not officially declared a second major or a minor; a student classified as a junior who is listed with an “undeclared” major; any student on probation or warning who has not met with his/her advisor; any student with an incomplete admission file, on academic suspension, or one who has any indebtedness to the university; and any student who has completed a degree and has not been admitted to a new program or status.

As a part of the Freshman Year Experience, new freshmen have an opportunity to advance schedule for the fall term but only at a specified summer orientation session. Others may advance schedule after they are admitted. Reference should be made to the official university calendar for the initial advance scheduling dates for currently enrolled students. Specific scheduling times are assigned during initial advance scheduling. Assignments are based on the number of semester hours recorded on your MSU record at the time scheduling takes place. A student who attends a class without being properly enrolled will not receive credit. Courses must be scheduled in the semester in which the actual coursework is completed.

Attendance is expected on the first day of classes.

Term
Murray State University operates on a semester system, with one hour of credit equal to 15 50-minute sessions of lecture or 30 50-minute sessions of laboratory. Each academic year consists of a fall term that begins in August, a winter term that begins in December, a spring term that begins in January, and a summer term that begins in May and includes several sessions of varying durations.

Classification
All students must comply with University policies, regardless of classification.

**Undergraduate Level**
- **Freshman** fewer than 30 semester hours of earned credit
- **Sophomore** 30 to 59.9 semester hours of earned credit
- **Junior** 60 to 89.9 semester hours of earned credit
- **Senior** a minimum of 90 semester hours of earned credit

**Post-Baccalaureate** students taking undergraduate classes after receiving a baccalaureate or higher level degree

**Graduate Level**
- **Graduate** students working on an advanced certificate, degree, or certification

Course Numbers
The numbers used to identify courses are as follows:
- **001-089** special category post secondary courses
- **090-299** lower division undergraduate courses
- **300-499** upper division undergraduate courses
- **500-599** upper division undergraduate courses (requires at least a junior classification)
- **600-799** graduate courses

Student Course Load
Audited and developmental classes are included when determining the total hours in a student’s course load. The minimum full-time undergraduate course load is 12 semester hours. The typical load is 16 hours. Students pursuing approved cooperative education/internship credit will be considered full-time students with fewer than 12 semester hours. Students admitted with conditions or admitted with restrictions, and those who are on academic warning or academic probation are restricted to 16 hours. Since the maximum load without special approval for other undergraduate students is 19 semester hours, it is not possible to schedule for more than 19 hours via myGate. If an exception is to be made in any individual instance, the undergraduate student must be at least sophomore standing and have an overall grade point average of at least 3.00 or have earned at least 12 hours with a 3.00 for the previous semester. A letter of approval signed by the student’s collegiate dean must be taken to the Registration Office, Sparks Hall.

Under no circumstances may an undergraduate student enroll in more than 22 semester hours without approval and a letter of justification from the student’s collegiate dean and the Vice President for Academic Affairs.

A student enrolled concurrently at Murray State and another collegiate institution may not enroll in a combined course load that exceeds the applicable Murray State student load regulation.

Freshman and sophomore students may take 300-level or 400-level courses with the approval of the chair of the department in which the course is offered. Sophomores who will be juniors before a 500-level course begins may schedule for the course, with the understanding courses may be removed from the schedule if junior status is not attained before the course begins. Only those who are classified as graduate students may take 600-level or 700-level courses.

**Change of Schedule**
NOTE: Dropping below full-time status may affect total fees, benefits, insurance, financial aid, athletic eligibility, etc. It is the student’s responsibility to comply with all such policies.

Any schedule changes should be approved by the student’s academic advisor. Additional approval is required for athletes, students in the Honors Program and those who wish to audit a class. For changes that do not require special approval, the student may use myGate during the published drop/add periods. Forms for changes that require special permission should be taken to the Registration Office for processing by the published deadline. Changing a course from CREDIT to AUDIT may not be done via myGate. Using the audit permission form available in the Registrar’s Office, obtain the required signature of the instructor of each course being audited, and take the form to the Registration Office in Sparks Hall.

Dropping a class before the end of the first drop period will eliminate the course from the student’s permanent record. For classes dropped during the second drop period, the student will receive a grade of withdrawn (W). Consult the current university calendar for dates and deadlines.

Demographic and Address Change
Any student who changes his or her name or social security number is expected to notify the Registrars Office and provide requested documentation.

The student will be held responsible for any communication from any university office sent to the Murray State e-mail address or the mailing address last given. A student can review and update address and contact information on myGate. Change forms are available in the Registrar’s Office and at www.murraystate.edu/registrar. Changing an address does not change residency for tuition purposes.
Credit by Examination

For students enrolled at Murray State, undergraduate residence credit may be earned through the Advanced Placement Program (APP), College Level Examination Program (CLEP), selected International Baccalaureate (IB) examinations, and challenge examinations developed by the academic departments. A listing of tests that Murray State accepts for credit is available from the Counseling and Testing Center, Ordway Hall. Graduate students may not obtain graduate credit through testing. 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 a student may receive credit hours through any of these programs, duplicate credit may not be earned. For example, a student who earns credit for ENG 105 through APP may not receive additional credit for an ENG 105 class or the CLEP general or subject exam. Students currently enrolled at Murray State must have written permission prior to taking any tests for credit. Permission forms may be obtained from Counseling and Testing, Ordway Hall. Credit by examination may not be used as a repeat of a course taken earlier.

Credit awarded by Murray State for APP, CLEP, IB, or departmental challenge examination is counted as residence credit.

Advanced Placement Program (APP)

This is a program offered in cooperation with Educational Testing Service and various high schools. Generally, students will complete their APP tests while in high school. Murray State University encourages but does not require students to complete a particular APP course prior to taking the examination in that area. A score of 3 is the minimum required for credit and in some cases a score of 4 or 5 will yield additional credit. A listing is available at [www.murraystate.edu/secsv/clep.htm](http://www.murraystate.edu/secsv/clep.htm). A student must be enrolled at Murray State to receive credit based on satisfactory APP scores. APP credit may not be used as a repeat of a course taken earlier.

College Level Examination Program (CLEP)

This program provides an opportunity to earn credit for previous education or life and career experiences. The CLEP tests may be taken prior to enrollment; credit will be granted after enrollment at MSU. However, after enrolling at Murray State a student must apply for permission to take the CLEP. A score of 50 on a general exam is required for passing. The CLEP tests are administered on the Murray State campus by the Counseling and Testing Center. Credit earned through successful completion of the CLEP general examination may be used toward fulfilling Murray State’s University Studies requirements. A student must be enrolled at Murray State to receive credit based on satisfactory CLEP scores. A CLEP test may be repeated with permission. A minimum of 6 months must elapse between retakes of the same test. It is the student’s responsibility to ensure that retest attempts meet this requisite. CLEP credit may not be used as a repeat of a course taken earlier.

CLEP Subject Exam. Minimum score requirements vary depending on the exam. A list of exams and minimum score requirements is available from Murray State’s Counseling and Testing Center or at the [www.murraystate.edu web site](http://www.murraystate.edu).

International Baccalaureate Examinations

This is a program offered at various high schools. A list of International Baccalaureate (IB) examinations that have been approved for credit is available in the Transfer Center. A student must be currently enrolled at Murray State to receive credit based on satisfactory IB scores. IB credit may not be used as a repeat of a course taken earlier.

Departmental Challenge Examinations

A student must be currently enrolled at Murray State University to take a departmental challenge examination. All applications for departmental challenge examinations must be approved by the student’s advisor, the chairman of the department offering the course and the dean of the college in which the student is enrolled.

All costs connected with a particular examination must be met by the student prior to the testing date. A per credit hour fee is assessed for each course. A department may adopt a standardized examination available from outside the university or develop a departmental proficiency examination which may be oral, written or both. Students desiring to receive credit by departmental challenge must submit appropriate forms and proof of payment to the Registrar’s Office for posting to the academic record. Departmental challenge examination credit awarded will be posted to the student’s academic record in the semester in which the student is enrolled, however no earlier that the first day of the semester.

A departmental challenge examination may only be taken once. Departmental challenge credit may not be used as a repeat of a course taken earlier. A grade received in a regular course may not be changed by departmental challenge examination.

Grades

The following system of grades is used for the evaluation of course work, with a 4.00 grading scale used to determine grade point average:

- A: Excellent; valued at four points for each credit.
- B: Good; valued at three points for each credit.
- C: Fair; valued at two points for each credit.
- D: Poor; valued at one point for each credit.
- E: Failure, no credit; valued at 0 points but counted as hours attempted.

- AU: Audit; no credit. (Requires instructor’s approval).
- I: Incomplete; computed as hours attempted and no quality points.
- R: Deferred grade; a grade to be used in restricted approved instances in specific approved courses. No credit is given and is not computed as hours attempted.
- W: Dropped or withdrawn; no hours attempted and no quality points. (Only may be assigned to eligible students who have officially dropped courses or withdrawn from Murray State by published deadlines).

A student may not complete extra work in order to change a grade of A, B, C, D, or E once the grade has been recorded.

Grades of E, WE, or X affect a student’s grade point average negatively. As of Fall 2011, grades of WP, WE, and X are no longer assigned.

A grade of I (incomplete) is assigned when, for reasons beyond a student’s control (so long as the reason is satisfactory to the instructor), students engaged in passing work are unable to complete all class assignments. A student who receives an I grade must complete the work and the instructor must submit the grade by mid-term of the fall or spring term immediately following the term in which the I was received. I grades received in the fall must be rectified and grades submitted to the Registrar’s Office by March 15 of the following spring term; and spring and summer I grades, by October 15 of the following fall term. (Degree pending students should see the note below.) Students completing class assignments with the intent to change the I to a passing grade should not re-register for the course.

Students completing class assignments with the intent to change the I to a passing grade should not re-register for the course. Should the student fail to complete the course within the designated time period, the I will be converted to a grade of E and
the GPA will be recalculated. This may change the academic standing, including dean's list honors.

Once a grade of I has been converted to an E, the grade will not be changed to a passing grade. After a grade of E has been assigned, the student must register and pay for the course in a future semester in order to receive the credit. Re-registering for the course will not prevent the original I grade from being changed to an E after the deadline has passed.

NOTE: If a student is pending a degree, incomplete grades must be changed within five (5) weeks after the semester ends; otherwise the I will be converted to an E and the GPA will be recalculated. (See the Graduation Requirements section in Chapter 5 for additional information.)

Academic Honors: Full-time (courses in which a grade of P is received will not count) undergraduate students who have attained a term grade point average of 3.50 or above in either a spring or fall semester will be placed on the "Dean's List" for that semester. This requirement must be met at the time grades are prepared. Grades of I or X may prevent a student from being placed on the Dean's List. The statement "Dean's List" is placed on the student’s permanent record, above the listing of that semester’s courses and grades.

Outcomes Assessment: Outcomes assessment, while not having impact on a student’s grade point average or graduation status relative to the student’s test performance, is nonetheless a required activity.

Quality Points: These are points earned per credit hour that are used to calculate a student’s grade point average. The number of points received for each course is determined by the grade earned and the grading scale used. Since Murray State uses the 4.00 grading system, each credit hour of A receives four quality points; each credit hour of B receives three; each credit hour of C receives two; and each credit hour of D receives one. For example, a student who earns an A in a four-hour course will receive 16 quality points.

Grade Point: The grade point standing of a student is defined as the ratio of the total number of quality points to the total number of GPA hours, truncated (no rounding) to the decimal points. For example, a 3.99999 calculation would be stated as a 3.99 GPA. Cumulative GPAs are posted to a student’s transcript. For example, a student who earns a grade of B in all courses for a total of 128 semester hours would have 384 quality points and a standing of 3.00.

Minimum Academic Standards

Students are expected to maintain at least a 2.0 cumulative grade point average (GPA). The conditions and actions described below pertain to students whose GPAs fall below 2.0.

Academic Warning: A student will be on academic warning when his or her cumulative GPA is less than 2.0 but is at or above the values listed below for the number of hours the student has attempted. A student on academic warning may enroll for a maximum of 16 credit hours during a fall or spring term.

Academic Probation: A student will be on academic probation when his or her cumulative GPA is less than the value listed for the number of hours the student has attempted.

<table>
<thead>
<tr>
<th>Hours Attempted</th>
<th>Cumulative GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 32</td>
<td>1.50</td>
</tr>
<tr>
<td>33 - 64</td>
<td>1.70</td>
</tr>
<tr>
<td>65 - 79</td>
<td>1.90</td>
</tr>
<tr>
<td>80 or more</td>
<td>2.00</td>
</tr>
</tbody>
</table>

An undergraduate student will be placed on Academic Probation at the end of the first grading period in which her/his cumulative GPA falls below the appropriate threshold listed above. A student on probation may register for a maximum of 16 hours in a regular semester.

Academic Probation Continued: A student who does not meet the cumulative GPA threshold for his/her hours attempted, but earns a term GPA of at least 2.0 for the probationary semester will remain on probation and may register for a maximum of 16 hours in the following regular semester.

Removal from Probation: A student will be removed from probation after the probationary semester by reaching or exceeding the appropriate cumulative GPA threshold listed above. Failure to do so will result either in Continued on Probation or Academic Suspension.

Academic Suspension: An undergraduate student will be suspended from the University following a probationary semester in which he or she does not meet the criteria for continued on probation or removal from probation (see above). A student suspended for the first time may not re-enroll until one succeeding (fall or spring) term has passed. A student on academic suspension may not receive credit for any courses taken at another college during the period of suspension. See the section on appeals. Academic Suspension is noted on the transcript.

Academic Dismissal: An undergraduate student who receives a second academic suspension may not re-enroll for two calendar years. An undergraduate student who receives a third academic suspension will be indefinitely dismissed from the University.

A student on academic dismissal may not receive credit for any courses taken at another college during the period of dismissal. See the section on appeals.

Repeating Courses: An undergraduate student may, for the purpose of raising a grade, enroll in a course for credit no more than three times unless otherwise noted in the course description. Only the last attempt will be calculated in the overall GPA and count toward hours earned. Grades of AU, R, W, or WP do not count towards repeat attempts. Transfer credit is also subject to this policy. Therefore, an equivalent course could ‘mark off’ a previous Murray State course.

Note: Undergraduate students enrolled in coursework from Fall 2009 and beyond will be under the policy stated above. All previous coursework (Murray State or transfer) will be re-evaluated using this policy. Students who received credits or failures in a course since Fall 2009, three or more times with only the first attempt removed from GPA calculation, will now have all but the last attempt removed from the overall GPA.

A GPA that is calculated at the time a degree is conferred and recorded. Records will not be changed by subsequent coursework, including repeated courses.

Graduate level courses may not be repeated for the purpose of removing grades. All graduate level grades remain on the transcript.

Academic Good Standing: Students who are not on warning, probation or academic suspension or dismissal are considered in good standing. If a student is not in good standing but requests that a verification of good standing be sent to another institution, the verification will state that the student is eligible to re-enroll if applicable.

Academic Appeals: A student who has been academically suspended or dismissed may submit an Academic Appeal Form with supporting documentation in writing to the Registrar’s Office for special consideration if the student feels there were extenuating circumstances beyond his/her control which led to the suspension or dismissal. The Academic Appeals Form can be found on the Registrar’s Office website at www.murraystate.edu/registrar. Submitted academic appeals will be heard by the Academic Appeals Board in May, August, and January. All appeals must be on file at least 14 days before the first day of the semester for the appeal for reinstatement.
Associate Degree Admission Status: A restrictive admission status used from the fall of 1986 through the spring of 1995. Students admitted under this status who did not meet baccalaureate degree status may be readmitted under the current admission requirements if they have a minimum cumulative GPA of 2.00 on a 4.00 scale on all classes, including transfer courses.

Preparatory Status: A restrictive admission status used from the fall of 1986 through the spring of 1994. Students admitted under this status who had not completed the requirements to have the restrictions lifted were converted to associate degree status in the summer of 1994.

Pre-Baccalaureate Status: A restrictive admission status used from the fall of 1995 through spring of 2003. Students under this status who have not met all of the requirements are now re-evaluated under the new admission guidelines in Chapter 2 of this bulletin.

Community College Status: A restrictive admission status used from the fall of 1998 through the spring of 2003. Students under this status who have not met all of the requirements are now re-evaluated under the new admission guidelines in Chapter 2 of this bulletin.

Auditing of Courses
An auditor is one who enrolls and participates in a course without expecting to receive academic credit. A student may not schedule for audit via myGate, since the permission and signature of the instructor are required. The audit permission form is available in the Registrar's Office or on www.murraystate.edu/registrar. The approved audit permission form must be submitted to the Registration Office for processing by the published deadline (see Academic Calendar). The semester hours of an audited class count toward full-time status at Murray State; however, audited courses do not have credit or apply to any degree or certificate programs and do not figure in completion hours required for NCAA or financial aid. Tuition and course fees are the same for credit and audit courses. Courses that were audited may be taken for credit in a later term. Also a class may be audited after having received credit for the course, but an audit grade will not replace/remove an earlier grade.

Regular class attendance is expected of an auditor. Because audited classes are considered load credit, instructors have the authority to fail an auditing student if he or she does not do the required work, or fails to attend the class.

Students interested in auditing a course must secure written permission from the instructor and discuss course requirements prior to enrolling. Failure to meet course requirements may result in the auditor’s receiving a failing grade by 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. A change from credit to audit must be done by the last day to drop a course with a W, and requires the permission of the instructor of the course. Refunds for withdrawals from audited courses will be prorated on the same basis as refunds for withdrawals from courses taken for credit. Instructors reserve the right to deny audit permission for their classes.

Grade Change Policy
Recording of Grades. Grades are recorded in the Registrar’s Office as reported by the faculty at the end of each term. No grade filed in that office may be changed except upon a written statement signed by the instructor certifying an error in reporting had been made.

When an error is made in reporting a grade, the instructor may make the necessary change in the Registrar’s Office within the first 20 days of the semester following the recording of the grade. A grade will not be changed after a degree is conferred. Students may not complete extra work in order to change a grade of A, B, C, D, or E once the grade has been recorded.

The policy concerning the changing of I grades is addressed earlier.

Grade Appeals Policy
Murray State University recognizes that differences of opinion or interpretation may arise between students and faculty members regarding the assignment of course grades. The university urges that a student first seek resolution through informal discussion with the appropriate faculty member. The following policy has been adopted as a formal avenue for the resolution of a student grievance or appeal, in the event that such differences cannot be resolved informally. The university recognizes the right of a student to present a grievance to an established committee and to have that grievance considered on its merit by an expeditious and orderly process. It should be noted that situations involving academic misconduct should be directed to the University Judicial Board.

Definitions. Complainant: one who files a grievance, complaint or appeal within the scope of this policy.
Respondent: one against whom a grievance is filed.
Days: counted when classes or exams are scheduled, excluding Saturdays.
Faculty: all persons, whether full or part-time, who are responsible for, assist in, or administer the instructional program. (See Sec. 2.1 of the Faculty Handbook for a complete definition.)
Grievance: a written allegation or complaint that there has been a violation, misinterpretation, or improper application of existing policies, rules, regulations, practices, and/or procedures which a student believes to be unfair, inequitable, or a hindrance to that student’s effective performance.

Limitations. A grievance procedure must be initiated within the first twenty (20) days of the semester immediately following the semester or term during which the incident of grievance is alleged to have occurred, exclusive of summer session. Any special circumstance or request involving the time limitation set forth above will be considered and evaluated by the appropriate academic dean. Documentation of any revision of the time limitation will be included with the grade appeals form. Under no circumstances will an appeal of a grade be accepted after one year from the end of the semester in which the grade was received.

A faculty member has the responsibility to retain all course material and/or records not left in the student’s possession which contribute to the final course grade. These materials must be kept for the 20-day period of the following semester during which a student may appeal a grade, or in the event of an appeal, until conclusion of the appeal process.

Procedures. Step 1. Before a formal grievance may be filed with the Academic Appeals Board, the complainant should first seek resolution through informal discussion with the instructor. In the event that the instructor is a teaching assistant, the faculty supervisor should also be present during these discussions.
Step 2. Should the matter not be resolved to the satisfaction of the complainant, informal discussion should be sought with the appropriate department chair. In the event that the chair is the respondent of the grievance, informal discussion will be held with the academic dean.
Step 3. Should the informal discussions as outlined in Steps 1 and 2 not prove satisfactory to the complainant, informal discussion should be sought with the appropriate academic dean, if the dean has not been previously consulted.
Step 4. Once all means of informal resolution on the collegiate level have been exhausted, the complainant should present a completed grade appeal form to the Registrar within fifteen (15) days of the initial discussion with the instructor. Grade appeal forms are available in the Registrar’s Office and in the office of each collegiate dean.

Step 5. The Registrar shall immediately forward the grade appeal form to the chair of the Academic Appeals Board who in turn will notify the faculty member/respondent that a formal grievance has been filed. The faculty member/respondent will be provided a copy of the completed grade appeals form.

Step 6. The chair of the Academic Appeals Board shall convene that committee within twenty (20) days of the receipt of the grade appeals form. (The Academic Appeals Board is defined in Section 1.6.3.1. of the University Committee System.) Prior to the hearing, both complainant and respondent may elect to choose an advisor for the purposes of collecting data and/or presenting that individual’s position to the board. Complainant and respondent have the right to be accompanied by their advisors during any open meeting of the board at which the board’s agenda includes that particular grievance. The board holds the prerogative to call for pertinent testimony from any party involved in the grievance, or any party whom the board believes could clarify the grievance.

Step 7. Unless an extension of time is sought by the board, the written recommendation of the Academic Appeals Board shall be forwarded to the provost for final disposition. Copies of the recommendation shall also be sent to the appropriate academic dean, the complainant, and the respondent, within ten (10) days of the completion of the hearing. Telephone notification to the complainant of the availability of the recommendation shall fulfill the terms of this requirement. The text of the recommendation and all pertinent testimony and gathered data shall be kept in confidence.

NOTE: If at any point in this process, the student alleges that actions have taken place that may be in violation of Murray State University Non-Discrimination Policies, this process must be suspended and the matter directed to the Office of Equal Opportunity.

Academic Second Chance

Academic Second Chance (ASC) is an appeal procedure for an undergraduate student to request academic forgiveness for their courses. It applies to a single semester or a continuous series of semesters within which a student earned grades lower than a C. If approved, those terms would be excluded when calculating the student’s grade point average. No courses taken during the semesters approved for ASC shall apply toward requirements for a degree.

A student who wishes to petition for ASC must have been separated from all institutions of higher learning for a minimum of two consecutive calendar years. If a student withdrew from a semester and the withdrawal appears on their transcript, the student is considered “enrolled” during that term.

An ASC request form may be submitted by an enrolled student after the student has reentered Murray State University and has earned a minimum of 12 new degree credit hours at Murray State University with a minimum GPA of 2.50 on all hours since re-enrolling. ASC requests are only valid for the student’s first baccalaureate degree. Requests must be made before applying for graduation. The ASC request form must be submitted to the Registrar’s Office, specifying the terms for which ASC is requested.

ASC courses remain a part of the transcript with a notation that academic second chance has been applied and that grades are not included in GPA calculations. If a course excluded by ASC was used as a repeat of an earlier course, the original course which had been excluded from grade point average consideration due to the repeat policy will be reinstated into the GPA as though it had never been repeated.

The new GPA is the official GPA of the university. Students need to be aware that some schools, agencies, academic areas, organizations, and scholarship programs may not recognize or allow ASC. ASC may be declared only once and may not be revoked.

Withdrawal from School

Students dropping all classes must contact the Registrar’s Office for proper withdrawal procedures. Students cannot completely withdraw from school via myGate. Students who do not process official withdrawal forms will receive failing grades in all of their courses. Withdrawal must be completed no later than one week prior to the end of scheduled classes. Withdrawals will be recorded on the student’s permanent record in accordance with published dates. Refund policies are published online each semester in the official Schedule of Fees.

Administrative Withdrawal

Students who fail to meet their obligations to Murray State University, either financial or administrative, may be administratively withdrawn from the university and lose all credit being attempted. This includes students who withhold or falsify information or documents during the admission process. Withdrawal of any type does not remove the student’s financial obligation to the university.

Transcripts

Murray State transcripts will be released at the student’s written request and in compliance with existing state and federal statutes pertaining to the release of student academic records. There is a fee for this service. For transcript information, visit http://www.murraystate.edu/transcripts or contact the Registrar’s Office via email at msu.transcriptrequests@murraystate.edu.

The official academic record is the property of the university. Consequently, the university reserves the right to withhold the release of an official transcript of that record if the student has an obligation to the university, and reserves the right to maintain the information contained in the permanent record according to established practice and in compliance with state and federal laws.

Documents received from third parties (including high school and college transcripts, test scores, etc.) are the property of Murray State University. These documents cannot be released by Murray State to other institutions or agencies nor can they be returned to the student. Students needing to send high school transcripts, other school transcripts, test scores, etc., should contact the original source.

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. These records include:

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
Registration and Academic Records

correct official to whom the request should be addressed. Release of such information is at the discretion of the registrar.

2. The right to request the amendment of the student’s education records that are believed to be inaccurate or misleading. The student 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.

The University discloses education records without the student’s prior written consent under FERPA exception for disclosure to school officials with legitimate education 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); the University attorney; appropriate community safety and emergency personnel to whom information regarding students is to be provided pursuant to KRS 164.9495; a contractor, consultant, volunteer, or other person or entity to which the University has outsourced institutional services or functions, and who is limited as to use, maintenance, and re-disclosure of information; 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.

In addition to the above listing, the following groups are specifically recognized as “school officials” within the definition of FERPA for the limited purpose of receiving at any time listings of names and addresses of students, including in-coming students, and/or student directory information: MSU Alumni Association; Murray State University Foundation, Inc; a person or company who performs a service for MSU that serves a legitimate educational interest; authorized representatives of federal or state supported education programs if disclosure is in connection with an audit or evaluation of supported programs or for the enforcement of or compliance with legal requirements that relate to those programs.

A school official has a legitimate educational interest if the official needs to review or receive any education record in order to fulfill his or her professional responsibility or if the service to or for MSU is of a type that MSU would normally perform itself including one which Murray State has outsourced.

FERPA allows the institution to routinely release information defined as “directory information.” The following student information is included in the definition of directory information: the student’s name, addresses, telephone listings, campus e-mail address, date and place of birth, field(s) 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), degrees (pending and received), awards or honors received and the most recent previous educational institution attended. When a student wants the directory information to remain confidential, an official request form must be completed in the Registrar’s Office. That request remains in force until such a time as a formal written statement is received from the student rescinding that request.

Murray State will release directory information to school officials or others with a legitimate educational interest.

4. The right to file a complaint with the Family Compliance Office of the United States Department of Education concerning an alleged failure by Murray State University to comply with the provisions of FERPA.

Graduation Rate

Information on Murray State University’s graduation rate for entering freshmen is available in the Registrar’s Office, first floor, Sparks Hall or on the Registrar’s web page.

University Calendar

The official university academic calendar is available on myGate or at www.murraystate.edu. An abbreviated calendar listing dates of particular interest may be found in this edition of the Bulletin.

Course Offerings and Policy Changes

The University reserves the right to cancel any class for which there is insufficient enrollment and to make any other policy changes or adjustments in the Bulletin which are deemed necessary. A schedule of classes can be found on myGate and on www.murraystate.edu. The University reserves the right to make any policy changes or adjustments in the Bulletin which are deemed necessary.
Financial Information

270-809-4227 or 800-272-4678 ext. 5
msu.bursar@murraystate.edu

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Fees

Tuition, room, and board costs for 2011-2012 can be found on the Bursar's website www.murraystate.edu/admissions/bursaroffice/costs. Student should expect a cost of $1,000 for books and supplies. Personal expenses and travel have been excluded from this figure. Fees and expenses can change without prior notice, and room and board costs can vary somewhat depending on the meal schedule and type of room selected.

Extensive financial aid is available. Packages of aid may include scholarships, grants, loans, and work opportunities for those who qualify. Financial aid applications (January of each year) and scholarship applications (November of each year) are available from high school guidance counselors or the MSU Recruitment Office.

All fees including applicable room and board must be paid by noon on the due date shown on the semester billing statement. Please refer to the Schedule of Fees on-line at www.murraystate.edu/bursar for payment information. Students who do not make payment of required fees are not registered students.

All fees are subject to change without notice by action of the Board of Regents of Murray State University. All accounts owed by a student to the university must be paid in full before the student is entitled to receive a transcript or record of grades or to have a degree conferred; to select classes during advance scheduling; or to enroll for classes.

Fee Payment/Billing Statement

An email notice will be sent to the student's MSU email address notifying them when an electronic billing statement is available on the myGate accounting. Payments are due by noon on the due date shown on the semester billing statement. Credit card payments (MasterCard, Discover, and American Express) may be made through your myGate "Money Tab" account. The payment provider will assess a 2.75% or minimum $3 convenient fee on all credit card payments. Other payments may be mailed or made in person at the Cashier’s Office, second floor, Sparks Hall. Debit card, cash, and checks are acceptable methods of payment. All checks will be converted to eitherACH or POP check.

Payment options. Payment arrangements with appropriate payment must be made with the Office of the Bursar when parents and/or students are unable to make payment in full from personal funds by noon on the due date shown on the semester billing statement. Accounts with a balance of $200 or less are due in full.

Acceptable payment arrangements consist of the following:
• Payment of all fees in full by noon on the due date shown on the semester billing statement.
• Enrollment in the Murray State University Payment Plan (MSUPP) with appropriate payment.

Late registration fees. The late registration period begins approximately 14 calendar days prior to the first day of classes. (See the official university calendar at www.murraystate.edu for exact dates.) All students registering for the semester for the first time during the late registration period will be assessed a late registration fee. Failure to make payments by the due date shown on the student’s billing statement will cause the student’s class schedule to be dropped (purged) from the computer system. Students who elect to reschedule after their original schedules have been officially purged will be assessed the late registration fee.

Students who register for classes and decide not to attend must withdraw from all classes prior to the first day classes by notifying the Registrar's Office in writing to ensure that they will not owe tuition, late payment fee, and receive "E" grades. Students receiving financial aid are required to attend classes in order to be eligible for their aid.

Refunds

Tuition refunds or reductions in outstanding fee liabilities for students who officially withdraw through the Registrar's Office or who change their status from full-time to part-time or further reduce their part-time status through drop/add will be made in accordance with the university’s official Schedule of Fees, available at www.murraystate.edu/bursar. Any questions concerning a refund should be directed to the Bursar's Office.

Withdrawal. A student who completes official withdrawal (written clearance through the Registrar’s and Bursar’s offices constitutes completion) or is dismissed will receive a refund of tuition, fees, room and board in accordance with the official Schedule of Fees. Students residing in Murray State University residential colleges will receive refunds only in the event of withdrawal from school, dismissal or marriage. The required withdrawal form is available in the Registrar's Office. Call 270-809-3776 or e-mail registration@murraystate.edu for more information.

Drop. A student who completes the drop process through myGate will receive a refund of tuition and/or course fees if the student (1) drops below full-time, (2) is part-time and drops a class or classes, or (3) is full-time and drops a class with refundable course fees. A student who drops a meal plan will receive a refund. Both types of refunds will be in accordance with official session dates given in the Schedule of Fees at www.murraystate.edu/bursar.

Full-Semester Fall and Spring Terms

Withdraw or Drop Approximately During: % of Refund:
1st - 3rd day of semester ........................................ 100%
4th - 10th day of semester ...................................... 80%
11th - 30th day of semester ................................... 50%
After 30th day of semester .................................... 0%

Please see a complete Refund Table at www.murraystate.edu/admissions/bursaroffice/prorationofcharges for exact refund dates.
Financial Information

Returned Check Policy

All checks returned by the bank as unpaid for any reason will carry a penalty of $20 per check. Any account for tuition, fees, room and board paid by a check which is returned by the bank will be considered not paid. Students who do not clear all returned checks within ten working days may be administratively withdrawn for nonpayment of required fees and/or be subjected to the appropriate legal action. Students who have had four or more returned checks will lose check-writing privileges on campus.

Other General Fee and Payment Information

All of the fees and charges in this Bulletin are subject to change without notice. Accounting and Financial Services, located on the second floor of Sparks Hall, is responsible for the interpretation and application of the university’s policies related to fees and refunds. Any questions related to these should be directed to this office.

If a satisfactory determination or explanation of a specific fee or refund cannot be obtained after discussion with the Accounting and Financial Services personnel, a written appeal should be made to the vice president for administrative services. Appeals should include as much detail as possible to allow for adequate and speedy review.

Housing

Murray State has eight residential colleges for students, all modern and well-equipped. These eight residential colleges, composed of nine residence halls, house approximately 3,000 students. Each residential college is equipped with a television lounge, study rooms, coin-operated laundry facilities, vending machines, and kitchenettes with microwaves. All residence halls are coed with the exception of Springer Hall (females only). All halls offer quiet wings and are nonsmoking.

The Housing Office staff seeks to make residential college living a unique experience. Murray State’s residential college program includes academic assistance, counseling, social and educational programs — all in the residence halls. The nature and extent of academic assistance and counseling is limited by budgetary constraints, and the university makes no representation as to the success or failure of such efforts.

Students living in the residence halls are permitted to have automobiles. Upper-class students can park near their residence hall, while freshmen are provided parking at Stewart Stadium. Please note that freshmen who live in Regents and White are allowed to park in the parking lots adjacent to these two halls only. Individual student rooms are equipped with telephone jacks, basic cable, Internet access, beds, desks, desk chairs, closets and drawer space. Students can receive expanded cable through a local cable company for an additional charge.

College Courts are 144 furnished apartment units which are available for married, nontraditional, and graduate students, or older students who are 21 years of age by the first day of registration. All apartments are air-conditioned, have coin-operated laundry facilities in the buildings, and are equipped with telephone jacks, basic cable, and Internet access.

Applications and information concerning the residential colleges and apartments may be obtained by visiting our website at www.murraystate.edu/housing, or by writing the Department of Housing, Murray State University, 206 Stewart Stadium, Murray KY 42071-3350.

Housing Requirements. All freshmen and sophomores who have not reached their 21st birthday prior to the first day of registration as it appears in the university academic calendar will be required to live in university housing and to purchase one of the available university food services meal plans.

Exempted from this requirement are students who are veterans of at least two years of active military service; students who daily commute from the permanent, legal residence of their parents or legal guardian (within a 50 mile radius); students who are married and living with their spouse; students who have resided in a university residential college four semesters, excluding summer terms; and students who have obtained junior status (sixty hours earned) who have enrolled full time at a postsecondary institution for four semesters, excluding summer.

Students who meet one of these criteria must complete a Request for Housing Exemption form with the Housing Office. The form must be on file prior to the first day of classes. Forms may be obtained from the Housing Office, or can be downloaded from our website.

Freshmen and sophomores receiving family grants or freshmen, sophomores, and juniors whose legal residence is in one of the regional tuition states of Missouri, Illinois, Indiana or Tennessee and who accept the regional tuition discount are also required to live in university housing.

Applications, Deposits, Refunds, Forfeits. Students desiring university housing must complete an application, enclose a $150 deposit for a residential college room or $150 deposit for a College Courts apartment, payable to Murray State University, and submit both to the Housing Office of the university as early as possible to assure accommodations. Scholarships do not cover the housing deposit. It is imperative to remember that before a student is permitted to move into university housing, the student must be admitted academically to the university.

Any student desiring to cancel a housing application must do so in writing to the Department of Housing no later than July 1 for a fall semester reservation, December 1 for the spring semester, and May 15 for the summer term.

Cancellation of a housing application after this date will result in a forfeiture of the deposit. Any student who has a room assignment but fails to check in to their residential college room assignment will also forfeit their room deposit.

Room deposits are held while a student resides in university housing. After the initial application, a student need only complete a room reservation form to maintain a room in the residential college each year. The room reservation forms are distributed by each residential college's staff to students living in the college. When a student permanently moves from the residential college, the room deposit is refunded approximately 60 days after final departure. Costs for damages, missing inventory, outstanding debts, etc., will be deducted from the deposit refund.

Any student who applied for a room and accepts a key to a room is considered an occupant and is required to be a resident of that college. Students who withdraw from university housing to move to an off-campus residence during the contractual period must still pay for university housing. The residential college contract is for one academic year (fall and spring semesters). Students who formally complete an official withdrawal from the university are required to move from the residential college. They are eligible for a refund of the unused portion of their rent. Students who get married during the semester are also eligible for a partial refund after their marriage license is presented at the Housing Office. Students who are removed from university housing because of disciplinary incident will forfeit their deposit and will not qualify for a refund of housing rent.

Any student who is a dependent child (23 years of age or younger) of a current MSU faculty or staff member may apply for
discounted room rate (current room rate less $100). Documentation must be provided to Housing.

**Meal Plans**

Freshman and sophomore students living in the residential colleges must participate in a meal plan program. All meal plans are non-taxable thereby saving customers 6% on all transactions.

For a listing and description of available meal plans, visit the Dining Services at: www.murraystate.edu/dining.

**Declining Balance**

Students may elect to deposit money on the declining balance section on their ID card. These funds then can be used to purchase items in all food service locations as well as the University Store. Deposits for declining balance must be made in the Cashier’s Office on the second floor of Sparks Hall.

**SREB Academic Common Market**

The Academic Common Market is a cooperative tuition-reduction agreement among 14 Southern Regional Education Board states. If the public institutions in one of the states does not offer degree programs in a certain field of study, it may be possible to arrange a waiver of out-of-state tuition to attend a cooperating public institution of higher education in another participating state. Periodic changes are made in the inventory of programs available. Participating states are Alabama, Arkansas, Delaware, Florida (graduate programs only), Georgia, Kentucky, Louisiana, Maryland, Mississippi, Oklahoma, South Carolina, Tennessee, Texas (graduate programs), Virginia and West Virginia.

Write directly to the college or university for admission information. Once you have been accepted into a program and can prove you are a legal resident of Kentucky, contact the Kentucky Academic Common Market coordinator at the Council on Postsecondary Education, 1024 Capital Center Drive, Suite 320, Frankfort KY 40601, 502-573-1555 to certify your eligibility.

**Residency Reclassification**

After reading the policy on “Determination of Residency for Admission and Tuition Assessment Purposes” (above), a student who wishes to request a review of residency classification should obtain an affidavit from the Registrar’s Office on the first floor of Sparks Hall. The affidavit should be completed, signed, and notarized. All supporting statements and documents must be attached. Insufficient information may delay the request a full semester. The student should then present the affidavit to the Registrar’s Office, first floor, Sparks Hall, no later than 30 calendar days after the first day of classes of the semester for which the appeal is being made. Students applying during or after registration must pay fees as originally assessed.

The registrar will act upon the request within 14 calendar days. Questions concerning eligibility or the status of a request should be directed to the Registrar at (270) 809-3759 or emailed to msu.registrar@murraystate.edu. A student whose request was denied by the registrar will have 14 calendar days from the receipt of the denial letter, as determined by the postal notification of receipt of certified mail, to formally appeal the decision. Appeals should be addressed to the Bursar’s Office, 200 Sparks Hall, Murray KY 42071-3312. The appeal should include a letter and any additional supportive documentation. Students whose requests were approved by the registrar or by the residency review committee will be reported to the bursar so that fee adjustments or refunds can be processed accordingly.

A copy of the complete operational policy on classification of residency for fee assessment purposes is available in the registrar’s office.

**Reciprocity Tuition Discount**

Students from the Tennessee counties of Henry, Weakly, and Obion counties will be assessed out-of-state tuition. A tuition discount will be credited for the difference between Murray State University’s out-of-state tuition and in-state tuition. **Note:** This will result in the student paying the same as in-state tuition.

**Regional Tuition Discount**

Students from Montgomery County in Tennessee and students from Massac County in Illinois, or Posey, Vanderburgh or Warrick Counties in Indiana will be assessed out-of-state tuition. A tuition discount will be credited for the difference between Murray State University’s out-of-state tuition and in-state tuition. **Note:** This will result in the student paying the same as in-state tuition.

Regional Tuition Discount for students admitted or re-admitted (after a one year absence):

- Other than residents from the Illinois, Indiana and Tennessee counties referred to above, residents of Alabama (admitted for Fall 2011 or after), Illinois, Indiana, Missouri, Ohio (admitted for Fall 2011 or after), and Tennessee will be charged out-of-state tuition. A tuition discount will be credited for the difference between Murray State University’s out-of-state tuition and an average in-state rate, based on colleges from the student’s state of residency on record with Admissions Services.

- In order to receive the Regional Tuition Discount, freshman, sophomore, and junior undergraduate students must be eligible for admission, enroll full-time, and pay for university housing. Graduate students will not be required to be full-time nor pay for university housing.

- Summer Regional Tuition Rates for all students will be based on their state’s respective institution rates.

**Legacy Grant**

Provides out-of-state undergraduate children and grandchildren of Murray State University graduates with a tuition grant equal to the difference between out-of-state and in-state tuition rates.

- Available during fall and spring semesters only.
- Covers eight semesters toward a first baccalaureate degree.
- Began in the fall of 2004 for incoming freshmen and new transfer students who do not qualify for in-state tuition.

Application and additional information available at www.murraystate.edu.

**Senior Citizen’s Tuition Waiver**

(Donovan Scholarship)

Murray State University in accordance with KRS 164.284, will waive tuition charges and fees (except for application fees, special workshops and noncredit continuing education courses) for any person sixty-five (65) years of age or older who is a resident of Kentucky. The individual must be 65 before the late registration dates for the term in which he or she wishes to enroll. Special course fees or necessary materials for class use are not covered in the waiver.

In the event that classes are full or the granting of free tuition requires additional staff or course sections, the university may deny an individual’s request.

**War Orphans and Spouse/Children of Disabled American Veterans Waivers**

Murray State University in accordance with KRS 164.505 and 164.515 will waive tuition (except for special workshops and noncredit continuing education courses) for a dependent, widow or widower of servicemen or national guardsmen killed while in service or having died as a result of service-connected disability.
As a Post-Baccalaureate student

Effective July 1, 2011, beginning with the 2011-2012 aid year.

If a student is enrolled as a full-time student and drops below full-time status, then they will be treated as a full-time student for financial aid eligibility.

Murray State University’s policy complies with these federal and state requirements. Failure to maintain Satisfactory Academic Progress (SAP) will result in the suspension of a student's financial aid eligibility. The student may re-establish eligibility for financial aid once the minimum requirements of the policy are satisfied. The student must appeal and provide documentation (copy of grade report, doctor’s statement, etc.) to the Office of Financial Aid/Scholarship. Academic transcripts and grade report information are not automatically forwarded to that office. It is the student's responsibility to secure and provide full written appeal information. An appeal is unacceptable if received verbally. Federal regulations require full written documentation for all appeals.

As an Undergraduate student, based upon full-time status (minimum of 12 hours per semester), a student will be required to earn a minimum of 24 hours within that academic year. The academic year consists of the fall and spring semesters only. Credit hours earned during the preceding summer may be used to maintain this completion rate. The student will be permitted a maximum of six (6) academic years for completion of a bachelor's degree(s), three (3) years for an associate degree(s), and two (2) years for a certificate program for financial aid purposes.

As a Graduate student, based upon full-time status (a minimum of nine hours per semester), a student will be required to earn a minimum of 18 semester hours within that academic year. The academic year consists of the fall and spring semesters only. Credit hours earned during the preceding summer may be used to maintain this completion rate. The student will be permitted a maximum of three (3) academic years for completion of a master’s degree program for financial aid purposes.

As a Post-Baccalaureate student, based upon full-time status, a student will be classified as an undergraduate student and held to the above standards. However, the time frame and requirement hours are doubled to compensate for the second degree completion.

Attending less than full-time (minimum of 12 undergraduate hours and nine graduate hours), a student will be monitored at an equivalency rate per the Office of Financial Aid/Scholarship.

Audited Course

Auditing a course does not count as attempted or earned credit for financial aid purposes. However, any course(s) converted to an audit course(s) will count as attempted but not earned for purposes of financial aid eligibility.

Dropped Course

If a student is enrolled as a full-time student and drops below full-time status, then they will be treated as a full-time student for purposes of this policy. Example: If an undergraduate student enrolls in 12 hours each semester (fall and spring), drops to nine hours for fall, and maintains the 12 hours for spring, he/she has earned 21 hours for the academic year. Because the student began 12 hours for the fall and spring, he/she must earn 24 hours for the academic year. In this example the student has earned only 21 hours of the minimum 24 required hours.

Incomplete, Remedial, Transfer, or Withdrawal Courses

Incompletes, remedial, transfer, and withdrawal of any course(s) will count as attempted. Remedial and transfer courses will count as earned whereas incompletes and withdrawals will not count as earned credit for financial aid purposes.

Financial Assistance

Murray State University offers a wide variety of financial aid for deserving students. This aid is designed to assist students in financing their education, to recognize scholastic achievement, to encourage continued educational growth and to reward service to the university and community.

In all cases, the student and/or the student’s family or spouse are expected to contribute to the costs of education in proportion to their total financial capabilities.

If the student and his/her parents or spouse will commit all possible resources, the Office of Financial Aid/Scholarship will make every effort to bridge the economic gap by a financial aid package. That package may consist of one or more of the following types of aid:

• Federal Pell Grant
• Federal Perkins Loan
• Federal PLUS (Parent) Loan
• Federal Subsidized Direct Loan
• Federal Unsubsidized Direct Loan
• Federal Supplemental Educational Opportunity Grant
• Federal Teacher Grant
• Federal Work-Study (part-time employment)
• Kentucky Educational Excellence Scholarship (KEES)
• Kentucky Higher Education Assistance Authority Grant (CAP)
• KHEAA Teacher Scholarship
• Norris (Short-Term) Loan
• Nursing Student Loan
• Scholarship
• University Student Employment (part-time employment)

Application forms and information concerning loans, grants, student employment, and scholarships may be obtained from the Office of Financial Aid/Scholarship, 500 Sparks Hall or from www.murraystate.edu/students/undergraduate/payingforcollege/fas/financialaid/financialaidforms.

Satisfactory Academic Progress/Standing Policy and Financial Aid Eligibility

Effective July 1, 2011, beginning with the 2011-2012 aid year.
Per federal regulations, the rate of progression, while in college, will determine whether a student remains eligible for federal financial assistance.

This policy applies to all students even if the student is not receiving financial aid for the period currently being monitored.

Federal and state regulations require all students who receive, or will receive, assistance from the following programs to make measurable academic progress toward a degree in order to ensure degree program completion within a “reasonable period of time”.


Other State-Mandated Waivers

For information concerning other state-mandated waivers, contact bursar.office@murraystate.edu or 270-809-4226.

Financial Information

and the spouse or child of permanently disabled national guardsmen, war veterans, prisoners of war, or servicemen missing in action upon receipt of the required certification or other documents satisfactory to the university. For additional information contact Veterans’ Affairs, in the Registrar's Office in Sparks Hall.

Other State-Mandated Waivers

For information concerning other state-mandated waivers, contact bursar.office@murraystate.edu or 270-809-4226.

Financial Information

Incompletes, remedial, transfer, and withdrawal of any course(s) will count as attempted. Remedial and transfer courses will count as earned whereas incompletes and withdrawals will not count as earned credit for financial aid purposes.
Repeat or Non-Related Degree Course

If a student excessively repeats courses or takes courses not related to their degree objective, they may jeopardize maintaining satisfactory progress towards graduation. This may result in the loss of eligibility for financial aid.

Semester Withdrawal (from all courses)

If a student has more than two (2) official academic and/or administrative withdrawals while attending Murray State University, they will no longer be considered as maintaining SAP.

Academic Regulations/Standing

In addition to the requirement to complete a minimum number of credit hours each academic year within a specified maximum time frame, a student must also meet the minimum requirements per Murray State University Academic Regulations established by the Registrar. The Academic Regulations may be reviewed within this MSU Bulletin or on the Registrar website at www.murraystate.edu/academics/registraroffice/registration/academicregulations.

Appeal Information

If a student fails to meet the standards of this policy and becomes ineligible for financial aid, they may wish to appeal. It is the student’s responsibility to notify the Office of Financial Aid/Scholarship with proper documentation. The documentation, grade reports, accident data, unexpected medical problems, death in the immediate family (brother, sister, mother, father, spouse, child), etc., must accompany the SAP Financial Aid and Scholarship Appeal Form. The form may be obtained from the Financial Aid office or website under the Financial Aid Forms link. The documentation must include a letter regarding why the student failed to make SAP and what has changed that would allow the student to demonstrate positive SAP during the next evaluation. Upon the appeal review, eligibility may be reinstated for those students who, through no fault of their own, were unable to complete a semester.

If an appeal is denied and the student wishes to appeal the denial, they may request a final hearing before the Office of Financial Aid/Scholarship Appeals Committee. All decisions of this committee are final. A denied appeal will require the completion of the SAP Financial Aid Appeal Form. All appropriate documentation must be submitted with the form for review.

If a denied appeal is not approved, the student may continue enrollment without financial aid assistance and attempt to meet all requirements and regain eligibility. After completing the enrollment period, the student is responsible for submitting the SAP Financial Aid Appeal Form and documentation for review. Once all reviews are completed, the student will receive written notification of the decision.

General Information

The Registrar monitors Academic Regulations/Standing at the end of each semester. The Office of Financial Aid/Scholarship monitors SAP after the spring semester grades are recorded. This review will include the preceding summer and fall and spring of the current academic year.

The time frame to complete a degree is achieved by dividing the total number of credit hours earned, per the end of the spring semester, by 15 hours (undergraduates) or 12 hours (graduates). The result provides the total number of semesters to years a student has completed of degree requirements. Example: An undergraduate student who has earned 75 credit hours would have earned an equivalent of five semesters (75/15) or 2 ½ years towards the degree requirements.

Even if a change of major occurs, the student will be held to the same time frame requirements. If the student is ineligible for financial aid due to changing majors, they should refer to the appeal procedures.

Effective with the 1991-92 year, for purposes of this policy, student academic records are monitored for two full academic years. If a student was not enrolled during the most recent two years, the appeal procedure is required.

If a student does not meet SAP requirements, to permit consideration for financial aid in future terms, they should still complete the Free Application for Federal Student Aid (FAFSA) in a timely manner.

Appeals reviewed by the Office of Financial Aid/Scholarship only apply to that office. Admissions, Bursar, and Housing appeals are separate application processes. Decisions of these appeals are independent of one another.

Additional questions or concerns may be addressed by visiting or contacting the Office of Financial Aid/Scholarship, 500 Sparks Hall, 270-809-2546 or 800-272-4678 (ext. 3) or msu.sfa@murraystate.edu.

Student Employment

Murray State University offers part-time employment to a large number of students each year. The Federal Work-Study Program provides on-campus employment to eligible students who are enrolled at least half-time and who show a need for the earnings. The University Student Employment Program offers jobs to students enrolled at least half-time who do not qualify for the federal program. All student employees are paid biweekly and are required to perform their assigned duties in a satisfactory manner.

Scholarships

Murray State University awards a number of non-need-based scholarships each year to qualified students. Scholarships are supported by the Alumni Association/Development, the Murray State University Foundation, and academic departments, as well as business and professional organizations. Information on scholarships is available through the Office of Financial Aid/Scholarship located in Sparks Hall.

Beginning freshmen use one application which is updated with new available awards each year. Qualifications and restrictions are listed, along with the names and particulars of all scholarships. In some areas, talent and proficiency are considered as well as academic information. Contact the individual department for details.

Generally, scholarships are offered on the basis of scholastic achievement, American College Testing (ACT) score, character, leadership and the promise of continued educational growth. In some cases, financial need is considered.

High school students wishing to receive a current scholarship application must send their official ACT scores to Murray State prior to November 1 of their senior year. A minimum score of 21 is required for direct mailing. Additional applications are sent to high school counselors. Requests for additional information should be addressed to the Office of Financial Aid/Scholarship, 500 Sparks Hall, Murray KY 42071.

Scholarships are also available for qualifying transfer students, upper-class students, nontraditional students and graduate students. In most cases, students must have completed 24 semester hours and have a 3.20 grade average (based on a 4.00 scale). Applications are available from the Office of Financial Aid/Scholar-
**Scholarship Application Deadlines**

<table>
<thead>
<tr>
<th>Entering freshmen</th>
<th>January 15</th>
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<tbody>
<tr>
<td>All other students</td>
<td>January 15</td>
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<tr>
<td>Non-Traditional Students</td>
<td>June 1</td>
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Awards are made for academic years. Students applying for spring scholarships are considered as alternates; there are no new awards for students entering in the spring semester.

**Fee Policy**

As a part of the state-supported system of higher education in Kentucky, Murray State University is governed by the following statewide policy (approved January 14, 1991). For additional information and a copy of the affidavit for a review of residency status, write Registrar’s Office, Murray State University, 113 Sparks Hall, Murray KY 42071-3312, call 270-809-5630 or visit www.murraystate.edu/registrar.

**13 KAR 2:045. Determination of residency status for admission and tuition assessment purposes.**

RELATES TO: KRS Chapter 13B, 164.020, 164.030, 164A.330(6) STATUTORY AUTHORITY: KRS 164.020(8) NECESSITY, FUNCTION, AND CONFORMITY: KRS 164.020(8) requires the Council on Postsecondary Education to determine tuition and approve the minimum qualifications for admission to a state-supported postsecondary education institution and authorizes the Council to set different tuition amounts for residents of Kentucky and for nonresidents. This administrative regulation establishes the procedure and guidelines for determining the residency status of a student who is seeking admission to, or who is enrolled at, a state-supported postsecondary education institution.

**Section 1. Definitions.**

1. “Academic term” means a division of the school year during which a course of studies is offered, and includes a semester, quarter, or single consolidated summer term as defined by the institution.

2. “Continuous enrollment” means enrollment in a state-supported postsecondary education institution at the same degree level for consecutive terms, excluding summer term, since the beginning of the period for which continuous enrollment is claimed unless a sequence of continuous enrollment is broken due to extenuating circumstances beyond the student’s control, including serious personal illness or injury, or illness or death of a parent.

3. “Degree level” means enrollment in a course or program which could result in the award of:
   a. Certificate, diploma or other program award at an institution;
   b. Baccalaureate degree or lower including enrollment in a course by a nondegree-seeking postbaccalaureate student;
   c. Graduate degree or graduate certification other than a first-professional degree in law, medicine, dentistry or “Pharm. D”; or
   d. Professional degree in law, medicine, dentistry, or “Pharm. D”.

4. “Dependent person” means a person who cannot demonstrate financial independence from parents or persons other than a spouse and who does not meet the criteria for independence established in Section 5 of this administrative regulation.

5. “Determination of residency status” means the decision of a postsecondary education institution that may include a formal hearing that results in the classification of a person as a Kentucky resident or as a nonresident for admission and tuition assessment purposes.

6. “Domicile” means a person’s true, fixed, and permanent home and is the place where the person intends to remain indefinitely, and to which the person expects to return if absent without intending to establish a new domicile elsewhere.

7. “Full-time employment” means continuous employment for at least forty-eight (48) weeks at an average of at least thirty (30) hours per week.

8. “Independent person” means a person who demonstrates financial independence from parents or persons other than a spouse and who meets the criteria for independence established in Section 5 of this administrative regulation.

9. “Institution” means an entity defined in KRS 164.001(12) if the type of institution is not expressly stated and includes the Kentucky Virtual University, the Council on Postsecondary Education, and the Kentucky Higher Education Assistance Authority.

10. “Kentucky resident” means a person determined by an institution for tuition purpose to be domiciled in and is a resident of Kentucky as determined by this administrative regulation.

11. “Nonresident” means a person who is (a) domiciled outside of Kentucky (b) currently maintains legal residence outside Kentucky, or (c) is not a Kentucky resident as determined by this administrative regulation.

12. “Parent” means one (1) of the following:
   a. A person’s father or mother;
   b. A court-appointed legal guardian if:
      1. The guardianship is recognized by an appropriate court within the United States;
      2. There was a relinquishment of the rights of the parents; and
      3. The guardianship was not established primarily to confer Kentucky residency on the person.

13. “Preponderance of the evidence” means the greater weight of evidence, or evidence which is more credible and convincing to the mind.

14. “Residence” means the place of abode of a person and the place where the person is physically present most of the time for a noneducational purpose in accordance with Section 3 of this administrative regulation.

15. “Student financial aid” means all forms of payments to a student if one (1) condition of receiving the payment is the enrollment of the student at an institution, and includes student employment by the institution or a graduate assistantship.

16. “Sustenance” means living expenses including room, board, maintenance, transportation, and educational expenses including tuition, fees, books, and supplies.

**Section 2. Scope.**

(1) State-supported postsecondary education institutions were established and are maintained by the Commonwealth of Kentucky primarily for the benefit of qualified residents of Kentucky. The substantial commitment of
public resources to postsecondary education is predicated on the proposition that the state benefits significantly from the existence of an educated citizenry. As a matter of policy, access to postsecondary education shall be provided so far as feasible at reasonable cost to a qualified individual who is domiciled in Kentucky and who is a resident of Kentucky.

(2) The Council on Postsecondary Education may require a student who is neither domiciled in nor a resident of Kentucky to meet higher admission standards and to pay a higher level of tuition than resident students.

(3) This administrative regulation shall apply to all student residency determinations regardless of circumstances, including residency determinations made by the state-supported institutions for prospective and currently-enrolled students; the Southern Regional Education Board for contract spaces; reciprocity agreements, if appropriate; the Kentucky Virtual University; academic common market programs; the Kentucky Educational Excellence Scholarship Program; and other state student financial aid programs, as appropriate.

Section 3. Determination of Residency Status; General Rules. (1) A determination of residency shall include:

(a) An initial determination of residency status by an institution during the admission process or upon enrollment in an institution for a specific academic term or for admission into a specific academic program;
(b) A reconsideration of a determination of residency status by an institution based upon a changed circumstance; or
(c) A formal hearing conducted by an institution upon request of a student after other administrative procedures have been completed.

(2) An initial determination of residency status shall be based upon:

(a) The facts in existence when the credentials established by an institution for admission for a specific academic term have been received and during the period of review by the institution;
(b) Information derived from admissions materials;
(c) If applicable, other materials required by an institution and consistent with this administrative regulation; and
(d) Other information available to the institution from any source.

(3) An individual seeking a determination of Kentucky residency status shall demonstrate that status by a preponderance of the evidence.

(4) A determination of residency status shall be based upon verifiable circumstances or actions.

(5) Evidence and information cited as the basis for Kentucky domicile and residency shall accompany the application for a determination of residency status.

(6) A student classified as a nonresident shall retain that status until the student is officially reclassified by an institution.

(7) A student may apply for a review of a determination of residency status once for each academic term.

(8) If an institution has information that a student’s residency status may be incorrect, the institution shall review and determine the student’s current residency status.

(9) If the Council on Postsecondary Education has information that an institution’s determination of residency status for a student may be incorrect, it may require the institution to review the circumstances and report the results of that review.

(10) An institution shall impose a penalty or sanction against a student who gives incorrect or misleading information to an institutional official, including payment of nonresident tuition for each academic term for which resident tuition was assessed based on an improper determination of residency status. The penalty may also include:

(a) Student discipline by the institution through a policy written and disseminated to students; or
(b) Criminal prosecution.

Section 4. Presumptions Regarding Residency Status. (1) In making a determination of residency status, it shall be presumed that a person is a nonresident if:

(a) A person is, or seeks to be, an undergraduate student and admissions records show the student to be a graduate of an out-of-state high school within five (5) years prior to a request for a determination of residency status;
(b) A person’s admissions records indicate the student’s residence to be outside of Kentucky at the time of application for admission;
(c) A person moves to Kentucky primarily for the purpose of enrollment in an institution;
(d) A person moves to Kentucky and within twelve (12) months enrolls at an institution more than half time; or
(e) A person has a continuous absence of one (1) year from Kentucky.

(2) A person attended an out-of-state higher education institution during the past academic year and paid in-state tuition at that institution.

(3) This administrative regulation shall apply to all student residency determinations regardless of circumstances, including residency determinations made by the state-supported institutions for prospective and currently-enrolled students; the Southern Regional Education Board for contract spaces; reciprocity agreements, if appropriate; the Kentucky Virtual University; academic common market programs; the Kentucky Educational Excellence Scholarship Program; and other state student financial aid programs, as appropriate.
Section 6. Effect of a Determination of Dependent Status on a Determination of Residency Status. (1) The effect of a determination that a person is dependent shall be:

(a) The domicile and residency of a dependent person shall be the same as another person. The domicile and residency of the parent shall be determined in the same manner as the domicile and residency of an independent person; and

(b) The domicile and residency of a dependent person whose parents are divorced, separated, or otherwise living apart shall be Kentucky if either parent is domiciled in and is a resident of Kentucky regardless of which parent has legal custody or is entitled to claim that person as a dependent pursuant to federal or Kentucky income tax provisions.

(2) If the parent or parents of a dependent person are Kentucky residents and are domiciled in Kentucky but subsequently move from the state: (a) The dependent person shall be considered a resident of Kentucky while in continuous enrollment at the degree level in which currently enrolled; and

(b) The dependent person’s residency status shall be reassumed if continuous enrollment is broken or the current degree level is completed.

Section 7. Member of Armed Forces of the United States, Spouse and Dependents; Effect on a Determination of Residency Status. (1) A member, spouse, or dependent of a member whose domicile and residency in Kentucky at the time of induction into the Armed Forces of the United States, and who maintains Kentucky as home of record and permanent address, shall be entitled to Kentucky residency status:

(a) During the member’s time of active service; or

(b) If the member returns to this state within six (6) months of the date of the member’s discharge from active duty.

(2)(a) A member of the armed services on active duty for more than thirty (30) days and who has a permanent duty station in Kentucky shall be classified as a Kentucky resident and shall be entitled to in-state tuition as shall the spouse or a dependent child of the member.

(b) A member, spouse, or dependent of a member shall not lose Kentucky residency status if the member is transferred on military orders while the member, spouse, or dependent requesting the status is in continuous enrollment at the degree level in which currently enrolled.

(3) Membership in the National Guard or civilian employment at a military base alone shall not qualify a person for Kentucky residency status under the provisions of subsections (1) and (2) of this section. If a member of the Kentucky National Guard is on active duty status for a period of not less than thirty (30) days, the member shall be considered a Kentucky resident, as shall the spouse of a dependent child of the member.

(4) A person’s residency status established pursuant to this section shall be reassessed if the qualifying condition is terminated.

Section 8. Status of Nonresident Aliens; Visas and Immigration. (1)(a) A person holding a permanent residency visa or classified as a political refugee shall establish domicile and residency in the same manner as another person.

(b) Time spent in Kentucky and progress made in fulfilling the conditions of domicile and residency prior to obtaining permanent residency status shall be considered in establishing Kentucky domicile and residency.

(2) A person holding a nonimmigrant visa with designation A, E, G, H-1, H-4 if accompanying a person with an H-1 visa, I, K, L, N, R, shall establish domicile and residency the same as another person.

(3)(a) An independent person holding a nonimmigrant visa with designation B, C, D, F, H-2, H-3, H-4 if accompanying a person with an H-2 or H-3 visa, J, M, O, P, Q, S, TD, or TN shall not be classified as a Kentucky resident, because that person does not have the capacity to remain in Kentucky indefinitely and therefore cannot form the requisite intent necessary to establish domicile as defined in Section 1(6) of this administrative regulation.

(b) A dependent person holding a visa as described in paragraph (a) of this subsection, but who is a dependent of a parent holding a visa as described in subsection (2) of this section, shall be considered as holding the visa of the parent.

(c) A dependent person holding a visa described in subsection (2) of this section or paragraph (a) of this subsection, if a parent is a citizen of the United States and is a resident of and domiciled in Kentucky, shall be a resident of Kentucky for the purposes of this administrative regulation.

(4) A person shall be a Kentucky resident for the purpose of this administrative regulation if the person graduated from a Kentucky high school and:

(a) Is an undocumented alien;

(b) Holds a visa listed in subsections (2) or (3)(a) of this section;

(c) Is a dependent of a person who holds a visa listed in subsections (2) or (3)(a) of this section.

(5)(a) Except as provided in paragraph (b) of this subsection, a person who has petitioned the federal government to reclassify visa status shall continue to be ineligible until the petition has been decided by the federal government.

(b) A person who has petitioned the federal government to reclassify his or her visa status based on marriage to a Kentucky resident and who can demonstrate that the petition has been filed and acknowledged by the federal government, may establish Kentucky domicile and residency at that time.

Section 9. Beneficiaries of a Kentucky Educational Savings Plan Trust. A beneficiary of a Kentucky Educational Savings Plan Trust shall be granted residency status if the beneficiary meets the requirements of KRS 164A.330(6).

Section 10. Criteria Used in a Determination of Residency Status. (1)(a) A determination of Kentucky domicile and residency shall be based upon verifiable circumstances or actions.

(b) A single fact shall not be paramount, and each situation shall be evaluated to identify those facts essential to the determination of domicile and residency.

(c) A person shall not be determined to be a Kentucky resident by the performance of an act that is incidental to fulfilling an educational purpose or by an act performed as a matter of convenience.

(d) Mere physical presence in Kentucky, including living with a relative or friend, shall not be sufficient evidence of domicile and residency.

(e) A student or prospective student shall respond to all requests for information regarding domicile or residency requested by an institution.

(2) The following facts, although not conclusive, shall have probative value in their entirety and shall be individually weighted, appropriate to the facts and circumstances in each determination of residency:

(a) Acceptance of an offer of full-time employment or transfer to an employer in Kentucky or contiguous area while maintaining residence and domicile in Kentucky;

(b) Continuous physical presence in Kentucky while in a non-student status for the twelve (12) months immediately preceding the start of the academic term for which a classification of Ken-
Section 13. Institutional Responsibilities.

(a) If a student fails to provide, by the date specified by the institution, information required by an institution in a determination of residency status, the student shall be notified by the institution, information required by an institution in a determination of residency status, the student shall be notified by the institution.

(b) If a student fails to notify an institutional official of a change in residency, an institutional official may investigate and evaluate the student's residency status.

(c) If a student fails to provide, by the date specified by the institution, information required by an institution in a determination of residency status, the student shall be notified by the institution.

Section 11. Effect of a Change in Circumstances on Residency Status.

(1) Filing a Kentucky resident income tax return for the calendar year preceding the date of application for a change in residency status; or

(2) Payment of Kentucky withholding taxes while employed during the calendar year for which a change in classification is sought;

(3) Full-time employment of at least one (1) year while living in Kentucky;

(4) Attendance as a full-time, nonresident student at an out-of-state institution based on a determination by that school that the person is a resident of Kentucky;

(5) Abandonment of a former domicile or residence and establishing domicile and residency in Kentucky with application to or attendance at an institution following and incidental to the change in domicile and residency;

(6) Obtaining licensing or certification for a professional and occupational purpose in Kentucky;

(7) Ownership of real property in Kentucky, if the property was used by the student as a residence preceding the date of application for a determination of residency status;

(8) Marriage of an independent student to a person who was domiciled in and a resident of Kentucky prior to the marriage; and

(9) The extent to which a student is dependent on student financial aid in order to provide basic sustenance.

(3) A reconsideration of a determination of residency status if the determination made by an institution is because a student has failed to meet published deadlines for the submission of information as set forth in subsection (3) of this section. A student may request a review of a determination of residency status in a subsequent academic term.

Section 13. Institutional Responsibilities.

Each institution shall: (1) Provide for an administrative appeals process that includes a residency appeals officer to consider student appeals of an initial residency determination and which shall include a provision of fourteen (14) days for the student to appeal the residency appeals officer's determination;

(2) Establish a residency review committee to consider appeals of residency determinations by the residency appeals officer. The residency review committee shall make a determination of student residency status and notify the student in writing within forty-five (45) days after receipt of the student appeal;

(3) Establish a formal hearing process as described in Section 14 of this administrative regulation; and

(4) Establish written policies and procedures for administering the responsibilities established in subsections (1), (2), and (3) of this section and that are:

(a) Approved by the institution's governing board;

(b) Made available to all students; and

(c) Filed with the council.


(1) A student who appeals a determination of residency by a residency review committee shall be granted a formal hearing by an institution if the request is made by a student in writing within fourteen (14) calendar days after notification of a determination by a residency review committee.

(2) If a request for a formal hearing is received, an institution shall appoint a hearing officer to conduct a formal hearing. The hearing officer shall:

(a) Be a person not involved in determinations of residency at an institution except for formal hearings; and

(b) Not be an employee in the same organizational unit as the residency appeals officer.

(3) An institution shall have written procedures for the conduct of a formal hearing that have been adopted by the board of trustees or regents, as appropriate, and that provide for:

(a) A hearing officer to make a recommendation on a residency appeal;

(b) Guarantees of due process to a student that include:

1. The right of a student to be represented by legal counsel; and

2. The right of a student to present information and to present testimony and information in support of a claim of Kentucky
residency; and

c) A recommendation to be issued by the hearing officer.

(4) An institution’s formal hearing procedures shall be filed with the Council on Postsecondary Education and shall be available to a student requesting a formal hearing.

Section 15. **Cost of Formal Hearings.** (1) An institution shall pay the cost for all residency determinations including the cost of a formal hearing.

(2) A student shall pay for the cost of all legal representation in support of the student’s claim of residency. (17 Ky.R. 2557; eff. 4-5-1991; Am. 22 Ky.R. 1656; 1988; eff. 5-16-1996; 23 Ky.R. 3380; 3797; 4099; eff. 6-16-1997; 24 Ky.R. 2136; 2705; 25 Ky.R. 51; eff. 7-13-1998; 25 Ky.R. 2177; 2577; 2827; eff. 6-7-1999; 749; 1238; eff. 11-12-2002; 36 Ky.R. 1083; 1951; 2033-M; eff. 4-2-2010.)

For additional information, write or call the Registrar’s Office, Murray State University, 113 Sparks Hall, Murray KY 42071-3312; 270-809-5630.
Degrees and Certificates

Murray State University confers the following degrees and certificates:
- **Certificate**: Business Geographic Information Systems, Human Development and Leadership, Nutrition/Registered Dietician, Organizational Dynamics, Professional Telecommunications Systems Management, Professional Writing, Veterinary Hospital Management, and Youth and Nonprofit Leadership;
- **Associate**: Associate of Arts (A.A.) and Associate of Science (A.S.);
- **Baccalaureate**: Bachelor of Arts (B.A.), Bachelor of Arts in Business (B.A.B.), Bachelor of Fine Arts (B.F.A.), Bachelor of Integrated Studies (B.I.S.), Bachelor of Music (B.M.), Bachelor of Science (B.S.), Bachelor of Science in Agriculture (B.S.A.), Bachelor of Science in Business (B.S.B.), Bachelor of Science in Nursing (B.S.N.), and Bachelor of Social Work (B.S.W.);
- **Master**: Master of Arts (M.A.), Master of Arts in Education (M.A.Ed.), Master of Arts in Teaching (M.A.T.), Master of Business Administration (M.B.A.), Master of Fine Arts (M.F.A.), Master of Music Education (M.M.E.), Master of Public Administration (M.P.A.), Master of Science (M.S.), and Master of Science in Nursing (M.S.N.);
- **Specialist**: Specialist in Education (Ed.S.)

Definitions

The University approved academic programs of study listed in the collegiate chapters in this Bulletin are the only ones that may be declared by students eligible to follow this Bulletin. Courses may not be shared between areas, majors, and minors. The minimum number of hours indicated below must be unduplicated for each.
- **Area**: An area is an approved program of study that requires a minimum of 48 hours of credit in addition to University Studies courses, and can be completed in lieu of a major-minor combination.
- **Major**: A major is an approved program of study that requires a minimum of 30 semester hours of credit in addition to University Studies courses and must be accompanied by a unique minor or second major.
- **Minor**: A minor is an approved program of study of a minimum of 21 semester hours of designated work that must be completed in conjunction with at least a major to apply toward a degree.
- **Collateral courses**: Courses may be shared between areas, majors, and minors.
- **Concentration**: Courses may not be shared between areas, majors, and minors.

- **Core**: Courses may not be shared between areas, majors, and minors.
- **Co-Requirement**: Courses may be shared between areas, majors, and minors.
- **Emphasis**: Courses may not be shared between areas, majors, and minors.
- **Support courses**: If the area/major or minor has more than the minimum number of required hours, support courses may be shared between areas, majors, and minors.

General Degree Requirements

**Degree Credit.** The following do not count toward the credit hours required for graduation but are included in calculating GPAs. Other courses may be added in the future. ENG 095, ENG 100, ENG 109, ENG 110, FYE 100, GUI 096, GUI 097, HEA 189, INT 110, MAT 095, MAT 100, MAT 105, MAT 118, REA 095, REA 100; all ESL and CEC courses, courses in which a student earned a grade of E, I, X, or WE; BIS courses, if the student does not complete a BIS degree; and multiple enrollments in a course that exceed the number of permissible attempts specified in the course description of a course that may be taken more than once for credit. Refer to the Repeat Policy found in Chapter 3. The GPA that is calculated at the time a degree is conferred and recorded will not be changed by subsequent coursework, including repeated courses. A grade of I must be changed within two weeks of grade time for students seeking graduation once graduation will be delayed until the next semester. Grades of incomplete will be changed to E (which will negatively affect the GPA) at the time of graduation and may not be changed after the degree is conferred. The following do not count toward the credit hours required for graduation, and are not included in GPA calculations: audited courses; courses with a grade of R, W, or WP; courses approved for Academic Second Chance; and courses taken at another institution that are determined to be nontransferable.

**Residence Credit for Graduation.** Undergraduate residence credit is any academic credit awarded by Murray State University and placed on students’ transcripts after they enroll with Murray State University. Nonresidence credit is any academic credit which Murray State accepts as transfer credit from another college or university, including credit through the National Student Exchange and the International Student Exchange programs. (See section on Transfer Credit.)

**Associate Degree.** A candidate for an associate degree must complete a prescribed, planned specialty program with a minimum of 19 semester hours chosen from the University Studies component. The minimum amount of credit required for an associate degree is 60 semester hours with an overall grade point average of 2.00. A minimum of 24 semester hours must be earned in residence at Murray State. Ten of the last 16 hours must be earned in residence at Murray State. The associate degree candidate must have a grade point average of at least 2.00: (1) in credits presented for graduation whether earned at Murray State or elsewhere; (2) in all credits completed at Murray State; (3) in the courses completed for the planned specialty program; and (4) in the courses
completed at Murray State for the planned specialty program. Graduation honors are not posted for associate degrees.

**Second Associate Degree.** A student who has earned or is seeking an associate degree from Murray State may earn a second associate degree in a different planned specialty program upon meeting course requirements for that degree and upon completing at least 24 additional hours in residence at Murray State, over and above requirements for the first degree. The student may be required to complete additional University Studies courses if they are specifically required for the intended second degree. Nine hours must be completed toward a new planned specialty program and GPA requirements are the same as required for the first associate degree.

All students seeking a second degree must apply for admission/re-admission to Murray State University and must get a specific program plan pre-approved by the department chair and dean of their new area or major and by the Registrar’s Office. Failure to seek approval in advance from these three parties will likely result in a second degree not being awarded as not all areas and majors will be possible for those seeking the second degree.

**Baccalaureate Degree.** A candidate for a baccalaureate degree must complete a minimum of 120 degree credit semester hours. A minimum of 32 hours must be earned in residence at Murray State and at least 20 of the last 32 semester hours required for graduation must be earned in residence at Murray State.

At least 42 semester hours of the 120 hours required for a baccalaureate degree must be earned in courses at the 300 level or above. Course credit level for transfer work is based on the course level at the sending institution. No more than six hours in cooperative education courses will apply toward minimum graduation requirements (some departments have further restrictions). Other courses with limits on their application toward graduation are so designated in their course descriptions.

A student completing a degree in a field that is a non-AACSB accredited business program may not take more than 25 percent of the total hours required for that degree in any combination of the following business prefixes/courses: ACC, BPA, CIS, FIN, MGT, MKT, OSY, RES, or COM 340, COM 481, JMC 394, LST 240, LST 540, and POL 542.

All students seeking a baccalaureate degree must complete the University Studies requirements as outlined later in this chapter. **Transfer students should refer to the transfer section in Chapter 2 of this Bulletin for important information on University Studies courses.** Also, each candidate for a baccalaureate degree must complete either 1) an area; 2) a major plus a minor; 3) a major plus a second major; or 4) a major plus an area. Courses of an appropriate nature may apply toward University Studies requirements and either a major or a minor without additional courses being required in that major or minor. A minimum of nine hours in the major(s) and six hours in the minor(s), or 15 hours in the area(s), must be in upper-level courses completed in residence at Murray State.

The baccalaureate degree candidate must have a GPA of at least 2.00: (1) in all credits presented for graduation whether earned at Murray State or elsewhere; (2) in all credits completed at Murray State; (3) in the courses for each major, minor or area; and (4) in the courses taken at Murray State for each major, minor or area.

**Professional Degree Transfers.** A student who completes three years (90 semester hours) of appropriate pre-professional courses at Murray State and then enters an accredited professional school to pursue an advanced degree in dentistry, engineering, medicine, optometry, theology or veterinary science may apply the courses from the first year of professional school (up to 32 semester hours) toward a Murray State baccalaureate degree. All MSU University Studies, departmental and other graduation requirements must be met.

**Second Baccalaureate Degree.** Students who have earned or are seeking a baccalaureate degree may earn a second baccalaureate degree in a different major or area. The student must complete a minimum of 32 semester hours in residence at Murray State University, exclusive of hours taken toward requirements of the first degree, including any specific departmental requirements, prerequisites, and co-requirements. A student completing a new major toward a second degree is not required to complete a new minor. Fifteen semester hours of upper-level courses must be earned in completion of the new area or major. The student may be required to complete additional University Studies courses if they are specifically required for the intended second major or area. Post-baccalaureate transfer work will not be posted to the student’s academic record until their degree is conferred. Only the coursework required for the degree will be posted. The second baccalaureate degree candidate must have a GPA of at least 2.00: 1) in all credits present for graduation whether earned at Murray State or elsewhere; 2) in all credits presented for graduation that were completed at Murray State; 3) in the courses for each major, minor, or area; and 4) in the courses taken at Murray State for each major, minor, or area.

All students seeking a second degree must be appropriately admitted/readmitted to Murray State University and must get a specific program plan pre-approved by the department chair and dean of their new area or major and by the Registrar’s Office. Failure to seek approval in advance from these three parties will likely result in a second degree not being awarded as not all areas and majors will be possible for those seeking the second degree. The Bachelor of Integrated Studies degree is only available as a first baccalaureate degree.

**Second Degree Honors.** Students seeking an honors designation for their second degree must additionally follow the honors requirements for a first degree, including the completion of a total of 45 new hours in residence at Murray State, 32 of which must be upper-level. Be sure to see the “Academic Honors for Graduation” listing for complete information.

**Master’s and Ed.S. Degrees.** Consult Murray State’s Graduate Bulletin.

**Degree Audit**

A degree audit is available to undergraduate students on their myGate who are seeking associate or first baccalaureate degrees to clarify the steps and courses needed to achieve a degree. This report incorporates the requirements found in this Bulletin, and presents updated information as courses and requirements change after the Bulletin is published.

The degree audits are prepared for individual students and use file information and transcript courses to monitor a student’s progress toward any specific degree program. Degree audits are powerful advising tools which are available on myGate or via written request to the Registrar’s Office as students wish to explore the requirements needed should they change degree objectives or add or delete areas, majors, or minors.

Degree audits should be used in conjunction with information from the student’s advisor and the Undergraduate Bulletin to ensure that all graduation requirements are being met. It is the student’s responsibility to verify that all requirements have been completed.
Graduation Requirements

A student must apply for graduation and be recommended for the degree to the Board of Regents of Murray State University before any degree is conferred. Graduation requirements for a student are defined by one specific Bulletin. Each Bulletin expires in August of the seventh year from the year of publication. No student will be graduated under the requirements of a Bulletin that has expired.

Students are assigned to the latest Bulletin in effect at the time they apply for admission but may choose to move to a more current Bulletin or be required to move to a more current Bulletin if they switch majors. Students who are re-admitted or transferring to Murray State may declare any active Bulletin since their initial enrollment at any accredited institution.

Degrees are awarded in December, May, and August. Students must apply for graduation via myGate. Students planning to graduate in December must apply in April; May graduates must apply in November; and August graduates must apply in March. (See deadlines listed on myGate for specific dates.) Formal commencement exercises are held at the end of the spring and fall semesters. August graduates are encouraged to participate in the December graduation ceremony of the same year. The names of the August graduates will appear only in the December program. Academic regalia is required and may be purchased at the University Store.

All candidates for undergraduate degrees are expected to make formal application and pay a degree fee by the deadline specified for each term in the University Calendar. A notice of graduation status is furnished to the student and advisor by the Registrar’s Office. If the student does not meet graduation requirements, the application will automatically be moved to the next graduation term. Should the student fail to meet the degree requirements by the deadline for that graduation term, the student’s name will be removed from the pending graduation list. It will then be the student's responsibility to submit a NEW Graduation Application via myGate by the deadline for the term in which the student plans to graduate. The new application will result in a another degree fee.

Diplomas: Diplomas will be mailed to graduates after degrees are conferred. A student must have satisfied all debts to the university or the diploma will be withheld until the student’s account is cleared. Diplomas are 11x14 inches and contain the name of the graduate (no nicknames), the degree received, and honors if applicable. Details about areas, majors, and minors appear on the transcript only.

Academic Honors for Graduation: Baccalaureate degree candidates are considered for graduation honors if they have earned a minimum of 45 semester hours at Murray State University, 32 hours of which must be in upper-level courses, and also must have earned the required GPA indicated as a) 1) on Murray State course work alone, 2) overall including transfer work. The honors distinctions are: Summa cum laude — minimum of 3.80; Magna cum laude — 3.60 - 3.79; and Cum laude — 3.30 - 3.59.

Students graduating in August or December will have their honor status published and announced at December Commencement. Honors cords may be purchased at the University Store.

Honors that appear in the commencement program are calculated at the end of the previous semester. Honors printed on the diploma and transcript will reflect the final GPA after all degree requirements have been met.

Honors Day: Each year an Honors Day program is held to recognize academic excellence and achievement by students in various colleges, departments, and organizations. Numerous awards are presented to students making significant contributions to Murray State University.

Departmental Requirements

Individual departments, with the appropriate university approval, may set admission or graduation standards which are higher (but not lower) than the minimum university-wide standards. It shall be the responsibility of the department to inform students of these more stringent requirements, to publish them in the Bulletin, and to monitor their completion.

Mandatory Developmental Courses

All Kentucky state-supported colleges and universities are required by the Council on Postsecondary Education to enroll freshmen in a subject-specific developmental course when the student’s ACT/SAT scores to not meet minimum standards. Refer to Chapter 2 for requirements.

NOTE: Credit earned in ENG 095, ENG 100, MAT 100, MAT 105, REA 095, or REA 100 does not apply toward the hours required for graduation but letter grades received in the appropriate classes will count in a student’s grade point average.

Course Prerequisites

Students are required to comply with the most current prerequisites at the time they register for the course. The most current course prerequisites are listed on the online schedule of classes found on myGate.

Composition Registration

Students fulfill a portion of the Oral and Written Communication category of University Studies by the successful completion of ENG 105 Critical Reading, Writing, and Inquiry. Because ENG 105 is a prerequisite for subsequent University Studies requirements, student should enroll in the course during their first year. Students qualify for ENG 105 on the basis of credits earned or the English subscore of the ACT examination. Students with ACT English score of 18 or above may enroll in ENG 105. Students with an ACT English score of 17 or below are required to enroll in and successfully complete ENG 100 Basic Writing prior to taking ENG 105.

Composition credit may also be earned through the Advanced Placement Program. A score of 3 on the AP English Language/Composition exam will give the student credit for ENG 101 (3 hours), but the student must still complete ENG 105. A score of 4 or 5 on the AP English Language/Composition exam will give the student credit for ENG 105. A score of 3, 4, or 5 on the AP English Literature/Composition exam does not satisfy the Composition requirement, but the student receives credit for ENG 201.

ENG 101 credit will be granted for students who submit student who submits a CLEP English general exam score report of at least 42 or an English subject exam score report of at least 50. A student who has an eleventh-grade or twelfth-grade writing portfolio with a KIRIS performance level of “Distinguished” or “Proficient” may write an essay to be assessed for possible credit for ENG 101. A $15 fee is assessed to student receiving ENG 101 based on KIRIS or CLEP scoring. NOTE: ENG 105 is treated as a repeat of ENG 102.

University Studies Program

The University Studies program at Murray State University grew out of the national movement to establish General Education programs at American colleges and universities, with initiatives from the Carnegie Foundation for the Advancement of Teaching, the U.S. Commissioner of Education, and Harvard University.

Murray State’s University Studies program is based on an interdisciplinary approach that reinforces the Characteristics of the
**Academic Degrees and Programs**

**MSU Graduate.** The program relies on a thematic structure that places emphasis on the connectedness of learning, rather than on the more traditional discipline-centered approach to knowledge. University Studies, for example, sets the stage for helping students learn how to communicate in the twenty-first century by requiring all students to take COM 161 Public Speaking as well as the newly created four-hour ENG 105 course in Critical Reading, Writing, and Inquiry. In addition, all academic majors have designated writing and technology intensive courses within their programs so that students will continue to write throughout their academic careers.

Courses within the program encourage students to understand the ways in which important ideas straddle many disciplines, and to experience and value the unique lens of each one. Students learn to think independently and creatively while applying sound standards of information gathering, analysis, and evaluation to reach logical decisions. These foundational approaches provide the basis for students to write well and to speak clearly and coherently.

Through a broad array of course selections in mathematics and the physical and life sciences, Murray State University undergraduates will become familiar with the roles and applications of science and technology for imagining solutions of the problems facing a complex and changing world. In addition, students will gain a critical understanding of the world’s historical, literary, philosophical, and artistic traditions. To ensure this dynamic perspective, students will now be required to take a newly designed 200-level World Civilization course to complement the required sophomore-level Humanities course. To emphasize the importance of developing cross-cultural awareness, knowledge of a second world language holds a key place in all B.A. degrees awarded at Murray State; and taking a course in a foreign language is also an option for the B.S. degrees.

In other thematic categories, students will be able to select from among a number of courses that will help them to better understand the complexity of cultural diversity, of competing economic and political systems, and of complex moral and ethical issues in our increasingly interconnected world. Learning how to live an ethical life and to assume social responsibility are also built into the program through a number of selected courses in another thematic area.

In keeping with the mission of the university, the University Studies program seeks to reflect contemporary concerns in the academic world, but equally to prepare our students for the larger world.

Students seeking teaching certification are required to complete specific University Studies courses. For detailed information concerning University Studies courses for teacher certification, see Chapter 6, College of Education.

Transfer students should refer to the section on transfer of credits in Chapter 2 for important additional University Studies information as they may not be required to complete all of the courses specified below.

Refer to the section on Mandatory Developmental Courses found earlier in this chapter for additional required courses for all degrees.

### Bachelor of Arts (B.A.)

**University Studies Requirements** ..........................44-47 hrs

All Bachelor of Arts degree candidates should follow the course of University Studies instruction indicated below.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral and Written Communication</strong></td>
<td>7</td>
</tr>
<tr>
<td>COM 161</td>
<td>3</td>
</tr>
<tr>
<td>ENG 105 or ENG 150</td>
<td>4</td>
</tr>
<tr>
<td><strong>Global Awareness, Cultural Diversity, and the World's Artistic Traditions</strong></td>
<td>9</td>
</tr>
<tr>
<td>Six hours in a single foreign language, culminating in proficiency at 202-level or above</td>
<td></td>
</tr>
<tr>
<td>One University Studies elective in this category</td>
<td>3</td>
</tr>
<tr>
<td><strong>Scientific Inquiry, Methodologies, and Quantitative Skills</strong></td>
<td>7-10</td>
</tr>
<tr>
<td>One University Studies science course with lab</td>
<td>4-5</td>
</tr>
<tr>
<td>One University Studies mathematics course</td>
<td>3-5</td>
</tr>
<tr>
<td><strong>Social and Self-Awareness and Responsible Citizenship</strong></td>
<td>6</td>
</tr>
<tr>
<td>One Ethics, Social Responsibility and Civic Engagement category</td>
<td></td>
</tr>
<tr>
<td>One Social Science category course</td>
<td>3</td>
</tr>
<tr>
<td><strong>World's Historical, Literary, and Philosophical Traditions</strong></td>
<td>9</td>
</tr>
<tr>
<td>CIV 201 or CIV 202 or HON 201 or 202</td>
<td>3</td>
</tr>
<tr>
<td>HUM 211 or honors course HON 251</td>
<td>3</td>
</tr>
<tr>
<td>One University Studies elective in this category</td>
<td>3</td>
</tr>
<tr>
<td><strong>University Studies Approved Electives</strong></td>
<td>6</td>
</tr>
<tr>
<td>Choose from the list of University Studies courses. No more than two courses from one thematic category and no more than one course from the Enrichment Electives category. To reach proficiency at the 202-level, a student may have to complete up to six hours of 100-level prerequisites.</td>
<td></td>
</tr>
</tbody>
</table>

### Bachelor of Science (B.S., B.S.A., B.S.N.)

**University Studies Requirements** ..........................41-46 hrs

All Bachelor of Science degree candidates should follow the course of University Studies instruction indicated below.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral and Written Communication</strong></td>
<td>7</td>
</tr>
<tr>
<td>COM 161 or HON 163</td>
<td>3</td>
</tr>
<tr>
<td>ENG 105 or ENG 150</td>
<td>4</td>
</tr>
<tr>
<td><strong>Global Awareness, Cultural Diversity, and the World's Artistic Traditions</strong></td>
<td>3</td>
</tr>
<tr>
<td>One University Studies elective in this category</td>
<td>3</td>
</tr>
<tr>
<td><strong>Scientific Inquiry, Methodologies, and Quantitative Skills</strong></td>
<td>10-15</td>
</tr>
<tr>
<td>One University Studies science course with lab</td>
<td>4-5</td>
</tr>
<tr>
<td>One University Studies mathematics course</td>
<td>3-5</td>
</tr>
<tr>
<td>One University Studies science or mathematics course</td>
<td>3-5</td>
</tr>
<tr>
<td><strong>Social and Self-Awareness and Responsible Citizenship</strong></td>
<td>6</td>
</tr>
<tr>
<td>One Ethics, Social Responsibility and Civic Engagement category</td>
<td></td>
</tr>
<tr>
<td>One Social Science category course</td>
<td>3</td>
</tr>
</tbody>
</table>
World's Historical, Literary, and Philosophical Traditions
CIV 201 or CIV 202 [or HON 201 or 202].................................................. 3
HUM 211 [or HON 251]........................................................................... 3

University Studies Approved Electives
Choose from the list of University Studies courses. No more than two courses from one thematic category and no more than one course from the Enrichment Electives category.

Bachelor of Science in Agriculture (B.S.A.)

University Studies Requirements .................. 41-46 hrs
All Bachelor of Science in Agriculture degree candidates should follow the course of University Studies instruction indicated below.

Oral and Written Communication .................. 7
COM 161 [or HON 165]................................................................. 3
ENG 105 [or ENG 150]................................................................. 4

Global Awareness, Cultural Diversity, and the World's Artistic Traditions
One course in foreign culture, multiculturalism, study abroad, international affairs, or fine arts..................... 3

Scientific Inquiry, Methodologies, and Quantitative Skills.. 10-15
One University Studies science course with lab .................................. 4-5
One University Studies mathematics course................................. 3-5
One University Studies science or mathematics course. 3-5

Social and Self-Awareness and Responsible Citizenship
One Ethics, Social Responsibility and Civic Engagement category course........................................... 3
One social science category course .................................................. 3

World's Historical, Literary, and Philosophical Traditions
CIV 201 or CIV 202 [or HON 201 or 202].................................................. 3
HUM 211 [or HON 251]........................................................................... 3

University Studies Approved Electives
Choose from the list of University Studies courses. No more than two courses from one thematic category and no more than one course from the Enrichment Electives category.

Bachelor of Arts in Business (B.A.B.)

University Studies Requirements .................. 48-49 hrs
All Bachelor of Arts in Business degree candidates pursuing an AREA program and all candidates for bachelor's degrees with a MAJOR in business administration should follow the course of University Studies instruction indicated below.

Oral and Written Communication .................. 7
COM 161 [or HON 165]................................................................. 3
ENG 105 [or ENG 150]................................................................. 4

Global Awareness, Cultural Diversity, and the World's Artistic Traditions
Six hours in a single foreign language, culminating in proficiency at 202-level or above
One University Studies elective in this category......................... 3

Scientific Inquiry, Methodologies, and Quantitative Skills.. 11-12
One University Studies science course with lab ......................... 4-5
MAT 140................................................................. 4
MAT 220................................................................. 3

Social and Self-Awareness and Responsible Citizenship
One Ethics, Social Responsibility and Civic Engagement category course........................................... 3
ECO 230................................................................. 3

World’s Historical, Literary, and Philosophical Traditions
CIV 201 or CIV 202 [or HON 201 or 202].................................................. 3
HUM 211 [or HON 251]........................................................................... 3

University Studies Approved Electives
Choose from the list of University Studies electives. No more than two courses from one thematic category and no more than one enrichment elective.

Bachelor of Science in Business (B.S.B.)

University Studies Requirements .................. 42-43 hrs
All Bachelor of Science in Business degree candidates pursuing an AREA program and all candidates for bachelor’s degrees with a MAJOR in business administration should follow the course of University Studies instruction indicated below.

Oral and Written Communication .................. 7
COM 161 [or HON 165] with a grade of C or better ................. 3
ENG 105 [or ENG 150] with a grade of C or better............. 4

Global Awareness, Cultural Diversity, and the World's Artistic Traditions
One Ethics, Social Responsibility and Civic Engagement category course........................................... 3

Scientific Inquiry, Methodologies, and Quantitative Skills.. 11-12
One University Studies science course with lab ......................... 4-5
MAT 140................................................................. 4
MAT 220................................................................. 3

Social and Self-Awareness and Responsible Citizenship
One Ethics, Social Responsibility and Civic Engagement category course........................................... 3
ECO 230................................................................. 3

World’s Historical, Literary, and Philosophical Traditions
CIV 201 or CIV 202 [or HON 201 or 202].................................................. 3
HUM 211 [or HON 251]........................................................................... 3

University Studies Electives
Choose from the list of University Studies electives. No more than two courses from one thematic category and no more than one enrichment elective.

Social and Self-Awareness and Responsible Citizenship
One Ethics, Social Responsibility and Civic Engagement category course........................................... 3
ECO 230................................................................. 3

World’s Historical, Literary, and Philosophical Traditions
CIV 201 or CIV 202 [or HON 201 or 202].................................................. 3
HUM 211 [or HON 251]........................................................................... 3

University Studies Electives
Choose from the list of University Studies electives. No more than two courses from one thematic category and no more than one enrichment elective.

Social and Self-Awareness and Responsible Citizenship
One Ethics, Social Responsibility and Civic Engagement category course........................................... 3
ECO 230................................................................. 3

World’s Historical, Literary, and Philosophical Traditions
CIV 201 or CIV 202 [or HON 201 or 202].................................................. 3
HUM 211 [or HON 251]........................................................................... 3

University Studies Electives
Choose from the list of University Studies electives. No more than two courses from one thematic category and no more than one enrichment elective.
**Bachelor of Music (B.M.) Certification Option**

University Studies Requirements .............................................. 35 hrs
All Bachelor of Music degree candidates should follow the distribution requirements outlined below.

**Oral and Written Communication** ........................................... 7
- COM 161 [or HON 165] .............................................. 3
- ENG 105 [or ENG 150] .............................................. 4

**Global Awareness, Cultural Diversity, and the World’s Artistic Traditions** .............................................. 6
- One course from the following: ART 105, 121, 211 or 212 ............................ 3
- One University Studies elective course in this category ... 3

**Scientific Inquiry, Methodologies, and Quantitative Skills** .... 7
- One University Studies science course with lab .................. 4
- One University Studies mathematics course .................. 3

**Social and Self-Awareness and Responsible Citizenship** .... 9
- EDP 260 ...................................................... 3
- One Ethics, Social Responsibility and Civic Engagement category course .............................................. 3
- One Social Science category course ................................ 3

**World’s Historical, Literary, and Philosophical Traditions** .... 6
- CIV 201 or CIV 202 [or HON 201 or 202] .................. 3
- HUM 211 [or HON 251] .............................. 3

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**Bachelor of Music (B.M.) Performance Option**

University Studies Requirements .............................................. 32 hrs
All Bachelor of Music Education degree candidates should follow the distribution requirements outlined below.

**Oral and Written Communication** ........................................... 7
- COM 161 [or HON 165] .............................................. 3
- ENG 105 [or ENG 150] .............................................. 4

**Global Awareness, Cultural Diversity, and the World’s Artistic Traditions** .............................................. 6
- Six hours in a single foreign language, ................................. 6*
  - culminating in proficiency at 202-level or above. For future graduate study in music, German or French is recommended.

**Scientific Inquiry, Methodologies, and Quantitative Skills** .... 7
- One University Studies science course with lab .................. 4
- One University Studies mathematics course .................. 3

**Social and Self-Awareness and Responsible Citizenship** .... 6
- One Ethics, Social Responsibility and Civic Engagement category course .............................................. 3
- One Social Science category course ................................ 3

**World’s Historical, Literary, and Philosophical Traditions** .... 6
- CIV 201 or CIV 202 [or HON 201 or 202] .................. 3
- HUM 211 [or honors course HON 251] .............................. 3

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**Associate Degree Programs**

A variety of programs of study leading to associate degrees are offered through several colleges. Please see the appropriate collegiate section of this bulletin for additional details.

Students enrolled in associate degree programs have the same privileges as other undergraduate students. Students are eligible for financial aid in the form of loans, work study grants, and in some cases are eligible to apply their work taken at Murray State toward a baccalaureate degree. Entrance requirements for associate degree students are the same as those that apply to other undergraduate students.

Refer to the section on Mandatory Developmental Courses found earlier in this chapter for additional required courses.

**Associate Degrees (A.A., A.S.)**

University Studies Requirements .............................................. 19-21 hrs
The list of University Studies elective courses is provided later in this chapter.

**Oral and Written Communication** ........................................... 7
- COM 161 [or HON 165] .............................................. 3
- ENG 105 [or ENG 150] .............................................. 4

**Global Awareness, Cultural Diversity, and the World’s Artistic Traditions** .............................................. 3

**Scientific Inquiry, Methodologies, and Quantitative Skills** .... 3-5

**Social and Self-Awareness and Responsible Citizenship** .... 3

**World’s Historical, Literary, and Philosophical Traditions** .... 3

**University Studies Electives**

The courses listed below are approved as electives for the University Studies curriculum. This list may be revised as the University Studies Committee considers proposals for courses to be included in the curriculum.

*Only students admitted to the Honors Program may enroll in HON courses.

Check course descriptions for specific limitations or prerequisites.

**ORAL AND WRITTEN COMMUNICATION**

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### GLOBAL AWARENESS, CULTURAL DIVERSITY, AND THE WORLD’S ARTISTIC TRADITIONS

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### SCIENTIFIC INQUIRY, METHODOLOGIES, AND QUANTITATIVE SKILLS

#### Mathematics Category

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#### Science Category

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### Academic Degrees and Programs

#### Social and Self-Awareness and Responsible Citizenship

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<td>COM 260</td>
<td>Communication Ethics</td>
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<td>History of the U.S. Constitution</td>
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<td>HIS 221</td>
<td>American Experience to 1865</td>
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<td>Principles of Microeconomics</td>
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<td>SOC 133</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 231</td>
<td>Social Problems</td>
<td>3</td>
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</tbody>
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#### World's Historical, Literary, and Philosophical Traditions

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ART 211</td>
<td>Introduction to the History of Art I</td>
<td>3</td>
</tr>
<tr>
<td>ART 212</td>
<td>Introduction to the History of Art II</td>
<td>3</td>
</tr>
<tr>
<td>CIV 201</td>
<td>World Civilizations I</td>
<td>3</td>
</tr>
<tr>
<td>CIV 202</td>
<td>World Civilizations II</td>
<td>3</td>
</tr>
<tr>
<td>ENG 201</td>
<td>Appreciation of Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENG 213</td>
<td>Film and Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENG 243</td>
<td>Literary Masterpieces: Fantasy, Myth and Legend</td>
<td>3</td>
</tr>
<tr>
<td>HIS 201</td>
<td>Modern Europe</td>
<td>3</td>
</tr>
<tr>
<td>HIS 221</td>
<td>American Experience to 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIS 222</td>
<td>American Experience since 1865</td>
<td>3</td>
</tr>
<tr>
<td>HON 100</td>
<td>Interdisciplinary Humanities and Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>HON 201</td>
<td>Honors Seminar in Social Science</td>
<td>3</td>
</tr>
<tr>
<td>HON 202</td>
<td>Honors Seminar in Social Science II</td>
<td>3</td>
</tr>
<tr>
<td>HON 251</td>
<td>Honors Seminar in Literature and Philosophy I</td>
<td>3</td>
</tr>
<tr>
<td>HON 252</td>
<td>Honors Seminar in Literature and Philosophy II</td>
<td>3</td>
</tr>
<tr>
<td>HUM 205</td>
<td>Humanistic Tradition Abroad</td>
<td>3</td>
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<tr>
<td>LOR 101</td>
<td>Research in the Information Age</td>
<td>3</td>
</tr>
<tr>
<td>PHI 103</td>
<td>Critical Thinking</td>
<td>3</td>
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<tr>
<td>PHI 201</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 202</td>
<td>Ethics</td>
<td>3</td>
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<tr>
<td>POL 261</td>
<td>Introduction to Political Theory</td>
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<tr>
<td>RGS 200</td>
<td>Introduction to Religious Studies</td>
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#### Writing-Intensive and Technology-Intensive Electives

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<td>CSC 101</td>
<td>Introduction to Problem Solving Using Computers</td>
<td>3</td>
</tr>
<tr>
<td>CSC 125</td>
<td>Internet and Web Page Design</td>
<td>3</td>
</tr>
<tr>
<td>CSC 199</td>
<td>Introduction to Information Technology</td>
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</tr>
</tbody>
</table>

### Honors Program

The Honors Program offers a unique educational experience designed to teach able students how to learn, how to think critically and creatively, and how to communicate effectively. Students with evidence of high achievement may qualify for the Murray State Honors Program. This program has been designed to provide future social and professional leaders with exceptional thinking and communication skills, an appropriate breadth and depth of knowledge, and a sense of cultural and social responsibility.

Entering freshmen with an ACT composite score of 26 or above and exceptional high school records are invited to apply for admission to the Honors Program. Acceptance is based on such factors as standardized test scores, grade point average, evidence of creative and leadership abilities as displayed in extracurricular interests and activities, and faculty recommendations.

Accepted students must participate in at least one Honors Seminar a semester until the sequence is complete unless arrangements are made with the honors director. In order to receive an honors diploma, an honors student must complete the honors sequence described below, fulfill the required competencies, maintain a 3.2 grade point average, and satisfy all Murray State graduation requirements including the completion of an area or a major and minor. In the programs they choose, honors students will be expected to select the more challenging courses offered.

The Honors Program encourages intellectual exchange among students, professors, and visiting scholars. Ample opportunity is provided for dialogue.

The hallmarks of the Honors Program are small class size and the resulting individual attention available to its students. Professors and guest lecturers are readily available to all students in developing a full understanding of the course materials. The faculty are selected partly on the basis of their commitment to fostering productive, interactive intellectual contact with students.

#### Honors Sequence - Arts

**Bachelor of Arts (B.A.)**
- Bachelor of Arts in Business (B.A.B.)
- Bachelor of Fine Arts (B.F.A.)
- Bachelor of Music (B.M.)
- Bachelor of Integrated Studies (B.I.S.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
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<tr>
<td>HON 099</td>
<td>Transitions</td>
<td>3</td>
</tr>
<tr>
<td>ENG 150</td>
<td>Honors Rhetoric, Composition and Research</td>
<td>3</td>
</tr>
</tbody>
</table>

**Two of the following:**

- HON 161 | Honors Seminar in Visual Arts
- HON 162 | Honors Seminar in Music
- HON 163 | Honors Seminar in Theatre
- HON 164 | Honors Seminar in Fine Arts and Culture Abroad
- HON 165 | Honors Seminar in Communication

**One of the following:**

- HON 261 | Honors Seminar in Science
- HON 262 | Honors Seminar in Mathematics

**Three of the following:**

- HON 251 | Honors Seminar in Literature and Philosophy
- HON 201 | Honors Seminar in Social Science I
- HON 202 | Honors Seminar in Social Science II

**Bachelor of Integrated Studies (B.I.S.)**

- HON 099 | Transitions
- ENG 150 | Honors Rhetoric, Composition and Research

**Two of the following:**

- HON 161 | Honors Seminar in Visual Arts
- HON 162 | Honors Seminar in Music
- HON 163 | Honors Seminar in Theatre
- HON 164 | Honors Seminar in Fine Arts and Culture Abroad
- HON 165 | Honors Seminar in Communication

**One of the following:**

- HON 261 | Honors Seminar in Science
- HON 262 | Honors Seminar in Mathematics

**Three of the following:**

- HON 251 | Honors Seminar in Literature and Philosophy
- HON 201 | Honors Seminar in Social Science I
- HON 202 | Honors Seminar in Social Science II
or
HON 202 Honors Seminar in Social Science II
HON 232 Honors Seminar in Economics
HON 252 Honors Seminar in Literature and Philosophy II
HON 351 Honors Seminar in International Affairs

and
HON 437 Senior Honors Thesis

Additional Honors Diploma Requirements
1) The student must complete three hours of mathematics chosen from the University Studies mathematics category. This course can serve as the prerequisite for HON 262.

2) The student must complete one lab science chosen from the University Studies science category. This course can serve as the prerequisite for HON 261.

3) The student must have credit for a 12-hour sequence (excluding 105) in one foreign language culminating no lower than a 202-level course.

4) Students must participate in a year, semester, or summer study abroad program. Courses taken abroad may be used towards the Honors Sequence, foreign language competency, major, or minor.

5) Students must complete nine hours of University Studies science, math, or language in addition to those competency courses in math, science, and language mentioned above; student should consult their major advisors when choosing courses as specific courses are often needed to fulfill general education stipulated requirements for specific majors. Either HON 261 or 262 may be taken for three of these hours.

6) HON 099 is only required of students who have not declared a major.

Honors Sequence - Science

Bachelor of Science (B.S.)
Bachelor of Science in Agriculture (B.S.A.)
Bachelor of Science in Business (B.S.B.)
Bachelor of Science in Nursing (B.S.N.)

HON 099 Transitions
ENG 150 Honors Rhetoric, Composition and Research

Two of the following:
HON 161 Honors Seminar in Visual Arts
HON 162 Honors Seminar in Music
HON 163 Honors Seminar in Theatre
HON 164 Honors Seminar in Fine Arts and Culture Abroad
HON 165 Honors Seminar in Communication

HON 201 Honors Seminar in Social Science I
or
HON 202 Honors Seminar in Social Science II
HON 251 Honors Seminar in Literature and Philosophy I
HON 252 Honors Seminar in Literature and Philosophy II

Two of the following:
HON 180 Honors Seminar in Psychology
HON 201 Honors Seminar in Science
or
HON 202 Honors Seminar in Social Science II
HON 232 Honors Seminar in Economics
HON 351 Honors Seminar in International Affairs

and
HON 437 Senior Honors Thesis

Additional Honors Diploma Requirements
1) The student must complete three hours of mathematics chosen from the University Studies mathematics category. This course can serve as the prerequisite for HON 262.

2) The student must complete one lab science chosen from the University Studies science category. This course can serve as the prerequisite for HON 262.

3) The student must have credit for a 6-hour sequence (excluding 105) in one foreign language culminating no lower than a 102-level course.

4) The student must complete nine hours of University Studies science, math, or language in addition to those competency courses in math, science, and language mentioned above; student should consult their major advisors when choosing courses as specific courses are often needed to fulfill general education stipulated requirements for specific majors. Either HON 261 or 262 may be taken for three of these hours.

5) Students must participate in a year, semester, or summer study abroad program. Courses taken abroad may be used towards the Honors Sequence, foreign language competency, major, or minor.

Pre-Professional Curricula

The university offers baccalaureate programs that serve as pre-professional curricula for the professional areas listed below. Students interested in the details of a specific program should consult with the advisor listed.

- Architecture: Greg Mayes, Department of Industrial and Engineering Technology.
- Dentistry: Dr. Timothy Johnston, Department of Biological Sciences; Dr. Robert Volp, Department of Chemistry.
- Engineering: Dr. Ted Thiede, Professional Engineer, Department of Engineering and Physics; Dr. Mike Kemp, Professional Engineer, Department of Industrial and Engineering Technology.
- Forensics: Dr. Daniel Johnson, Department of Chemistry.
- Law: Dr. Thomas Glover, Department of Government, Law and International Affairs.
- Medicine: Dr. David Canning, Department of Biological Sciences; Dr. Ricky Cox, Department of Chemistry.
- Optometry: Dr. David Canning and Dr. Tom Timmons, Department of Biological Sciences.
- Pharmacy: Dr. Leon Duobinis-Gray, Department of Biological Sciences; Dr. Harry Fannin, Department of Chemistry.
- Physical Therapy: Dr. Terry Derting and Dr. Claire Fuller, Department of Biological Sciences; Dr. Amelia Dodd, Department of Wellness and Therapeutic Sciences.
- Speech-Language Pathology: Susan Brown, Department of Wellness and Therapeutic Sciences.
- Veterinary Medicine: Dr. Terry Canerdy and Dr. William DeWees, School of Agriculture.

Other Academic Programs
Community College

The Community College, located in Lowry Center, offers the following services for all Murray State students.
- Block Scheduling (with limited availability) — English 095 together with Reading 095 and Communications 161 form a block required for students entering under restricted status. Needs of individual students are considered and guidance is given by the block advisor and instructors. ENG 095 is a three-hour, load-credit course designed to emphasize clear sentence structure and development of ideas in paragraphs and essays. REA 095, a one-hour, load-credit course, offers enhancement of basic comprehension skills, development of
Academic Degrees and Programs

- Developmental Classes – The Community College administers developmental classes in English, math, and reading in accordance with the Council on Postsecondary Education guidelines for entering freshmen.

- Support Courses – The following courses are offered for supplementary instruction through the Community College: ENG 111 for ENG 105 support, MAT 095 for MAT 100, and REA 121 for a heavy reading content University Studies course. Each of these courses offers one hour of credit.

- Tutoring Program – The peer-tutoring program offers assistance through drop-in study sessions. Sessions are typically provided for English, math, world civilizations, biology, chemistry, physics, Spanish and other core curriculum courses. Small-group tutoring is provided free of charge to any student enrolled at the university.

Cooperative Education

As a complement to the placement process, Murray State University offers to qualified students an opportunity to gain course credit through approved work experiences. According to the National Commission for Cooperative Education, this program is a structured educational strategy integrating classroom studies with learning through productive work experiences in a field related to a student’s academic or career goals. It provides progressive experiences in integrating theory and practice. This extension of classroom study to practice in a profession adds a unique dimension to the student’s preparation for entering a career and assists in developing an understanding of human relationships involved in the work setting. The program is a three-way partnership between the students, the educational institution and the employers with specific responsibilities for each party.

In order to participate in this program, the student must be a currently enrolled, degree-seeking student at the time of appointment, with a minimum of 24 credits accumulated at an accredited college or university. The student must have earned at least six credit hours at Murray State prior to participation. In addition, the student must have an established cumulative GPA of 2.00 or higher and be under an unrestricted baccalaureate admission status in order to participate. A student can elect to participate in this program for a summer, a semester or an academic year. All students participating in the program are considered full-time students. No more than six hours of coop/internship credit will apply towards minimum baccalaureate graduation requirements. Enrollment in the program must be concurrent with employment. Tuition will be assessed at the in-state rate (only for the coop/internship courses) for students enrolled during that semester.

Work assignments must be approved by an academic department and are made in businesses, industries, educational, non-profit, governmental and research organizations located throughout the world. The university makes no guarantee as to placement into a coop/intern experience or earnings, but makes every effort to place students to their best educational advantage. Work experiences may be paid or non-paid. The minimum number of hours a student must work in order to receive three hours of credit is 300. Coop courses numbered 488 are graded pass/fail. Coop courses numbered 489 are letter-graded. Internships may be paid or non-paid. If a student participates in the program while taking other courses, no more than 12 credit hours of courses can be taken in addition to the three-hour coop/internship. Since a coop/internship is considered full-time, a student’s advisor must approve any additional hours (up to 12) in advance. Individual departments may have more restrictive requirements.

To apply, students need to download the appropriate forms from the MSU Career Services web site. These forms must then be taken to the academic advisor and department chairperson or coop advisor for approval and submission to the Registrar’s Office for scheduling. Payment of the course credit must be arranged prior to leaving for the work assignment. Failure to register and pay concurrent with employment will result in the credit not being awarded.

Service Learning Program

Murray State University students may pursue a special designation on their transcripts indicating that they have been involved in community service through Service Learning.

Service Learning uses experiential learning techniques to combines community service with specific learning objectives in a course. Through Service Learning students perform meaningful service to the community while engaging in a study that is related to that service. Philosophically, service learning reflects the belief that education should be connected to values, character, and social responsibility.

- Students learn and develop through active participation in carefully organized service experiences that meet actual community needs and that are coordinated in collaboration with the school and the community.
- The instructional method is integrated into the academic curriculum and provides time for students to reflect on their activities through small group discussions, class activities, and journal writing.
- Students have opportunities to use newly acquired knowledge and skills in actual community situations.
- The lessons taught in the classroom and extended into the communities help students develop a sense of caring and responsibility for others (National Community Service Act, 1990).

Service Learning Scholars Designation. For students to earn recognition as a Service Learning Scholar they need to complete twelve (12) hours of credit in Service Learning designated courses. Additionally, the student must have an overall GPA of 2.75 and a minimum GPA of 3.0 in the designated classes. This designation will be recognized on the student’s transcript.

National Student Exchange

The National Student Exchange program provides a wonderful opportunity for MSU students to attend another college or university in the United States, Puerto Rico or the Virgin Islands for up to one full calendar year. This unique program allows students to take classes at a host campus and place those same classes on their MSU transcripts following the exchange. Murray State students can enroll at MSU or at the host campus. If they enroll at MSU they will pay MSU tuition (Plan B). Registration at the host campus (Plan A) will allow the student to pay that campus its in-state tuition. In either case, classes taken at the host campus will be placed on the student’s transcript and counted as credit towards graduation. Contact the Career Services Office for more details.

Presidential Fellows/Scholars Studies Program

Those students designated as presidential scholars or presidential fellows (as of May 2009) may follow an interdisciplinary studies major to satisfy degree requirements. This program is structured to the individual student’s needs and may not necessarily conform to the standard curricular requirements. The individual student’s
program must be approved by the Honors Program director as well as the departmental advisor.

**Scholarships.** This program is for graduating high school seniors of exceptional ability. Applicants should rank in the upper ten percent of their class and have a minimum ACT composite score of 28. In addition to excellent academic records, they must have demonstrated leadership abilities. An on-campus interview is required as part of the final selection process. This scholarship includes in-state tuition (no course/health fees), a 10 meal per week board plan, and a semiprivate residential college room. This award is renewable for three additional years (eight semesters total) or until graduation, provided the student meets the requirements of the program and meets specified academic standards. A Presidential Fellow/Scholar must enroll in and successfully complete at least one Honors seminar each semester either until graduation or until the sequence has been completed. A Presidential Fellow/Scholar is not required to complete the University Studies requirements but is required to complete the Honors Seminar sequence, including prerequisites and competencies. However, students who fail to complete the Honors Sequence must complete University Studies requirements for graduation. Presidential Fellows/Scholars must maintain a 3.2 grade point average in order to retain the fellowship/scholarship. They are also expected to live on campus. They are encouraged to earn the Honors Diploma and are permitted to develop less structured, more challenging programs of study that will increase their opportunities for achievement. Presidential Fellows must complete five hours of research each week under the guidance of a faculty advisor, and Presidential Scholars must complete five hours of volunteer service hours per week as designated by the Scholarship Office.

**Trustee Scholars Program**

Like Presidential Fellows, Trustee Scholars may follow an interdisciplinary studies major suited to the individual’s needs to satisfy degree requirements, as long as the individual program is approved by the departmental advisor and Honors Program director. A Trustee Scholar must also enroll in and successfully complete at least one Honors seminar each semester either until graduation or until the sequence has been completed. Trustee Scholars are not required to complete the University Studies requirements but are required to complete the Honors Sequence, including prerequisites and competencies. However, students who fail to complete the Honors Sequence must complete University Studies requirements for graduation. Trustee Scholars must maintain a 3.2 grade point average in order to retain the scholarship. They are also expected to live on campus. They are encouraged to earn the Honors Diploma and are permitted to develop less structured, more challenging programs of study that will increase their opportunities for achievement. Trustee Scholars must complete five hours of volunteer service hours per week as designated by the Scholarship Office.
The fields included in business offer excellent employment opportunities. New research findings, technological breakthroughs, and changing economic conditions offer challenges that can be prepared for through the undergraduate and graduate programs of the College of Business.

Murray State University began programs in business and public affairs in 1935. The strong demand for men and women with such preparation has resulted in a steady expansion in course offerings, enrollment, equipment and faculty.

Today, the College of Business is organized into six departments: Accounting; Computer Science and Information Systems; Economics and Finance; Journalism and Mass Communications; Management, Marketing and Business Administration; and Organizational Communication. Each department offers viable programs of study at both the undergraduate and graduate levels designed to educate leaders for many kinds of endeavors, both private and public.

The college also houses the West Kentucky Small Business Development Center, the Center for Economic Education, TV-11, the Journal of Business and Public Affairs, the Coordinator of the Regensburg (Germany) Program, and the MSU News.

**AACSB and ACEJMC Accreditation**

All the undergraduate Bachelor of Arts in Business (B.A.B.) and Bachelor of Science in Business (B.S.B.) area programs plus the major in business administration as well as the Master of Business Administration (M.B.A.) and the Master of Science in Information Systems (M.S.I.S.) offered by the College of Business are accredited by the AACSB-International—The Association to Advance Collegiate Schools of Business. In accordance with AACSB guidelines, at least 50 per cent of the business credit hours required in accredited programs must be earned through Murray State. In addition, majors in advertising, journalism, public relations, and television production in the Department of Journalism and Mass Communications are accredited by the Accrediting Council for Education in Journalism and Mass Communications (ACEJMC).

**Careers**

Challenging and rewarding career opportunities exist today for university-educated men and women capable of assuming positions in administration and supporting professions. The educational programs in the College of Business prepare students for positions in business firms, governmental agencies and nonprofit organizations.

Employment recruiters regularly visit Murray State for the purpose of interviewing College of Business graduates. The university’s Career Services Office assists both graduates and employers.

**Vision**

The College of Business aspires to be recognized as one of the best regional business schools in the nation.

**Mission**

The College of Business prepares students for careers in the dynamic environments of business, information technology, public and private organizations, and mass communications. With a student population drawn mostly from Kentucky, Tennessee, Indiana, Missouri, Illinois and foreign countries, the College strives for excellence by:

- Actively engaging students in the acquisition of fundamental knowledge, the mastery of professional skills (including oral and written communication, problem solving and critical thinking), and the application of knowledge and skills to emerging issues, technologies, and professional practices in a student-centered learning environment.
- Providing students with quality undergraduate and master’s degree programs embodied in responsive curricula and innovative learning environments.
- Encouraging students in intellectual and social development by providing a high degree of student and faculty interaction both inside and outside the classroom, cultivating leadership, and developing an appreciation for ethical issues and diversity in the global market place.
- Providing students with global perspectives in the classroom, while also encouraging both students and faculty to pursue opportunities for international travel and learning.
- Developing and encouraging academic outreach, collaborative relationships with alumni, business and industry, public schools, government agencies and non-profit organizations, as well as colleges and universities at home and abroad.
- Supporting a faculty commitment to teaching, service and continuous improvement that is enhanced by Discipline Based Scholarship (DBS), with secondary emphasis on both Contributions to Practice (CP) and Learning and Pedagogical Scholarship (LPS).

**Undergraduate Programs**

Students pursue their particular interests by selecting one of the area programs or one of the major programs offered within the college. Area programs are offered in accounting, business administration, computer information systems, computer science, finance, graphic communications management, international business, management, marketing, and telecommunications systems management. Major programs are offered in advertising, business administration, computer science, economics, journalism, organizational communication, public relations and television production.

Several of the college’s area and major programs provide excellent preparation for students considering a career in law. Pre-law
students opting to major in economics are advised by faculty in the Department of Economics and Finance.

A student pursuing a major or area program within another college at Murray State may pursue a second area, a major, or a minor in the College of Business.

No student pursuing a minor in an accredited business program may major in Business Administration.

Also, two-year associate of arts degree programs are offered in business administration and telecommunications systems management.

**Undergraduate University Studies Requirements**

The college’s area business programs and one of the major programs, business administration, must follow the Bachelor of Arts in Business (B.A.B.) or the Bachelor of Science in Business (B.S.B.) University Studies requirements. The college’s other area and major programs—advertising, computer science, economics, journalism, organizational communication, public relations, telecommunications systems management, and television production—follow the university bachelor of arts or bachelor of science University Studies requirements. See Chapter 5, Academic Degrees and Programs, University Studies Requirements.

**Entrance Standards for Business Programs**

During the second semester of the sophomore year students must contact their advisor to initiate admission to one of the AACSB accredited business programs. Students seeking admission to upper-division courses who have not completed all of the required pre-admission course work will be allowed to pre-register for upper-division courses if they satisfy the minimum grade point average requirements at the time of application and if they are concurrently enrolled in the courses necessary to complete the pre-admission requirements. Failure to meet all requirements for admission will result in denial of admission to the college; students denied admission will not be admitted to upper-division classes. Students may appeal to an appeals committee. The admission standards are as follows:

1) applicant must have completed the following pre-admission courses with a combined GPA of 2.25:
   - ACC 200
   - ACC 201
   - BPA 215
   - CIS 243
   - CIV 201
   - COM 161
   - CSC 199
   - ECO 230
   - ECO 231
   - ENG 105
   - HUM 211
   - MAT 140
   - MAT 220
   - MAT 221
   - LST 240
   A minimum grade of C must be earned in CIS 243 and ENG 105.

2) applicant must have a minimum overall GPA of 2.00.

Enrollment in business courses numbered 300 or above will be limited to:

1) business program students admitted to the college’s accredited programs;
2) non-business students who have junior standing and are enrolled in specific programs or minors requiring business courses; and
3) other students or classifications of students with the specific permission of the department offering the course.

Immediately following formal admission, the student must declare an area of concentration, major, or minor and be assigned an academic advisor accordingly.

**Exceptions**

Students who are not admitted because of a low GPA or failure to successfully complete a required course will be allowed to reapply after the deficiency has been corrected.

In unusual circumstances admission may be granted when personal, professional, academic or intellectual circumstances tend to contradict low academic scores, if there is other persuasive evidence regarding both the motivation and capability to successfully pursue upper-division study.

Any student not admitted can appeal the decision to a collegiate review committee.

**Core Requirements**

All eight area business programs within the college plus the major in business administration require the business core requirements listed below. These requirements must be completed by any student who takes more than 25 percent of his/her course work in business. Business includes the following eight prefixes: ACC, BPA, CIS, FIN, MGT, MKT, OSY, RES and LST 240 and 540.

**Business Core Requirements**

- ACC 200 Principles of Financial Accounting
- ACC 201 Principles of Managerial Accounting
- BPA 099 Transitions
- BPA 215 Business Communication
- BPA 355 Information Systems and Decision Making
- BPA 442 Business Ethics and Environments
- CIS 243 Business Statistics I
- CIS 343 Business Statistics II
- ECO 310 Issues in the Global Economy
- FIN 330 Principles of Finance
- LST 240 Legal Environment of Business
- MGT 350 Fundamentals of Management
- MGT 443 Management of Operations and Technology
- MGT 590 Strategic Management
- MKT 360 Principles of Marketing

**Total** 41 hrs

1 Students pursuing an AREA in accounting must have a grade of C or better.

2 Students pursuing an AREA in accounting or accounting and information systems must take ACC 308 in lieu of BPA 355.

3 Students pursuing an AREA in computer information systems must take CIS 307 in lieu of BPA 355.

Additional requirements for B.A.B. and B.S.B. students are specified in Chapter 5, University Studies Requirements.

**Business Electives**

Courses with the following prefixes may be selected as “business electives” for programs in the College of Business and elsewhere in the university, except where noted otherwise: ACC, BPA, CIS, ECO, FIN, MGT, MKT, OSY, and RES. COM 340, COM 439, JMC 391, JMC 394, LST 240, LST 540, and POL 542 are also acceptable. ECO 140, ECO 190, ECO 200, MGT 250, or MKT 260 do not apply toward business or economics major, minor or area requirements. In most cases selections must be approved by an advisor.

**Double Areas, Majors, or Minors**

Courses completed in fulfillment of the requirements for one area, major or minor cannot also be applied to the requirements of another area, major or minor.

**Graduate Programs**

Graduate programs leading to the Master of Business Administration (M.B.A.), Master of Arts (M.A.) and/or Master of Science (M.S.) degrees in economics, information systems, mass communications, and organizational communication are available through the college. A joint Master of Science in Telecommuni-
ifications Systems Management is offered between the College of Business and the College of Science, Engineering and Technology. In addition a master of arts in education with an emphasis in business education is available through the College of Education. For detailed information concerning graduate degree programs, refer to the Graduate Bulletin. The M.B.A. and M.S.I.S. programs are accredited by AACSB-International—The Association to Advance Collegiate Schools of Business.

**AREA:**

**International Business**

Bachelor of Arts in Business/Bachelor of Science in Business Degree

CIP 52.1101

ACCREDITED BY:

AACSB-International—The Association to Advance Collegiate Schools of Business

University Studies Requirements ......................... 48-49 hrs

(See Chapter 5, University Studies Requirements)

Note: Students pursuing the B.S.B. degree MUST complete four semesters of college study of a single foreign language (exclusive of 105) or demonstrate equivalent proficiency.

Business Core Requirements ........................................ 41 hrs

(See Core Requirements at beginning of this chapter)

Required Courses ............................................................ 21 hrs

**ECO 315** Comparative Economic Systems

**or**

**ECO 410** Economic Development

**FIN 461** International Financial Management

**GSC 110** World Geography

**MGT 557** International Management

**MKT 368** Global Marketing Management

**BPA 515** Communicating in the International Business Environment

**POL 252** Contemporary Political Systems

**or**

**POL 250** Introduction to International Relations

Unrestricted Electives ................................................ 9-10 hrs

Total Curriculum Requirements .................................. 120 hrs

**Telecommunications Systems Management**

Telecommunications systems are networks of leading-edge technologies such as fiber optic systems, satellites, wireless, telephony, and cable, which are connected to computers that allow organizations and individuals throughout business and industry to communicate instantaneously around the world. Telecommunications systems provide the architectural structure for such activities as electronic commerce, electronic banking, video teleconferencing, distance learning, telemedicine, data interchange, on-demand video, and a host of other traditional and new uses for business and industry.

The baccalaureate program provides students specialization options within the curriculum. Students in the baccalaureate program will have the insight and ability to function in all areas of Telecommunications Systems Management (TSM) but will choose a program option that will support the aspect of management which interests them most - the physical system and its components, the software that drives the system, or the business structure and operations that depend on the system. In addition, they will be prepared to move on to the Master of Science in Telecommunications Systems Management if they so choose.

The Associate of Applied Science and the Bachelor of Science degrees in Telecommunications Systems Management are interdisciplinary programs drawing upon the strengths of the College of Business and the College of Science, Engineering and Technology. These programs which are jointly administered by the two colleges provide students a unique opportunity to develop both technical expertise and management expertise in this dynamic field.

**Due to the dynamic nature of the field of telecommunications, new courses may be developed that may require substitution for existing courses in the program.**

**AREA:**

**Telecommunications Systems Management**

Bachelor of Science

CIP 11.0401

University Studies Requirements .......................... 44 hrs

(See Chapter 5, University Studies Requirements)

University Studies selections must include:

- **Scientific Inquiry, Methodologies, and Quantitative Skills:**
  - **MAT 135** Introduction to Probability and Statistics
  - **MAT 140** College Algebra
  - **PHY 125** Brief Introductory Physics
  - **PHY 126** Brief Introductory Physics Laboratory

- **Social and Self-Awareness and Responsible Citizenship:**
  - **ECO 231** Principles of Microeconomics

- **University Studies Electives:**
  - **CSC 199** Introduction to Information Technology

Required Courses ............................................................. 58 hrs

**ACC 200** Principles of Financial Accounting

**ACC 201** Principles of Managerial Accounting

**CIS 307** Decision Support Technologies

**CIS 317** Principles of Information Systems Analysis and Design

**CSC 101** Introduction to Problem Solving Using Computers

**ECO 335** Economics and Public Policy of Telecommunications Industry

**FIN 330** Principles of Finance

**MGT 350** Fundamentals of Management

**MKT 360** Principles of Marketing

**TSM 099** Transitions

**TSM 121** Telecommunications Electronics Principles

**TSM 133** Telecommunications Technology and Methods

**TSM 232** Operating Systems

**TSM 233** Network Services

**TSM 241** Networking Fundamentals

**TSM 320** Introduction to Wireless Technology

**TSM 343** Protocol Analysis

**TSM 411** Network Design, Operations and Management

**TSM 443** Telephone Technology

**TSM 488** Cooperative Education/Internship
Choose any of the methods of completion below:  
1) Select specific classes;  
2) Select one or more complete emphasis areas;  
3) Select approved electives to total 24 hours.

Note: When selecting courses for an area of emphasis or as an elective, a maximum of nine hours may be selected from courses with a business prefix including: ACC, BPA, CIS, FIN, MGT, MKT, or OSY. Adherence to course prerequisites is critical.

Wireless Communications Electronics  
TSM 321 Wireless Communications  
TSM 322 Wireless Communications II  
TSM 421 Mobile Satellite Communications

Network Security  
TSM 351 Principles of Information Security  
TSM 352 System Security  
TSM 353 Network Security  
TSM 441 Advanced Information Security

System Administration  
CSC 235 Programming in C++  
CSC 310 Database Administration  
CSC 360 Scripting Languages  
TSM 517 Systems Planning

Approved Electives  
MGT 355 Entrepreneurial Business Plan Development  
MGT 443 Management of Operations and Technology  
MKT 475 Marketing Strategies in E-Commerce  
TSM 440 Information Policy and Security Auditing  
TSM 444 Wide Area Networks

Total Curriculum Requirements ...................... 126 hrs  
1) Select specific classes;  
2) Select one or more complete emphasis areas;  
3) Select approved electives to total 24 hours.

Telecommunications Systems Minor ..................... 21 hrs  
TSM 133, 232, 233, and 241. Nine hours of advisor approved electives. Six hours must be 300- or 400-level courses completed in residence at Murray State University.

Area: Accounting  
Bachelor of Arts in Business/Bachelor of Science in Business Degree  
CIP 52.0301

ACCREDITED BY:  
AACSB-International—The Association to Advance Collegiate Schools of Business

University Studies Requirements ....................... 42-52 hrs  
(See Chapter 5, University Studies Requirements. Accounting students must also take ENG 224.)

Business Core Requirements ......................... 41 hrs  
(See Core Requirements at beginning of this chapter)

Required Courses ............................................. 26 hrs  
ACC 202 Accounting Applications Laboratory  
ACC 300 Intermediate Accounting I  
ACC 301 Intermediate Accounting II  
ACC 302 Federal Income Tax  
ACC 303 Cost Accounting  
ACC 506 Principles of Auditing and Assurance Services  
ACC 507 Professional Issues
College of Business

ACC 509 Accounting Theory
and two of the following:
ACC 500 Advanced Accounting
ACC 501 Accounting for Governmental and Nonprofit Entities
ACC 502 Advanced Income Tax
ACC 503 Cost Management in the Global Economy
BPA 540 Legal Obligations of Business

Upper-Level Business Electives ................................. 0-3 hrs
Note: ACC 304, 489, 490, and BPA 355 will not count as business electives. Students must have a cumulative grade point average of 2.50 or higher prior to enrolling in their first 300-level or above accounting course. Also, students must have a cumulative grade point average of 2.00 or higher in all 300-level and above accounting courses to meet graduation requirements.

Unrestricted Electives ............................................. 1-8 hrs

Total Curriculum Requirements .............................. 120 hrs

Required Courses ................................................. 36 hrs
ACC 202 Accounting Applications Laboratory
ACC 300 Intermediate Accounting I
ACC 301 Intermediate Accounting II
ACC 302 Federal Income Tax
ACC 303 Cost Accounting
ACC 306 Principles of Auditing and Assurance Services
ACC 307 Professional Issues
ACC 509 Accounting Theory
CIS 317 Principles of Information Systems Analysis and Design
CSC 101 Introduction to Problem Solving Using Computers
CSC 232 Visual Basic Programming I
and two of the following:
ACC 500 Advanced Accounting
ACC 501 Accounting for Governmental and Nonprofit Entities
ACC 502 Advanced Income Tax
ACC 503 Cost Management in the Global Economy
BPA 540 Legal Obligations of Business

Required Limited Electives ........................................ 3 hrs
Choose one of the following:
CIS 543 Data Analytics with SAS
CSC 125 Internet and Web Page Design
CSC 260 Application Program Development-COBOL I
CSC 332 Visual Basic Programming II
FIN 421 Financial Models
GSC 521 Geographic Information Systems
MKT 475 Marketing Strategies for E-Commerce

Total Curriculum Requirements .............................. 122-132 hrs

AREA: Accounting/Finance Option

Bachelor of Arts in Business/Bachelor of Science in Business Degree
CIP 52.0301

ACC 308 must be taken instead of BPA 355. A grade of B or higher is required in both ACC 200 and 201.

Required Limited Electives ........................................ 9 hrs

Note: FIN electives must be 300 or above excluding FIN 488, 489, 505, and 595. Students must have a cumulative grade point average of 2.50 or higher prior to enrolling in their first 300-level or above accounting course.
Also, students must have a cumulative grade point average of 2.00 or higher in all 300-level and above accounting courses to meet graduation requirements.

Unrestricted Electives ................................................. 0-2 hrs

Total Curriculum Requirements ................... 120-128 hrs

1ACC 308 must be taken instead of BPA 355. A grade of B or higher is required in both ACC 200 and 201.
2Requires a grade of B or higher.
3Students completing both an undergraduate and a graduate degree in accounting may take only one international experience course for credit toward graduation.

---

AREA:
Accounting/Financial Planning Option

Bachelor of Arts in Business/Bachelor of Science in Business Degree
CIP 52.0301

ACCREDITED BY:
AACSB-International—The Association to Advance Collegiate Schools of Business

University Studies Requirements .......................42-52 hrs
(See Chapter 5, University Studies Requirements. Accounting students must also take ENG 224.)

Business Core Requirements 3 .................................. 41 hrs
(See Core Requirements at beginning of this chapter)

Required Courses .................................................. 38 hrs
ACC 202 Accounting Applications Laboratory 2
ACC 300 Intermediate Accounting I
ACC 301 Intermediate Accounting II
ACC 302 Federal Income Tax
ACC 303 Cost Accounting
ACC 506 Principles of Auditing and Assurance Services
ACC 507 Professional Issues
ACC 509 Accounting Theory
FIN 331 Principles of Insurance
FIN 333 Principles of Investment
FIN 336 Employee Benefits and Retirements
FIN 338 Estate Planning
and two of the following:
ACC 500 Advanced Accounting
ACC 501 Accounting for Governmental and Nonprofit Entities
ACC 502 Advanced Income Tax
ACC 503 Cost Management in the Global Economy
BPA 540 Legal Obligations of Business

Note: Students must have a cumulative grade point average of 2.50 or higher prior to enrolling in their first 300-level or above accounting course. Also, students must have a cumulative grade point average of 2.00 or higher in all 300-level and above accounting courses to meet graduation requirements.

Total Curriculum Requirements ................... 121-131 hrs

1ACC 308 must be taken instead of BPA 355. A grade of B or higher is required in both ACC 200 and 201.
2Requires a grade of B or higher.
3Students completing both an undergraduate and a graduate degree in accounting may take only one international experience course for credit toward graduation.

Accounting Minor .................................................. 22 hrs
ACC 200, 201, 202, 300 and nine hours of upper-level accounting courses, and a three-hour upper level business elective. Six hours must be upper-level courses completed in residence at Murray State University. Students must have a cumulative grade point average of 2.50 or higher prior to enrolling in their first 300-level or above accounting course. Also, a grade of B or higher is required in ACC 200, 201, and 202. NOTE: ACC 304, 489, and 490 will not count toward this minor. Accounting courses cannot be used toward this minor and also in another business program. Students pursuing more than one degree option in business must substitute other business or accounting courses (approved by Accounting Department chair) for ACC 200 and 201 or any other common courses. Students must have a cumulative grade point average of 2.00 or higher in all 300-level and above accounting courses to meet graduation requirements.

Department of Computer Science and Information Systems
652 Business Building
270-809-2094
csis@murraystate.edu


According to the Bureau of Labor Statistics (www.bls.gov), three of the top 10 fastest growing disciplines during this decade (2004-2014) are computer related fields. The Department of Computer Science and Information Systems offers programs of study that help meet this demand. The fact that our graduates are successfully placed in well-paying career tracks is another testament to this statistic. It is not unusual for our graduates to have the luxury of choosing from several offers and picking their place of employment.

Students may choose from two baccalaureate degree programs: computer science or computer information systems. For those seeking just a taste of this discipline, we also offer minors in computer information systems and computer science.

Those pursuing the area in computer information systems are well prepared for a variety of careers in business and industry. As this program provides a strong foundation in business with an equally strong immersion in the technology that drives modern businesses, typical career paths include management of people, assets and technologies. They are also equipped with a skill set that makes them effective communicators between the technology in all its complexity and the user who needs the technology to operate efficiently. Students earn a Bachelor of Science or Bachelor of Arts in Business (B.S.B. or B.A.B.). This program is amenable to a 2+2 format where the first two years are completed at a local community college. Please contact the department for specifics.

Students pursuing a major (or area) in computer science may choose to specialize in “threads of emphasis”. In the beginning of their third year, students are encouraged to pick one of four threads – graphics and visual computing, net-centric computing, embedded system programming, or applications programming – and develop their expertise in the form of project enhancements as they learn new concepts in various classes. By their senior year they have a substantial software product worthy of two years’ focused effort. This gives our students an opportunity to put into practice the theoretical constructs developed in the classroom. For those electing to go with a major, we require them to broaden their horizons by selecting a minor program of study, such as math, business, art, or telecommunications. The area in computer science has the same required courses as the major. The remaining hours...
area courses chosen from multiple disciplines with the approval of his/her advisor.

The faculty is drawn from both academia and industry and is well-equipped to prepare students for careers that could span several decades. They are also nationally recognized for their research in a wide variety of areas from learning styles and knowledge management to robotics.

The department provides access to modern well-equipped computer laboratories with an extensive collection of state-of-the-art software to provide a rich practical experience with the latest in computer hardware and software. The learning environment and curricula are structured to give the student the theoretical background and practical experience necessary to successfully pursue a variety of professional and technical careers in the dynamic and rapidly changing computing fields.

**AREA:**

**Computer Information Systems**

**Bachelor of Arts in Business/Bachelor of Science in Business Degree**

**CIP 52.1201**

**ACCREDITED BY:**

AACSB-International—The Association to Advance Collegiate Schools of Business

**University Studies Requirements**

(See Chapter 5, University Studies Requirements.)

**Business Core Requirements**

(See Core Requirements at beginning of this chapter)

**Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 317 Principles of Information Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 399 Topic in Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 407 Advanced Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 420 Senior Capstone Project</td>
<td>3</td>
</tr>
<tr>
<td>CSC 101 Introduction to Problem Solving Using Computers</td>
<td>3</td>
</tr>
<tr>
<td>CSC 232 Visual Basic Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CSC 510 Data Communications and Networking</td>
<td>3</td>
</tr>
<tr>
<td>TSM 133 Introduction to Telecommunication Systems Management Technology and Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

**Option Courses**

Choose one option below:

**Technology Centered**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 325 E-Business Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 425 Building E-Business with Web Design</td>
<td>3</td>
</tr>
<tr>
<td>CSC 260 Application Program Development in COBOL I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 548 Enterprise Resource Planning</td>
<td>3</td>
</tr>
<tr>
<td>CSC 332 Visual Basic Programming II</td>
<td>3</td>
</tr>
</tbody>
</table>

Restricted Elective (CIS/CSC/TSM) (3 hrs)

**Business Centered**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 125 Internet and Web Page Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 543 Data Analysis and Modeling</td>
<td>3</td>
</tr>
<tr>
<td>CIS 548 Enterprise Resource Planning</td>
<td>3</td>
</tr>
<tr>
<td>TSM 530 Systems Planning</td>
<td>3</td>
</tr>
</tbody>
</table>

Restricted Elective (ACC/CIS/FIN/MGT/MKT) (3 hrs)

Unrestricted Electives

Total Curriculum Requirements

1. CIS 307 should be taken in lieu of BPA 355.

2. A maximum of one cooperative education/internship course is allowed.

**AREA:**

**Computer Science**

**Bachelor of Arts/Bachelor of Science Degree**

**CIP 11.0101**

**University Studies Requirements**

(See Chapter 5, University Studies Requirements.)

**Business Core Requirements**

(See Core Requirements at beginning of this chapter)

**Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 307 Advanced Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSC 101 Introduction to Problem Solving Using Computers</td>
<td>3</td>
</tr>
<tr>
<td>CSC 145 Introduction to Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CSC 235 Programming in C++</td>
<td>3</td>
</tr>
<tr>
<td>CSC 301 Foundations of Computer Science I</td>
<td>3</td>
</tr>
<tr>
<td>CSC 302 Foundations of Computer Science II</td>
<td>3</td>
</tr>
<tr>
<td>CSC 340 Programming in Java</td>
<td>3</td>
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<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>CSC 342 Programming in C#</td>
<td>3</td>
</tr>
<tr>
<td>CSC 345 Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CSC 405 Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>CSC 410 Distributed Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**One course from the following (to be taken concurrently):**

- CSC 411, CSC 412, CSC 413, CSC 414
- CSC 415 Programming Languages
- CSC 420 Numerical Analysis I
- CSC 445 Computer Algorithms

**One course from the following (to be taken concurrently):**

- CSC 446, CSC 447, CSC 448, CSC 449
- CIS 420 Senior Capstone Project
- CSC 530 Computer User Interface Development

**One course from the following (to be taken concurrently):**

- CSC 531, CSC 532, CSC 533, CSC 534
- CSC 540 Social, Ethical and Professional Issues in the Information Age

**Co-Requirements for Area**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 250 Calculus and Analytic Geometry I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 135 Introduction to Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MAT 540 Mathematical Statistics I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Advisor Approved Electives**

Total Curriculum Requirements

1. Required for area if not taken as University Studies elective.
MAJOR:
Computer Science

Bachelor of Arts/Bachelor of Science Degree
CIP 11.0101

University Studies Requirements ..................43-49 hrs
(See Chapter 5, University Studies Requirements. See required courses below before selecting mathematics and science University Studies electives.)

Core Courses ............................................. 49 hrs
BPA 099 Transitions
CIS 407 Advanced Database Management Systems
CSC 101 Introduction to Problem Solving Using Computers
CSC 145 Introduction to Programming I
CSC 235 Programming in C++
CSC 301 Foundations of Computer Science I
CSC 302 Foundations of Computer Science II
CSC 340 Programming in Java

or

CSC 324 Programming in C#

CSC 345 Data Structures
CSC 405 Computer Architecture
CSC 410 Distributed Systems

and

One course from the following:
CSC 411, CSC 412, CSC 413, CSC 414
CSC 415 Programming Languages
CSC 420 Numerical Analysis I
CSC 445 Computer Algorithms

and

One course from the following:
CSC 446, CSC 447, CSC 448, CSC 449
CIS 420 Senior Capstone Project

or

CSC 530 Computer User Interface Development

and

One course from the following:
CSC 531, CSC 532, CSC 533, CSC 534
CSC 540 Social, Ethical and Professional Issues in the Information Age

Co-Requirements for Major ............................. 0-9 hrs
MAT 250 Calculus and Analytic Geometry I
MAT 135 Introduction to Probability and Statistics

or

(CIS 243 Business Statistics I

and

CIS 343 Business Statistics II)

or

MAT 540 Mathematical Statistics I

Required Minor ........................................... 21-24 hrs

Unrestricted Electives .................................... 0-9 hrs

Total Curriculum Requirements .................... 120 hrs

1Required for major if not taken as University Studies Elective.

Computer Information Systems Minor ............. 22 hrs
CIS 307, 317; CSC 101, 199, 232, 260, and three upper-level hours from CIS/CSC/TSM as approved by advisor. Six hours must be upper-level courses completed in residence at Murray State University.

Department of Economics and Finance
307 Business Building
270-809-4188
eco.fin@murraystate.edu

Chair: David Eaton. Faculty: Badasyan, Blaylock, Brasfield, Brown, Durr, Eaton, Guin, Hassan, Lacewell, McCoy, Milkman, Reed, Silva.

Students in the Department of Economics and Finance have a wide choice of curricula offered by highly qualified faculty members, most of whom hold the doctorate degree. The department offers a major in economics for those students who wish to pursue a traditional liberal arts education containing a mixture of business and non-business classes outside the College of Business. This option may be especially attractive for pre-law students. The flexibility of the economics major allows students to tailor the program to their career goals or for further graduate study. It is also one of the approved majors for teaching the social sciences. In such cases the required minor and non-economics electives should be carefully selected in consultation with a departmental advisor. The department offers minors in economics, business economics and international economics. The department also supports a minor in Secondary Social Studies for those students seeking secondary certification in social studies (grades 8-12). This minor combined with the economics major, increases the probability for success on the PRAXIS examination.

The department offers an area in finance that prepares a student to operate in a variety of career paths, including banking, corporate finance, investments, securities analysis, and financial services. Students successfully completing requirements for the area in finance are prepared to successfully transition into a business environment or to continue on to graduate studies in finance or other areas of business. In addition to the area in finance, the department offers an area with a financial planning option. The financial planning option is an area in which many career opportunities exist, is approved by the Certified Financial Planning Board of Standards, and provides students with the background necessary to be allowed to take the test for CFP certification. The department also offers a minor in finance for non-business students. Each area of specialization provides preparation for a variety of employment opportunities or serves as a basis for graduate study. Electives are available to prepare qualified students for positions calling for skills in financial analysis in both the private and public sectors of the economy.

Also located in the department are the Center for Economic Education, and the Center for Banking and Finance. The Center for Economic Education provides materials and aid to area school systems in incorporating economics into the K-12 curriculum. The Center of Banking and Finance at Murray State University is dedicated to serving current and future financial services professionals by developing and maintaining strong relationships between MSU and area financial institutions, and by developing internship and permanent employment opportunities available to MSU students.
MAJOR: Economics

Bachelor of Arts/Bachelor of Science Degree
CIP 45.0601

Note: This program is recommended for pre-law. The total number of credit hours earned in business courses (ACC, BPA, CIS, FIN, MGT, MKT, OSY, RES, LST 240 and 540) cannot exceed 25 percent of total curriculum requirements.

University Studies Requirements ..................................................41-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 220 Business Calculus
  or
  MAT 250 Calculus and Analytic Geometry I
• Social and Self-Awareness and Responsible Citizenship:
  ECO 230 Principles of Macroeconomics
• University Studies Electives:
  CSC 199 Introduction to Information Technology
  ECO 231 Principles of Microeconomics

Required Courses .................................................................26 hrs
ACC 200 Principles of Financial Accounting
BPA 099 Transitions
ECO 305 Money and Banking
ECO 330 Intermediate Macroeconomics
ECO 331 Intermediate Microeconomics
ECO 460 International Trade and Finance
ECO 498 Research Methods in Economics
ECO 499 Senior Seminar in Economics
MAT 135 Introduction to Probability and Statistics
or
CIS 243 Business Statistics I
and
CIS 343 Business Statistics II

Required Limited Electives ......................................................9 hrs
300-level or higher (except ECO 310), ECO electives approved by advisor.

Required Minor .................................................................21 hrs
Note: Economics majors may select a minor from any business or non-business discipline, excluding any economics minor. If any course is required in the major and minor, a substitute course must be approved by an advisor to gain the total degree program hours.

Unrestricted Electives .....................................................17-23 hrs

Total Curriculum Requirements .............................................120 hrs

1Required for BS only.

MAJOR: Economics/Social Studies Certification (Grades 8-12)

Bachelor of Arts/Bachelor of Science Degree
CIP 45.0601

Note: The total number of credit hours earned in business courses (ACC, BPA, CIS, FIN, MGT, MKT, OSY, RES, LST 240 and 540) cannot exceed 25 percent of total curriculum requirements.

University Studies Requirements ..................................................41-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 220 Business Calculus
  or
  MAT 250 Calculus and Analytic Geometry I
• Social and Self-Awareness and Responsible Citizenship:
  ECO 230 Principles of Macroeconomics
• University Studies Electives:
  CSC 199 Introduction to Information Technology
  ECO 231 Principles of Microeconomics

Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Required Courses .................................................................26 hrs
ACC 200 Principles of Financial Accounting
BPA 099 Transitions
ECO 305 Money and Banking
ECO 330 Intermediate Macroeconomics
ECO 331 Intermediate Microeconomics
ECO 460 International Trade and Finance
ECO 498 Research Methods in Economics
ECO 499 Senior Seminar in Economics
MAT 135 Introduction to Probability and Statistics
or
CIS 243 Business Statistics I
and
CIS 343 Business Statistics II

Required Limited Electives ......................................................9 hrs
300-level or higher (except ECO 310), ECO electives approved by advisor.

Required Courses for Certification .............................................38 hrs
COM 372 Communication in Educational Environments
EDP 260 Psychology of Human Development
EDU 103 Issues and Practices of American Education
EDU 303 Strategies of Teaching
EDU 403 Structures and Foundations of Education
EDU 405 Evaluation and Measurement in Education
EDU 422 Student Teaching Seminar (optional)
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities
Required Minor.........................................................21-24 hrs
Choose either geography, history, political science or social science minor. Social science minor is strongly recommended.

Note: If any course is required in the major and minor, a substitute course must be approved by an advisor to gain the total degree program hours.

Total Curriculum Requirements ..............................135-144 hrs
1With a grade of C or better.
2May be used as a University Studies elective for B.S.

Economics Minor .................................................21 hrs
ECO 230, 231, 305, 330, 331; and six hours of business electives (may include ECO and FIN) approved by advisor. Six hours must be upper-level courses completed in residence at Murray State University.

Business Economics Minor ....................................22 hrs
ACC 200, CIS 243, 343; ECO 230, 231, 305, 330, 331. Six hours must be upper-level courses completed in residence at Murray State University.

International Economics Minor ..............................21 hrs
ECO 230, 231, 315, 410, 460; and six hours of closely related upper-level electives, with a significant international dimension, as approved by advisor. Six hours must be upper-level courses completed in residence at Murray State University.

Social Science Minor ............................................24 hrs
Open only to majors in economics, geography, history, or political science who seek secondary certification in social studies. ECO 231, GSC 110, HIS 221, 222, POL 140, SOC 133; and six hours of upper level courses (300 or above) from the social science disciplines with approval of advisor. Courses required for a major may not be counted toward the minor; substitutions must be from a social science discipline other than the major and be approved by the advisor; and requirements for certification for teaching secondary school social studies, grades 8 through 12 through the College of Education must also be met.

AREA:
Finance

Bachelor of Arts in Business/Bachelor of Science in Business Degree
CIP 52.0801

ACCREDITED BY:
AASCB-International—The Association to Advance Collegiate Schools of Business

University Studies Requirements .................42-49 hrs
(See Chapter 5, University Studies Requirements)

Business Core Requirements ......................41 hrs
(See Core Requirements at beginning of this chapter)

Required Courses ..............................................18 hrs
ECO 305 Money and Banking
FIN 332 Financial Management
FIN 333 Principles of Investment
FIN 334 Banking and Financial Institutions
FIN 461 International Financial Management
FIN 480 Senior Seminar in Finance

Required Limited Electives ...................................9 hrs
Nine hours of finance electives from the following:
FIN 331 Principles of Insurance
FIN 336 Employee Benefits and Retirement
FIN 338 Estate Planning
FIN 421 Financial Models
FIN 488 Cooperative Education/Internship
FIN 489 Cooperative Education/Internship
FIN 520 Risk Management
FIN 522 Portfolio Management and Theory
FIN 533 Security Analysis
FIN 537 Commercial Banking
FIN 505 Internship in Finance
FIN 595 Special Problems

Business Electives (B.S.B. only) .........................3 hrs

Unrestricted Electives .................................0-7 hrs

Total Curriculum Requirements ......................120 hrs

AREA:
Finance/Financial Planning Option

Bachelor of Arts in Business/Bachelor of Science in Business Degree
CIP 52.0801

ACCREDITED BY:
AASCB-International—The Association to Advance Collegiate Schools of Business

University Studies Requirements .................42-49 hrs
(See Chapter 5, University Studies Requirements)

Business Core Requirements ......................41 hrs
(See Core Requirements at beginning of this chapter)

Required Courses ..............................................18 hrs
ECO 305 Money and Banking
FIN 332 Financial Management
FIN 333 Principles of Investment
FIN 334 Banking and Financial Institutions
FIN 461 International Financial Management
FIN 480 Senior Seminar in Finance

Required Specialty Courses .................................12 hrs
ACC 302 Federal Income Tax
FIN 331 Principles of Insurance
FIN 336 Employee Benefits and Retirement
FIN 338 Estate Planning

Unrestricted Electives .........................................0-7 hrs

Total Curriculum Requirements ......................120 hrs
1If not taken as University Studies non-business elective for BSB.
2Required for the BSB only.

Finance Minor ......................................................21 hrs
ACC 200, 201; FIN 330, 332, 333; three hours of FIN or ECO electives; three hours of business electives (may include FIN or ECO). Six hours must be upper-level courses completed in residence at Murray State University.
Department of Journalism and Mass Communications
114 Wilson Hall
270-809-2387
jmc@murraystate.edu

Chair: Bob Lochte. Faculty: Hedges, Landini, Lochte, Magee, McKeel, Norworthy, Orvino, Owens, Qualls, Thomas, Valentine, Welsch, White.

The Department of Journalism and Mass Communications, established July 1975, offers five majors leading to a bachelor’s degree: advertising, graphic communications management, journalism, public relations, and television production. The department offers four minor programs: advertising, graphic communications technology, journalism and mass communications, and photography.

The mission of the Department of Journalism and Mass Communications is to prepare students with a body of knowledge and a system of intellectual inquiry, scholarship and training for careers in which they are accountable to:

- the public interest for their knowledge, ethics, competence and service
- citizens, clients and consumers for their competencies and the quality of their work; and
- employers for their performance.

Our students understand the value of …

1. Truth, accuracy, and fairness
2. Freedom of expression
3. Ethical thought and practices
4. Historical perspective on the role of the mass media in civil society
5. Diversity of the workforce and audiences

We expect our students to learn how to …

1. Write clearly and accurately
2. Use media technology appropriate to the task
3. Apply media theory in presenting images and information
4. Engage in research and critical evaluation
5. Understand data and statistics
6. Think creatively and analytically

Journalism and Mass Communications degree programs are grounded in a strong liberal arts foundation then combined with professional skills courses to provide a broad educational experience. The Department is one of only 114 programs in the United States fully-accredited by the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC). In May 2010, the Department received its most recent six-year reaccreditation. Programs and majors are reviewed frequently and updated to reflect national academic and professional needs. Each major — advertising, journalism, public relations and television production — requires 35 hours. It is also strongly recommended that students take a practicum, internship, or cooperative education to gain additional professional experience. To comply with accreditation standards, students must take 80 hours outside of journalism and mass communications courses, of which 65 must be in University Studies and liberal arts. Students cannot minor in journalism and mass communications if they have a major in the department. They can, however, minor in advertising.

Historic Wilson Hall, the second-oldest building on the campus, houses the main classrooms and offices for Journalism and Mass Communications, as well as the Murray State News, national award-winning student newspaper and its companion website TheNews.org. The department also publishes three magazines a year and a biannual alumni newsletter. Television production facilities are located on the 8th floor of the Price Doyle Fine Arts Center, and include MSU-TV 11 student cable access channel. The department is affiliated with such organizations as the Association for Education in Journalism and Mass Communication (AEJMC), the Association of Schools of Journalism and Mass Communication, the West Kentucky Press Association, Kentucky Press Association, Kentucky Intercollegiate Press Association, College Media Advisers, American Advertising Federation, and Public Relations Society of America. Broadcast affiliations include the Broadcast Education Association, Radio-Television News Directors, and Kentucky Broadcasters Association. There are active student chapters of the American Advertising Federation, the Public Relations Student Society of America, and Kappa Tau Alpha, honorary journalism fraternity.

Scholarships and Awards

The department offers scholarships, internships, graduate assistantships and special awards in journalism and mass communications. For additional information, contact the Department of Journalism and Mass Communications, jmc@murraystate.edu.

MAJOR: Advertising

Bachelor of Science/Bachelor of Arts Degree
CIP 09.0903

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

University Studies Requirements ............................................ 41-47 hrs
(See Chapter 5, University Studies Requirements)

Required Courses..................................................................... 29 hrs
JMC 100 Transitions
JMC 168 Contemporary Mass Media
JMC 270 Basic Audio/Video Production
JMC 330 Mass Media Effects
JMC 394 Introduction to Advertising
JMC 417 Advertising Copywriting and Layout
JMC 426 Advertising Media Sales
JMC 439 Advertising Media Planning
JMC 456 Advertising Campaigns
JMC 499 Senior Seminar
JMC 590 Mass Communication Law

Required Limited Electives...................................................... 6 hrs
Choose from the following:
JMC 194 Newswriting
JMC 322 Mass Media Study Abroad
JMC 336 Script Writing
JMC 391 Public Relations Principles
JMC 400 International Mass Communications
JMC 440 Research Methods for Public Relations
JMC 596 Internship
MKT 360 Principles of Marketing
MKT 463 Consumer Behavior
Upper level MKT elective or MGT 350

Co-Requirements for Majors............................................... 6 hrs
CSC 125 Internet and Web Page Design
GCM 153 Electronic Imaging
Required Minor ........................................................... 21-24 hrs
Unrestricted Electives ................................................... 8-17 hrs
Total Curriculum Requirements .................................. 120 hrs

MAJOR: Journalism

Bachelor of Science/Bachelor of Arts Degree
CIP 09.0401

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

University Studies Requirements ......................... 41-47 hrs
(See Chapter 5, University Studies Requirements)

Core Courses ............................................................... 32 hrs
JMC 099 Transitions
JMC 168 Contemporary Mass Media
JMC 194 Newswriting
JMC 270 Basic Audio/Video Production
JMC 294 Advanced Newswriting
JMC 295 Copyediting
JMC 330 Mass Media Effects
JMC 397 Reporting for Print Media
JMC 398 Reporting for Broadcast and Online Media
JMC 499 Senior Seminar
JMC 590 Mass Communication Law
JMC 597 Advanced Reporting

Required Limited Electives ......................................... 3 hrs
Choose from the following:
JMC 283 Principles of Photojournalism
JMC 322 Mass Media Study Abroad
JMC 336 Script Writing
JMC 396 Publication Design
JMC 445 Community Journalism
JMC 466 Advanced Electronic New Reporting and Production
JMC 492 Feature Writing
JMC 593 Opinion Writing
JMC 596 Internship

Co-Requirements for Majors ..................................... 6 hrs
CSC 125 Internet and Web Page Design
GCM 153 Electronic Imaging

Required Minor ........................................................... 21-24 hrs
Unrestricted Electives ................................................... 8-17 hrs
Total Curriculum Requirements .................................. 120 hrs

MAJOR: Public Relations

Bachelor of Science/Bachelor of Arts Degree
CIP 09.0902

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

University Studies Requirements ......................... 41-47 hrs
(See Chapter 5, University Studies Requirements)

Required Courses .......................................................... 29 hrs
JMC 099 Transitions
JMC 168 Contemporary Mass Media
JMC 194 Newswriting
JMC 270 Basic Audio/Video Production
JMC 330 Mass Media Effects
JMC 391 Public Relations Principles
JMC 412 Writing for Public Relations
JMC 440 Research Methods for Public Relations
JMC 491 Advanced Public Relations
JMC 499 Senior Seminar
JMC 590 Mass Communication Law

Required Limited Electives ......................................... 6 hrs
Choose from the following:
BPA 140 Foundations of Business
JMC 283 Principles of Photojournalism
JMC 295 Copyediting
JMC 322 Mass Media Study Abroad
JMC 336 Script Writing
JMC 394 Introduction to Advertising
JMC 396 Publication Design
JMC 397 Reporting for Print Media
JMC 398 Reporting for Broadcast and Online Media
JMC 400 International Mass Communications
JMC 492 Feature Writing
JMC 596 Internship
MGT 350 Fundamentals of Management
MKT 360 Principles of Marketing

Co-Requirements for Majors ..................................... 6 hrs
CSC 125 Internet and Web Page Design
GCM 153 Electronic Imaging

Required Minor ........................................................... 21-24 hrs
Unrestricted Electives ................................................... 8-17 hrs
Total Curriculum Requirements .................................. 120 hrs

1 Or approved equivalent.
MAJOR: Television Production

Bachelor of Science/Bachelor of Arts Degree
CIP 09.0701

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

University Studies Requirements ..............................41-47 hrs
(See Chapter 5, University Studies Requirements)

Required Courses ............................................................32 hrs
JMC 099 Transitions
JMC 168 Contemporary Mass Media
JMC 270 Basic Audio/Video Production
JMC 330 Mass Media Effects
JMC 336 Script Writing
JMC 358 Television Studio Production
JMC 369 Audio/Video Post Production
JMC 448 Television Production Operations
JMC 451 Television Field Production
JMC 455 Television Program Development
JMC 499 Senior Seminar
JMC 590 Mass Communication Law

Required Limited Elective................................................3 hrs
Choose from the following:
JMC 322 Mass Media Study Abroad
JMC 391 Public Relations Principles
JMC 394 Introduction to Advertising
JMC 398 Reporting for Broadcast and Online Media
JMC 426 Advertising Media Sales
JMC 440 Research Methods for Public Relations
JMC 596 Internship

Co-Requirements for Majors ............................................6 hrs
CSC 125 Internet and Web Page Design
GCM 153 Electronic Imaging

Required Minor ..............................................................21-24 hrs

Unrestricted Electives.....................................................8-17 hrs

Total Curriculum Requirements .....................................120 hrs

Advertising Minor..........................................................24 hrs
JMC 394, 417, 426, 439, 556; MKT 360, 463, upper-level MKT course or MGT 350. Six hours must be upper-level courses completed in residence at Murray State University.

Journalism and Mass Communications Minor........24 hrs
JMC 168, 194, 330, 590 and 12 hours of approved JMC electives. Six hours must be upper-level courses completed in residence at Murray State University. Students cannot minor in journalism and mass communications if they have a major in the department. They can, however, minor in advertising.

Graphic Communications Management

This program is designed to prepare individuals for employment at the supervisory and management levels in the printing industry.

Graduates of this program will be qualified to function as entry level managers, production planners, quality control specialists, production control expeditors, estimators, printing sales representatives, or customer service representatives.

AREA: Graphic Communications Management

Bachelor of Science Degree
CIP 10.0301

University Studies Requirements .........................43-44 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

Scientific Inquiry, Methodologies, and Quantitative Skills:
CHE 105 Introductory Chemistry I
MAT 117 Mathematical Concepts
or
MAT 140 College Algebra

Social and Self-Awareness and Responsible Citizenship:
ECO 140 Contemporary Economics
or
ECO 230 Principles of Macroeconomics
or
ECO 231 Principles of Microeconomics

University Studies Electives:
CSC 125 Internet and Web Page Design

Required Courses .........................................................53-57 hrs
ACC 200 Principles of Financial Accounting
ART 111 Two-dimensional Design
or
ITD 107 Introduction to Technical Drawing and Computer Aided Drafting
ENG 324 Technical Writing
GCM 099 Transitions
GCM 151 Introduction to Print Media Management
GCM 153 Electronic Imaging
GCM 250 Fundamentals of Photography
GCM 252 Digital Image Conversion
GCM 342 Finishing and Distribution
GCM 352 Press Image Transfer I
GCM 354 Principles of Estimating
GCM 365 Customer Service in Print Media
GCM 441 Desktop Multimedia
GCM 442 Digital Interactive Technology
GCM 454 Color Management and Quality Control
IET 399 Professional Develop Seminar I
IET 488 Cooperative Education/Internship
MGT 350 Fundamentals of Management
MKT 360 Principles of Marketing

1 Or approved equivalent.
Required Electives................................................................. 24 hrs

Select electives from courses listed below with advisor approval.
At least six hours of electives must be 300-level or above

ART 101 Drawing I: Introduction to Drawing
ART 111 Two-Dimensional Design
ART 350 Introduction to Graphic Design I: Digital Art
ART 351 Graphic Design II: Type and Image
ART 352 Graphic Design III: Layout and Introduction to Design Systems
ART 451 Graphic Design IV: Systems Design
COM 384 Communication Skills for Professionals
COM 461 Persuasive Communication
GCM 340 Introduction to Gravure
GCM 350 Basic Color Photography
GCM 357 Industrial Photography
GCM 358 Commercial Photography
GCM 359 Publication Photography
GCM 360 Portraiture Photography
GCM 440 Electronic Digital Photography
ITD 107 Introduction to Technical Drawing
OSH 300-level elective (approved by advisor)

Total Curriculum Requirements ..................................... 120-122 hrs

Students interested in pursuing a MBA should select the Management Emphasis. The following should be used as technical electives: ACC 201, CIS 443, and MAT 220.

May be used as a University Studies elective.

Graph Communications Technology Minor ....................... 21 hrs
GCM 151 and 18 hours of graphic communications technology approved by Graphic Communications Management advisor, selected from the following courses: GCM 153, 250, 252, 342, 352, 354, 365, 441, 442, 454, 554, 556. Six hours must be upper-level courses completed in residence at Murray State University.

Photography Minor ............................................................ 21 hrs
GCM 153 and 18 hours of photography and graphic communications approved by Graphic Communications Management advisor, selected from the following courses: GCM 151, 250, 350, 357, 358, 359, 440, 445. Six hours must be upper-level courses completed in residence at Murray State University.

AREA: Business Administration

Bachelor of Arts in Business/Bachelor of Science in Business Degree
CIP 52.0101

ACCREDITED BY:
AACSB-International—The Association to Advance Collegiate Schools of Business

University Studies Requirements ..................................... 42-49 hrs
(See Chapter 5, University Studies Requirements)

Business Core Requirements ............................................ 41 hrs
(See Core Requirements at beginning of this chapter)

Required Courses ............................................................ 3 hrs
One international business course, 300 level or higher

Business Electives1 ............................................................... 21-27 hrs

B.S.B. only: 27 hours of required limited business electives selected from ACC, BPA, CIS, ECO, FIN, JMC 391, 394, LST 540, MGT, MKT, OSY, POL 542, or RES, approved by advisor; not to exceed nine hours in any one area, with at least 18 hrs at 300 level or above.

B.A.B. only: 21 hours of required limited business electives as above, not to exceed nine hours in any one area, with at least 12 hrs at 300 level or above. MGT 250 and MKT 260 do not apply toward this area.

Unrestricted Electives ....................................................... 0-13 hrs

Total Curriculum Requirements ..................................... 120 hrs

1A maximum of three hours cooperative education credit counts toward the degree.
MAJOR: Business Administration

Bachelor of Arts in Business/Bachelor of Science in Business Degree
CIP 52.0101

ACCREDITED BY:
AACSB-International—The Association to Advance Collegiate Schools of Business

University Studies Requirements ......................42-49 hrs
(See Chapter 5, University Studies Requirements)

Business Core Requirements .........................41 hrs
(See Core Requirements at beginning of this chapter)

Required Courses ............................................9 hrs
One international business course, 300 level or higher
Business electives: 6 hrs

Note: Business electives must be selected with advisor approval from
ACC, BPA, CIS, ECO, FIN, JMC 391, 394, LST 540, MGT, MKT, OSY,
POL 542, or RES. At least 18 hrs of business electives and minor courses
must be at 300 level or above. MGT 250 and MKT 260 do not apply
toward this major.

Required Minor1 ..................................................21 hrs

Unrestricted Electives .....................................0-7 hrs

Total Curriculum Requirements .....................120 hrs
1A maximum of three hours cooperative education credit counts toward
the degree.

ASSOCIATE: Business Administration

Associate of Arts Degree
CIP 52.0101

University Studies Requirements ....................26 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 140 College Algebra
• Social and Self-Awareness and Responsible Citizenship:
  ECO 230 Principles of Macroeconomics
  ECO 231 Principles of Microeconomics
• University Studies Electives:
  CSC 199 Introduction to Information Technology

Required Courses .........................................13 hrs
ACC 200 Principles of Financial Accounting
ACC 201 Principles of Managerial Accounting
BPA 099 Transitions
BPA 215 Business Communication
CSC 199 Introduction to Information Technology
LST 240 Legal Environment of Business

Emphasis Requirements ....................................23 hrs
BPA 140 Foundations of Business
CIS 243 Business Statistics I
FIN 330 Principles of Finance
Program Electives (9 hrs)1
Business Electives (6 hrs)

Total Curriculum Requirements ....................61-62 hrs
1Elective choices must be approved by advisor.

AREA: Management

Bachelor of Arts in Business/Bachelor of Science in Business Degree
CIP 52.0201

ACCREDITED BY:
AACSB-International—The Association to Advance Collegiate Schools of Business

University Studies Requirements ....................42-49 hrs
(See Chapter 5, University Studies Requirements)

Business Core Requirements .........................41 hrs
(See Core Requirements at beginning of this chapter)

Required Courses ............................................21 hrs
MGT 354 Techniques of Oral Reporting and
Management Briefings
MGT 550 Human Resources Management
MGT 551 Organizational Behavior
MGT 552 Management of Operations and Technology II
MGT electives: 9 hrs approved by advisor

Business Electives1 (B.A.B.) ..........................3 hrs
Business Electives2 (B.S.B.) .............................9 hrs

Unrestricted Electives .....................................6-7 hrs

Total Curriculum Requirements .....................120 hrs
1A maximum of three hours cooperative education credit counts toward
the degree.

AREA: Management/Entrepreneurship Option

Bachelor of Arts in Business/Bachelor of Science in Business Degree
CIP 52.0201

ACCREDITED BY:
AACSB-International—The Association to Advance Collegiate Schools of Business

University Studies Requirements ....................42-49 hrs
(See Chapter 5, University Studies Requirements)

Business Core Requirements .........................41 hrs
(See Core Requirements at beginning of this chapter)
Required Courses ............................................................ 12 hrs
MGT 354 Techniques of Oral Reporting and Management Briefings
MGT 550 Human Resources Management
MGT 551 Organizational Behavior
MGT 552 Management of Operations and Technology II

Entrepreneurship Option ................................................ 12 hrs
Choose from the following:
ECO 521 Seminar in Economic Thought: Rand’s Objectivism
MGT 358 Entrepreneurial Business Plan Development
MGT 420 Entrepreneurial Strategic Growth
MGT 488 Cooperative Education/Internship
MGT 490 Entrepreneurial Consulting
MKT 390 Entrepreneurial Marketing

Note: A maximum of three hours cooperative education credit counts toward the degree.

Business Electives (B.A.B.) .................................................. 0 hrs
Business Electives (B.S.B.) .................................................. 6 hrs

Unrestricted Electives ..................................................... 6-7 hrs

Total Curriculum Requirements .................................. 120 hrs

AREA: Management/Human Resources Option

Bachelor of Arts in Business/Bachelor of Science in Business Degree
CIP 52.0201

ACCREDITED BY:
AACSB-International—The Association to Advance Collegiate Schools of Business

University Studies Requirements .............................. 42-49 hrs
(See Chapter 5, University Studies Requirements)

Business Core Requirements ........................................ 41 hrs
(See Core Requirements at beginning of this chapter)

Required Courses .......................................................... 12 hrs
MGT 354 Techniques of Oral Reporting and Management Briefings
MGT 550 Human Resources Management
MGT 551 Organizational Behavior
MGT 552 Management of Operations and Technology II
MKT 354 Human Resource Selection
MKT 555 Training and Development
MKT 559 Compensation Management
MKT 572 Organization Development
MKT 575 Labor-Management Relations
MKT 577 Labor Law and Public Policy
OSH 192 Introduction to Occupational Safety and Health
OSH 550 Safety and Health Program Management and Training

Human Resource Option .................................................. 12 hrs
Choose from the following:
MGT 488 Cooperative Education/Internship
MGT 553 Human Resource Selection
MGT 555 Training and Development
MGT 559 Compensation Management
MKT 572 Organization Development
MGT 575 Labor-Management Relations
MGT 577 Labor Law and Public Policy
OSH 192 Introduction to Occupational Safety and Health
OSH 550 Safety and Health Program Management and Training

Note: A maximum of three hours cooperative education credit counts toward the degree.

Business Electives (B.A.B.) .................................................. 0 hrs
Business Electives (B.S.B.) .................................................. 6 hrs

Unrestricted Electives ..................................................... 6-7 hrs

Total Curriculum Requirements .................................. 120 hrs

AREA: Marketing

Bachelor of Arts in Business/Bachelor of Science in Business Degree
CIP 52.1401

ACCREDITED BY:
AACSB-International—The Association to Advance Collegiate Schools of Business

University Studies Requirements .............................. 42-49 hrs
(See Chapter 5, University Studies Requirements)

Business Core Requirements ........................................ 41 hrs
(See Core Requirements at beginning of this chapter)

Required Courses .......................................................... 21 hrs
JMC 394 Introduction to Advertising’ or
MKT 460 Principles of Advertising
MKT 463 Consumer Behavior
MKT 565 Marketing Research
MKT 568 Global Marketing Management
MKT electives: 9 hrs approved by advisor

Note: A maximum of three hours cooperative education credit counts toward the degree.

Business Electives (B.A.B.) .................................................. 3 hrs
Business Electives (B.S.B.) .................................................. 9 hrs

Unrestricted Electives ..................................................... 6-7 hrs

Total Curriculum Requirements .................................. 120 hrs

Note: MKT 360 must be taken as a prerequisite by all business program students.

AREA: Marketing/Business Geographic Information Systems Option

Bachelor of Arts in Business/Bachelor of Science in Business Degree
CIP 52.1401

ACCREDITED BY:
AACSB-International—The Association to Advance Collegiate Schools of Business

University Studies Requirements .............................. 42-49 hrs
(See Chapter 5, University Studies Requirements)

Business Core Requirements ........................................ 41 hrs
(See Core Requirements at beginning of this chapter)

Required Courses .......................................................... 12 hrs
MGT 488 Cooperative Education/Internship
MGT 553 Human Resource Selection
MGT 555 Training and Development
MGT 559 Compensation Management
MGT 572 Organization Development
MGT 575 Labor-Management Relations
MGT 577 Labor Law and Public Policy
OSH 192 Introduction to Occupational Safety and Health
OSH 550 Safety and Health Program Management and Training

Note: A maximum of three hours cooperative education credit counts toward the degree.
Required Courses ............................................................ 12 hrs
JMC 394 Introduction to Advertising
or
MKT 460 Principles of Advertising
MKT 463 Consumer Behavior
MKT 565 Marketing Research
MKT 568 Global Marketing Management

Business GIS Option ........................................................ 13 hrs
GSC 521 Geographic Information Systems
MKT 485 Business GIS in Marketing
MKT 585 Integrated Business GIS
and one of the following:
MKT 285 Emerging Technologies in Marketing
MKT 475 Marketing Strategies for e-Commerce
MKT 579 Social Media Consulting

Business Electives (B.A.B.) ................................................ 0 hrs
Business Electives (B.S.B.) ................................................ 6 hrs
Unrestricted Electives .................................................... 5-6 hrs

Total Curriculum Requirements .................................. 120 hrs
1 MKT 360 must be taken as a prerequisite by all business program students.

AREA:
Marketing/Entrepreneurship Option

Bachelor of Arts in Business/Bachelor of Science in Business Degree
CIP 52.1401

ACCREDITED BY:
AACSB-International—The Association to Advance Collegiate Schools of Business

University Studies Requirements ................................. 42-49 hrs
(See Chapter 5, University Studies Requirements)

Business Core Requirements ................................. 41 hrs
(See Core Requirements at beginning of this chapter)

Required Courses ............................................................ 12 hrs
JMC 394 Introduction to Advertising
or
MKT 460 Principles of Advertising
MKT 463 Consumer Behavior
MKT 565 Marketing Research
MKT 568 Global Marketing Management

Entrepreneurship Option ............................................. 12 hrs
Choose from the following:
ECO 521 Seminar in Economic Thought: Rand’s Objectivism
MGT 358 Entrepreneurial Business Plan Development
MGT 420 Entrepreneurial Strategic Growth
MGT 490 Entrepreneurial Consulting
MKT 390 Entrepreneurial Marketing
MKT 488 Cooperative Education/Internship
Note: A maximum of three hours cooperative education credit counts toward the degree.

Business Electives (B.A.B.) ........................................... 0 hrs
Business Electives (B.S.B.) ........................................... 6 hrs
Unrestricted Electives ............................................... 6-7 hrs

Total Curriculum Requirements ............................... 120 hrs
1 MKT 360 must be taken as a prerequisite by all business program students.

Advertising Minor ..................................................... 24 hrs
MGT 350 or upper-level MKT course; MKT 360 and 463; JMC 394, 417, 426, 439, and 456. Six of 24 hours must be upper-level courses completed in residence at Murray State University.

Business Administration Minor .................................... 24 hrs
ACC 200, 201; CSC 199; ECO 230, 231; FIN 330; MGT 350; and MKT 360. Six hours must be upper-level courses completed in residence at Murray State University.

Management Minor ................................................... 21 hrs
ACC 200, 201; MGT 350; and 12 hours of approved management electives, at least three hours of which must be upper-level. Six of 21 hours must be upper-level courses completed in residence at Murray State University.

Marketing Minor ................................................... 21 hrs
ACC 200, ECO 231, MKT 360; and 12 hours of approved marketing electives, at least three hours of which must be upper-level. Six of 21 hours must be upper-level courses completed in residence at Murray State University.

Real Estate Minor ................................................ 21 hrs
RES 132, 242, six hours of real estate electives and nine hours of approved business electives, at least six hours of which must be upper-level. Six of 21 hours must be upper-level courses completed in residence at Murray State University.

The undergraduate certificate in Business Geographic Information Systems (GIS) is designed to provide students in business disciplines and geosciences the opportunity to develop competence in the application of geographic information system tools to business decision making. In this context, the certificate may be completed by marketing, business administration, and geoscience students as part of their degree program.

CERTIFICATE:
Business Geographic Information Systems

Total Course Requirements .................................. 19 hours
BPA 140 Introduction to Business
or
MKT 360 Principles of Marketing
GSC 521 Geographic Information Systems
MKT 475 Marketing Strategies for eCommerce
or
MKT 579 Social Media Consulting
MKT 485 Business GIS in Marketing
MKT 585 Integrated Business GIS
Department of Organizational Communication
312 Wilson Hall
270-809-4483
orgcom@murraystate.edu

Chair: Steve Cox. Faculty: Bokeno, Coffelt, Coleman, Cox, Gesler, Miller, Parish, Smith, Spinda, Tillson.

The Department of Organizational Communication offers programs leading to either the Bachelor of Arts or the Bachelor of Science degree. The major offered is organizational communication.

Organizational communication is the study of strategic communication processes and skills that create successful organizations. Because organizing people to work together depends upon effective communicating, the organizational communication major provides professional development for a wide variety of careers.

Students learn methods for assessing communication problems, designing communication processes, and improving communication quality in organizations. Students develop skills in managerial communication, teamwork, leadership, interpersonal communication, conflict resolution, public speaking, training, and decision-making; as well as other communication-based competencies. Because all employers seek employees who can build relationships, promote ideas, guide teams, facilitate collaboration, and provide leadership, graduates are highly marketable and successful.

The major is compatible with all fields of study allowing students to select a minor that best fits their personal interests and goals (e.g., marketing, management, advertising, psychology, Spanish, math, biology, English, or youth and non-profit leadership). The department also offers a minor in organizational communication.

The total number of credit hours earned in business courses (ACC, BPA, CIS, FIN, MGT, MKT, OSY, RES, LST 240, LST 440) cannot exceed 25 percent of total curriculum requirements.

The Department of Organizational Communication requires that a 2.50 grade point average (GPA) must be maintained in any or all COM majors or minors in order to receive a degree from Murray State University. A student failing to maintain a 2.50 will not be permitted to take new courses in the department until the GPA reaches or exceeds 2.50.

The department offers a limited number of assistantships/scholarships.

Graduate Degrees

Programs leading to the Master of Arts and Master of Science degrees are offered. The Master of Arts requires 34 hours and a Master of Science requires 31 hours. A thesis option is offered with the Master of Arts. For further details see the Graduate Bulletin.

Major: Organizational Communication

Bachelor of Arts/Bachelor of Science Degree
CIP 09.0901

University Studies Requirements ..................41-47 hrs
(See Chapter 5, University Studies Requirements)

Required Courses ...........................................31 hrs
COM 099 Transitions
COM 201 Communication Foundations and Theory
COM 331 Interpersonal Communication
COM 340 Intercultural Communication
COM 353 Team Communication and Leadership
COM 361 Career Presentations

or

COM 461 Persuasive Communication
COM 384 Communication Skills for Professionals
COM 385 Organizational Communication
COM 390 Communication Research
COM 580 Advanced Organizational Communication
COM 595 Senior Seminar in Organizational Communication

Required Electives .................................6 hrs
Choose from the following:
BPA 215 Business Communication
COM 361 Career Presentations
COM 367 Communication and Critical Thought
COM 401 Contemporary Issues in Communication
COM 439 Conflict and Communication
COM 461 Persuasive Communication
COM 488 Cooperative Education/Internship
COM 489 Cooperative Education/Internship
COM 510 Internship
COM 530 Seminar in Interpersonal Communication
COM 553 Advanced Team Communication and Leadership
COM 577 Organizational Learning and Dialogue
ENG 324 Technical Writing
MGT 350 Fundamentals of Management
MGT 550 Human Resources Management
MGT 572 Organizational Development
MKT 360 Principles of Marketing
YNL 290 Trends and Issues in Youth and Human Services
YNL 350 Program Administration in Youth and Human Service Organizations

Required Minor ....................................21 hrs

Unrestricted Electives .........................15-21 hrs

Total Curriculum Requirements ...............120 hrs

1Majors must take either COM 361 or COM 461 as a required course. The remaining course can also be taken as a required elective towards the major.

2A maximum of 3 hours may be chosen with advisor approval from courses not on the list.

Organizational Communication Minor ..............24 hrs
COM 201, 331, 380, 384, 390, 395 and six hours of restricted electives from the following: COM 340, 353, 361, 367, 377, 409, 461, 577, 580; BPA 215; ENG 324; MGT 350; MKT 360. (Three hours may be other courses if approved by minor advisor.) Six hours must be upper-level courses completed in residence at Murray State University.
College of Education

Renee Campoy, Interim Dean
3101 Alexander Hall
(270) 809-3818

Requirements for Admission to Teacher Education and Student Teaching

Upon completion of 60 undergraduate credit hours (junior status), students enrolled or desiring enrollment in professional education coursework beyond 12 hours credit must be admitted to the Teacher Education Program.

Teacher education. In order to be admitted to teacher education, students must:

1. Provide Teacher Education Services with scores of tests to measure general academic proficiency. A person shall not be permitted to apply for admission to the teacher education program without first providing evidence of meeting the general academic proficiency requirement through any one of the following tests:
   a. ACT: (American College Test) a minimum composite score of 21; or
   b. PPST: (Professional Standards Skills Test) or the computerized version, with established minimum scores as follows: Math (173), Reading (173), and Writing (172); or
   [NOTE: In order to be eligible to take the PPST, a student must have obtained a composite score of 19 on the ACT. Absent extenuating circumstances approved by Teacher Education in writing, a student may attempt to obtain the passing score on each section (reading, writing, or mathematics) a maximum of three times.]
   c. GRE: (Graduate Records Exam) minimum passing score of 990 and required writing assessment or
   d. SAT: (Scholastic Assessment Test) SAT I (old) the minimum score of 990 and required writing assessment or SAT (new) the minimum score of 1470 which comprises reading, mathematics, and writing.

2. Have earned an overall undergraduate GPA of 2.45 on a 4.0 scale at the point of admission. This 2.45 minimum GPA remains a requirement throughout the teacher certification program.

3. Have completed a minimum of 24 credit hours with a minimum 2.45 GPA to include the following course work:
   a. ENG 104 or 105 with a grade of A or B;
   b. MAT 117 (or higher level math) with a grade of C or better;
   c. COM 161 or HON 165 with a grade of C or better;
   d. EDU 103 or equivalent course with a grade of C or better.

4. A review of the Professional Code of Ethics for Kentucky School Personnel and a Declaration of Eligibility signed by the candidate affirming a commitment to upholding the code and acknowledging awareness of information required for state certification.

5. Complete an interview and eligibility portfolio review with academic advisor.

6. Successful review by the admission to teacher education committee of their college.

7. Have supplied TES with any other required information.

Note: Students who have not been admitted to teacher education are not eligible to enroll in specific upper-level courses.
Student teaching. In order to be eligible to student teach, students must:
1. File a formal application with Teacher Education Services two semesters prior to the term in which student teaching is desired. (Applications are distributed at scheduled student teaching orientations only.)
2. Have been granted admission to the teacher education program.
3. Have obtained admission to teacher education prior to student teaching interview.
4. Have a minimum 2.45 overall GPA.
5. Have senior, post-baccalaureate, or graduate status and have completed 100% of their major subject matter field (middle school majors must complete 100% of both specialty areas).
6. Have completed all required professional teacher education courses (EDU 103, EDP 260, COM 372, EDU 303, SED 300, and EDU 403, etc.—see specific requirements by major) with a limited to, termination of placement due to unsatisfactory performance or performance otherwise deemed to be unsatisfactory. An unsuccessful placement includes, but is not limited to, termination of placement due to unsatisfactory performance or performance otherwise deemed to be unsatisfactory. An unsuccessful placement may exist regardless of any grade (e.g. “I”, “W”, or “E”) assigned. (Effective 8/2004)
7. Have a 2.45 GPA in major for which they desire certification.
8. Have met all applicable computer literacy and applications requirements.
9. Have demonstrated teaching ability in field by completing all experiences.
10. File a valid and current medical examination, which includes a TB test, with Teacher Education Services.
11. Have completed criminal record check.
12. Have been successfully reviewed by the admission to teacher education committee of their college, and
13. Have supplied TES with any other required information.
14. After one (1) unsuccessful undergraduate student teaching placement (undergraduate placement) or graduate student teaching practicum placement (graduate placement) due to unsatisfactory performance, a plan for improvement may be deemed necessary (improvement plan) by the College of Education. If an improvement plan is deemed necessary, a written plan will be prepared and reviewed with the student. No student may reapply for student teaching until the improvement plan has been successfully completed. Once the improvement plan has been successfully completed by the student, the student may reapply for admission to student teaching and, if admitted, a new placement will be pursued. Successful completion of an approved plan of improvement does not guarantee readmission to student teaching.

Any student who has an unsuccessful undergraduate placement or graduate placement due to unsatisfactory performance may be refused readmission to student teaching if it is determined that the student’s performance, conduct during the placement was so egregious, unprofessional, or otherwise grossly incompetent as to render consideration of an improvement plan and/or a second placement inadvisable. A student who re-applies and is denied admission to student teaching on such grounds will be informed in writing of the Admission to Teacher Education Committee’s decision. The grounds stated here are not the exclusive reasons for denying readmission.

A student denied readmission to student teaching as per paragraphs 1 or 2 above may pursue an appeal as per the College of Education Grievance Procedure.

Any student who has had two (2) unsuccessful undergraduate placements or graduate placements shall not be readmitted to student teaching. An unsuccessful placement includes, but is not limited to, termination of placement due to unsatisfactory performance or performance otherwise deemed to be unsatisfactory. An unsuccessful placement may exist regardless of any grade (e.g. “I”, “W”, or “E”) assigned. (Effective 8/2004)

Note: The Education Professional Standards Board has adopted minimum grade point average (GPA) requirements for admission to educator preparation, entrance to student teaching, and certification application. When calculating a GPA, a 2.450 GPA shall be rounded up to a 2.5. All GPAs between a 2.450 and 2.499 shall be rounded up to a 2.5.

General Requirements for Certification in the Commonwealth of Kentucky
Any person who wishes to be recommended by MSU for an initial Kentucky teaching certificate must have:
1. Successfully completed an approved teacher education program including student teaching.
2. Filed an application for certification (TC-1), or electronically the KECl, with Teacher Education Services, 2101 Alexander Hall.
3. Obtained at least minimal scores required on PRAXIS II Content/Specialty tests and Principles of Learning and Teaching (PLT) exam.
4. Have a minimum 2.45 overall GPA.
5. Have an earned bachelor’s degree.

NOTE: Requirements for teacher certification are established by the Kentucky Education Professional Standards Board (EPSB). Students are cautioned that changes in these requirements may occur after publication of this Bulletin. For the most current information, students should check with an advisor in one of the departments in the College of Education.

Department of Adolescent, Career and Special Education
3200D Alexander Hall
270-809-2538

Chair: Ginny Richerson. Faculty: DeBella, Doering, Epperson, Jacobs, Koennecke, Matlock, Musselman, Payne, Seiber, Umstead, Washington.

The Department of Adolescent, Career and Special Education offers certification preparation programs for middle and secondary school teachers in a variety of disciplines. Areas are offered in business and marketing education, family and consumer sciences education, health and physical education, industrial education, engineering/technology education, learning and behavior disorders (elementary school and middle school), and middle school education. The department provides minor programs in athletic coaching, family and consumer studies, general special education, health and physical education, and social science. Bachelor of Science, Bachelor of Arts, and Associate of Science degrees are offered.

The department’s faculty have all gained recognition for their quality teaching, research, and service to the public schools. Most full-time faculty hold doctoral degrees and have extensive teaching experience. Several of the intercollegiate athletic coaches teach departmental courses related to the sports they coach.

Upon completion of the certification, major and/or area programs students are eligible for Kentucky teacher internship and certification. Programs support national standards within the various disciplines and are accredited by the National Council for Accreditation of Teacher Education.

All programs are housed in Alexander Hall. As needed, other university facilities are used. The health and physical education program makes use of the Carr Health Building and athletic fields.
The career and technical education program makes use of various technology classrooms outside of Alexander Hall. Meaningful field experiences are a part of each of the certification programs.

### Adolescent Education

#### Health and Physical Education/ P-12 Certification

**Bachelor of Arts/Bachelor of Science Degree**  
CIP 13.1307

**ACCRREDITED BY:**  
National Council for Accreditation of Teacher Education (NCATE); Kentucky Education Professional Standards Board

**University Studies Requirements** .................... **41-45 hrs**  
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

- **Scientific Inquiry, Methodologies and Quantitative Skills:**  
  - BIO 101 Biological Concepts

- **Social and Self-Awareness and Responsible Citizenship:**  
  - EDU 103 Issues and Practices of American Education

- **University Studies Electives:**  
  - CSC 199 Introduction to Information Technology
  - EDP 260 Psychology of Human Development

**Note:** Certification also requires a grade of B or better in one English composition course and a grade of C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor or Office of Teacher Education Services for details.

**Required Courses** ........................................**54 hrs**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXS 385</td>
<td>Sport and Exercise Psychology</td>
</tr>
<tr>
<td>EXS 540</td>
<td>Applied Sport and Exercise Psychology</td>
</tr>
<tr>
<td>HEA 195</td>
<td>First Aid and Safety</td>
</tr>
<tr>
<td>HEA 200</td>
<td>Community and Consumer Health</td>
</tr>
<tr>
<td>HPE 175</td>
<td>Foundations of Health and Physical Education</td>
</tr>
<tr>
<td>HPE 409</td>
<td>Evaluation and Assessment in Health and Physical Education</td>
</tr>
<tr>
<td>HPE 450</td>
<td>Teaching Strategies in Health Education</td>
</tr>
<tr>
<td>HPE 460</td>
<td>Teaching Strategies in Sex Education</td>
</tr>
<tr>
<td>HPE 470</td>
<td>Teaching Substance Abuse Education</td>
</tr>
<tr>
<td>NTTN 230</td>
<td>Nutrition</td>
</tr>
<tr>
<td>PHE 205</td>
<td>Lifetime Activities</td>
</tr>
<tr>
<td>PHE 206</td>
<td>Team Sports</td>
</tr>
<tr>
<td>PHE 306</td>
<td>Dance and Gymnastics</td>
</tr>
<tr>
<td>PHE 304</td>
<td>Adapted Physical Education</td>
</tr>
<tr>
<td>PHE 330</td>
<td>Movement Concepts and Skill Themes</td>
</tr>
<tr>
<td>PHE 375</td>
<td>Movement Analysis for Physical Educators</td>
</tr>
<tr>
<td>PHE 400</td>
<td>Teaching Physical Education in Elementary Schools</td>
</tr>
<tr>
<td>PHE 405</td>
<td>Physiology of Exercise and Fitness</td>
</tr>
<tr>
<td>PHE 459</td>
<td>Teaching Health and Physical Education</td>
</tr>
</tbody>
</table>

**Required for Teacher Certification** ........................... **25 hrs**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 099</td>
<td>Transitions</td>
</tr>
<tr>
<td>EDU 303</td>
<td>Strategies of Teaching</td>
</tr>
<tr>
<td>EDU 403</td>
<td>Structures and Foundations of Education</td>
</tr>
<tr>
<td>EDU 422</td>
<td>Student Teaching Seminar</td>
</tr>
<tr>
<td>ELE 421</td>
<td>Student Teaching Elementary P-5, IECE</td>
</tr>
<tr>
<td>SEC 420</td>
<td>Practicum in Secondary Schools</td>
</tr>
</tbody>
</table>

**Total Curriculum Requirements** ................................**120-124 hrs**

1With a grade of C or better.

**Health and Physical Education Minor** .................... **21 hrs**

HPE 175, 409; PHE 205, 206 and nine hours of HPE, PHE or other pre-approved electives. Six hours must be above 300-level courses completed in residence at Murray State University.

### Middle School Education/5-9 Certification

**Bachelor of Science/Bachelor of Arts Degree**  
CIP 13.1203

**ACCRREDITED BY:**  
National Council for Accreditation of Teacher Education (NCATE); Kentucky Education Professional Standards Board

**University Studies Requirements** .................... **41-47 hrs**  
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

- **University Studies Electives:**  
  - CSC 199 Introduction to Information Technology
  - EDP 260 Psychology of Human Development
  - EDU 103 Issues and Practices of American Education

**Note:** Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

**Required Courses for Certification** .................... **41 hrs**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 099</td>
<td>Transitions</td>
</tr>
<tr>
<td>EDU 303</td>
<td>Strategies of Teaching</td>
</tr>
<tr>
<td>EDU 403</td>
<td>Structures and Foundations of Education</td>
</tr>
<tr>
<td>EDU 404</td>
<td>Teaching Environmental Education K-12</td>
</tr>
<tr>
<td>EDU 405</td>
<td>Evaluation and Measurement in Education</td>
</tr>
<tr>
<td>EDU 422</td>
<td>Student Teaching Seminar</td>
</tr>
<tr>
<td>MID 270</td>
<td>Teaching and Learning in the Middle Grades</td>
</tr>
<tr>
<td>MID 307</td>
<td>Middle School Language Arts</td>
</tr>
<tr>
<td>MID 380</td>
<td>Middle School Practicum</td>
</tr>
<tr>
<td>MID 421</td>
<td>Middle School Student Teaching</td>
</tr>
<tr>
<td>REA 407</td>
<td>Middle School Reading</td>
</tr>
<tr>
<td>SED 300</td>
<td>Educating Students with Disabilities</td>
</tr>
</tbody>
</table>

**and one of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MID 370</td>
<td>Laboratory in Teaching English and Communications: Middle School</td>
</tr>
<tr>
<td>MID 371</td>
<td>Laboratory in Teaching Mathematics: Middle School</td>
</tr>
<tr>
<td>MID 372</td>
<td>Laboratory in Teaching Science: Middle School</td>
</tr>
<tr>
<td>MID 373</td>
<td>Laboratory in Teaching Social Studies: Middle School</td>
</tr>
</tbody>
</table>

Students must select one academic specialization field from the following:

**English and Communication Field**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 221</td>
<td>Introduction to English Studies</td>
</tr>
</tbody>
</table>
ENG 228 Standard English Usage
ENG 310 Introduction to English Linguistics
ENG 425 Teaching Literature, Writing and Grammar in Middle Schools

and

One of the following:
ENG 204 Advanced Expository Writing
ENG 214 Introduction to Creative Writing
ENG 224 Writing in the Profession

Three courses as listed below:
One of the following:
ENG 303 British Literature to 1760
ENG 304 British Literature, 1760 to the Present
One of the following:
ENG 307 World Literature to 1830
ENG 308 World Literature 1830 to the Present
One of the following:
ENG 311 American Literature to 1890
ENG 312 American Literature, 1890 to the Present

Mathematics Field
MAT 115 Mathematics for Middle and Elementary Teachers I
MAT 117 Mathematical Concepts
MAT 135 Introduction to Probability and Statistics
MAT 215 Mathematics for Middle and Elementary Teachers II
MAT 250 Calculus and Analytical Geometry I
MAT 305 Intermediate Geometry
MAT 399 Sets, Logic and Functions

Choose between the following:
MAT 140 College Algebra

and

MAT 145 Trigonometry

or

MAT 150 Algebra and Trigonometry

Science Field
AST 115/116 Introductory Astronomy/Laboratory
BIO 101 Biological Concepts
BIO 216 Biological Inquiry and Analysis
CHE 105 Introductory Chemistry I
GSC 101 The Earth and the Environment
GSC 125 Weather and Climate
PHY 125/126 Brief Introductory Physics/Laboratory

Social Studies Field
CIV 201 World Civilizations I
CIV 202 World Civilizations II
ECO 230 Principles of Macroeconomics
ECO 231 Principles of Microeconomics
GSC 110 World Geography
HIS 221 American Experience to 1865
HIS 222 American Experience since 1865
POL 140 American National Government
SOC 133 Introduction to Sociology

and six hours from the following:
HIS 301 Ancient History to the Fall of Rome
HIS 302 Medieval Europe
HIS 306 Europe in Renaissance and Reformation
HIS 350 History of Latin America
HIS 430 Colonial America to 1763
HIS 431 America in Revolution
HIS 446 History of Kentucky

Restricted Electives

Must have prior approval of advisor and may include or enhance academic specialization.

Total Curriculum Requirements

120-122 hrs

1 With a grade of C or better.
2 EDU 404 must be taken with MID 307.
3 MID 380 must be taken with either MID 370, MID 371, MID 372 or MID 373.
4 Academic specialization coursework may include University Studies requirements.
5 Substitutions can only be made with prior approval by advisor in the department concerned.

AREA:
Middle School Education/5-9 Certification

Bachelor of Science/Bachelor of Arts Degree
CIP 13.1203

ACCREDITED BY:
National Council for Accreditation of Teacher Education (NCATE);
Kentucky Education Professional Standards Board

NOTE: Students are advised requirements may change after publication of this bulletin. Students should check with an advisor in this department.

-TWO ACADEMIC SPECIALIZATIONS-

University Studies Requirements

41-47 hrs

(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• University Studies Electives:
  CSC 199 Introduction to Information Technology
  EDP 260 Psychology of Human Development
  EDU 103 Issues and Practices of American Education

Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Required Courses for Certification

42 hrs

EDU 099 Transitions
EDU 303 Strategies of Teaching
EDU 403 Structures and Foundations of Education
EDU 404 Teaching Environmental Education K-12
EDU 405 Evaluation and Measurement in Education
EDU 422 Student Teaching Seminar
MID 270 Teaching and Learning in the Middle Grades
MID 307 Middle School Language Arts
MID 421 Middle School Student Teaching
REA 407 Middle School Reading
SED 300 Educating Students with Disabilities

and two of the following:

MID 370 Laboratory in Teaching English and Communications: Middle School
MID 371 Laboratory in Teaching Mathematics: Middle School
MID 372 Laboratory in Teaching Science: Middle School
MID 373 Laboratory in Teaching Social Studies: Middle School
Students must select two academic specialization fields from the following:  

**English and Communication Field**
- ENG 221 Introduction to English Studies  
- ENG 228 Standard English Usage  
- ENG 310 Introduction to English Linguistics  
- ENG 425 Teaching Literature, Writing and Grammar in Middle Schools  

*One of the following:*
- ENG 204 Advanced Expository Writing  
- ENG 214 Introduction to Creative Writing  
- ENG 224 Writing in the Professions  

*Three courses as listed below:*
*One of the following:*
- ENG 303 British Literature to 1760  
- ENG 304 British Literature, 1760 to the Present  

*One of the following:*
- ENG 307 World Literature to 1830  
- ENG 308 World Literature 1830 to the Present  

*One of the following:*
- ENG 311 American Literature to 1890  
- ENG 312 American Literature, 1890 to the Present  

**Mathematics Field**
- MAT 115 Mathematics for Middle and Elementary Teachers I  
- MAT 135 Introduction to Probability and Statistics  
- MAT 215 Mathematics for Middle and Elementary Teachers II  
- MAT 250 Calculus and Analytical Geometry I  
- MAT 305 Intermediate Geometry  
- MAT 399 Sets, Logic and Functions  

*Choose between the following:*
*MAT 140 College Algebra  
and  MAT 145 Trigonometry  
or  MAT 150 Algebra and Trigonometry*  

**Science Field**
- AST 115/116 Introductory Astronomy/Laboratory  
- BIO 101 Biological Concepts  
- BIO 216 Biological Inquiry and Analysis  
- CHE 105 Introductory Chemistry I  
- GSC 101 The Earth and the Environment  
- GSC 125 Weather and Climate  
- PHY 125/126 Brief Introductory Physics/Laboratory  

**Social Studies Field**
- CIV 201 World Civilizations I  
- CIV 202 World Civilizations II  
- ECO 230 Principles of Macroeconomics  
- ECO 231 Principles of Microeconomics  
- GSC 110 World Geography  
- HIS 221 American Experience to 1865  
- HIS 222 American Experience since 1865  
- POL 140 American National Government  
- SOC 133 Introduction to Sociology  

*and six hours from the following:*
- HIS 301 Ancient History to the Fall of Rome  
- HIS 302 Medieval Europe  
- HIS 306 Europe in Renaissance and Reformation  
- HIS 350 History of Latin America  
- HIS 430 Colonial America to 1763  

**College of Education**

HIS 431 America in Revolution  
HIS 446 History of Kentucky  

**Total Curriculum Requirements** 127-147 hrs  

With a grade of C or better.  
EDU 404 must be taken with MID 307.  
Academic specialization coursework may include University Studies requirements.  
Substitutions can only be made with prior approval by advisor in the department concerned.

**CERTIFICATION:**  

Secondary School Teacher (Grades 8-12)

**University Studies Requirements** 43-49 hrs  
(See Chapter 5, University Studies Requirements)

University Studies selections must include:  

- **University Studies Approved Elective:**  
  - CSC 199 Introduction to Information Technology  
  - Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

**Required Courses for Certification** 32-41 hrs

- COM 372 Communication in Educational Environments  
- EDP 260 Psychology of Human Development  
- EDU 103 Issues and Practices of American Education  
- EDU 303 Strategies of Teaching  
- EDU 404 Professional Experience in Education  
- EDU 405 Evaluation and Measurement in Education  
- EDU 422 Student Teaching Seminar  
- REA 527 Teaching Reading in the Secondary School  
- SEC 421 Student Teaching in the Secondary School  
- SED 300 Educating Students with Disabilities  

**Total Curriculum Requirements** 123-146 hrs

With a grade of C or better.  
Students in some teaching fields may be required to take a methods course in that discipline instead of EDU 303. Check with advisor or consult with department chair for specific information.

Not required for English Education.  
Required for English Education only.  
See individual programs regarding this requirement.  
These courses may be used for University Studies Requirements.  
Note: The Kentucky Education Professional Standards Board has restrictions on the combinations of majors one may select for certification to teach in high school. Students should check with their education advisors to ensure their selections are certifiable by the state. Teachers may no longer use a minor to get additional certifications.

**Athletic Coaching Minor** 22 hrs

- EXS 385 or 540 or PSY 222 or SOC 436; PHE 310, 375 and 405; and 10 hours from the following including at least four hours of 400-level courses: PHE 285, 289, 312, 314, 316, 318, 319, 412, 414, 416, 418. Six hours must be upper-level courses completed in residence at Murray State University.
Social Science Minor (recommended)................................. 24 hrs
Open only to majors in economics, geography, history, or political science who seek secondary certification in social studies. ECO 231, GSC 110, HIS 221, 222, POL 140, SOC 133; and six hours of upper level courses (300 or above) from the social science disciplines with approval of advisor. Courses required for a major may not be counted toward the minor; substitutions must be from a social science discipline other than the major and be approved by the advisor; and requirements for certification for teaching secondary school social studies, grades 8 through 12 through the College of Education must also be met.

Career Education

AREA:
Career and Technical Education/Business and Marketing Education/5-12 Certification

Bachelor of Arts/Bachelor of Science Degree
CIP 13.1399.08

ACCREDITED BY:
National Council for Accreditation of Teacher Education (NCATE); Kentucky Education Professional Standards Board

University Studies Requirements ........................................... 43 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies and Quantitative Skills:
  MAT 135 Introduction to Probability and Statistics
  MAT 140 College Algebra
• Social and Self-Awareness and Responsible Citizenship:
  EDP 260 Psychology of Human Development
• University Studies Approved Electives:
  CSC 199 Introduction to Information Technology¹
  ECO 230 Principles of Macroeconomics
  ECO 231 Principles of Microeconomics

Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Professional Education Courses ........................................... 45 hrs
BED 510 Methods and Materials in Teaching
   Business and Marketing Subjects
or
EDU 303 Strategies of Teaching
CTE 200 Introduction to Career and Technical Education
CTE 501 Structures and Foundations of CTE
CTE 502 Assessment and Curricula in Career and Technical Education
CTE 503 Planning and Implementing Instruction in CTE
EDU 099 Transitions
EDU 405 Evaluation and Measurement in Education
EDU 422 Student Teaching Seminar
HEA 195 First Aid and Safety
MID 270 Teaching and Learning in the Middle Grades
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Support Courses ............................................................ 30 hrs
ACC 200 Principles of Financial Accounting
ACC 201 Principles of Managerial Accounting
BPA 215 Business Communications
CSC 125 Internet and Web Page Design
FIN 330 Principles of Finance
JMC 394 Introduction to Advertising²
LST 240 Legal Environment of Business
MGT 350 Fundamentals of Management
MKT 285 Emerging Technologies in Marketing
MKT 360 Principles of Marketing
MKT 361 Selling and Sales Management²
MKT 369 Retailing Management²

Approved Electives .......................................................... 2 hrs

Total Curriculum Requirements ........................................... 120 hrs
¹With a grade of C or better.
²Choose either JMC 394, MKT 361, or MKT 369.

AREA:
Career and Technical Education/Family and Consumer Sciences Education/5-12 Certification

Bachelor of Science Degree
CIP 13.1399.08

ACCREDITED BY:
National Council for Accreditation of Teacher Education (NCATE); Kentucky Education Professional Standards Board

University Studies Requirements ........................................... 42 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies and Quantitative Skills:
  BIO 101 Biological Concepts
  CHE 101 Consumer Chemistry
  MAT 117 Mathematical Concepts
• Social and Self-Awareness and Responsible Citizenship:
  EDP 260 Psychology of Human Development
• University Studies Approved Elective:
  CSC 199 Introduction to Information Technology¹

Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Professional Education Courses ........................................... 42 hrs
CTE 200 Introduction to Career and Technical Education
CTE 501 Structures and Foundations of CTE
CTE 502 Assessment and Curricula in Career and Technical Education
CTE 503 Planning and Implementing Instruction in CTE
EDU 099 Transitions
EDU 405 Evaluation and Measurement in Education
EDU 422 Student Teaching Seminar
FCS 462 Methods of Teaching Family and Consumer Sciences
HEA 195 First Aid and Safety
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
College of Education

SED 300 Education of Students with Disabilities

Support Courses .......................................................... 39 hrs
FCS 210 Child Development I
FCS 211 Child Development II
FCS 361 Programs in Vocational Family and Consumer Sciences
NTN 231 Principles of Food Science and Preparation
Six hours from the following:
FCS 111 Family and Its Environment
FCS 413 Marriage and Family Relationships
FCS 527 Parenting
Six hours from the following:
FCS 241 Family Economics
FCS 342 Consumer Decision Making
FCS 441 Family Resource Management
FIN 230 Personal Financial Planning
MGT 350 Fundamentals of Management
Six hours from the following:
HEA 191 Personal Health
NTN 230 Nutrition
NTN 412 Community Nutrition and Health
Three hours from the following:
ITD 351 Textiles for Interior Design
Three hours from the following:
FCS 121 Basic Clothing Construction
FCS 125 Apparel Quality Analysis
Three hours from the following:
ITD 221 Design in the Near Environment
ITD 251 Equipment
ITD 253 Interior Design Studio I

Total Curriculum Requirements .................................. 125 hrs

Family and Consumer Studies Minor .............................. 21 hrs
A student must complete 21 hours in family and consumer studies in consultation with a faculty advisor in the area of interest. Six hours must be upper-level courses completed in residence at Murray State University.

AREA: Career and Technical Education/Industrial Education/5-12 Certification

Bachelor of Science Degree
CIP 13.1399.08

ACCREDITED BY:
National Council for Accreditation of Teacher Education (NCATE); Kentucky Education Professional Standards Board

University Studies Requirements .............................. 41-46 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Social and Self-Awareness and Responsible Citizenship:
EDP 260 Psychology of Human Development
• University Studies Approved Electives:
CSC 199 Introduction to Information Technology
Note: Certification requires a grade of B or better or in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Professional Education Courses ............................ 32 hrs
CTE 200 Introduction to Career and Technical Education
CTE 501 Structures and Foundation of CTE
CTE 502 Assessment and Curricula in Career and Technical Education
CTE 503 Planning and Implementing Instruction in CTE
EDU 099 Transitions
HEA 195 First Aid and Safety
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Limited Technical Electives .................................... 36 hrs
Approved by advisor.

Support Courses .......................................................... 12 hrs
Approved by advisor.

Total Curriculum Requirements .................................. 121-126 hrs

1With a grade of C or better.

Note: Teacher certification allows substitution of CTE 463 and 10 hours advisor approved teacher education support courses for in-service teachers with four years teaching experience who are seeking certification in-service.

Area:
Career and Technical Education/Engineering and Technology Education/5-12 Certification

Bachelor of Science Degree
CIP 13.1399.08

ACCREDITED BY:
National Council for Accreditation of Teacher Education (NCATE); Kentucky Education Professional Standards Board

University Studies Requirements .............................. 43-45 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies and Quantitative Skills:
MAT 150 Algebra and Trigonometry
PHY 130 General Physics I
PHY 131 General Physics I Laboratory
• Social and Self-Awareness and Responsible Citizenship:
EDP 260 Psychology of Human Development
• University Studies Approved Electives:
CSC 199 Introduction to Information Technology
Note: Certification requires a grade of B or better or in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Professional Education Courses ............................ 45 hrs
CTE 200 Introduction to Career and Technical Education
CTE 501 Structures and Foundations of CTE
CTE 502 Assessment and Curricula in Career and Technical Education
CTE 503 Planning and Implementing Instruction in CTE

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College of Education

Special Education

AREA:
Learning and Behavior Disorders/
Elementary Emphasis

Bachelor of Science/Bachelor of Arts Degree
CIP 13.1001

ACCREDITED BY:
National Council for Accreditation of Teacher Education (NCATE); Kentucky Education Professional Standards Board

Note: Students must be admitted to Teacher Education by the time they complete nine semester hours of professional education.

University Studies Requirements ...............41-46 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Social and Self-Awareness and Responsible Citizenship:
  PSY 180 General Psychology
• University Studies Electives:
  CSC 199 Introduction to Information Technology
  EDP 260 Psychology of Human Development
  EDU 103 Issues and Practices of American Education

Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Required Courses ...........................................................61 hrs
ART 343 Art Materials and Techniques for the Classroom Teacher
CDI 205 Introduction to Communication Disorders
EDU 404 Teaching Environmental Education K-12
ELE 304 Teaching Mathematics in Elementary P-5
ELE 305 Children’s Literature
ELE 307 Teaching Language Arts in Elementary P-5
ELE 390 Introduction to Kindergarten
ELE 401 Teaching Social Studies in Elementary P-5
ELE 402 Teaching Science in Elementary P-5
MAT 115 Mathematics for Middle and Elementary Teachers I
MAT 215 Mathematics for Middle and Elementary Teachers II
MID 270 Teaching and Learning in the Middle Grades
REA 306 Teaching Reading in Elementary P-5
SED 350 Roles and Procedures in Special Education
SED 400 Characteristics of Students with Mild Disabilities
SED 408 Functional Behavior Analysis
SED 409 Instructional Procedures-Students with MSD
SED 425 Specialized Reading for Students with Mild Disabilities
SED 443 Curriculum and Instruction for Children and Youth with Mild Disabilities
SED 455 Practicum
SED 537 Diagnostic Methods

Professional Education Courses ..........................24 hrs
EDU 099 Transitions
EDU 303 Strategies of Teaching
EDU 422 Student Teaching Seminar
ELE 421 Student Teaching Elementary P-5, IECE
College of Education

SED 300 Educating Students with Disabilities
SED 421 Student Teaching in Special Education

**Total Curriculum Requirements .......................126-131 hrs**

With a grade of C or better.

**AREA: Learning and Behavior Disorders/ Middle School Emphasis**

Bachelor of Science/Bachelor of Arts Degree
CIP 13.1001

ACCREDITED BY:
National Council for Accreditation of Teacher Education (NCATE); Kentucky Education Professional Standards Board

**University Studies Requirements .......................41-46 hrs**
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• *Social and Self-Awareness and Responsible Citizenship:*
  PSY 180 General Psychology
• *University Studies Electives:*
  CSC 199 Introduction to Information Technology
  EDP 260 Psychology of Human Development
  EDU 103 Issues and Practices of American Education

*Note:* Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

**Required Courses ..................................................54 hrs**
CDI 205 Introduction to Communication Disorders
EDU 404 Teaching Environmental Education
ELE 304 Teaching Mathematics in Elementary P-5
ELE 401 Teaching Social Studies in Elementary P-5
ELE 402 Teaching Science in Elementary P-5
MAT 115 Mathematics for Middle and Elementary Teachers I
MAT 125 Mathematics for Middle and Elementary Teachers II
MID 270 Teaching and Learning in the Middle Grades
MID 307 Middle School Language Arts
REA 407 Middle School Reading
SED 350 Roles and Procedures in Special Education
SED 400 Instructional Procedures-Students with MSD
SED 408 Functional Behavior Analysis
SED 409 Instructional Procedures-Students with MSD
SED 425 Specialized Reading for Students with Mild Disabilities
SED 443 Curriculum and Instruction for Children and Youth with Mild Disabilities
SED 455 Practicum
SED 537 Diagnostic Methods
*one of the following according to academic area:*
  MID 370 Laboratory in Teaching English and Communications
  MID 371 Laboratory in Teaching Mathematics
  MID 372 Laboratory in Teaching Science
  MID 373 Laboratory in Social Studies

**Professional Education Courses ..................................24 hrs**
EDU 099 Transitions
EDU 303 Strategies of Teaching
EDU 422 Student Teaching Seminar

SED 300 Educating Students with Disabilities
SED 421 Student Teaching in Special Education

Students must select one of the following academic specialization fields.

**English and Communication Field**
ENG 221 Introduction to English Studies
ENG 228 Standard English Usage
ENG 310 Introduction to English Linguistics
ENG 425 Teaching Literature, Writing and Grammar in Middle Schools

*and*

*One of the following:*
ENG 204 Advanced Expository Writing
ENG 214 Introduction to Creative Writing
ENG 224 Writing in the Professions

**Three courses as listed below:**
*One of the following:*
ENG 303 British Literature to 1760
ENG 304 British Literature, 1760 to the Present

*One of the following:*
ENG 307 World Literature to 1830
ENG 308 World Literature 1830 to the Present

*Choose between the following:*
MAT 140 College Algebra

*and*
MAT 145 Trigonometry

*or*
MAT 150 Algebra and Trigonometry

**Mathematics Field**
MAT 115 Mathematics for Middle and Elementary Teachers I
MAT 135 Introduction to Probability and Statistics
MAT 215 Mathematics for Middle and Elementary Teachers II
MAT 250 Calculus and Analytical Geometry I
MAT 305 Intermediate Geometry
MAT 399 Sets, Logic and Functions
*MAT 400 Probability and Statistics*  
*Choose between the following:*
MAT 140 College Algebra

*and*
MAT 145 Trigonometry

*or*
MAT 150 Algebra and Trigonometry

**Science Field**
AST 115/116 Introductory Astronomy/Laboratory
BIO 101 Biological Concepts
BIO 216 Biological Inquiry and Analysis
CHE 105 Introductory Chemistry I
GSC 101 The Earth and the Environment
GSC 125 Weather and Climate
PHY 125/126 Brief Introductory Physics/Laboratory

**Social Studies Field**
CIV 201 World Civilizations I
CIV 202 World Civilizations II
ECO 230 Principles of Macroeconomics
ECO 231 Principles of Microeconomics
GSC 110 World Geography
HIS 221 American Experience to 1865
HIS 222 American Experience since 1865
POL 140 American National Government
SOC 133 Introduction to Sociology
and six hours from the following:

HIS 301 Ancient History to the Fall of Rome
HIS 302 Medieval Europe
HIS 306 Europe in Renaissance and Reformation
HIS 350 History of Latin America
HIS 430 Colonial America to 1763
HIS 431 America in Revolution
HIS 446 History of Kentucky

Total Curriculum Requirements ...................... 135-158 hrs

1With a grade of C or better.
2EDU 404 must be taken with MID 307.
3Academic specialization coursework may include University Studies requirements.
4Substitutions can only be made with prior approval by advisor in the department concerned.

General Special Education Minor ..................... 21 hrs
Non-teaching minor. Minors are individualized. Please see your advisor. Six hours of the minor must be upper-level courses completed in residence at Murray State University.

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**Department of Early Childhood and Elementary Education**

3201 Alexander Hall  
270-809-2500

**Chair:** Jo Robertson. **Faculty:** Edington, Gichuru, Gierhart, Gill, Hansen, Howell, Islam, Koren, Park, Patterson, Riley, Shatzer.

The Department of Early Childhood and Elementary Education prepares early childhood and elementary school teachers. Students completing one of the programs of study will be certified to apply to teach in an early childhood setting or in an elementary school. The programs are accredited by the National Council for Accreditation of Teacher Education (NCATE) and the Kentucky Education Professional Standards Board.

The interdisciplinary early childhood education program prepares graduates to provide early intervention, care and educational services for infants, toddlers, preschool and kindergarten children with and without disabilities and their families. The program includes courses in special education, child development and professional development. Center-based programs and public schools provide professional experiences for program participants.

The elementary education program prepares students to teach in elementary schools, kindergarten through fifth grade. Students are educated and certified to teach all regular subject matter areas to children in those grades. The four-year preparation program includes courses in University Studies, professional education, and an academic emphasis area. Students interact with children in local schools during the professional education courses taken each year of the program.

In addition to undergraduate degrees the Department of Early Childhood and Elementary Education offers graduate degrees and Rank I programs are also available. See the Graduate Bulletin for information regarding graduate programs.

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**AREA:**

**Elementary Education (Grades P-5)**

Bachelor of Arts Degree  
CIP 13.1202

**ACCREDITED BY:**
National Council for Accreditation of Teacher Education (NCATE); Kentucky Education Professional Standards Board

**University Studies Requirements .................... 44-46 hrs**
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• **Global Awareness, Cultural Diversity and the World’s Artistic Traditions:**
  GSC 110 World Geography
• **Scientific Inquiry, Methodologies and Quantitative Skills:**
  BIO 101 Biological Concepts
  or
  MAT 140 College Algebra
• **Social and Self-Awareness and Responsible Citizenship:**
  EDP 260 Psychology of Human Development
  PHI 202 Ethics
• **World’s Historical, Literary, and Philosophical Traditions:**
  CIV 202 World Civilizations II
  or
  HIS 221 American Experience to 1865
  or
  HIS 222 American Experience since 1865
• **University Studies Electives:**
  CSC 199 Introduction to Information Technology1
  EDU 103 Issues and Practices of American Education
  or
  EDU 104 Exploration of Teaching

**Note:** Admission to the teacher education program also requires a grade of B or better in one English composition course plus a grade of C or better in a University Studies math course, COM 161 and EDU 103 or EDU 104. Additional requirements for admission to teacher education and student teaching must be met. After completing 60 credit hours of undergraduate coursework, students may take no more than 12 credit hours of education courses before being admitted to the teacher education program. See advisor for information.

**Professional Education ......................... 28 hrs**

- EDU 099 Transitions
- EDU 303 Strategies of Teaching
- EDU 403 Structures and Foundations of Education1
- EDU 405 Evaluation and Measurement in Education1
- EDU 422 Student Teaching Seminar1
- ELE 421 Student Teaching in Elementary P-5, IECE
- ELE 422 Student Teaching Seminar1
- ELE 423 Student Teaching in Elementary P-5, IECE
- SED 300 Educating Students with Disabilities

**Elementary Education Courses .................. 28 hrs**

- EDU 400 Practicum in Teaching Mathematics1
- EDU 404 Teaching Environmental Education1
- ELE 304 Teaching Mathematics in Elementary P-5
- ELE 305 Children’s Literature
- ELE 307 Teaching Language Arts in Elementary P-5
- ELE 390 Introduction to Kindergarten
- ELE 401 Teaching Social Studies in Elementary P-5
- ELE 402 Teaching Science in Elementary P-51
- REA 306 Teaching Reading in Elementary P-5
- REA 412 Practicum in Reading Instruction P-51

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Related Education Courses ............................................ 16 hrs
ART 343 Art Materials and Techniques
for the Classroom Teacher
ELE 311 Health, Wellness, and Movement
MAT 115 Mathematics for Middle and Elementary Teachers I
MAT 215 Mathematics for Middle and Elementary Teachers II
MUS 200 Public School Music I
MUS 300 Public School Music II

Academic Emphasis .................................................... 12-16 hrs
Each student must complete one area of academic emphasis by
completing one set of required courses listed below. A minimum of
12 hours is required to complete the emphasis area. Courses may
not replicate those taken to meet university studies requirements.

English/Communication
ENG 204 Advanced Expository Writing
ENG 214 Introduction to Creative Writing
ENG 310 Introduction to English Linguistics
literature course (3 hrs)

Fine Arts/Humanities
ENG 201 Appreciation of Literature
HUM 215 Humanities in the Contemporary World: Border
   Crossings
THD 104 The Theatrical Experience
THD 220 Creative Dramatics

Foreign Language
Choose four courses in one language.
French:
FRE 101 Fundamental Communications in French
FRE 102 Social Interactions in French
FRE 201 Intercultural Communications in French
FRE 202 Practical Applications in French
FRE 301 Social Issues in French Texts
FRE 331 Advanced Language Practice
Or appropriate courses as determined by placement
examination.
German:
GER 101 Fundamental Communications in German
GER 102 Social Interactions in German
GER 201 Intercultural Communications in German
GER 202 Practical Applications in German
GER 301 Social Issues in German Texts
GER 331 Advanced Language Practice
Or appropriate courses as determined by placement
examination.
Spanish:
SPA 101 Fundamental Communications in Spanish
SPA 102 Social Interactions in Spanish
SPA 201 Intercultural Communications in Spanish
SPA 202 Practical Applications in Spanish
SPA 301 Conversation and Composition I
SPA 302 Conversation and Composition II
Or appropriate courses as determined by placement
examination.

Mathematics
CSC 101 Introduction to Problem Solving Using Computers
MAT 135 Introduction to Probability and Statistics
MAT 140 College Algebra
MAT 145 Trigonometry
MAT 305 Intermediate Geometry

Science
BIO 216 Biological Inquiry and Analysis
CHE 105 Introductory Chemistry I
   and
Two AST, GSC, PHY electives not used to meet University Studies
requirements. These choices should have different prefixes.

Social/Behavioral Studies
ECO 140 Contemporary Economics
HIS 446 History of Kentucky (or approved substitute)¹
   and two of the following not used to meet University Studies
   requirements:
   HIS 221 American Experience to 1865
   HIS 222 American Experience Since 1865
   POL 140 American National Government
   PSY 180 General Psychology

Multidisciplinary Studies
Choose one course from four different subject areas:

English/Communications
ENG 204 Advanced Expository Writing
ENG 214 Introduction to Creative Writing
ENG 310 Introduction to English Linguistics

Fine Arts/Humanities
ENG 201 Appreciation of Literature
HUM 215 Humanities in the Contemporary World: Border
   Crossings

Foreign Language
Choose four courses in one language.
French:
FRE 101 Fundamental Communications in French
FRE 102 Social Interactions in French
FRE 201 Intercultural Communications in French
FRE 202 Practical Applications in French
FRE 301 Social Issues in French Texts
FRE 331 Advanced Language Practice
Or appropriate courses as determined by placement
examination.
German:
GER 101 Fundamental Communications in German
GER 102 Social Interactions in German
GER 201 Intercultural Communications in German
GER 202 Practical Applications in German
GER 301 Social Issues in German Texts
GER 331 Advanced Language Practice
Or appropriate courses as determined by placement
examination.
Spanish:
SPA 101 Fundamental Communications in Spanish
SPA 102 Social Interactions in Spanish
SPA 201 Intercultural Communications in Spanish
SPA 202 Practical Applications in Spanish
SPA 301 Conversation and Composition I
SPA 302 Conversation and Composition II
Or appropriate courses as determined by placement
examination.

Mathematics
CSC 101 Introduction to Problem Solving Using Computers
MAT 135 Introduction to Probability and Statistics
MAT 140 College Algebra
MAT 145 Trigonometry
MAT 250 Calculus and Analytic Geometry I
MAT 305 Intermediate Geometry

Science
BIO 216 Biological Inquiry and Analysis
CHE 105 Introductory Chemistry I
   and
Two AST, GSC, PHY electives not used to meet University Studies
requirements. These choices should have different prefixes.

Total Curriculum Requirements ............................... 128-134 hrs
¹Admission to Teacher Education required.
²If HIS 446 is not available during the required semester, HIS
   434, 441, or 442 or another 400-level course may be substituted
   with advisor approval.
AREA:
Elementary Education (Grades P-5)

Bachelor of Science Degree
CIP 13.1202

ACCREDITED BY:
National Council for Accreditation of Teacher Education (NCATE); Kentucky Education Professional Standards Board

University Studies Requirements ....................................41-45 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Global Awareness, Cultural Diversity and the World's Artistic Traditions:
  GSC 110 World Geography
• Scientific Inquiry, Methodologies and Quantitative Skills:
  BIO 101 Biological Concepts
  MAT 117 Mathematical Concepts
  or
  MAT 140 College Algebra
  one approved AST, CHE, GSC, or PHY elective
• Social and Self-Awareness and Responsible Citizenship:
  PSY 180 General Psychology
  or
  SOC 133 Introduction to Sociology
  and one of the following
  HIS 221 American Experience to 1865
  HIS 222 American Experience since 1865
• World's Historical, Literary, and Philosophical Traditions:
  CIV 202 World Civilizations II
• University Studies Electives:
  CSC 199 Introduction to Information Technology
  EDP 260 Psychology of Human Development
  EDU 103 Issues and Practices of American Education
  or
  EDU 104 Exploration of Teaching
  Note: Admission to the teacher education program also requires a grade of B or better in one English composition course plus a grade of C or better in a University Studies math course, COM 161 and EDU 103 or EDU 104. Additional requirements for admission to teacher education and student teaching must be met. After completing 60 credit hours of undergraduate coursework, students may take no more than 12 credit hours of education courses before being admitted to the teacher education program. See advisor for information.

Professional Education ..............................................28 hrs
EDU 099 Transitions
EDU 303 Strategies of Teaching
EDU 403 Structures and Foundations of Education
EDU 405 Evaluation and Measurement in Education
EDU 422 Student Teaching Seminar
ELE 421 Student Teaching in Elementary P-5, IECE
SED 300 Educating Students with Disabilities

Elementary Education Courses ......................................28 hrs
EDU 400 Practicum in Teaching Mathematics
EDU 404 Teaching Environmental Education
ELE 304 Teaching Mathematics in Elementary P-5
ELE 305 Children's Literature
ELE 307 Teaching Language Arts in Elementary P-5
ELE 390 Introduction to Kindergarten
ELE 401 Teaching Social Studies in Elementary P-5
ELE 402 Teaching Science in Elementary P-5

Related Education Courses ...........................................16 hrs
ART 343 Art Materials and Techniques for the Classroom Teacher
ELE 311 Health, Wellness, and Movement
MAT 115 Mathematics for Middle and Elementary Teachers I
MAT 215 Mathematics for Middle and Elementary Teachers II
MUS 200 Public School Music I
MUS 300 Public School Music II

Academic Emphasis ....................................................12-16 hrs
Each student must complete one area of academic emphasis by completing one set of required courses listed below. A minimum of 12 hours is required to complete the emphasis area. Courses may not replicate those taken to meet university studies requirements.

English/Communication
ENG 204 Advanced Expository Writing
ENG 214 Introduction to Creative Writing
ENG 310 Introduction to English Linguistics
literature course (3 hrs)

Fine Arts/Humanities
ENG 201 Appreciation of Literature
HUM 215 Humanities in the Contemporary World: Border Crossings
PHI 202 Ethics
THD 220 Creative Dramatics

Foreign Language
Choose four courses in one language.

French:
FRE 101 Fundamental Communications in French
FRE 102 Social Interactions in French
FRE 201 Intercultural Communications in French
FRE 202 Practical Applications in French
FRE 301 Social Issues in French Texts
FRE 331 Advanced Language Practice
Or appropriate courses as determined by placement exam

German:
GER 101 Fundamental Communications in German
GER 102 Social Interactions in German
GER 201 Intercultural Communications in German
GER 202 Practical Applications in German
GER 301 Social Issues in German Texts
GER 331 Advanced Language Practice
Or appropriate courses as determined by placement exam

Spanish:
SPA 101 Fundamental Communications in Spanish
SPA 102 Social Interactions in Spanish
SPA 201 Intercultural Communications in Spanish
SPA 202 Practical Applications in Spanish
SPA 301 Conversation and Composition I
SPA 302 Conversation and Composition II
Or appropriate courses as determined by placement exam

Mathematics
CSC 101 Introduction to Problem Solving Using Computers
MAT 135 Introduction to Probability and Statistics
MAT 140 College Algebra
or
MAT 145 Trigonometry
MAT 305 Intermediate Geometry
AREA:  
Interdisciplinary Early Childhood Education (Birth to Primary)  

Bachelor of Science/Bachelor of Arts Degree  
CIP 13.1210  

ACCREDITED BY:  
National Council for Accreditation of Teacher Education (NCATE); Kentucky Education Professional Standards Board  

University Studies Requirements .........................41-46 hrs  
(See Chapter 5, University Studies Requirements)  

University Studies selections must include:  
• Scientific Inquiry, Methodologies and Quantitative Skills:  
  BIO  101 Biological Concepts  
  MAT  117 Mathematical Concepts (or higher)  
• Global Awareness, Cultural Diversity and the World’s Artistic Traditions:  
  THD  104 The Theatrical Experience  
• Social and Self-Awareness and Responsible Citizenship:  
  EDP  260 Psychology of Human Development  
• University Studies Electives:  
  CSC  199 Introduction to Information Technology  
  PSY  180 General Psychology (B.S. only)  
  SOC  133 Introduction to Sociology  

Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, COM 161, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.  

Professional Studies .............................................. 28 hrs  
ART  343 Art Materials and Techniques  
  for the Classroom Teacher  
EDU  099 Transitions  
EDU  103 Issues and Practices of American Education  
EDU  403 Structures and Foundations of Education  
EDU  422 Student Teaching Seminar1  
ELE  421 Student Teaching in Elementary P-5, IECE  
MUS  200 Public School Music I  

After completing 60 credit hours of undergraduate coursework, students may take no more than 12 credit hours of professional education courses before being admitted to the teacher education program. See advisor for information.  

Interdisciplinary Early Childhood Courses .................. 51 hrs  
CDI  340 Speech and Language Development  
ELE  301 Language and Early Literacy for Early Childhood  
ELE  302 Music and Movement for Young Children  
ELE  308 Teaching Mathematics and Science in Early Childhood  
ELE  390 Introduction to Kindergarten  
ELE  410 Collaboration and Communication in IECE Environments  
ELE  439 Early Childhood Assessment and Program Development  
ELE  455 Curriculum and Methods for Infants and Toddlers  
ELE  474 IECE Practicum  
FCS  210 Child Development I  
FCS  211 Child Development II  
FCS  310 Program Planning for Preschool Children  

Total Curriculum Requirements ..........................125-134 hrs  
1 Admission to Teacher Education required.  
2 If HIS 446 is not available during the required semester, HIS 434, 441, or 442 or another 400-level course may be substituted with advisor approval.
FCS 311 Child Guidance
SED 300 Educating Students with Disabilities
SED 404 Special Education Procedures and Strategies for IECE
SED 409 Instructional Procedures-Students with MSD
SED 526 Education of Young Children with Severe Disabilities

Total Curriculum Requirements ......................... 120-125 hrs

*This course is not a requirement but may be taken as an elective.

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Department of Educational Studies, Leadership and Counseling
3201 Alexander Hall
270-809-2791

Chair: Robert Lyons. Faculty: Bakes, Bloomdahl, Crittenden, Dunham, Herr, Kem, Lyons, Murphy, Novak, Patel, Rose, Xu.

Graduate Programs
The graduate degrees and endorsements are divided into several program areas: (1) School Administration, including School Principal, Supervisor of Instruction, Director of Special Education, Director of Pupil Personnel, and Superintendent; (2) School Counseling, including K-12 School Counselor, School Psychology, and Individual Intellectual Assessment Endorsement; (3) Clinical Mental Health Counseling; (4) Human Development and Leadership; and (5) Gifted and talented. All of these school related programs are NCATE accredited.

School Administration
School Administration offers a Master of Arts and an Education Specialist degree in Educational Administration, as well as several Kentucky administrative endorsements. Endorsements include Postmasters Level I and II Building Principal License, Supervisor of Instruction, Director of Special Education, Director of Pupil Personnel, and Superintendent of Schools. The programs are designed for certified teachers who are interested in leading schools and districts in the state of Kentucky.

Counseling Program - School Counseling and Clinical Mental Health Counseling
There are several options in the Counseling Program including a (1) Master of Arts in School Counseling and (2) Education Specialist with emphasis in School Counseling, Clinical Mental Health Counseling, or School Psychology. There is also non-degree certificates offered that result in a Kentucky Endorsement including: Standard Counseling Certificate and Individual Intellectual Assessment.

School Psychology
We offer two School Psychology training options, both of which lead to certification as a School Psychologist, allowing program completers to work in pre-K to 12 schools. (1) The “6th year” program requires a master’s degree in a related field (e.g., counseling, psychology, communication disorders) as a prerequisite for admission. (2) The Specialist in Education Degree program, unlike the 6th year program, this program does not require a masters degree as a prerequisite for admission. Also included are endorsements including Standard Counseling Certificate, Individual Intellectual Assessment Endorsement, and 6th year program in School Psychology.

Human Development and Leadership
Our program is a 33-hour Master of Science in Human Development and Leadership (HDL) designed to meet the needs of a broad spectrum of human service professionals. The concentration areas include Youth & non-profit Organizations, Public Administration, International Education Administration and College Student Personnel.

Gifted and Talented
This endorsement serves as a specialization area for students who are enrolled in Masters of Arts in Education, or a Rank I program in elementary, middle, or secondary education. You may also complete a 12 hour, stand alone gifted education endorsement specialization for the certification.
College of Health Sciences and Human Services

Susan Muller, Dean    Pam Rice, Assistant Dean
107C Applied Science Building
(270) 809-3590

Department of Occupational Safety and Health............... 78
Department of Social Work, Criminal Justice ................. 80
Department of Occupational Safety and Health and Gerontology
Department of Wellness and Therapeutic Sciences .......... 82

The College of Health Sciences and Human Services offers an array of exemplary accredited practice-based programs designed to prepare students for careers in some of the most important and rapidly growing fields.

Mission

The mission of the college is to produce outstanding professionals in health science and human service disciplines to meet the needs of the region, state, and nation.

The college aims to promote excellence in all programs by offering undergraduate and graduate curricula that are state-of-the-art and responsive to a changing society. Students learn through extensive hands-on training in a variety of clinical, practicum, and internship experiences. Such experiences insure that our students are prepared both academically and experientially for their chosen professions.

Programs

The College of Health Sciences and Human Services is organized into three departments: Occupational Safety and Health; Social Work, Criminal Justice and Gerontology; and Wellness and Therapeutic Sciences.

The Department of Occupational Safety and Health offers a nationally recognized program leading to a bachelor of science degree and master of science degree in occupational safety and health.

The B.S. degree has two options: occupational safety and health and environmental safety and health. The department also offers a technical minor in occupational safety and health.

Both the B.S. and M.S. degree programs are accredited by the Applied Science Accreditation Commission of the Accreditation Board for Engineering and Technology (ASAC/ABET).

The Department of Social Work, Criminal Justice and Gerontology offers the following degrees Bachelor of Social Work (B.S.W.), and a bachelor of arts or science in criminal justice. The department also offers two minors—one in criminal justice and one in social gerontology. Students in the degree programs gain hands-on experience by working in a variety of settings in regional and state agencies.

The B.S.W. degree program is accredited by the Council on Social Work Education.

The Department of Wellness and Therapeutic Sciences offers the following programs dealing with health promotion and therapeutic sciences.

Bachelor degrees are offered in communication disorders and a Master of Science in Speech Language Pathology. These programs operate the Murray State University Speech and Hearing Clinic, which offers a full range of speech language pathology and audiology services to individuals of all ages throughout the western Kentucky area.

Bachelor degrees are offered in exercise science with four options in pre-occupational therapy, pre-physical therapy, pre-physician assistant, and wellness. A bachelor of science degree is also offered in athletic training. This program prepares students to become certified athletic trainers and is accredited by the commission on Accreditation of Athletic Training Education.

A bachelor of science degree is offered in nutrition, dietetics and food management with an options in either dietetics, food management, or nutrition and foods. The graduate Dietetics Internship Program prepares students to become Registered Dietitians (R.D.). These graduate internship hours may then be applied to completion of the Master of Science in Nutrition.

Bachelor degrees are offered in recreation and leisure services with a concentration in outdoor recreation. Graduates of this program are eligible to take the national examination to become Certified Park and Recreation Professionals (C.P.R.P.).

A major and minor in youth and nonprofit leadership is offered through the department's Youth and Nonprofit Leadership program. This program prepares students for leadership and volunteer roles in youth, human service, and nonprofit organizations by developing the whole person—mind, body, and spirit—for service to others.

The following degree programs hold national accreditations: M.S. in speech pathology (Council of Academic Accreditation of the American Speech-Language-Hearing Association); B.S. in athletic training (Commission on Accreditation of Athletic Training Education); and both the undergraduate and graduate programs in Nutrition, Dietetics and Food Management (Commission on Accreditation for Dietetics Education of the American Dietetic Association).

Department of Occupational Safety and Health
157 Collins Center
270-809-2488

Chair: David G. Kraemer. Faculty: Atieh, Begley, Byrd, Fender, Keller, Kraemer, Mason, Morris, Wortham.

The Department of Occupational Safety and Health provides related curriculum offerings at the baccalaureate level. Service courses are offered for individuals majoring in other fields such as business, science, health, psychology, education, and engineering technology. The department also offers a technical minor and a master of science degree. The degree programs are designed to provide the technical and professional knowledge required by individuals pursuing professional careers in accident prevention, loss-control management and supervision, inspection and control of occupational hazards, industrial hygiene or environmental health and safety.
Safety Option
This option is designed to provide the technical and professional knowledge required by individuals pursuing professional careers in accident prevention, loss control management and supervision, inspection and control of occupational hazards, and industrial hygiene.

Environmental Health and Safety Option
This option is designed to provide the technical and professional knowledge required by individuals pursuing professional careers in environmental issues and affairs such as water quality, air quality, and solid and hazardous waste management.

Degree Requirements
Students must earn a grade of C or better in all OSH courses. Any OSH course with a grade below a C must be repeated if needed for graduation requirements.

AREA:
Occupational Safety and Health/
Safety Option

Bachelor of Science
CIP 15.0701

ACCREDITED BY:

University Studies Requirements ........................................ 44 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies and Quantitative Skills:
  BIO 101 Biological Concepts
  CHE 105 Introductory Chemistry I
  MAT 230 Technical Math II
• Social and Self-Awareness and Responsible Citizenship:
  PSY 180 General Psychology
• University Studies Electives:
  CHE 210 Brief Organic Chemistry
  CHE 215 Organic Chemistry Laboratory
  PHY 125 Brief Introductory Physics
  PHY 126 Brief Introductory Physics Lab

Required Core Courses .................................................. 52-53 hrs
CSC 199 Introduction to Information Technology¹
ITD 120 Manufacturing Processes and Materials
MAT 135 Introduction to Probability and Statistics
or
PSY 300 Principles and Methods of Statistical Analysis
MGT 350 Fundamentals of Management
OSH 099 Transitions
OSH 192 Introduction to Occupational Safety and Health
OSH 287 OSHA Standards for General Industry and Construction
OSH 299 Professional Development Seminar I
OSH 310 Fire and Emergency Preparedness Preplanning
OSH 311 Hazardous Materials and Emergency Planning
OSH 320 Environmental and Occupational Health Engineering Technology
OSH 353 Prevention of Musculoskeletal Disorders in the Workplace
OSH 420 Fundamentals of Industrial Hygiene
OSH 425 Physical Agents
OSH 450 Practical Application Lab
OSH 452 Systems Approach to Hazard Control
OSH 488 Cooperative Education/Internship
OSH 550 Safety and Health Program Management and Training
OSH 591 Engineering and Technical Aspects of Safety

Safety Courses .............................................................. 30 hrs
OSH 101 Emergency Medical Training
OSH 384 Construction Safety
OSH 445 Fundamentals of Loss Control
OSH 546 Fundamentals of Risk Control
Technical electives: 14 hrs approved by advisor (chosen from the Technical Electives list below and/or the Environmental Health and Safety Option)

Technical Electives (choose from the following)
CET 310 Anatomy of Buildings
CET 331 Water Quality Technology II
CET 385 Heavy Construction Cost Estimating
or
CET 386 Building Construction Cost Estimating
CET 480 Construction Planning and Management
CET 555 Environmental Regulatory Affairs
CHE 120 Chemical Laboratory Safety
CHE 330 Basic Biochemistry
COM 340 Intercultural Communication
COM 384 Communication Skills for Professionals
COM 439 Conflict and Communication
CRJ 355 Security in Business and Industry
ENG 228 Standard English Usage
MGT 550 Human Resource Management
MGT 555 Training and Development
MGT 575 Labor Management Relations
OSH 301 Product Liability
OSH 371 Professional Internship II
OSH 453 Human Factors in Safety Engineering
OSH 488 Cooperative Education/Internship²
OSH 499 Professional Development Seminar II
OSH 536 Motor Fleet Safety
OSH 571 Problems in Safety and Health
OSH 578 Workshop in Safety and Health
PSY 405 Industrial and Organizational Psychology
SPA 106 Basic Spanish and Culture for Agriculture

Total Curriculum Requirements ........................................ 126-127 hrs
¹CSC 199 can be substituted by another computer related course with advisor's approval.
²May be repeated for a second experience.

AREA:
Occupational Safety and Health/
Environmental Safety and Health Option

Bachelor of Science
CIP 15.0701

ACCREDITED BY:
Applied Science Accreditation Commission of ABET (ASAC/ABET).

University Studies Requirements ..................................... 44 hrs
(See Chapter 5, University Studies Requirements)
University Studies selections must include:
- **Scientific Inquiry, Methodologies and Quantitative Skills:**
  - BIO 101 Biological Concepts
  - CHE 105 Introductory Chemistry I
  - MAT 230 Technical Math II
- **Social and Self-Awareness and Responsible Citizenship:**
  - OSH 320 Environmental and Occupational Health
  - OSH 311 Hazardous Materials and Emergency Planning
  - OSH 299 Professional Development Seminar I
- **Construction:**
  - OSH 287 OSHA Standards for General Industry and
  - OSH 192 Introduction to Occupational Safety and Health
  - OSH 099 Transitions
- **MGT 350 Fundamentals of Management
- PHY 126 Brief Introductory Physics
- PHY 125 Organic Chemistry Laboratory
- CHE 210 Brief Organic Chemistry
- CHE 215 Organic Chemistry Laboratory
- COM 340 Intercultural Communication
- COM 384 Communication Skills for Professionals
- COM 439 Conflict and Communication
- COM 306 Basic Spanish and Culture for Agriculture

**Required Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>CSC 199</td>
<td>Introduction to Information Technology</td>
</tr>
<tr>
<td>ITD 120</td>
<td>Manufacturing Processes and Materials</td>
</tr>
<tr>
<td>MAT 135</td>
<td>Introduction to Probability and Statistics</td>
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<td>or</td>
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<tr>
<td>PSY 300</td>
<td>Principles and Methods of Statistical Analysis</td>
</tr>
<tr>
<td>MGT 350</td>
<td>Fundamentals of Management</td>
</tr>
<tr>
<td>OSH 099</td>
<td>Transitions</td>
</tr>
<tr>
<td>OSH 192</td>
<td>Introduction to Occupational Safety and Health</td>
</tr>
<tr>
<td>OSH 287</td>
<td>OSHA Standards for General Industry and Construction</td>
</tr>
<tr>
<td>OSH 299</td>
<td>Professional Development Seminar I</td>
</tr>
<tr>
<td>OSH 310</td>
<td>Fire and Emergency Preparedness Preplanning</td>
</tr>
<tr>
<td>OSH 311</td>
<td>Hazardous Materials and Emergency Planning</td>
</tr>
<tr>
<td>OSH 320</td>
<td>Environmental and Occupational Health Engineering Technology</td>
</tr>
<tr>
<td>OSH 353</td>
<td>Prevention of Musculoskeletal Disorders in the Workplace</td>
</tr>
<tr>
<td>OSH 420</td>
<td>Fundamentals of Industrial Hygiene</td>
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<td>OSH 425</td>
<td>Physical Agents</td>
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<td>OSH 450</td>
<td>Practical Application Lab</td>
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<td>OSH 452</td>
<td>Systems Approach to Hazard Control</td>
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<tr>
<td>OSH 488</td>
<td>Cooperative Education/Internship</td>
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<tr>
<td>OSH 500</td>
<td>Safety and Health Program Management and Training</td>
</tr>
<tr>
<td>OSH 591</td>
<td>Engineering and Technical Aspects of Safety</td>
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**Environmental Health and Safety Courses**

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<tr>
<td>CET 330</td>
<td>Water Quality Technology I</td>
</tr>
<tr>
<td>CET 342</td>
<td>Air Quality Technology</td>
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<tr>
<td>CET 353</td>
<td>Solid Hazardous Waste Technology</td>
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<tr>
<td>OSH 511</td>
<td>Hazardous Waste Site Operations</td>
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<tr>
<td>OSH 523</td>
<td>Occupational Diseases</td>
</tr>
<tr>
<td>OSH 527</td>
<td>Air Contaminants and Industrial Ventilation</td>
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</tbody>
</table>

Technical electives: 12 hrs approved by advisor (chosen from the Technical Electives list below and/or the Occupational Safety and Health Option)

**Technical Electives (choose from the following)**

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<tr>
<td>CET 310</td>
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<td>Heavy Construction Cost Estimating</td>
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<td>or</td>
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<tr>
<td>CET 386</td>
<td>Building Construction Cost Estimating</td>
</tr>
<tr>
<td>CET 480</td>
<td>Construction Planning and Management</td>
</tr>
<tr>
<td>CET 555</td>
<td>Environmental Regulatory Affairs</td>
</tr>
<tr>
<td>CHE 120</td>
<td>Chemical Laboratory Safety</td>
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<td>CHE 330</td>
<td>Basic Biochemistry</td>
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<td>COM 384</td>
<td>Communication Skills for Professionals</td>
</tr>
<tr>
<td>CRJ 355</td>
<td>Security in Business and Industry</td>
</tr>
<tr>
<td>ENG 228</td>
<td>Standard English Usage</td>
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<tr>
<td>MGT 550</td>
<td>Human Resource Management</td>
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<tr>
<td>MGT 555</td>
<td>Training and Development</td>
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<tr>
<td>MGT 575</td>
<td>Labor Management Relations</td>
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<tr>
<td>OSH 301</td>
<td>Product Liability</td>
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<tr>
<td>OSH 371</td>
<td>Professional Internship II</td>
</tr>
<tr>
<td>OSH 453</td>
<td>Human Factors in Safety Engineering</td>
</tr>
<tr>
<td>OSH 488</td>
<td>Cooperative Education/Internship</td>
</tr>
<tr>
<td>OSH 499</td>
<td>Professional Development Seminar II</td>
</tr>
<tr>
<td>OSH 536</td>
<td>Motor Fleet Safety</td>
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<td>OSH 571</td>
<td>Problems in Safety and Health</td>
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<tr>
<td>OSH 578</td>
<td>Workshop in Safety and Health</td>
</tr>
<tr>
<td>PSY 405</td>
<td>Industrial and Organizational Psychology</td>
</tr>
<tr>
<td>SPA 106</td>
<td>Basic Spanish and Culture for Agriculture</td>
</tr>
</tbody>
</table>

**Total Curriculum Requirements**

- **University Studies** selections must include:
- **Required Core Courses**
- **Environmental Health and Safety Courses**
- **Technical Electives (choose from the following)**
- **Total Curriculum Requirements**

**Department of Social Work, Criminal Justice and Gerontology**

101S Oakley Applied Science Building  
270-809-2506

**Chair:** Steven H. Jones  
**Faculty:** Chakradhar, Chavis, Ferreira, Hepworth, Lucko, Merianos, Meriedeth, Pittman-Munke, Wylie.

The Department of Social Work, Criminal Justice and Gerontology offers an area in social work, a major in criminal justice, and minors in social work, criminal justice and gerontology.

**Social Work**

The primary purpose of the social work program is to prepare students for entry-level professional generalist practice as social workers in a variety of social service agencies and organizations. To accomplish this purpose, a well-developed curriculum is offered that is responsive to the social problems and issues confronting society today, and which provides students a stimulating and provocative approach to preparing themselves for a social work career. The undergraduate social work program has been accredited by the Council on Social Work Education since 1974.

The social work program is designed to meet the career interests of students in such fields as family and children’s services, health, mental health, aging, education and corrections.

Undergraduate social work practitioners work in such settings as: recreational programs for children; group homes; public and private child welfare programs; public assistance programs; public housing programs; domestic violence shelters; hospitals; nursing homes; home health agencies; programs serving the chronically mentally ill; alcohol/drug rehabilitation and prevention programs; programs serving persons with physical and/or developmental disabilities; senior citizens programs; preschools; elementary and secondary schools; probation and parole; prisons and other court-related programs. Another important function of the program is to provide a sound academic foundation for students entering...
graduate study in social work or related fields of human service. Students must earn a grade of C or better in all social work course work. Any social work course with a grade of less than C must be repeated. Students must have a GPA of at least 2.5 in social work program courses, and a minimum overall GPA of 2.5 in order to be graduated.

Requirements for Admission
In order to be admitted to the social work program, a student must 1) have completed 60 semester hours of course work with a minimum GPA of 2.50; 2) have completed SWK 101, 201, 225, and 301 or 302 with a minimum GPA of 2.50 and no grades in a SWK class below C; 3) may be asked to pass an examination to certify proficiency in written English; 4) complete an application for admission to the program; 5) be successfully reviewed by the social work program admissions committee; 6) complete any other requirements or testing that the social work program admissions committee deems necessary for admission; and 7) sign a statement indicating that he/she has read and will follow the code of ethics of the National Association of Social Workers.

Field Practicum
In order to be admitted to SWK 499 Field Practicum, a student must 1) have been formally admitted to the social work program; 2) have completed SWK 310, 312, 313, and 498; and 3) be successfully reviewed by the social work field education review committee, and 4) must have completed all other course work needed for graduation. No student is guaranteed a field placement since agencies have final authority to accept or reject a potential student.

Gerontology
Through this minor, students learn about the aging process, services for the elderly, and the techniques for working with the elderly. The 21-hour minor in social gerontology combines course work in several disciplines including sociology, social work, psychology, and therapeutic recreation. A minor in gerontology provides students with the background they need to provide services to older people.

AREA:
Social Work

Bachelor of Social Work Degree
CIP 44.0701

ACCREDITED BY:
Council on Social Work Education (CSWE)

University Studies Requirements .................41-44 hrs

University Studies selections must include:
• Oral and Written Communication:
  COM 161 Introduction to Public Speaking
  ENG 105 Critical Reading, Writing, and Inquiry

• Global Awareness, Cultural Diversity, and the World's Artistic Traditions:
  One University Studies elective in this area

• Scientific Inquiry, Methodologies and Quantitative Skills:
  One University Studies BIO elective in this category

• Oral and Written Communication:
  MAT 135 Introduction to Probability and Statistics

One University Studies math or science elective in this category

• Social and Self-Awareness and Responsible Citizenship:
  POL 140 American National Government

SOC 133 Introduction to Sociology
One University Studies elective in this category
• World's Historical, Literary, and Philosophical Traditions:
  CIV 201 World Civilizations I
  or
  CIV 202 World Civilizations II
  HUM 211 Western Civilizations
  • University Studies Electives:
  CSC 199 Introduction to Information Technology
  PSY 180 General Psychology

Required Courses..............................................52 hrs

SWK 099 Transitions
SWK 101 Introduction to Social Work
SWK 201 Social Work and Social Welfare
SWK 225 Human Diversity
SWK 301 Human Behavior and the Social Environment I
SWK 302 Human Behavior and the Social Environment II
SWK 303 Principles and Methods of Research
SWK 310 Social Work Practice I
SWK 311 Social Work Practice Skills
SWK 312 Social Work Practice II
SWK 313 Social Work Practice III
SWK 350 Social Welfare Policies and Services
SWK 385 Social Work in Mental Health Settings
SWK 498 Senior Seminar
SWK 499 Field Practicum

Social Work Electives........................................15 hrs
Choose two upper division social work (SWK) classes with exception of SWK 500. The other nine hours may be chosen from any SWK course.

Co-Requirements for Area ..................................12 hrs
Any ECO course, any statistics course, and nine hours from the following prefixes:
ANT, CRJ, NTN, PHI, PSY, RGS, SOC, SWK, or any foreign language course.

Total Curriculum Requirements ....................120-123 hrs

Gerontology Minor ........................................21 hrs
GTY 264, 305, 341, 520, plus nine hours of limited electives. Six hours must be upper-level courses completed in residence at Murray State University.

Social Welfare Minor ......................................21 hrs
SWK 101, 201, 225, 301, 302, and choose two of the following:
SWK 303, 304, 311, 315, 336, 345, 350, 355, 365, 370, 375, 385, 395, 405, 410, 415, 425, 426, 437, or 460. Social work minors are not permitted to take SWK 312, 313, 498, or 499. Six hours must be upper-level courses completed in residence at Murray State University.

Criminal Justice
The criminal justice program affords students a broad-based overview of the criminal justice system and its components as well as the ability to specialize in an area of the student’s interest. Through the choice of electives, students can emphasize policing, corrections, the nature of crime, and crime causation. Criminal justice graduates are prepared for a variety of professional careers as well as graduate studies in criminal justice or law.

This program leads to a Bachelor of Arts or a Bachelor of Science degree in criminal justice. The university studies component provides the necessary liberal arts education, while the criminal justice major
College of Health Sciences and Human Services

further develops the student’s oral, written, analytical, leadership, and problem-solving skills. Internship experiences are available during the junior and senior years in a variety of agencies.

The faculty encourages all students to be actively involved in student organizations, which provide a way for students to network with criminal justice practitioners. Two criminal justice student organizations are available: Lambda Alpha Epsilon, an academic fraternity of the American Criminal Justice Association; and Alpha Phi Sigma, the national criminal justice honor society affiliated with the Academy of Criminal Justice Sciences.

Requirements for Admission

In order to be admitted to the criminal justice major or minor, a student must 1) have completed 30 semester hours with a minimum GPA of 2.50; and 2) have completed CRJ 140 with a C or better. Transfer students and new intended majors must take CRJ 099 and CRJ 140 prior to full admission to the criminal justice program.

MAJOR:

Criminal Justice

Bachelor of Arts/Bachelor of Science Degree

CIP 43.0104

Note: All criminal justice majors and minors must: 1) maintain a GPA of 2.50 in all coursework taken at Murray State University; and 2) must earn a grade of C or better in all CRJ courses counting towards the major or minor, including CRJ electives. (Students who earn less than a C must repeat the course if it is a required course.) All students must maintain a 2.50 or higher overall GPA to enroll in any CRJ 300-level or higher courses.

University Studies Requirements ...........................................41-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies and Quantitative Skills:
  MAT 135 Introduction to Probability and Statistics
• Social and Self-Awareness and Responsible Citizenship:
  POL 140 American National Government
• University Studies Electives:
  CSC 199 Introduction to Information Technology
  PSY 180 General Psychology
  SOC 133 Introduction to Sociology

Note: Students must complete at least 30 hours with an overall 2.50 GPA or better and earn a grade of C or better in CRJ 140 to be admitted to the Criminal Justice major or minor. A minimum grade of C is required in ENG 105 for all students (including transfers) majoring or minoring in criminal justice. Transfer students and new intended majors and minors must take CRJ 099 and CRJ 140 prior to full admission to the criminal justice major or minor.

Required Courses ..............................................................26 hrs

CRJ 099 Transitions
CRJ 140 Introduction to Criminal Justice
CRJ 220 Law Enforcement
CRJ 240 Corrections
CRJ 300 Crime and Criminals
CRJ 303 Principles and Methods of Research
CRJ 320 Juvenile Justice
CRJ 325 Criminal Justice Ethics
CRJ 445 Race, Ethnicity and Gender in Criminal Justice
CRJ 499 Senior Seminar in Criminal Justice

Advisor Approved Required Limited Electives ......................12 hrs
One 400/500-level CRJ elective (not CRJ 488 or 489)
Three upper-level CRJ electives

Note: Only three hours of credit toward the major may be received from CRJ 305, 488, or 489.

Required Minor ...............................................................21 hrs

Advisor Approved Career Related Electives .........................14-20 hrs

Total Curriculum Requirements ........................................120 hrs

1 No substitutions and/or alterations in the above curriculum shall be made without written approval of a criminal justice faculty advisor.

Criminal Justice Minor .....................................................21 hrs

CRJ 140 and 300; two courses from 220, 240, 320, or 355; and nine hours of CRJ electives approved by a department advisor. Only three hours are allowed from CRJ 305, 488, or 489. Six hours must be upper-level courses completed in residence at Murray State University. Students must maintain a 2.50 overall GPA and can only apply courses with a C or better toward the minor. A minimum grade of C in ENG 105 is required of all students (including transfers) majoring or minoring in criminal justice. Students are expected to take necessary prerequisites listed under CRJ course descriptions. No substitutions and/or alterations in the above curriculum shall be made without written approval of a criminal justice faculty advisor. A minimum 2.50 GPA is required for admission and retention in the criminal justice major or minor.

Department of Wellness and Therapeutic Sciences

108 Carr Health Building
270-809-6802

Chair: Kelly Rogers. Faculty: Communication Disorders-Brown, Hart, Kleinhans, Miller, Moss-Robinson, Payne; Exercise Science-Campbell, Dodd, Erdmann, P. Rice; Nutrition, Dietetics and Food Management-Payne-Emerson B. Rice, Timmons; Recreation and Leisure Services-Brookhiser, Broughton, Gowen, Rogers; Youth and Nonprofit Leadership-Weis.

The Department of Wellness and Therapeutic Sciences is comprised of six program areas: athletic training; communication disorders; exercise science; nutrition, dietetics and food management; recreation and leisure services; and youth and nonprofit leadership.

Communication Disorders

The division of communication disorders provides pre-professional undergraduate and professional graduate training leading to certification by the American Speech-Language-Hearing Association and to Kentucky certification and licensure in speech-language pathology. Degrees offered in this program include a Bachelor of Arts and Bachelor of Science in Communication Disorders. Students in the communication disorders program are strongly encouraged to study abroad.
Admission Requirements

Students may declare communication disorders as their area of choice at any point. However, students cannot enroll in CDI 325, 345, or 400-level CDI classes until they have been admitted to the communication disorders program.

In order to be admitted to the communication disorders program, a student must 1) have completed 40 semesters hours of coursework with a minimum GPA of 2.65; 2) complete an application for admission to the program; 3) apply by February 15, for fall admission or by October 1, for spring admission; 4) follow the most current bulletin when admitted to the program.

Once admitted to the program, students must maintain an overall GPA of 2.65 and an area GPA of 2.85. Any student whose GPA falls below this minimum must meet with the division retention committee before participating in the upper-level CDI classes. The decision of the division retention committee will be final.

AREA: Communication Disorders

Bachelor of Science/Bachelor of Arts Degree
CIP 51.0204

ACREDITED BY:
Council on Academic Accreditation in Audiology and Speech-Language Pathology; National Council for Accreditation of Teacher Education (NCATE)

University Studies Requirements.........................41-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies and Quantitative Skills:
  One biological science course
  One physical science course
• Social and Self-Awareness and Responsible Citizenship:
  PSY 180 General Psychology

Required Courses.................................................48 hrs
CDI 099 Transitions
CDI 205 Introduction to Communication Disorders
CDI 215 Clinical Phonetics
CDI 310 Anatomy and Physiology
CDI 315 Speech Science
CDI 325 Pediatric Speech Disorders I
CDI 340 Speech and Language Development
CDI 345 Pediatric Language Disorders II
CDI 405 Audiology
CDI 440 Neurogenic Communication Disorders
CDI 451 Aural Rehabilitation
CDI 465 Neuroanatomy and Physiology for the Speech-Language Pathologist
CDI 470 Pediatric Speech Disorders II
CDI 472 Pediatric Language Disorders II
CDI 474 Elementary Clinical Skills (2 semesters)
CDI 480 School Services for Communication Disorders
CDI 482 Augmentative Alternative Communication

Required Support Courses......................................6 hrs
EDP 260 Psychology of Human Development
or
PSY 260 Lifespan Development
SED 300 Educating Students with Disabilities

Required Support Courses......................................12 hrs
Choose from the following. At least six hours must be upper-level electives.
BIO 120 Scientific Etymology
COM 131 Introduction to Interpersonal Communication
COM 353 Team Communication and Leadership
COM 367 Communication and Critical Thought
COM 384 Communication Skills for Professionals
COM 387 Intercultural Communication
ENG 228 Standard English Usage
ENG 310 Introduction to English Linguistics
GTY 305 Services to Older Americans
HEA 195 First Aid and Safety
MAT 135 Introduction to Probability and Statistics
PSY 300 Principles and Methods of Statistical Analysis
PSY 326 Psychology of Language
PSY 471 Behavior Modification
REC 520 Leisure and Aging
SED 408 Functional Behavior Analysis
SED 526 Education of Young Children with Severe Disabilities
SOC 343 Minorities in the United States
SWK 225 Human Diversity
One course offered through Study Abroad

Required Toward K-12 Certification1..........................12 hrs
CDI 480 School Services for Communication Disorders
COM 161 Introduction to Public Speaking
CSC 199 Introduction to Information Technology2
EDP 260 Psychology of Human Development2

Note: A teaching certificate is required to obtain a tenured position as an SLP in Kentucky schools. Specific undergraduate courses must be taken and grade requirements met before a student can meet qualifications for a teaching certificate. Students should meet with academic advisors to ensure they meet these requirements.

Unrestricted Electives...........................................7-13 hrs

Total Curriculum Requirements ............................120 hrs

1 These courses are required only for students pursuing public school certification. Although these courses are taken at the bachelor’s level, requirements for certification are completed at the master’s level.
2 May be taken as a University Studies elective.

Athletic Training

An athletic trainer is a qualified health care professional educated and experienced in the management of health care problems associated with physical activity. In cooperation with physicians and other health care personnel, the athletic trainer functions as an integral member of the health care team in secondary schools, colleges and universities, professional sports programs, sport medicine clinics, and other health care settings. Through a combination of formal classroom instruction and clinical experiences, the athletic trainer is prepared to apply a wide variety of specific health care skills and knowledge.

Athletic Training Requirements for Admission

A considerable time commitment is required to successfully complete all the requirements in the Athletic Training Education Program (ATEP). To be considered for admission into the Athletic Training Education Program, students must achieve and maintain a cumulative GPA of 2.5 on a 4.0 scale, complete at least 30 observation hours and/or pass EXS 270, meet the Technical Standards, and apply by the dates given (by the first Friday in November or the first Friday of the spring semester). The ATEP Admission

College of Health Sciences and Human Services
Committee reviews the following materials for admission: application, candidate interview, overall college GPA, ACT/SAT scores, prior experience, certifications/professional memberships, performance reviews during their observation hours and/or EXS 270, college courses completed, and three letters of recommendation. Only those candidates admitted into the ATEP and have successfully completed an approved CPR/First Aid course may take the clinical experience courses (EXS 271, 371, 372). Students may transfer into the program based on their credentials, courses taken at another institution, space availability, and permission from the ATEP Director. EXS 271, 371, and 372 must be taken in residence at MSU. Transfer student candidates may transfer in EXS 301, 320, 390, 402, 403, 420, and 471 only after departmental approval. If the student’s cumulative GPA drops below the required 2.5, the student will be subject to disciplinary action according to the program’s GPA policy.

A grade below a C for a major course must be retaken the next semester offered. Students must achieve a cumulative overall GPA of 2.5 or higher prior to enrolling in EXS 320, 390, 402, 403, 420, 421, and 471. Students must maintain confidentiality at the clinical site(s), show respect for faculty, staff, and student-athletes at all times, and demonstrate adequate performance of the Essential Skills to be admitted and retained in the ATEP.

All students must meet the Technical Standards established to assure the health and safety of the candidate, other athletic training students, faculty and staff, and student-athletes or other physically active persons. All candidates are required to complete a physical exam upon acceptance into the ATEP, provide proof of proper immunizations, and either proof of Hepatitis B vaccination (HBV) or a signed wavier.

All full-time athletic trainers carry personal liability insurance to a level of no less than $1,000,000/accident, $3,000,000 aggregate. Athletic training students are covered under a blanket policy that is renewed annually at the student’s expense. Athletic training students must be covered under this policy or approved alternative prior to beginning clinical rotations or field experiences. Other costs to the student include purchasing proper attire to be worn at the clinical sites, any costs associated with annual training and/or certifications, and other incidental costs. The Athletic Training Program attempts to keep these costs at a minimum. Athletic training students are required to provide their own transportation to their clinical experience sites.

Any student who, after reasonable accommodations, cannot perform the essential skills will not be permitted to continue in the ATEP. It is the student’s responsibility to notify the Director, Office of Equal Opportunity/ADA Coordinator, Murray State University, to request a reasonable accommodation. All requests for accommodation must be accompanied by appropriate documentation from a qualified professional referencing the condition and specific need for the accommodation requested.

University Studies selections must include:
• **Scientific Inquiry, Methodologies and Quantitative Skills:**
  BIO 101 Biological Concepts
  or
  BIO 221 Zoology: Animal Form and Function
  CHE 111 Essentials of Chemistry and Biochemistry
  MAT 140 College Algebra (or higher math)
• **Social and Self-Awareness and Responsible Citizenship:**
  PHI 202 Ethics
  PSY 180 General Psychology
• **University Studies Electives:**
  CSC 125 Internet and Web Page Design
  or
  CSC 199 Introduction to Information Technology
  PHY 130 General Physics I
  PHY 131 General Physics I Laboratory

**Core Courses** .......................................................... 79 hrs
- BIO 227 Human Anatomy
- BIO 228 Human Anatomy Laboratory
- BIO 229 Human Physiology
- BIO 230 Human Physiology Laboratory
- EXS 099 Transitions
- EXS 101 Concepts and Careers in Exercise Science and Athletic Training
- EXS 250 Anatomical Concepts in Wellness
- EXS 271 Clinical Experience: Introduction
- EXS 295 Acute Care of the Physically Active
- EXS 296 Acute Care of the Physically Active Laboratory
- EXS 301 Care and Prevention of Injuries
- EXS 305 Bracing, Splinting and Taping
- EXS 310 Exercise Concepts in Special Populations
- EXS 320 Evaluation of Non-Orthopedic Conditions
- EXS 333 Theory and Techniques in Strength and Conditioning
- EXS 350 Exercise Physiology
- EXS 370 Kinesiology
- EXS 371 Clinical Experience: Application
- EXS 372 Clinical Experience: Integration
- EXS 375 Biomechanics in Sport and Exercise
- EXS 380 Sports Medicine Pharmacology
- EXS 385 Sport and Exercise Psychology
- EXS 390 Therapeutic Modalities
- EXS 400 Research Design and Statistics for Allied Health
- EXS 402 Evaluation of the Lower Extremity
- EXS 403 Evaluation of the Upper Extremity
- EXS 420 Rehabilitation Techniques
- EXS 421 Rehabilitation Techniques Lab
- EXS 471 Administration in Exercise Science
- NTN 230 Nutrition

**Total Curriculum Requirements** ............................................. 123 hrs

1Students must complete a total of 12 hours from EXS 371 and 372, but no more than nine hours from each.

**Exercise Science**

The Area in Exercise Science has four emphases (pre-occupational therapy, pre-physical therapy, pre-physician assistant, or wellness). With the exception of first semester freshman, all students must have a cumulative GPA of 2.0 and have completed all developmental courses prior to declaring exercise science as an area. A cumulative grade point average of 2.5 is required prior to enrollment in most senior-level courses. The 2.5 GPA must be maintained to graduate.

Students who choose the wellness option will work with other health care professionals to provide clients with informa-
tion designed to manage and prevent health issues associated with physical activity. Graduates may work with other healthcare professionals in a variety of settings, including hospital wellness centers, cardiac rehabilitation, corporate fitness programs, private industry and other wellness related facilities. Students should enjoy working with people interested in developing healthier lifestyles through a combination of educational programs and exercise. Educational opportunities involve classroom and practical experiences focusing on life sciences and preventive health.

**Pre-Occupational Therapy (OT), Pre-Physical Therapy (PT), and Pre-Physician Assistant (PA).**

The Pre-Occupational Therapy, Pre-Physical Therapy, and Pre-Physician Assistant options in the Area of Exercise Science provide pre-professional undergraduate courses that prepare students to pursue graduate programs in physical therapy, occupational therapy and physician assistant; however, it does not guarantee acceptance. Admittance to accredited OT, PT, and PA programs is stringent. Requirements necessary for acceptance to graduate programs are overall similar, but prerequisites may vary slightly depending on the university.

Considering these high standards necessary for graduate programs in PA, OT, or T and MSU's interest in each student's career success, criteria have been established that must be met prior to taking specific upper-level EXS courses. Students who do not meet these requirements are encouraged to evaluate their career choice so that the remaining coursework can be tailored to prepare them for the workforce or other graduate programs at the time of graduation from MSU.

Pre-PT, Pre-OT, and Pre-PA students must meet the following criteria prior to taking EXS 390, 402, 403, and 420:
- minimum 3.00 cumulative grade point average;
- completed BIO 227, 228, 229, and 230 with a grade of C or better (Pre-PA students must also have completed CHE 201 with a grade of C or better);
- completed at least one of the following with a grade of C or better: 1) OT - CHE 111 or PT - CHE 201, 2) PHY 130 and 131.

In addition, all Pre-OT, Pre-PT, and Pre-PA students must meet the cumulative 2.5 GPA required by all exercise science majors prior to enrollment in several other EXS classes to graduate.

Students choosing the pre-physical therapy or pre-occupational therapy emphasis will complete a bachelor’s degree at Murray State University then apply to graduate programs. There is a strong demand for occupational therapists, physical therapists, and physician assistants nationwide.

Physical therapy is a health care profession that focuses on improving optimal health, movement, and function. Physical therapists apply scientific principles to prevent, diagnose, and provide interventions to minimize or alleviate dysfunction. Occupational therapy services include teaching daily living skills, developing perceptual-motor skills, improving sensory function, and adaptation of the environment for individuals with special needs. Occupational therapists evaluate an individual’s condition, administer treatments, and participate in consulting activities. The practice of physical therapy or occupational therapy, one must graduate from an accredited program and pass a national board examination to obtain licensure. Both physical therapists and occupational therapists work in a variety of settings and with individuals throughout the lifespan.

The profession of physician assistant (PA) has grown rapidly over the past few years and offers many options for the graduate to work in numerous areas of medicine under the supervision of a physician. The pre-physician assistant program is designed to provide the student an excellent undergraduate background knowledge base while incorporating many of the prerequisites re-quired for acceptance to PA programs. The student is encouraged to begin exploring graduate programs during their sophomore or junior year and work with their MSU academic advisor to ensure that any specific special courses required by a particular program of interest are incorporated into the curriculum. Acceptance into graduate programs for PA is challenging and requires that the applicant be well rounded academically and personally. Successful applicants demonstrate a competitive academic history, have knowledge of the profession, and are motivated to succeed.

**AREA: Exercise Science/Pre-Occupational Therapy Option**

**Bachelor of Science Degree**

**CIP 31.0505**

**University Studies Requirements** ................................................. 45 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
- *Scientific Inquiry, Methodologies and Quantitative Skills:*
  - BIO 101 Biological Concepts
  - or
  - BIO 221 Zoology: Animal Form and Function
  - CHE 111 Essentials of Chemistry and Biochemistry
  - MAT 140 College Algebra (or higher math)
- *Social and Self-Awareness and Responsible Citizenship:*
  - PHI 202 Ethics
  - or
  - PSY 180 General Psychology
- *University Studies Electives:*
  - CSC 125 Internet and Web Page Design
  - or
  - CSC 199 Introduction to Information Technology
  - PHY 130 General Physics I
  - PHY 131 General Physics I Laboratory
  - or
  - SOC 133 Introduction to Sociology

**Core Courses** ............................................................................. 41 hrs

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tr>
<td>BIO 229 Human Physiology</td>
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<tr>
<td>EXS 099 Transitions</td>
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<td>EXS 101 Concepts and Careers in Exercise Science and Athletic Training</td>
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<td>EXS 295 Acute Care of the Physically Active</td>
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<tr>
<td>EXS 310 Exercise Concepts in Special Populations</td>
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<tr>
<td>EXS 333 Theory and Techniques in Strength and Conditioning</td>
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</tr>
<tr>
<td>EXS 350 Exercise Physiology</td>
<td>3</td>
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<tr>
<td>EXS 370 Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>EXS 375 Biomechanics in Sport and Exercise</td>
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<td>EXS 380 Sports Medicine Pharmacology</td>
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<td>EXS 385 Sport and Exercise Psychology</td>
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<td>EXS 400 Research Design and Statistics for Allied Health</td>
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<tr>
<td>EXS 469 Professional Experience I</td>
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<td>EXS 471 Administration in Exercise Science</td>
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<tr>
<td>NTN 230 Nutrition</td>
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**Pre-Occupational Therapy Courses** ............................................. 30 hrs

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<td>BIO 220 Clinical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 227 Human Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>BIO 228 Human Anatomy Laboratory</td>
<td>3</td>
</tr>
</tbody>
</table>
PSY 260 Lifespan Development
PSY 407 Abnormal Psychology
EXS 301 Care and Prevention of Injuries
EXS 390 Therapeutic Modalities
EXS 402 Evaluation of the Lower Extremity
EXS 403 Evaluation of the Upper Extremity
EXS 420 Rehabilitation Techniques
EXS 421 Rehabilitation Techniques Lab
EXS 435 Neurological Anatomy and Physiology

Unrestricted Elective ........................................................................ 4 hrs

Total Curriculum Requirements ................................................. 120 hrs

**AREA:**
**Exercise Science/Pre-Physical Therapy Option**

Bachelor of Science Degree
CIP 31.0505

University Studies Requirements ............................................. 49 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

• **Scientific Inquiry, Methodologies and Quantitative Skills:**

  BIO 101 Biological Concepts
  
or
  BIO 221 Zoology: Animal Form and Function
  CHE 201 General College Chemistry
  MAT 150 Algebra and Trigonometry or higher math

• **Social and Self-Awareness and Responsible Citizenship:**

  PHI 202 Ethics
  PSY 180 General Psychology
  
• **University Studies Electives:**

  CSC 125 Internet and Web Page Design
  
or
  CSC 199 Introduction to Information Technology
  PHY 130 General Physics I
  PHY 131 General Physics I Laboratory
  PHY 132 General Physics II
  PHY 133 General Physics II Laboratory

**Core Courses ............................................................................. 41 hrs**

BIO 229 Human Physiology
BIO 230 Human Physiology Laboratory
EXS 099 Transitions
EXS 101 Concepts and Careers in Exercise Science and Athletic Training
EXS 295 Acute Care of the Physically Active
EXS 310 Exercise Concepts in Special Populations
EXS 333 Theory and Techniques in Strength and Conditioning
EXS 350 Exercise Physiology
EXS 370 Kinesiology
EXS 375 Biomechanics in Sport and Exercise
EXS 380 Sports Medicine Pharmacology
EXS 385 Sport and Exercise Psychology
EXS 400 Research Design and Statistics for Allied Health
EXS 469 Professional Experience I
EXS 471 Administration in Exercise Science
NTN 230 Nutrition

**Pre-Physical Therapy Courses.................................................. 35 hrs**

BIO 120 Scientific Etymology
BIO 220 Clinical Terminology
BIO 227 Human Anatomy
BIO 228 Human Anatomy Laboratory
CHE 202 General Chemistry and Qualitative Analysis
PSY 260 Lifespan Development
EXS 301 Care and Prevention of Injuries
EXS 390 Therapeutic Modalities
EXS 402 Evaluation of the Lower Extremity
EXS 403 Evaluation of the Upper Extremity
EXS 420 Rehabilitation Techniques
EXS 421 Rehabilitation Techniques Lab
EXS 435 Neurological Anatomy and Physiology
SOC 133 Introduction to Sociology

or

Career elective

Total Curriculum Requirements ................................................. 125 hrs

1 MAT 140 and 145 may be substituted for MAT 150.

**AREA:**
**Exercise Science/Pre-Physician Assistant Option**

Bachelor of Science Degree
CIP 31.0505

University Studies Requirements ............................................. 47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

• **Scientific Inquiry, Methodologies and Quantitative Skills:**

  BIO 221 Zoology: Animal Form and Function
  CHE 201 General College Chemistry
  MAT 150 Algebra and Trigonometry or higher math

• **Social and Self-Awareness and Responsible Citizenship:**

  PHI 202 Ethics
  PSY 180 General Psychology
  
• **University Studies Electives:**

  CHE 202 General Chemistry and Qualitative Analysis
  CSC 125 Internet and Web Page Design
  
or
  CSC 199 Introduction to Information Technology
  SOC 133 Introduction to Sociology

**Core Courses ............................................................................. 41 hrs**

BIO 229 Human Physiology
BIO 230 Human Physiology Laboratory
EXS 099 Transitions
EXS 101 Concepts and Careers in Exercise Science and Athletic Training
EXS 295 Acute Care of the Physically Active
EXS 310 Exercise Concepts in Special Populations
EXS 333 Theory and Techniques in Strength and Conditioning
EXS 350 Exercise Physiology
EXS 370 Kinesiology
EXS 375 Biomechanics in Sport and Exercise
EXS 380 Sports Medicine Pharmacology
EXS 385 Sport and Exercise Psychology
EXS 400 Research Design and Statistics for Allied Health
EXS 469 Professional Experience I
College of Health Sciences and Human Services

Wellness Courses ............................................................ 30-31
BIO 227 Human Anatomy and
BIO 228 Human Anatomy Laboratory
or
EXS 250 Anatomical Concepts in Wellness
EXS 302 Essential Prevention and Management of Injuries
EXS 356 Health Promotion and Programming
EXS 455 Exercise Prescription
EXS 460 Practicum
EXS 465 Advanced Exercise Physiology
EXS 470 Professional Experience II
Career Electives (9 hours upper-level with advisor approval)

Unrestricted Electives .................................................... 4-5 hrs
A minor may be substituted in place of electives.

Total Curriculum Requirements .................................. 120 hrs

Nutrition, Dietetics and Food Management

The nutrition, dietetics, and food management program offers a B.S. degree with a choice of three options: dietetics, food management, and nutrition and foods.

The Dietetics Option focuses on the application of principles of nutrition, physiology, biochemistry, behavioral and social sciences and management to promote optimal health in individuals, and leads to credentialing as a Registered Dietitian (R.D.). The R.D. is the nationally recognized credential in nutrition. It is required for most employment in the health care industry and preferred for many other employment opportunities in foods and nutrition. The admission requirements for the Dietetics Option are explained below. Upon successful completion of the B.S. degree program in Dietetics, a graduate must complete a post-baccalaureate experience program (Dietetic Internship Program) to gain eligibility for the national examination for R.D. status. Murray State also offers a post-baccalaureate dietetic internship program.

The Food Management Option prepares students for careers in the hospitality industry. Skills developed can be applied to a wide range of jobs across the industry. Hospitality is a high-reward, high variety industry worldwide. There will be no shortage of exciting opportunities and fresh challenges in the years ahead. Necessary skills include basic business skills, motivation, and supervisory skills as well as food purchasing, preparation, and service. Careers you can explore include theme parks, country clubs, corporate dining, university dining, bed and breakfast, restaurants, consulting, and sales.

The Nutrition and Foods Option provides a broad education in basic nutrition and food studies leading to a variety of career possibilities in food and nutrition. Today’s interest in healthy lifestyles is translating into a remarkable range of career opportunities related to health, diet, and fitness. Graduates may be employed in a variety of settings such as education, government agencies, school, media, food management, or any position where the R.D. credential is not required.

Admission Requirements

The Dietetics Program is accredited by the Commission on Accreditation for Dietetics Education as a Didactic Program in Dietetics (DPD). In order to be admitted into the DPD, a student must have completed at least 30 credit hours and have a GPA of 3.0 or above with a B or better in NTN 230 and a C or better in two required science courses such as BIO 101, BIO 227, CHE 105, or CHE 210. In order to obtain a verification statement upon completion of the DPD, a student must have a GPA of at least 2.8 and at least a C in all DPD required courses.

University Studies Electives:
CSC 125 Internet and Web Page Design
or
CSC 199 Introduction to Information Technology
(See advisor before choosing.)

Core Courses .............................................................. 41 hrs
BIO 229 Human Physiology
BIO 230 Human Physiology Laboratory
EXS 099 Transitions
EXS 101 Concepts and Careers in Exercise Science and Athletic Training
EXS 295 Acute Care of the Physically Active
EXS 310 Exercise Concepts in Special Populations
EXS 333 Theory and Techniques in Strength and Conditioning
EXS 350 Exercise Physiology
EXS 370 Kinesiology
EXS 375 Biomechanics in Sport and Exercise
EXS 380 Sports Medicine Pharmacology
EXS 385 Sport and Exercise Psychology
EXS 400 Research Design and Statistics for Allied Health
EXS 469 Professional Experience I
EXS 471 Administration in Exercise Science
NTN 230 Nutrition

Total Curriculum Requirements .................................... 120 hrs

A minor may be substituted in place of electives.

Unrestricted Electives .................................................... 4-5 hrs

Necessary skills include basic business skills, motivation, and supervisory skills as well as food purchasing, preparation, and service. Careers you can explore include theme parks, country clubs, corporate dining, university dining, bed and breakfast, restaurants, consulting, and sales.

The Nutrition and Foods Option provides a broad education in basic nutrition and food studies leading to a variety of career possibilities in food and nutrition. Today’s interest in healthy lifestyles is translating into a remarkable range of career opportunities related to health, diet, and fitness. Graduates may be employed in a variety of settings such as education, government agencies, school, media, food management, or any position where the R.D. credential is not required.

Admission Requirements

The Dietetics Program is accredited by the Commission on Accreditation for Dietetics Education as a Didactic Program in Dietetics (DPD). In order to be admitted into the DPD, a student must have completed at least 30 credit hours and have a GPA of 3.0 or above with a B or better in NTN 230 and a C or better in two required science courses such as BIO 101, BIO 227, CHE 105, or CHE 210. In order to obtain a verification statement upon completion of the DPD, a student must have a GPA of at least 2.8 and at least a C in all DPD required courses.
AREA: Nutrition, Dietetics and Food Management/Dietetics Option

Bachelor of Science Degree
CIP 19.0501

ACCREDITED BY:
Dietetics Emphasis: Commission on Accreditation for Dietetics Education of the American Dietetic Association

University Studies Requirements .......................... 42-44 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies and Quantitative Skills:
  BIO 101 Biological Concepts
  or
  CHE 201 General College Chemistry
  MAT 117 Mathematical Concepts (or higher math)
• Social and Self-Awareness and Responsible Citizenship:
  PSY 180 General Psychology
• University Studies Electives:
  CSC 199 Introduction to Information Technology
  SOC 133 Introduction to Sociology

Core Requirements ............................................. 45-46 hrs
BPA 140 Foundations of Business
MAT 135 Introduction to Probability and Statistics
  or
PSY 300 Principles and Methods of Statistical Analysis
FCS 462 Methods of Teaching Family and Consumer Sciences
MGT 350 Fundamentals of Management
NTN 099 Transitions
NTN 200 Introduction to the Profession
NTN 220 Food Safety and Sanitation
NTN 230 Nutrition
NTN 231 Principles of Food Science and Preparation
NTN 233 Nutrition and the Life Cycle
NTN 371 Quantity Food Production Practicum
NTN 372 Quantity Food Production and Purchasing
NTN 373 Management of Food Service Personnel and Facilities
NTN 412 Community Nutrition and Health
NTN 422 Meal Management
NTN 432 Experimental Foods
NTN 499 Senior Seminar

Dietetics Courses ............................................. 30-31 hrs
BIO 227 Human Anatomy and
BIO 228 Human Anatomy Laboratory
  or
EXS 250 Anatomical Concepts in Wellness
BIO 229 Human Physiology
BIO 230 Human Physiology Laboratory
BIO 300 Introductory Microbiology
CHE 210 Brief Organic Chemistry
CHE 330 Basic Biochemistry
HEA 415 Communication Techniques for Health Care Providers

NTN 430 Advanced Nutrition
NTN 434 Clinical Dietetics Practicum
NTN 440 Medical Nutrition Therapy I
NTN 450 Medical Nutrition Therapy II

Electives .............................................................. 3 hrs

Total Curriculum Requirements .................................. 120 hrs

AREA: Nutrition, Dietetics and Food Management/Food Management Option

Bachelor of Science Degree
CIP 19.0501

University Studies Requirements .......................... 42-44 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies and Quantitative Skills:
  BIO 101 Biological Concepts
  or
  CHE 201 General College Chemistry
  MAT 117 Mathematical Concepts (or higher math)
• Social and Self-Awareness and Responsible Citizenship:
  PSY 180 General Psychology
• University Studies Electives:
  CSC 199 Introduction to Information Technology
  SOC 133 Introduction to Sociology

Core Requirements ............................................. 45-46 hrs
BPA 140 Foundations of Business
MAT 135 Introduction to Probability and Statistics
  or
PSY 300 Principles and Methods of Statistical Analysis
FCS 462 Methods of Teaching Family and Consumer Sciences
MGT 350 Fundamentals of Management
NTN 099 Transitions
NTN 200 Introduction to the Profession
NTN 220 Food Safety and Sanitation
NTN 230 Nutrition
NTN 231 Principles of Food Science and Preparation
NTN 233 Nutrition and the Life Cycle
NTN 371 Quantity Food Production Practicum
NTN 372 Quantity Food Production and Purchasing
NTN 373 Management of Food Service Personnel and Facilities
NTN 412 Community Nutrition and Health
NTN 422 Meal Management
NTN 432 Experimental Foods
NTN 499 Senior Seminar

Food Management Courses .................................. 24 hrs
ACC 200 Principles of Financial Accounting
ECO 230 Principles of Macroeconomics
MGT 550 Human Resource Management
MKT 360 Principles of Marketing
NTN 374 Food Service Management Practicum
Choose nine hours from the following:

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<tr>
<td>ACC 201</td>
<td>Principles of Managerial Accounting</td>
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<td>CSC 125</td>
<td>Internet and Web Page Design</td>
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<td>MGT 358</td>
<td>Entrepreneurial Business Plan Development</td>
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<td>Organizational Behavior</td>
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<td>MGT 553</td>
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<td>MKT 361</td>
<td>Selling and Sales Management</td>
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<td>MKT 565</td>
<td>Marketing Research</td>
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<tr>
<td>NTN 488</td>
<td>Cooperative Education/Internship</td>
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<tr>
<td>NTN 597</td>
<td>Trends and Issues in Nutrition and Foods</td>
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</tbody>
</table>

Electives ................................. 9 hrs

Total Curriculum Requirements .................................. 120 hrs

AREA: Nutrition, Dietetics and Food Management/
Nutrition and Foods Option

Bachelor of Science Degree
CIP 19.0501

University Studies Requirements .................... 42-44 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies and Quantitative Skills:
  BIO 101 Biological Concepts
  CHE 105 Introductory Chemistry I
  or
  MAT 117 Mathematical Concepts (or higher math)
• Social and Self-Awareness and Responsible Citizenship:
  PSY 180 General Psychology
• University Studies Electives:
  CSC 199 Introduction to Information Technology
  SOC 133 Introduction to Sociology

Core Requirements ................................. 45-46 hrs

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<tr>
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<td>Foundations of Business</td>
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<td>MAT 135</td>
<td>Introduction to Probability and Statistics</td>
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  or
| PSY 300     | Principles and Methods of Statistical Analysis |
| FCS 462     | Methods of Teaching Family and Consumer Sciences |
| MGT 350     | Fundamentals of Management |
| NTN 099     | Transitions |
| NTN 200     | Introduction to the Profession |
| NTN 220     | Food Safety and Sanitation |
| NTN 230     | Nutrition |
| NTN 231     | Principles of Food Science and Preparation |
| NTN 303     | Research Concepts in Foods and Nutrition |
| NTN 333     | Nutrition Throughout the Life Cycle |
| NTN 371     | Quantity Food Production Practicum |
| NTN 372     | Quantity Food Production and Purchasing |
| NTN 373     | Management of Food Service Personnel and Facilities |
| NTN 412     | Community Nutrition and Health |
| NTN 422     | Meal Management |
| NTN 432     | Experimental Foods |
| NTN 499     | Senior Seminar |

Electives ........................................ 9 hrs

Total Curriculum Requirements .................................. 120 hrs

College of Health Sciences and Human Services

Nutrition and Foods Courses ................................. 19-20 hrs

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<td>BIO 228</td>
<td>Human Anatomy Laboratory</td>
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  or
| EXS 250     | Anatomical Concepts in Wellness |
| BIO 229     | Human Physiology |
| BIO 230     | Human Physiology Laboratory |
| CHE 210     | Brief Organic Chemistry |
| HEA 191     | Personal Health |
| HEA 415     | Communication Techniques for Health Care Providers |
| NTN 430     | Communication Techniques for Health Care Providers |

Electives ........................................ 10-14 hrs

Total Curriculum Requirements .................................. 120 hrs

Recreation and Leisure Services

The Recreation and Leisure Services program offers a B.A./B.S. degree with a concentration in outdoor recreation preparing students for careers in a variety of settings including local, state, regional, and national parks and recreation areas. Through service learning courses and a 400 contact hour internship, students have many opportunities to gain valuable work experience prior to graduation. Upon successfully completing the program, students are eligible to sit for the Certified Park and Recreation Professional (CPRP) national exam.

Note: With the exception of first semester freshmen, all students must have a cumulative GPA of 2.0 or higher and have completed all developmental courses prior to declaring youth and nonprofit leadership as a major.

MAJOR: Recreation and Leisure Services

Bachelor of Science/Bachelor of Arts Degree
CIP 31.0601

University Studies Requirements .................... 41-47 hrs
(See Chapter 5, University Studies Requirements)

Note: At least a C average is required in ENG 105.

University Studies selections must include:
• Scientific Inquiry, Methodologies and Quantitative Skills:
  BIO 101 Biological Concepts
  CHE 105 Introductory Chemistry I
  or
  MAT 117 Mathematical Concepts (or higher math)
• Social and Self-Awareness and Responsible Citizenship:
  PSY 180 General Psychology
• University Studies Electives:
  ENG 224 Writing in the Professions

Required Courses ........................................ 36 hrs

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<tr>
<td>REC 101</td>
<td>Introduction to Recreation and Leisure Services</td>
</tr>
<tr>
<td>HEA 191</td>
<td>Personal Health</td>
</tr>
<tr>
<td>REC 295</td>
<td>Wilderness First Aid Basics</td>
</tr>
<tr>
<td>REC 202</td>
<td>Recreation Program Planning</td>
</tr>
<tr>
<td>REC 207</td>
<td>Inclusive Recreation</td>
</tr>
<tr>
<td>REC 401</td>
<td>Research and Evaluation in Recreation</td>
</tr>
<tr>
<td>REC 403</td>
<td>Managing Recreation Areas and Facilities</td>
</tr>
<tr>
<td>REC 405</td>
<td>Organization and Administration of Recreation</td>
</tr>
<tr>
<td>REC 421</td>
<td>Professional Experience</td>
</tr>
<tr>
<td>REC 520</td>
<td>Leisure and Aging</td>
</tr>
</tbody>
</table>

Outdoor Concentration ........................................ 23 hrs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>REC 150</td>
<td>Seminar in Recreational Activities</td>
</tr>
<tr>
<td>REC 302</td>
<td>Advanced Program Leadership</td>
</tr>
</tbody>
</table>

Total Curriculum Requirements .................................. 120 hrs
College of Health Sciences and Human Services

REC 304 Community Leadership
REC 411 Principles of Challenge Education
REC 450 Recreational Use of Natural Resources
REC 465 Interpretive Services in Park Management
REC 499 Senior Seminar
Six hours from the following courses with a maximum of three hours coming from one-hour REC courses: REC 102, 129, 162, 163, 164, 311, 350, and 490.

Required Curriculum Minor ................................................................. 21 hrs

Total Curriculum Requirements ......................................121-127 hrs

Recreation and Leisure Services Minor .........................23 hrs
REC 101, 202, 207, 405, 450, and eight hours from the following:
REC 150, 302, 304, 311, 350, 401, 403, 411, 465, 476, 490, 499, 515, and 520. Six hours must be upper-level courses completed in residence at Murray State University.

Youth and Nonprofit Leadership
The department offers a major and a minor in youth and nonprofit leadership. This program prepares students for leadership roles in organizations like the American Red Cross, the Boys and Girls Clubs of America, the YMCA, hospitals, colleges, and ministries to mention several. It is designed to include competencies in program development, supervision, public relations, and finance to mention a few. Many classes involve a service learning project and can help students earn the designation of Service Learning Scholar at graduation.

Note: With the exception of first semester freshmen, all students must have a cumulative GPA of 2.0 or higher and have completed all developmental courses prior to declaring youth and nonprofit leadership as a major.

**MAJOR:**
**Youth and Nonprofit Leadership**

Bachelor of Arts/Bachelor of Science Degree
CIP 44.0702

University Studies Requirements .................................41-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
Social and Self-Awareness and Responsible Citizenship:
PSY 180 General Psychology
• University Studies Electives:
  CSC 199 Introduction to Information Technology

Required Courses ................................................................. 29 hrs
YNL 999 Transitions
YNL 290 Current Trends and Issues in Youth and Human Services
YNL 350 Program Administration in Youth and Human Service Organizations
YNL 351 Leadership and Support Systems in Youth and Human Service Organizations
YNL 400 Youth and Human Service Agency Administration Internship
YNL 401 Youth and Human Service Internship
YNL 450 Senior Seminar
YNL 475 Social Entrepreneurship
YNL 485 Seminar on Leadership Development
YNL 502 Workshop in Financial Resource Development

YNL 580 Special Problems in Youth and Human Service Organizations

Career Related Electives ......................................................... 9 hrs
Choose from the following:
COM 340 Intercultural Communication
COM 380 Organizational Communication
COM 439 Conflict and Communication
HEA 191 Personal Health
MGT 350 Fundamentals of Management
MGT 550 Human Resource Management
MKT 360 Principles of Marketing
OSH 101 Emergency Medical Training
PHI 202 Ethics
PSY 261 Child Psychology
PSY 262 Adolescent Psychology
REC 403 Managing Recreation Areas and Facilities

Required Minor .................................................................21 hrs

Unrestricted Electives ..........................................................14-20 hrs

Total Curriculum Requirements .................................120 hrs

Youth and Nonprofit Leadership Minor ..........................25 hrs
YNL 290, 350, 351, 400, 401, 450, 502, and six hours of limited electives. Six hours must be upper-level courses completed in residence at Murray State University.
College of Humanities and Fine Arts

Ted Brown, Dean    Sonya Baker, Assistant Dean
100 Faculty Hall
270-809-6937

Mission
The College of Humanities and Fine Arts strives to foster awareness and appreciation of the humanities, fine arts, and social sciences among students, the university community, and the public. The College is a learning community dedicated to the pursuit of knowledge and its application through civic and professional leadership. Students and faculty members act as advocates for the humanities, fine arts, and social sciences in a variety of ways, ranging from teaching and scholarly work to performance, exhibition, and consultation. To this end, the College actively promotes research and creative activities among its faculty and students.

The College seeks to provide a personalized learning experience promoting the free and rigorous pursuit of knowledge, respect for differing points of view and cultures, appreciation of personal expression in all its artistic forms, awareness of the role of an educated citizenry in a democratic society, and understanding of the role values play in thought and action. The College aims to develop students who think critically and creatively, communicate effectively, and participate actively in their communities. Thus, the College of Humanities and Fine Arts is committed to preparing well-educated, thoughtful, and contributing citizens of the world.

Programs
The College of Humanities and Fine Arts consists of the departments of Art and Design; English and Philosophy; Government, Law and International Affairs; History; Modern Languages; Music; Psychology; Theatre; and the Sociology program.

Undergraduate degrees offered by the college are bachelor of science, bachelor of arts, bachelor of fine arts, bachelor of music education, and bachelor of music. Graduate degrees are master of science, master of arts, master of fine arts, master of music education, and master of public administration. Murray State University is an accredited institutional member of the National Association of Schools of Art and Design, the National Association of Schools of Music and the National Association of Schools of Theatre.

The College offers programs in the traditional humanities (English, philosophy, history, and modern languages); social sciences (political science and sociology); and behavioral science (psychology). The fine and performing arts (art, music, and theatre) offer traditional and contemporary programs in their disciplines through studio and classroom courses, performances, gallery events, and ensembles. Additionally, the college encourages all students to participate in the cultural and artistic life of the campus through creative writing colloquia, poetry readings, exhibitions, and participation in music ensembles, marching band, and/or choral groups. The college offers a variety of innovative arts, humanities, and social science courses through the institution’s University Studies curriculum. English composition and the two interdisciplinary core courses, World Civilizations and Cultures and Humanities, are integral parts of preparing every Murray State student to communicate effectively, to engage in sound analysis and make logical decisions, to understand the world’s historical, literary, and philosophical traditions, to understand cultural diversity and competing economic and political systems as well as complex moral and ethical issues, and to become responsible citizens in a democratic society—all of which are desired characteristics of the Murray State graduate. Note: Most departments in the College of Humanities and Fine Arts will be instituting a one-hour Professional Engagement requirement effective in Fall 2013.

The college serves as the cultural heart of the university and the region by providing a broad range of cultural and intellectual programs. Campus and regional community members are encouraged to attend college events. Distinguished college faculty engage actively in teaching, scholarly/creative activity, and service. The college is committed to service to the community through its role in teacher education and involvement with the public schools. The English and Philosophy Department sponsors the Jesse Stuart Symposium as well as the MSU Reading Series each academic year. The Department of Government, Law and International Affairs annually sponsors the Harry Lee Waterfield Distinguished Lecture in Public Affairs.

In addition, the college offers students rich opportunities for international study and intercultural experience. MSU is a member of the Kentucky Institute for International Studies, a consortium of 20 public and private universities offering study-abroad programs in over 16 international destinations. Many college faculty are also involved in foreign travel and study in English-speaking countries. Opportunities to study in the U.K., Ireland, Australia, Canada, and other countries are available.

Graduates of programs in the college pursue a variety of careers. In addition to teaching, graduates are employed in business, communications, government, law, the ministry, psychology, and a variety of private and social agencies, as well as international governmental and non-governmental organizations. Careers available in the fine arts fields include performance (vocal, instrumental, and theatrical), design, web design, graphic communications, and art, museum, and theatre management. All programs follow the liberal arts model of preparing students broadly for a rapidly changing job market. Students are prepared to communicate effectively, think critically, develop the analytical skills necessary to solve problems, learn on their own, understand human behavior, and imagine alternative ways of viewing problems. Several of the programs in the college provide excellent preparation for a career in law.
Liberal Arts

The Liberal Arts major is designed for students interested in investigating connections between two or more traditional liberal arts fields. Following a wide-reaching University Studies and core program, students choose two 18-hour concentrations from a range of fields of study drawn from the arts, humanities, natural sciences, and social sciences, plus a minor, and at least one Study Abroad experience. Liberal Arts majors also produce a multidisciplinary senior project in which they explore a topic of interest that combines at least two of their areas of study.

Liberal Arts majors are self-motivated and think creatively across the disciplines. Liberal Arts majors prepare to serve the growing demand in business, industry, and the professions for broadly educated individuals who exhibit interpersonal, analytical, technical, and communication skills, as well as individual initiative.

MAJOR: Liberal Arts

Bachelor of Arts Degree
CIP 24.0101

Note: Study abroad, the hours which will be taken as part of meeting major, minor, and/or University Studies requirements, is a required element of this program.

University Studies Requirements ......................... 45-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Global Awareness, Cultural Diversity and the World’s Artistic Traditions:
  ART 211 Introduction to the History of Art I
  or
  ART 212 Introduction to the History of Art II
• Scientific Inquiry, Methodologies and Quantitative Skills:
  One AST, BIO, CHE, GSC, or PHY course with lab and in a different discipline:
  One AST, BIO, CHE, GSC, or PHY course with lab
• World’s Historical, Literary, and Philosophical Traditions: Must include one of the following:
  ENG 201 Appreciation of Literature
  ENG 243 Literary Masterpieces: Fantasy, Myth and Legend
  GDS 201 Introduction to Diversity and Gender Studies
  RGS 200 Introduction to Religious Studies
• University Studies Electives:
  One MUS or THD course
  and one of the following:
  ANT 140 Introduction to Cultural Anthropology
  ARC 150 Introduction to Archaeology
  HIS 221 American Experience to 1865
  HIS 222 American Experience Since 1865
  PHI 201 Introduction to Philosophy
  POL 261 Introduction to Political Theory
  PSY 180 General Psychology
  SOC 133 Introduction to Sociology
  SOC 231 Social Problems

Core Courses .......................................................... 7 hrs
  LBA 099 Transitions
  LBA 438 Seminar in Liberal Arts

and one of the following:
  BIO 308 Ethics in Biology
  PHI 202 Ethics
  PHI 330 Medical Ethics
  PHI 376 Environmental Ethics

Concentrations ...................................................... 36-40 hrs
Choose two concentrations from the seven areas following. No more than one concentration can be taken from the same area. Courses in each concentration are on file in the Registrar’s Office and on the Murray State Liberal Arts website.

• Fine Arts
  Art History ......................................................... 18
  Music ............................................................. 20
  Theatre ......................................................... 18

• Humanities
  English ............................................................ 18
  Modern Language (one language) ..................... 18
  Philosophy .................................................... 18

• Natural Science/Mathematics
  Biology ............................................................ 19
  Chemistry ...................................................... 19
  Geosciences ................................................... 18-20
  Mathematics ............................................... 19-20
  Physical Science ........................................... 19-20

• Social Science
  Anthropology .................................................. 18
  Economics ..................................................... 18
  History .......................................................... 18
  International Affairs ..................................... 18
  Legal Studies ................................................ 18
  Political Science ........................................... 18
  Religious Studies ......................................... 18
  Psychology .................................................... 18-19
  Sociology .................................................... 18

• Multicultural, Class and Gender Studies ..................... 18

• Sustainability Studies ....................................... 18-19

• Interdisciplinary Studies ..................................... 18

With the approval of the program coordinator, an interdisciplinary concentration will be created, using courses designated within existing liberal arts concentrations.

Internship/Cooperative Education ............................. 0-6 hrs
In order to build workplace skills, Liberal Arts majors are strongly encouraged to participate in a program coordinator-approved internship or cooperative education placement. See the MSU Career Services website (www.murraystate.edu/careerservices) for more information.

Required Minor .................................................. 0-11 hrs

Electives .......................................................... 21-24 hrs

Total Curriculum Requirements .......................... 120-136 hrs
The Department of Art and Design provides a broad range of programs and professional opportunities for students preparing to work as practicing artists, craftsmen, and designers, for careers in art education, and for graduate study in art, art education, and art history.

Students pursuing a degree in art may select a program of study leading to either the Bachelor of Fine Arts, the Bachelor of Arts or the Bachelor of Science degree. Teacher certification in art is available to undergraduate students within each degree as an option requiring only an additional year of study. Degree candidates are certified to teach art in kindergarten through grade 12. A minor in art and a minor in art history are also offered to the general college student. Elective courses in art appreciation, art history, and studio art are open to non-art majors.

The curricular structure of each degree program is organized to encourage students to study and explore a variety of media and techniques upon which later specialization may be based. Areas of specialization include ceramics, drawing, furniture design, graphic design, metalsmithing, photography, painting, printmaking, and sculpture. At the intermediate and advanced levels, students are encouraged by faculty to express their own personal direction and ideas and to establish professional standards by the exhibition of their work. The culmination of the student's undergraduate study is the senior exhibition requirement.

The Institute for International Studies and the Cooperative Center for Study in Britain offer a variety of study abroad opportunities for MSU art students. Through direct exchanges and special international courses, students can study in more than a dozen countries.

The department operates two galleries on campus. The Clara M. Eagle Gallery and the Curris Center Gallery provide the university and community with significant cultural and educational programs. The exhibition schedule offers work by historical and contemporary artists including MSU faculty, students, alumni, and visiting artists. A large portion of the exhibition space is continually used by the students. Department, class, and/or individual shows are always on view. Programs include the annual student art show and the visiting artist series.

Scholarships

Scholarships and grants-in-aid are available to qualified art students. For additional information refer to the scholarship section of this Bulletin or contact the scholarship person in the Department of Art and Design.
College of Humanities and Fine Arts

ART 491 Special Problems in Art History
ART 501 Special Topics in Art History
or one course from: ART 415, 416, 418, 419, 428, 429, 430

One of the following:
ART 415 Greek & Roman Art
ART 416 Medieval Art
ART 418 Renaissance Art
ART 419 Baroque Art

One of the following:
ART 428 Nineteenth-Century Art
ART 429 Art from 1900 to 1960
ART 430 Contemporary Art, 1960 to the Present

Studio Art Option Courses .............................................. 15 hrs
Studio electives to be selected in consultation with advisor.

Unrestricted Electives .................................................. 9-12 hrs

Total Curriculum Requirements ........................................... 125 hrs

1The baccalaureate degree is not awarded automatically upon completion of any required number of courses or units of credit. The progress and status of students in the program is regularly assessed through reviews. All students are required to register for ART 298 the semester after they complete 30 credit hours of ART courses. After passing ART 298, students may form a B.F.A. jury and track in the B.F.A. requirements. A final review, ART 498, is conducted by B.F.A. jury in conjunction with fulfilling the senior B.F.A. Practicum Exhibition requirement. B.F.A. students must maintain a 3.00 GPA in the area of their studio concentration.

Area: Art/Studio Art Option

Bachelor of Arts/Bachelor of Science Degree
CIP 50.0702

ACCREDITED BY:
National Association of Schools of Art and Design (NASAD)

University Studies Requirements ......................... 41-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Global Awareness, Cultural Diversity and the World’s Artistic Traditions:
  ART 211 Introduction to the History of Art I
• University Studies Electives:
  ART 212 Introduction to the History of Art II

Core Courses ...................................................... 43 hrs
ART 099 Transitions
ART 101 Drawing I: Introduction to Drawing
ART 111 Two-dimensional Design
ART 112 Three-dimensional Design
ART 201 Drawing II: Life Drawing
ART 298 Mid-Degree Review Seminar 1
ART 399 Professional Practices
ART 499 BA/BS Practicum Group Exhibition
Three of the following:
ART 300 Drawing III
ART 330 Introduction to Painting I
ART 350 Introduction to Graphic Design I: Digital Art
ART 379 Introduction to Printmaking I
ART 382 Introduction to Photography I
ART 393 Special Topics in 2-D

Three of the following:
ART 309 Introduction to Metalsmithing I
ART 310 Introduction to Furniture Design I
ART 360 Introduction to Sculpture I
ART 370 Introduction to Ceramics I
ART 394 Special Topics in 3-D

One of the following:
ART 356 Art of Non-Western Cultures
ART 425 Art of Asia
ART 491 Special Problems in Art History
ART 501 Special Topics in Art History
or one course from: ART 415, 416, 418, 419, 428, 429, 430

One of the following:
ART 428 Nineteenth-Century Art
ART 429 Art from 1900 to 1960
ART 430 Contemporary Art, 1960 to the Present

Area: Art/Studio Art-Enhanced Art History Option

Bachelor of Fine Arts Degree
CIP 50.0702

ACCREDITED BY:
National Association of Schools of Art and Design (NASAD)

University Studies Requirements ......................... 38-41 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Global Awareness, Cultural Diversity and the World’s Artistic Traditions:
  ART 211 Introduction to the History of Art I
• University Studies Electives:
  ART 212 Introduction to the History of Art II
Core Courses ................................................................. 60 hrs
ART 099 Transitions
ART 101 Drawing I: Introduction to Drawing
ART 111 Two-dimensional Design
ART 112 Three-dimensional Design
ART 201 Drawing II: Life Drawing
ART 298 Mid-Degree Review Seminar
ART 399 Professional Practices
ART 498 BFA Practicum Exhibition

Three of the following:
ART 300 Drawing III
ART 330 Introduction to Painting I
ART 350 Introduction to Graphic Design I: Digital Art
ART 379 Introduction to Printmaking I
ART 382 Introduction to Photography I
ART 393 Special Topics in 2-D

Three of the following:
ART 309 Introduction to Metalsmithing I
ART 310 Introduction to Furniture Design I
ART 360 Introduction to Sculpture I
ART 370 Introduction to Ceramics I
ART 394 Special Topics in 3-D

One of the following:
ART 356 Art of Non-Western Cultures
ART 425 Art of Asia
ART 491 Special Problems in Art History
ART 501 Special Topics in Art History

or one course from: ART 415, 416, 418, 419, 428, 429, 430

Five sequential courses from one of the following areas: drawing, painting, graphic design, printmaking, photography, metalsmithing, furniture design, sculpture, or ceramics with advisor approval

One of the following:
ART 415 Greek & Roman Art
ART 416 Medieval Art
ART 418 Renaissance Art
ART 419 Baroque Art

One of the following:
ART 428 Nineteenth-Century Art
ART 429 Art from 1900 to 1960
ART 430 Contemporary Art, 1960 to the Present

Enhanced Art History Option Courses 1 ............................. 27 hrs

Five courses in studio art to be selected in consultation with advisor.

One of the following:
ART 415 Greek & Roman Art
ART 416 Medieval Art
ART 418 Renaissance Art
ART 419 Baroque Art

One of the following:
ART 428 Nineteenth-Century Art
ART 429 Art from 1900 to 1960
ART 430 Contemporary Art, 1960 to the Present

Two of the following:
ART 356 Art of Non-Western Cultures
ART 425 Art of Asia
ART 491 Special Problems in Art History 2
ART 501 Special Topics in Art History

or one course from: ART 415, 416, 418, 419, 428, 429, 430

Total Curriculum Requirements 3 .................................. 125-128 hrs

1 Study abroad is strongly recommended.

2 An independent study course in the student’s area of emphasis is recommended.

3 The baccalaureate degree is not awarded automatically upon completion of any required number of courses or units of credit. The progress and status of students in the program is regularly assessed through reviews. All students are required to register for ART 298 the semester after they register for 21 credit hours of studio ART courses. After passing ART 298, students may form a B.F.A. jury and track in the B.F.A. requirements. Students tracking in the B.F.A. with Enhanced Art History must include an art history faculty as a member of their jury. A final review, ART 498, is conducted by B.F.A. jury in conjunction with fulfilling the senior B.F.A. Practicum Exhibition requirement. B.F.A. students must maintain a 3.00 GPA in the area of their studio concentration.

AREA:
Art/Studio Art-Enhanced Art History Option

Bachelor of Arts
CIP 50.0702

ACCREDITED BY:
National Association of Schools of Art and Design (NASAD)

University Studies Requirements ................................. 44-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Global Awareness, Cultural Diversity and the World’s Artistic Traditions:
  ART 211 Introduction to the History of Art I
• University Studies Electives:
  ART 212 Introduction to the History of Art II

Core Courses ................................................................. 43 hrs
ART 099 Transitions
ART 101 Drawing I: Introduction to Drawing
ART 111 Two-dimensional Design
ART 112 Three-dimensional Design
ART 201 Drawing II: Life Drawing
ART 298 Mid-Degree Review Seminar 1
ART 399 Professional Practices
ART 499 BA/BS Practicum Group Exhibition

Three of the following:
ART 300 Drawing III
ART 330 Introduction to Painting I
ART 350 Introduction to Graphic Design I: Digital Art
ART 379 Introduction to Printmaking I
ART 382 Introduction to Photography I
ART 393 Special Topics in 2-D

Three of the following:
ART 309 Introduction to Metalsmithing I
ART 310 Introduction to Furniture Design I
ART 360 Introduction to Sculpture I
ART 370 Introduction to Ceramics I
ART 394 Special Topics in 3-D

One of the following:
ART 356 Art of Non-Western Cultures
ART 425 Art of Asia
ART 491 Special Problems in Art History
ART 501 Special Topics in Art History

or one course from: ART 415, 416, 418, 419, 428, 429, 430

One of the following:
ART 415 Greek & Roman Art
ART 416 Medieval Art
ART 418 Renaissance Art
ART 419 Baroque Art
College of Humanities and Fine Arts

One of the following:
ART 428 Nineteenth-Century Art
ART 429 Art from 1900 to 1960
ART 430 Contemporary Art, 1960 to the Present

Enhanced Art History Option Courses .............................. 18 hrs
Two sequential courses in the same studio emphasis above the introductory level.

One of the following:
ART 415 Greek & Roman Art
ART 416 Medieval Art
ART 418 Renaissance Art
ART 419 Baroque Art

One of the following:
ART 428 Nineteenth-Century Art
ART 429 Art from 1900 to 1960
ART 430 Contemporary Art, 1960 to the Present

Two of the following:
ART 356 Art of Non-Western Cultures
ART 425 Art of Asia
ART 491 Special Problems in Art History
ART 501 Special Topics in Art History
or one course from: ART 415, 416, 418, 419, 428, 429, 430

Note: Study abroad experience is strongly recommended.

Unrestricted Electives ...................................................... 12-15 hrs

Total Curriculum Requirements ....................................... 120 hrs

1The baccalaureate degree is not awarded automatically upon completion of any required number of courses or units of credit. The progress and status of students in the program is regularly assessed through reviews. All students are required to register for ART 298 the semester after they complete 30 credit hours of ART courses. A final review, ART 499, is conducted by faculty jury in conjunction with fulfilling the senior B.A./B.S. Practicum Exhibition requirement.

AREA:
Art/Teaching Certification Option 1

Bachelor of Fine Arts Degree
CIP 50.0702

ACCREDITED BY:
National Association of Schools of Art and Design (NASAD)

Note: B.A. degree is required unless specifically exempted by department chair. Certification requires a grade of B or better in one English composition course and a grade of C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

University Studies Requirements .................................. 38-41 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Global Awareness, Cultural Diversity and the World’s Artistic Traditions:
  ART 211 Introduction to the History of Art I
• Social and Self-Awareness and Responsible Citizenship:
  PSY 180 General Psychology
• University Studies Electives:
  ART 212 Introduction to the History of Art II

EDP 260 Psychology of Human Development
EDU 103 Issues and Practices of American Education

Core Courses ................................................................... 60 hrs
ART 099 Transitions
ART 101 Drawing I: Introduction to Drawing
ART 111 Two-dimensional Design
ART 112 Three-dimensional Design
ART 201 Drawing II: Life Drawing
ART 298 Mid-Degree Review Seminar 2
ART 399 Professional Practices
ART 498 B.F.A. Practicum Exhibition

Three of the following:
ART 300 Drawing III
ART 330 Introduction to Painting I
ART 359 Introduction to Graphic Design I: Digital Art
ART 379 Introduction to Printmaking I
ART 382 Introduction to Photography I
ART 393 Special Topics in 2-D

Three of the following:
ART 309 Introduction to Metalsmithing I
ART 310 Introduction to Furniture Design I
ART 360 Introduction to Sculpture I
ART 370 Introduction to Ceramics I
ART 394 Special Topics in 3-D

Five sequential courses from one of the following areas: drawing, painting, graphic design, printmaking, photography, metalsmithing, furniture design, sculpture, or ceramics, with advisor approval.

One of the following:
ART 356 Art of Non-Western Cultures
ART 425 Art of Asia
ART 491 Special Problems in Art History
ART 501 Special Topics in Art History
or one course from: ART 415, 416, 418, 419, 428, 429, 430

One of the following:
ART 415 Greek & Roman Art
ART 416 Medieval Art
ART 418 Renaissance Art
ART 419 Baroque Art

One of the following:
ART 428 Nineteenth-Century Art
ART 429 Art from 1900 to 1960
ART 430 Contemporary Art, 1960 to the Present

Teaching Certification Option ........................................ 30 hrs
ART 330 Introduction to Painting I
ART 341 Fundamentals of Elementary School Art
ART 342 Fundamentals of Secondary School Art
EDU 403 Structure and Foundations of Education
EDU 422 Student Teaching Seminar
ELE 421 Student Teaching Elementary P-5, IECE
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Total Curriculum Requirements ................................. 128-137 hrs

1Students must choose ART 330 as part of the core for teaching certification.

2The baccalaureate degree is not awarded automatically upon completion of any required number of courses or units of credit. The progress and status of students in the program is regularly assessed through reviews. All students are required to register for ART 298 the semester after they register for 21 credit hours of studio ART courses. After passing ART 298, students may form a B.F.A. jury and track in the B.F.A. requirements. Students tracking in the B.F.A. with Enhanced Art History must include an art history
faculty as a member of their jury. A final review, ART 498, is conducted by B.F.A. jury in conjunction with fulfilling the senior B.F.A. Practicum Exhibition requirement. B.F.A. students must maintain a 3.00 GPA in the area of their studio concentration.

**AREA:**
**Art/Teaching Certification Option**

**Bachelor of Arts/Bachelor of Science Degree**

**CIP 50.0702**

**ACCREDITED BY:**
National Association of Schools of Art and Design (NASAD)

**Note:** B.A. degree is required unless specifically exempted by department chair. Certification requires a grade of B or better in one English composition course and a grade of C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

**University Studies Requirements** .................41-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
*Global Awareness, Cultural Diversity and the World’s Artistic Traditions:*
ART 211 Introduction to the History of Art I
*Social and Self-Awareness and Responsible Citizenship:*
PSY 180 General Psychology
*University Studies Electives:*
ART 212 Introduction to the History of Art II

**Core Courses** .................................................43 hrs
ART 099 Transitions
ART 101 Drawing I: Introduction to Drawing
ART 111 Two-dimensional Design
ART 112 Three-dimensional Design
ART 201 Drawing II: Life Drawing
ART 298 Mid-Degree Review Seminar
ART 399 Professional Practices
ART 499 BA/BS Practicum Group Exhibition

**Three of the following:**
ART 300 Drawing III
ART 330 Introduction to Painting I
ART 350 Introduction to Graphic Design I: Digital Art
ART 379 Introduction to Printmaking I
ART 382 Introduction to Photography I
ART 393 Special Topics in 2-D

**Three of the following:**
ART 309 Introduction to Metalsmithing I
ART 310 Introduction to Furniture Design I
ART 360 Introduction to Sculpture I
ART 370 Introduction to Ceramics I
ART 394 Special Topics in 3-D

**One of the following:**
ART 356 Art of Non-Western Cultures
ART 425 Art of Asia
ART 491 Special Problems in Art History
ART 501 Special Topics in Art History
or one course from: ART 415, 416, 418, 419, 428, 429, 430

**One of the following:**
ART 418 Renaissance Art
ART 419 Baroque Art

**One of the following:**
ART 428 Nineteenth-Century Art
ART 429 Art from 1900 to 1960
ART 430 Contemporary Art, 1960 to the Present

**Teaching Certification Option** .........................36-47 hrs

ART 330 Introduction to Painting I
ART 341 Fundamentals of Elementary School Art
ART 342 Fundamentals of Secondary School Art
COM 161 Introduction to Public Speaking
EDP 260 Psychology of Human Development
EDU 103 Issues and Practices of American Education
EDU 403 Structure and Foundations of Education
EDU 422 Student Teaching Seminar
ELE 421 Student Teaching
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching
SED 300 Educating Students with Disabilities

Two sequential courses in the same studio emphasis above the introductory level, with advisor approval.

**Total Curriculum Requirements** ..........................120-137 hrs

1 The baccalaureate degree is not awarded automatically upon completion of any required number of courses or units of credit. The progress and status of students in the program is regularly assessed through reviews. All students are required to register for ART 298 the semester after they register for 21 credit hours of studio ART courses. A final review, ART 499, is conducted by faculty jury in conjunction with fulfilling the senior B.A./B.S. Practicum Exhibition requirement.

1 May be used as University Studies elective.

1 Students must choose ART 330 as part of the core for teaching certification.

**Art Minor** ..................................................21 hrs
One of the following: ART 101, 111, or 112. One of the following:
ART 121, 211, or 212. Five additional studio courses 200-level or above (not ART 343). At least six hours must be upper-level courses completed in residence at Murray State University.

**Art History Minor** ...........................................21 hrs
ART 211, 212 and five additional upper-level art history courses, with advisor approval. At least six hours must be upper-level courses completed in residence at Murray State University.

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**Department of English and Philosophy**

7C9 Faculty Hall
270-809-2401

**Chair:** Staci Stone. **Faculty:** Adair, Babcock, Bell, Binfield, Carthell, Claywell, Cobb, Crofton, Dawkins, Gayman, Goggins, Helton, Jerrell, Johns, Johnson, Jones, Martell, McIntosh, Morgan, Murphy, Neelon, Nielsen, Osborne, Phillips, Roulston, Song, Sroda, Trites, Walker, Wezner, Xia.

The Department of English and Philosophy helps students explore the world of words and ideas while preparing for a variety of creative and dynamic careers. Students majoring in the department’s programs can look forward to success in fields such as creative writing, technical writing, business, publishing, teaching, law, and journalism. Through their studies at Murray State, English and Philosophy majors gain the flexibility of a well-
developed mind, a facility with the power of language, and the analytical skills employers want.

To reach their goals, students may choose from a number of areas, options, and minors. **Note:** Each Option program described below—Literature Option, Creative Writing Option, two English Education Options—shares a core of courses.

**English Education Program**

The English Education Program helps students develop the skills needed to succeed as teachers in the classroom. The program works in conjunction with the College of Education to prepare students for certification as middle and secondary school teachers. The department offers the B.A. within the English/Education area and the B.A. in Teaching English to Speakers of Other Languages. A minor in English Education is also offered.

**Creative Writing Program**

The Creative Writing Program helps students prepare for careers in editing, publishing, law, advertising, journalism, and communications, in addition to helping them grow as practicing poets and/or fiction writers and teachers of creative writing. Students may earn a B.F.A. in Creative Writing degree or a B.A. in English/Creative Writing Option. A minor is offered in creative writing as well.

**Literature Program**

Literature Program students examine the fiction, poetry, drama, and film of a wide variety of traditions, from ancient to contemporary. The program helps students develop a broad sense of literature, focusing on both traditional and non-canonical writers in English. The B.A. degree in English/Literature is available, as well as minors in literature and rhetoric.

**Philosophy Program**

Students enrolled in the Philosophy program explore the historical trajectory of philosophical thought and its current applications in many professional and academic fields. Philosophy is a critical and reflective discipline, the study of which strengthens students’ evaluative and moral reasoning skills, and prepares students to succeed in future endeavors such as law school, seminary, medicine, business, computer science, and education. Students may earn a major or minor in philosophy.

**Graduate Programs**

Students interested in graduate study in English should examine the **MSU Graduate Bulletin** for descriptions of the following programs: Master of Arts in English (with options in literature, English education, and English with philosophy as a cognate discipline); a Master of Arts in Teaching English to Speakers of Other Languages (TESOL); a low-residency Master of Fine Arts in Creative Writing; and graduate certificate in Professional Writing and Gender Studies.
AREA: English Education/Teaching English to Speakers of Other Languages (Grades P-12)

Bachelor of Arts Degree
CIP 23.0101

University Studies Requirements ...........................................44-47 hrs
(See Chapter 5, University Studies Requirements)

• University Studies Electives:
  EDP 260 Psychology of Human Development

Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Required Courses .............................................................25 hrs
ENG 099 Transitions
ENG 221 Introduction to English Studies
ENG 303 British Literature to 1760
ENG 304 British Literature, 1760 to the Present
ENG 311 American Literature to 1890
ENG 312 American Literature, 1890 to the Present
ENG 321 Research in Literary Studies
ENG 334 Shakespeare
and one of the following:
ENG 309 History of the English Language
ENG 310 Introduction to English Linguistics

Required Limited Electives ..............................................21 hrs
ENG 228 Standard English Usage
ENG 309 History of the English Language
ENG 310 Introduction to English Linguistics

Required for Secondary Certification ......................30 hrs
EDU 103 Issues and Practices of American Education
EDU 403 Structures and Foundations of Education
EDU 422 Student Teaching Seminar (optional)
ELE 421 Student Teaching Elementary P-5, IECE
REA 527 Teaching Reading in the Secondary School
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Total Curriculum Requirements .........................120-123 hrs
1 Whichever was not taken in the core.

AREA: Creative Writing

Bachelor of Fine Arts Degree
CIP 23.1302

University Studies Requirements ...........................................44-47 hrs
(See Chapter 5, University Studies Requirements)

Required Courses ............................................................26 hrs
ENG 099 Transitions
ENG 221 Introduction to English Studies
ENG 303 British Literature to 1760
ENG 304 British Literature, 1760 to the Present
ENG 311 American Literature to 1890
ENG 312 American Literature, 1890 to the Present
ENG 321 Research in Literary Studies
ENG 334 Shakespeare
ENG 562 BFA Senior Seminar
and one of the following:
ENG 309 History of the English Language
ENG 310 Introduction to English Linguistics

Concentration Required Electives ......................15 hrs
Choose one of the following concentrations:
Concentration in Fiction
ENG 341 Introduction to Writing Fiction
ENG 408 Forms of Fiction
ENG 415 Writer’s Workshop: Short Story
ENG 560 Advanced Creative Writing: Fiction
and one of the following:
ENG 342 Introduction to Writing Poetry
ENG 343 Special Topics in Creative Writing
ENG 344 Introduction to Creative Non-Fiction
ENG 416 Writer’s Workshop: Poetry

Concentration in Poetry
ENG 342 Introduction to Writing Poetry
ENG 416 Writer’s Workshop: Poetry
ENG 424 Forms of Poetry
ENG 561 Advanced Creative Writing: Poetry
and one of the following:
ENG 341 Introduction to Writing Fiction
ENG 343 Special Topics in Creative Writing
ENG 344 Introduction to Creative Non-Fiction
ENG 415 Writer’s Workshop: Short Story

Restricted Electives ......................................................12 hrs
Three 300-500 level literature courses and one additional course in literature or creative writing.

Unrestricted Electives ..................................................21-24 hrs
Total Curriculum Requirements .........................121 hrs
## MAJOR: English/Creative Writing Option

**Bachelor of Arts Degree**  
CIP 23.0101

**University Studies Requirements**  
44-47 hrs  
(See Chapter 5, University Studies Requirements)

### Required Courses  
25 hrs

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<tr>
<td>ENG 312</td>
<td>American Literature, 1890 to the Present</td>
</tr>
<tr>
<td>ENG 321</td>
<td>Research in Literary Studies</td>
</tr>
<tr>
<td>ENG 334</td>
<td>Shakespeare</td>
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*and one of the following:*

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<td>ENG 309</td>
<td>History of the English Language</td>
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### Concentration Required Electives  
15 hrs

*Choose one of the following concentrations:*

#### Concentration in Fiction

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#### Concentration in Poetry

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</tbody>
</table>

### Required Limited Electives  
21-24 hrs

#### Electives  
9-15 hrs

### Total Curriculum Requirements  
120 hrs

## MAJOR: English/Literature Option

**Bachelor of Arts Degree**  
CIP 23.0101

**University Studies Requirements**  
44-47 hrs  
(See Chapter 5, University Studies Requirements)

### Required Courses  
25 hrs

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</tr>
<tr>
<td>ENG 310</td>
<td>Introduction to English Linguistics</td>
</tr>
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</table>

### Required Limited Electives  
21-24 hrs

#### Electives  
9-15 hrs

### Total Curriculum Requirements  
120 hrs

## Film Studies Minor

21 hrs

- ENG 313 and 314. One of the following: ENG 315, 419; FRE 419, GER 419; SPA 419; one or two of the following: ART 382, 383, 384, 385; JMC 270, 336; ENG 343, 460; two or three of the following: ART 490; ENG 213, 351, 417; HIS 477; JMC 358; MUS 255; POL 352; TSL 331, 332.
106, 313. May include only one of the following: ENG 341, 342, 415, or 416. At least six hours must be upper-level courses completed in residence at Murray State University.

Gender and Diversity Studies Minor ..................... 21 hrs
GDS 201. Choose 18 hours of electives. No more than three courses may come from either of the following two categories: Comparative Cultures and Non-Western Studies—ANT 140; ARC 330, ART 211 or 212; 356; COM 340, ENG 250; GSC 110, HIS 309, 340, 350, 370, 450, 451, 455, 472, 474, 481; GDS 351 or 412; POL 453, 454 or one of the following: FRE 105, GER 105, JPN 105, SPA 105; or Minority and Gender Studies—ANT 329, 343, 344, 596; ECO 140; ENG 245, 318, 320; HIS 320, 415, 445; GDS 351 or 412; POL 342, 445; PSY 221, 302; SOC 331, 337, 355; or SWK 225. At least six hours must be upper-level courses completed in residence at Murray State University.

MAJOR:

Bachelor of Arts Degree
CIP 38.0101

University Studies Requirements .....................44-47 hrs
(See Chapter 5, University Studies Requirements)

Required Courses.............................................19 hrs
PHI 099 Transitions
PHI 201 Introduction to Philosophy\(^1\)
PHI 202 Ethics\(^1\)
PHI 203 Symbolic Logic
PHI 304 History of Philosophy I: Ancient and Medieval
PHI 305 History of Philosophy II: Modern/19th Century
PHI 498 Major Figures

Philosophy Electives......................................18 hrs
Select from the following:
PHI 103 Critical Thinking
PHI 307 Epistemology
PHI 308 Metaphysics
PHI 310 American Philosophy
PHI 315 Social and Political Philosophy
PHI 321 Philosophy of Religion
PHI 322 Philosophy of History
PHI 325 Philosophy of Art
PHI 330 Medical Ethics
PHI 340 Special Topics
PHI 350 Philosophy of Science
PHI 356 Continental Philosophy
PHI 357 Feminist Philosophy
PHI 360 Literature and Philosophy
PHI 372 Philosophy and Cognitive Science
PHI 376 Environmental Ethics
PHI 378 Teaching and Philosophy
PHI 380 Philosophy of Language
PHI 382 Philosophy of Social Science
PHI 383 Philosophy of Diversity

Required Minor.............................................21 hrs

Unrestricted Electives...................................12-18 hrs

Total Curriculum Requirements .....................120 hrs
\(^1\)Required for major whether or not taken as University Studies elective.

Literature and Philosophy Minor..........................21 hrs
ENG 201, ENG/PHI 360, and PHI 201. One of the following: ENG 302, 304, 311, or 312. One of the following: ENG 305, 306, 334, 426, 427, 428, or 534. Two of the following: PHI 304, 305, 310, 315, 321, 325, 356, 357. At least six hours must be upper-level courses completed in residence at Murray State University. Only two of these courses may be shared with University Studies.

Philosophy Minor...........................................21 hrs
PHI 201 and 202 or 203 and five additional courses in philosophy, four at or above the 300-level. At least six hours must be upper-level courses completed in residence at Murray State University. Only two of these courses may be shared with University Studies.

Department of Government, Law and International Affairs

Chair: Lillian Daughaday, interim. Faculty: Alkhatib, Battle, Beck, Byrd, Kang, Clinger, Daughaday, Glover, McCutchen, Purser, Rose, Shope, Wattier.

Curricula of the department afford enough specialization and career education to prepare students for enrollment in professional and graduate programs, or for participation in various occupational classifications immediately upon graduation. Students completing baccalaureate programs in the department will be granted either the Bachelor of Arts or the Bachelor of Science degree. Major programs are offered in political science, international affairs, and sociology. Minor programs are offered in political science, international affairs, legal studies/paralegal, social science and sociology.

The Department of Government, Law and International Affairs provides several avenues to professional and academic competence. Besides specific courses preparing students for a broad variety of occupational choices in international affairs, politics and public administration, and legal studies, University Studies classes furnish an opportunity for students to become more familiar with the international environment and the American political system. The department functions in close harmony with other academic units across campus and draws from other programs to complement its offerings. Pre-law advising and law school placement services are coordinated by the legal studies component within the department.

The outcome of the above fields of study is that graduates of the programs must demonstrate oral and written communication skills which follow the conventions of standard English usage and meet the criteria for clarity, organization, development and thoughtfulness; must have acquired basic understanding of research methodologies, i.e. the use of statistical analysis and computer applications; and should have acquired an understanding of the basic concepts, systems and problems of their discipline in particular and liberal arts education in general.
MAJOR: Political Science  
Bachelor of Arts/Bachelor of Science Degree  
CIP 45.1001  
University Studies Requirements ..................... 41-47 hrs  
(See Chapter 5, University Studies Requirements)  
University Studies selections must include:  
• Scientific Inquiry, Methodologies and Quantitative Skills:  
  MAT 135 Introduction to Probability and Statistics  
Note: See required courses below before selecting University Studies elective courses. A minimum grade of C is required in ENG 105 and POL 140 from freshmen and transfer students majoring or minoring in political science.  
Required Courses .............................................. 21 hrs  
POL 099 Transitions  
POL 140 American National Government  
POL 240 State and Local Politics  
POL 250 Introduction to International Relations  
POL 252 Introduction to Comparative Politics  
POL 261 Introduction to Political Theory  
POL 360 Research Methods  
POL 499 Senior Seminar in Political Science  
Required Limited Electives .................................. 18 hrs  
POL electives approved by advisor.  
Note: At least 12 hours of the major must be at the 400-level. Only six hours of credit toward the major may be received for POL 488, 489, or 495.  
Required Minor .................................................. 21 hrs  
Unrestricted Elective .......................................... 10-19 hrs  
Total Curriculum Requirements ......................... 120 hrs  
MAJOR: Political Science/Social Studies Certification (Grades 8-12)  
Bachelor of Arts/Bachelor of Science Degree  
CIP 45.1001  
University Studies Requirements ..................... 41-47 hrs  
(See Chapter 5, University Studies Requirements)  
University Studies selections must include:  
• Scientific Inquiry, Methodologies and Quantitative Skills:  
  MAT 135 Introduction to Probability and Statistics  
• University Studies Approved Elective:  
  CSC 199 Introduction to Information Technology  
Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.  
Required Course .............................................. 21 hrs  
POL 099 Transitions  
POL 140 American National Government  
POL 240 State and Local Politics  
POL 250 Introduction to International Relations  
POL 252 Introduction to Comparative Politics  
POL 261 Introduction to Political Theory  
POL 360 Research Methods  
POL 499 Senior Seminar in Political Science  
Required Limited Electives .................................. 18 hrs  
POL electives approved by advisor.  
Note: At least 12 hours of the major must be at the 400-level. Only six hours of credit toward the major may be received for POL 488, 489, or 495.  
Required Minor .................................................. 21-24 hrs  
Choose either economics, geography, history, or social science minor. Social science minor is recommended.  
Total Curriculum Requirements ......................... 136-148 hrs  
MAJOR: Public Administration  
Bachelor of Arts/Bachelor of Science Degree  
CIP 44.0401  
University Studies Requirements ..................... 41-47 hrs  
(See Chapter 5, University Studies Requirements)  
University Studies selections must include:  
• Scientific Inquiry, Methodologies and Quantitative Skills:  
  MAT 135 Introduction to Probability and Statistics  
• Social and Self-Awareness and Responsible Citizenship:  
  ECO 230 Principles of Macroeconomics  
or  
  ECO 231 Principles of Microeconomics  
Note: See required courses below before selecting social science/University Studies elective courses. A minimum grade of C is required in ENG 105 and POL 140 from freshmen and transfer students majoring in public administration.  
Required Courses .............................................. 27 hrs  
ACC 200 Principles of Accounting I  
GSC 202 Introduction to Geographic Information Science  
or  
GSC 521 Geographic Information Systems  
or  
PLN 521 Geographic Information Systems  
POL 099 Transitions  
POL 140 American National Government  
POL 240 State and Local Politics  
POL 360 Research Methods
Required Limited Electives ................................. 9 hrs
Choose from the following:
MGT 354 Techniques of Oral Reporting and Management Briefings
MGT 557 International Management
POL 442 Government and Business
POL 471 Contemporary Public Policy Issues
POL 472 Public Planning and Evaluation
POL 476 Law in Public Administration
POL 479 Labor Law and Public Policy
POL 488 Cooperative Education/Internship

Required Minor ............................................. 21-24 hrs

Unrestricted Electives .................................. 12-21 hrs

Total Curriculum Requirements .......................... 120 hrs

Curriculum Outline for Pre-Law

Most of the nation’s law schools reject the idea of a rigid pre-law curriculum as a means of preparing students for entrance into law school. The undergraduate pre-law student is actually working toward two different objectives: admission to law school and an undergraduate education which will complement the law degree once obtained.

The type of undergraduate degree pursued may depend on the type of law in which you intend to specialize. For example, if you want to become a tax attorney, you might concentrate in accounting and economics. If copyright law interests you, an undergraduate degree in music or art would be beneficial. Those students interested in government service or politics may want to pursue a degree in political science.

Many students do not have a particular field of law identified prior to entering college. For these students a broad liberal arts education, including particularly those subjects which deal with people, such as political science and the other Social and Self-Awareness and Responsible Citizenship, is important. Murray State University’s commitment to a liberal arts education through its University Studies requirements is appropriate to this objective. All pre-law students should be aware that communications skills are very important, and for this reason, courses in English, speech and foreign languages should be considered.

Electives in Legal Studies
LST 242 Real Estate Law
LST 370 Law and Literature
LST 400 Litigation and Trial Practice
LST 430 Trusts and Estates
LST 440 Commercial Transactions
LST 444 Judicial Process
LST 445 Constitutional Law I
LST 446 Criminal Law
LST 447 Constitutional Law II: Civil Liberties and Civil Rights
LST 476 Law in Public Administration

International Affairs

Global awareness and cross-cultural skills are increasingly important in a variety of careers. Educational, social service, business, governmental and non-governmental organizations recognize that these skills are important for solving complex problems in a culturally diverse context. The major in international affairs and the minor in international affairs allow students in a variety of disciplines to acquire these skills in support of expertise in their chosen fields.

MAJOR:
International Affairs

Bachelor of Arts Degree
CIP 45.0901

University Studies Requirements ...................... 44-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

Scientific Inquiry, Methodologies and Quantitative Skills:
MAT 135 Introduction to Probability and Statistics

Social and Self-Awareness and Responsible Citizenship:
ECO 230 Principles of Macroeconomics

University Studies Elective:
CSC 199 Introduction to Information Technology

Required Courses ........................................... 28 hrs

COM 340 Intercultural Communication
ECO 310 Issues in Global Economy
GSC 110 World Geography
HIS 309 Survey of World Religions
POL 099 Transitions
POL 250 Introduction to International Relations
POL 252 Introduction to Comparative Politics
POL 300 International Experience
POL 498 Seminar in International Affairs
POL 456 American Foreign Policy

or
POL 457 International Law and Organizations

One of the following:
MGT 350 Fundamentals of Management
MKT 360 Principles of Marketing
SOC 250 Global Sociology

Thematic Cluster Courses .............................. 9 hrs

Choose one theme and courses with approval of advisor. Other relevant courses may be substituted in each cluster with the approval of the advisor. Required courses in the major or minor cannot be applied to a thematic cluster.

I. International Development
BPA 515 Communicating in International Business Environment
ECO 315 Comparative Economic Systems
ECO 410 Economic Development
MGT 557 International Management
MKT 568 Global Marketing Management
POL 456 American Foreign Policy

or

POL 457 International Law and Organizations
II. Africa and Middle East
HIS 355 Islamic Middle East
HIS 370 History of Africa
POL 450 Modern Africa
POL 455 Modern Middle East

III. Asia
HIS 340 Modern East Asia
HIS 472 Modern China
HIS 475 Modern Japan
POL 454 Government and Politics of Asia

IV. Europe
ECO 311 European Economic History
HIS 403 Europe Since 1914
HIS 410 Modern Britain
HIS 411 Modern France
HIS 412 Modern Germany
POL 451 Government and Politics of Europe

V. Latin America
HIS 350 History of Latin America
HIS 481 Revolutionary Mexico 1810 to the Present
POL 453 Government and Politics of Latin America

Required Minor ....................................................... 21-24 hrs
Courses taken for the major will not count towards the minor.

Electives ................................................................. 9-18 hrs
International education experience or equivalency is required.

Total Curriculum Requirements ................................... 120 hrs

Sociology
The sociology program is a liberal arts program oriented toward increasing the student’s understanding of human society, the groups and institutions of which it is composed, and its impact on human beings. Sociology helps develop one’s appreciation of diversity, love of learning, writing and study skills, as well as a knowledge base about human behavior, social research, social organization and culture. Sociology is a potential major for students planning futures in such professions as law, business, education, and politics. Sociology provides a rich fund of knowledge directly concerning each of these fields. But rather than prepare the student for a narrow specialty, sociology prepares the individual for a lifetime of learning and change to meet the challenges and opportunities of an increasingly complex society. The sociology program will provide students with a solid foundation for their chosen careers upon graduation or for more specialized graduate education in such fields as public health, law, Social and Self-Awareness and Responsible Citizenship, or a number of other professional fields.

MAJOR: Sociology

Bachelor of Arts/Bachelor of Science Degree
CIP 45.1101

University Studies Requirements ......................... 41-47 hrs
(See Chapter 5, University Studies Requirements)

Required Courses ..................................................... 17-18 hrs
ENG 205 Writing for the Social Sciences
PSY 300 Principles and Methods of Statistical Analysis
or
MAT 135 Introduction to Probability and Statistics
SOC 099 Transitions
SOC 133 Introduction to Sociology
SOC 303 Introduction to Research Methods
SOC 400 Senior Seminar
SOC 434 Social Theory

Required Electives ..................................................... 18 hrs
SOC electives approved by advisor.

Required Minor ......................................................... 21-24 hrs

Unrestricted Electives ................................................ 13-23 hrs

Total Curriculum Requirements ................................. 120 hrs

International Affairs Minor ........................................ 24 hrs
GSC 110; ECO 310 or 315 or 410; POL 250, 252, 300, 498 and nine hours from one of the thematic clusters listed under the major. At least six hours of the cluster must be upper-level courses at Murray State University. Twelve hours of a foreign language and international education experience or equivalency is required

Legal Studies Minor .................................................... 21 hrs
LST 240, 300, and 310; and 12 hours or four courses of LST electives. Only three hours of credit allowed from LST 488, 489, or 495. Six hours must be upper-level courses completed in residence at Murray State University. Computer knowledge and a minimum grade of C in ENG 105 are required of all students (including transfers) pursuing this minor. No substitutions and/or alterations in the above curriculum shall be made without written approval of department chair.

Political Science Minor .............................................. 24 hrs
POL 140, 250, 252, 261; and 12 hours of POL electives approved by a department advisor. Only three hours are allowed from POL 488, 489, 495. At least nine hours must be 400- level and six hours must be upper-level courses completed in residence at Murray State University. A minimum grade of C in ENG 105 and POL 140 is required of all students minoring in political science. No substitutions shall be made in the minor without written approval of the department chair.

Social Science Minor ................................................. 24 hrs
Open only to majors in economics, history, or political science who seek secondary certification in social studies. ECO 231, GSC 110, HIS 221, 222, POL 140, SOC 133; and six hours of upper level courses (300 or above) from the social science disciplines with approval of advisor. Courses required for a major may not be counted toward the minor; substitutions must be from a social science discipline other than the major and be approved by the
advisor; and requirements for certification for teaching secondary school social studies, grades 8 through 12 through the College of Education must also be met.

Sociology Minor.................................................................21 hrs
SOC 133, 434, plus 15 hours of electives. Six hours must be upper-level courses completed in residence at Murray State University.

Department of History
6B Faculty Hall
270-809-2231

Chair: Terry Strieter. Faculty: Beahan, Belue, Bolin, Callahan, Carpenter, Clardy, Heerm, Hilton, Humphreys, Mulligan, Pizzo, Rashid, Schell, Strieter.

Department of History course offerings support University Studies requirements, provide concentrations in American, European, and Third World studies for a major or minor, and prepare students for secondary certification.

The department contributes substantially to the world civilizations and culture courses and offers electives. The American Experience and Modern Europe, which meet University Studies requirements in several categories. These University Studies courses encourage students to appreciate the diverse paths humans have taken to the present as well as their own distinctive cultural heritage.

Specialized instruction for undergraduate majors and minors in history is intended to develop knowledge of the past and the skills of critical inquiry necessary for careers in teaching, the professions, government and business. Many students are currently combining a major in history with a major in other fields. The department provides a Master of Arts degree program for teachers in schools and community colleges, for those who wish to pursue advanced study at the doctoral level, and for students interested in history-related careers other than teaching. The department also serves as a home for the Religious Studies Minor.

MAJOR:
History

Bachelor of Arts Degree
CIP 54.0101

Note: B.A. degree is required unless specifically exempted by department chair.

University Studies Requirements .........................44-47 hrs
(See Chapter 5, University Studies Requirements)

Required Courses .........................................................19 hrs
HIS 099 Transitions
HIS 201 Modern Europe
HIS 221 American Experience to 1865
HIS 222 American Experience Since 1865
HIS 300 Introduction to Historical Studies\(^1\) and one of the following:
HIS 309 Survey of World Religion
HIS 340 Modern East Asia
HIS 350 History of Latin America
HIS 355 Islamic Middle East
HIS 360 Modern India

Required Limited Electives ........................................ 15 hrs
HIS upper-level courses approved by advisor (not including HIS 361); at least one must be a 400-level course.

Required Minor ....................................................21 hrs

Electives\(^3\) .................................................................18-21 hrs

Total Curriculum Requirements .........................120 hrs

\(^1\)Prerequisite for 400-level courses. May be waived with permission of department chair.

\(^2\)A grade of C or better is required.

\(^3\)At least one three-hour free elective must be chosen from outside History and may not be counted as a University Studies requirement.

MAJOR:
History/Social Studies Certification (Grades 8-12)

Bachelor of Arts Degree
CIP 54.0101

Note: B.A. degree is required unless specifically exempted by department chair. Certification requires a grade of B or better in one English composition course and a grade of C or better in a University Studies math course, COM 161, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

University Studies Requirements .....................44-47 hrs
(See Chapter 5, University Studies Requirements)

Required Courses ..................................................19 hrs
HIS 099 Transitions
HIS 201 Modern Europe
HIS 221 American Experience to 1865
HIS 222 American Experience Since 1865
HIS 300 Introduction to Historical Studies\(^1\) and one of the following:
HIS 309 Survey of World Religion
HIS 340 Modern East Asia
HIS 350 History of Latin America
HIS 355 Islamic Middle East
HIS 360 Modern India
HIS 370 History of Africa and
HIS 400 Senior Seminar\(^2\)

Required Limited Electives ....................................15 hrs
HIS upper-level courses approved by advisor (not including HIS 361); at least one must be a 400-level course.

Required for Secondary Certification ......................35 hrs
COM 372 Communication in Educational Environments
CSC 199 Introduction to Information Technology\(^3,4\)
EDP 260 Psychology of Human Development\(^4\)
EDU 103 Issues and Practices of American Education\(^4\)
EDU 403 Structures and Foundations of Education
EDU 405 Evaluation and Measurement in Education
EDU 422 Student Teaching Seminar (optional)
HIS 361 Teaching History\(^a\)
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Social Science Minor (recommended) .............................................. 24 hrs
Open only to majors in economics, geography, history, or political science
who seek secondary certification in social studies. ECO 231, GSC 110,
HIS 221, 222, POL 140, SOC 133, and six hours of upper level courses
(300 or above) from the social science disciplines with approval of advisor.
Courses required for a major may not be counted toward the minor;
substitutions must be from a social science discipline other than the major
and be approved by the advisor; and requirements for certification for
Teaching secondary school social studies, grades K through 12, through the
College of Education must also be met. Six hours must be upper-level
courses completed in residence at Murray State University.

or

Required Minor .............................................................................. 21 hrs
(economics, geography, or political science-recommended)

Total Curriculum Requirements ........................................ 128-140 hrs
1Prerequisite for 400-level courses. May be waived with permission of
the chair.
2A grade of C or better is required.
3A grade of C or better. Check with advisor to see if this course can be
waived.
4May be counted as a University Studies elective.
5Does not count toward a history major.

History Minor ................................................................................. 21 hrs
HIS 201, 221, 222, plus 12 hours of upper-level electives (excluding
HIS 361), at least one at the 400-level. Six hours must be upper-
level courses completed in residence at Murray State University.

Religious Studies Minor ................................................................ 21 hrs
RGS 200 and 309 and/or 321; 12-15 hours from the following to
include at least one course from each category; concentrations
can be developed according to student interest and course availability.
B: RGS 300, 301, 302, 306, 316, 322, 350, 417, 410, 420, 500,
511. Other courses may be substituted as approved by the religious
studies coordinator. Six hours must be upper-level courses completed
in residence at Murray State University.

Department of Modern Languages
4A Faculty Hall
270-809-2501

Chair: Janice Morgan. Faculty: Barnett, Bodevin, Brown, Drake,
Ebert, Hatakeyama, Howe, Kaneko, Messer, Morgan, Saint Paul,
Waag.

The Department of Modern Languages provides an important
facet of the liberal education of all students by offering a variety
of courses in French, German, Japanese, Spanish, and the cultures
and literatures of those countries where these languages are spoken.
These courses increase the cultural and linguistic awareness of students, help them fulfill the University Studies and
B.A. requirements, and prepare them for language examinations
in graduate school. Modern language courses develop skills and
provide information and experience that help prepare students for
citizenship in a rapidly changing world.
The Modern Language major is designed to train students to
communicate effectively with native speakers of the language
studied; read and appreciate the cultural and historical significance
of important works of native literature; and understand
fundamental cultural characteristics of another part of the world.
All students take a common core of courses as well as several
electives and a senior seminar. Student progress in language skills
is measured according to standards established by the American
Council on the Teaching of Foreign Languages in order to ensure
an appropriate level of proficiency in the various skills.
The department strongly recommends that all language majors
and minors study abroad for at least one summer session. The
Kentucky Institute for International Studies offers programs in a
number of countries. Other study-abroad opportunities are
available through the department and the Institute for International
Studies.
The department also strongly recommends that all language
majors take more than the required number of hours in order to
attain increased proficiency in the language.

Those who pursue a language as a major or minor may apply
their language training to careers in various fields of endeavor.
The study of modern languages and cultures opens the door to a
cosmopolitan world which any educated person should be able to
understand and appreciate. It gives the student significant practical
advantages in the modern world of employment and magnifies
humanistic insight which is of incalculable value in successful
living.

The department strives to keep pace with the changing needs
and interests of students and society and with the most current
teaching methods. Creativity, flexibility and individual attention
characterize its programs. The department’s facilities include
modern offices and classrooms and the Language and Culture
Resource Center, a multi-media lab providing students with
computer assisted learning tools as well as e-mail and Internet
access.
The Graduate Bulletin contains information on the Master of
Arts in English, the Master of Arts in Education, and the Master
of Arts in TESOL, which accept modern language courses as part
of the curriculum.

Bachelor of Arts Degree Requirement. All Bachelor of Arts
degree candidates must complete 12 hours of course work in a
single foreign language. Credit may be granted for high school
study of the same language based on the departmental challenge
process (see Credit by Examination, below) and students may
begin language study at the level indicated by their placement
exam (see Placement, below). Some departments require the
Bachelor of Arts degree in the College of Humanities and Fine
Arts.

Placement. All students new to the language programs at
Murray State are required to take a placement exam to determine
at which level of their language they should begin (102, 201, 202,
301, etc.). This exam will be required of all students with prior
language experience, including native speakers. We strongly
advise students to begin to fulfill their language requirement
during the first 30 hours of the undergraduate degree at MSU. The
Placement Exam can be taken on-line by accessing the Department
of Modern Languages web page at www.murraystate.edu/chfa/
modernlanguages/index.htm, and accessing the Placement Policy
link. The results of the Placement Exam will be forwarded directly
to the department.

Credit by Examination. If a student has previously acquired
knowledge of French, German, or Spanish (the languages
regularly taught at MSU), a maximum of 12 college credits, up to
and including the level of 301, may be awarded. The awarding of
credit will be based on the applicant’s success in either of the
following options:
The Departmental Challenge Process. The Departmental Challenge Process consists of taking the Placement Exam and completing the appropriate course (102 or higher) determined by the score on the Placement Exam, with the grade of A or B. The Placement Exam score must be current (within the calendar year). The student then must complete an “Application for Challenge Credit” available in the department office and file the approved application with the Admissions & Registrar’s Office. There is a fee of $5.00 per credit hour for each hour of credit awarded. It is the responsibility of the student to apply for Challenge Credit and application must be made while the student is enrolled at MSU.

Option (2): The CLEP Examination. Students may take the CLEP examination which is administered by the Counseling and Testing Center on campus. Credit is awarded based upon the student’s score on the CLEP examination. CLEP examination scores must be recent (within the calendar year) to be eligible for credit. Fees are required for the CLEP examination.

Option (3): The Advanced Placement (AP) Examination. Credit is awarded based upon the student’s score on the Advanced Placement Examination in Language and/or Literature.

Support Courses for Language Majors
Each language major must select one course from a list of approved courses. The support course will not be counted as a University Studies elective. A list of approved courses may be obtained from the Department of Modern Languages.

MAJOR: French

Bachelor of Arts Degree
CIP 16.0901

University Studies Requirements .........................44-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• University Studies Electives:
  CSC 199 Introduction to Information Technology

Note: Intermediate level modern language courses completed as part of the major or minor also satisfy modern language requirements for the B.A. All majors and minors, including those who score at or above the 301 level on the Placement Exam, will be required to take FRE 301 and 331. FRE 301 and 331 serve as a gateway courses to the upper level culture and literature courses. A minimum grade of C is required in 301 and 331. MLA 400 is required for the major; passing scores on the third year proficiency exams are required for entry into MLA 400.

Required Courses .............................................19 hrs
MLA 099 Transitions
FRE 201 Intercultural Communications in French
FRE 202 Practical Applications in French
  or
FRE 203 French for the Working World
FRE 301 Social Issues in French Texts
FRE 323 French Culture and Civilization
  or
FRE 324 Contemporary French Culture and Civilization
FRE 331 Advanced Language Practice
MLA 400 Senior Seminar

Note: Credit for FRE 101 and 102 may not be used for the major but will be counted for graduation.

Limited Electives ............................................6 hrs
Select from the following literature courses:
FRE 401 Survey of French Literature I
FRE 402 Survey of French Literature II
FRE 419 European Cinema
FRE 421 Topics in French Literature
FRE 441 Topics in French Cultural Studies
FRE 450 Literary Masterpieces in French
FRE 460 Studies in a Genre
FRE 501 Middle Ages Literature
FRE 503 Seventeenth- and Eighteenth-Century Literature
FRE 505 Nineteenth-Century Literature
FRE 507 Twentieth-Century Literature
FRE 521 Topics in French Literature

Approved Electives in French ...............................9 hrs
Select from FRE courses beyond FRE 203.

Required Support Courses French Major ..................3 hrs
One related course outside of modern languages, selected from the approved list given in the departmental introduction. Note: The department strongly recommends that majors study abroad for at least one summer.

Required Minor ..............................................21-24 hrs

Electives ......................................................12-18 hrs

Total Curriculum Requirements .........................120 hrs

1Each student must submit a senior research project.

AREA:
French/Teaching Certification (P-12)

Bachelor of Arts Degree
CIP 16.0901

University Studies Requirements .........................44-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• University Studies Electives:
  CSC 199 Introduction to Information Technology

Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details. All majors and minors, including those who score at or above the 301 level on the Placement Exam, will be required to take FRE 301 and 331. FRE 301 and 331 serve as a gateway courses to the culture and literature courses. A minimum grade of C is required in 301 and 331. MLA 400 is required for the major; passing scores on the third year proficiency exams are required for entry into MLA 400.

Intermediate level foreign language courses completed as part of the major or minor also satisfy foreign language requirements for the B.A.

Required Courses ............................................22 hrs
MLA 099 Transitions
FRE 201 Intercultural Communications in French
FRE 202 Practical Applications in French
  or
FRE 203 French for the Working World
FRE 301 Social Issues in French Texts
College of Humanities and Fine Arts

FRE 323 French Culture and Civilization
or
FRE 324 Contemporary French Culture and Civilization
FRE 331 Advanced Language Practice
MLA 400 Senior Seminar
MLA 514 Methods of Teaching Foreign Languages

Note: Credit for FRE 101 and 102 may not be used for the major but will be counted for graduation.

Limited Electives ................................................. 6 hrs
Select from the following literature courses:
FRE 401 Survey of French Literature I
FRE 402 Survey of French Literature II
FRE 419 European Cinema
FRE 421 Topics in French Literature
FRE 441 Topics in French Cultural Studies
FRE 450 Literary Masterpieces in French
FRE 460 Studies in a Genre
FRE 501 Middle Ages Literature
FRE 503 Seventeenth- and Eighteenth-Century Literature
FRE 505 Nineteenth-Century Literature
FRE 507 Twentieth-Century Literature
FRE 521 Topics in French Literature

Approved Electives in French .................................. 6 hrs
Select from FRE courses beyond FRE 203.

Required Support Course ..................................... 3 hrs
One related course outside of the Department of Modern Languages, selected from the approved list given in the departmental introduction. Note: The department strongly recommends that majors study abroad for at least one summer.

Required for Teaching Certification .......................... 38 hrs
COM 372 Communication in Educational Environments
CSC 199 Introduction to Information Technology
EDP 260 Psychology of Human Development
EDU 103 Issues and Practices of American Education
EDU 303 Strategies of Teaching
EDU 403 Structures and Foundations of Education
EDU 405 Evaluation and Measurement in Education
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Electives .................................................................. 0-1 hrs

Total Curriculum Requirements ............................ 120-122 hrs

1With a grade of C or better.
2May be counted as a University Studies social science elective.
3Each student must submit a senior research project.

MAJOR: German

Bachelor of Arts Degree
CIP 16.0501

University Studies Requirements .......................... 44-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
*University Studies Electives:
CSC 199 Introduction to Information Technology

Required Courses .................................................. 19 hrs
MLA 099 Transitions
GER 201 Intercultural Communications in German
GER 202 Practical Applications in German
GER 203 German for the Working World
GER 301 Social Issues in German Texts
GER 323 German Culture and Civilization
GER 324 Contemporary German Culture and Civilization
MLA 400 Senior Seminar

Note: Credit for GER 101 and 102 may not be used for the major but will be counted for graduation.

Limited Electives .................................................. 6 hrs
Select from the following literature courses:
GER 401 Survey of German Literature I
GER 402 Survey of German Literature II
GER 419 European Cinema
GER 421 Topics in German Literature
GER 441 Topics in German Cultural Studies
GER 450 Literary Masterpieces in German
GER 460 Studies in a Genre
GER 501 Literature before 1600
GER 503 Seventeenth- and Eighteenth-Century Literature
GER 505 Nineteenth-Century German Literature
GER 507 Twentieth-Century Literature
GER 521 Topics in German Literature

Approved Electives in German ............................... 9 hrs
Select from GER courses beyond GER 203.

Required Support Course ..................................... 3 hrs
One related course outside of the Department of Modern Languages, selected from the approved list given in the departmental introduction. Note: The department strongly recommends that majors study abroad for at least one summer.

Required Minor .................................................... 21-24 hrs

Electives .............................................................. 12-18 hrs

Total Curriculum Requirements ............................ 120 hrs

1Each student must submit a senior research project.

AREA: German/Teaching Certification (P-12)

Bachelor of Arts Degree
CIP 16.0501

Note: Students desiring teaching credentials in German must also have a major in or minor in a frequently taught subject, according to state guidelines. English, history, mathematics, or science are suggested choices.
University Studies Requirements .................................. 44-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

• University Studies Electives:

  CSC 199 Introduction to Information Technology

Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details. All majors and minors, including those who score at or above the 301 level on the Placement Exam, will be required to take GER 301 and 331. GER 301 and 331 serve as a gateway courses to the culture and literature courses. A minimum grade of C is required in 301 and 331. MLA 400 is required for the major, passing scores on the third year proficiency exams are required for entry into MLA 400.

Intermediate level foreign language courses completed as part of the major or minor also satisfy foreign language requirements for the B.A.

Required Courses .................................................................................................................. 22 hrs

MLA 099 Transitions
GER 201 Intercultural Communications in German
GER 202 Practical Applications in German
or
GER 203 German for the Working World
GER 301 Social Issues in German Texts
GER 323 German Culture and Civilization
or
GER 324 Contemporary German Culture and Civilization
GER 331 Advanced Language Practice
MLA 400 Senior Seminar
MLA 514 Methods of Teaching Foreign Languages

Note: Credit for GER 101 and 102 may not be used for the major but will be counted for graduation.

Limited Electives ........................................................................................................... 6 hrs

Select from the following literature courses:

GER 401 Survey of German Literature I
GER 402 Survey of German Literature II
GER 419 European Cinema
GER 421 Topics in German Literature
GER 441 Topics in German Cultural Studies
GER 450 Literary Masterpieces in German
GER 460 Studies in a Genre
GER 501 Literature before 1600
GER 503 Seventeenth- and Eighteenth-Century Literature
GER 505 Nineteenth-Century German Literature
GER 507 Twentieth-Century Literature
GER 521 Topics in German Literature

Approved Electives in German .................................................................................. 6 hrs

Select from GER courses beyond GER 203.

Required Support Course ......................................................................................... 3 hrs

One related course outside of the Department of Modern Languages, selected from the approved list given in the departmental introduction.

Note: The department strongly recommends that majors study abroad for at least one summer.

Required for Teaching Certification ............................................................. 38 hrs

COMM 372 Communication in Educational Environments
CSC 199 Introduction to Information Technology
EDP 260 Psychology of Human Development
EDU 103 Issues and Practices of American Education

EDU 303 Strategies of Teaching
EDU 403 Structures and Foundations of Education
EDU 405 Evaluation and Measurement in Education
HEA 191 Personal Health
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Electives ................................................................................................................... 0-1 hrs

Total Curriculum Requirements ........................................ 120-122 hrs

Bachelor of Arts Degree
CIP 16.0302

University Studies Requirements ...................................... 44-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

• University Studies Electives:

  CSC 199 Introduction to Information Technology

Note: Intermediate level modern language courses completed as part of the major or minor also satisfy modern language requirements for the B. A. All majors and minors, including those who score at or above the 301 level on the Placement Exam, will be required to take JPN 301. JPN 301 serves as a gateway courses to the upper level culture and literature courses. A minimum grade of C is required in 301. MLA 400 (with research project) is required for the major, passing scores on the third year proficiency exams are required for entry into MLA 400.

Required Courses ................................................................................................. 22 hrs

MLA 099 Transitions
JPN 201 Intermediate Japanese I
JPN 202 Intermediate Japanese II
JPN 301 Conversation and Composition I
JPN 302 Conversation and Composition II
JPN 401 Advanced Japanese I
JPN 402 Advanced Japanese II
MLA 400 Senior Seminar

Note: Credit for JPN 101 and 102 may not be used for the major but will be counted for graduation.

Approved Electives in Japanese ................................................................. 6 hrs

Select from the following:

JPN 302 Japanese Conversation & Composition II
JPN 306 Introduction to Japanese Literature
JPN 310 Conversation and Composition Abroad
JPN 315 Global Cinema in Japanese
JPN 323 Japanese Culture and Civilization
JPN 324 Contemporary Japanese Culture and Civilization
JPN 331 Advanced Language Practice
JPN 350 Modern Japanese Literature in Translation
JPN 401 Advanced Japanese I
JPN 402 Advanced Japanese II
JPN 421 Topics in Japanese Literature
JPN 441 Topics in Japanese Cultural Studies
JPN 460 Studies in a Genre
Limited Electives.................................................................6 hrs
Select from the following upper-level courses:
- JPN 421 Topics in Japanese Literature
- JPN 441 Topics in Japanese Cultural Studies
- JPN 460 Studies in a Genre

Required Support Course .....................................................3 hrs
Select from the following:
- ART 425 Art of Asia
- HIS 340 Modern East Asia
- HIS 475 Modern Japan
- POL 454 Government and Politics of Asia
Note: The department strongly recommends that majors study abroad for at least one summer.

Required Minor .................................................................21-24 hrs

Electives ..............................................................................12-18 hrs

Total Curriculum Requirements .......................................120 hrs

Note: 1. Select courses not taken as approved elective.

2. Each student must submit a senior research project.

AREA:
Japanese/Teaching Certification (P-12)

Bachelor of Arts Degree
CIP 16.0302

University Studies Requirements ..................................44-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

• University Studies Electives:
  - CSC 199 Introduction to Information Technology
  
  Note: Intermediate level modern language courses completed as part of the major or minor also satisfy modern language requirements for the B.A. All majors and minors, including those who score at or above the 301 level on the Placement Exam, will be required to take JPN 301. JPN 301 serves as a gateway course to the upper level culture and literature courses. A minimum grade of C is required in 301. MLA 400 (with research project) is required for the major; passing scores on the third year proficiency exams are required for entry into MLA 400.

Required Courses ...............................................................25 hrs
- MLA 099 Transitions
- JPN 201 Intermediate Japanese I
- JPN 202 Intermediate Japanese II
- JPN 301 Conversation and Composition I
- JPN 302 Conversation and Composition II
- JPN 331 Advanced Language Practice
- JPN 401 Advanced Japanese I
- MLA 400 Senior Seminar¹
- MLA 514 Methods of Teaching Foreign Languages

Note: Credit for JPN 101 and 102 may not be used for the major but will be counted for graduation.

Approved Electives in Japanese.............................................6 hrs
Select from the following:
- JPN 302 Japanese Conversation & Composition II
- JPN 306 Introduction to Japanese Literature
- JPN 310 Conversation and Composition Abroad
- JPN 315 Global Cinema in Japanese
- JPN 323 Japanese Culture and Civilization

- JPN 324 Contemporary Japanese Culture and Civilization
- JPN 331 Advanced Language Practice
- JPN 350 Modern Japanese Literature in Translation
- JPN 401 Advanced Japanese I
- JPN 402 Advanced Japanese II
- JPN 421 Topics in Japanese Literature
- JPN 441 Topics in Japanese Cultural Studies
- JPN 460 Studies in a Genre

Limited Electives.................................................................6 hrs
Select from the following upper-level courses:
- JPN 421 Topics in Japanese Literature
- JPN 441 Topics in Japanese Cultural Studies
- JPN 460 Studies in a Genre

Required Support Courses ................................................6 hrs
Select from the following:
- ART 425 Art of Asia
- HIS 340 Modern East Asia
- HIS 475 Modern Japan
- POL 454 Government and Politics of Asia

Note: The department strongly recommends that majors study abroad for at least one summer.

Required for Teaching Certification .................................35 hrs
- COM 372 Communication in Educational Environments
- EDP 260 Psychology of Human Development²
- EDU 103 Issues and Practices of American Education³
- EDU 303 Strategies of Teaching
- EDU 403 Structures and Foundations of Education
- EDU 405 Evaluation and Measurement in Education
- SEC 420 Practicum in Secondary Schools
- SEC 421 Student Teaching in the Secondary School
- SED 300 Educating Students with Disabilities

Total Curriculum Requirements ..................................122-125 hrs

Note: 1. Select courses not taken as approved elective.

2. With a grade of C or better.

3. May be counted as a University Studies social science elective.

4. Each student must submit a senior research project.

MAJOR:
Spanish

Bachelor of Arts Degree
CIP 16.0905

University Studies Requirements ..................................44-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

• University Studies Electives:
  - CSC 199 Introduction to Information Technology
  
  Note: Intermediate level modern language courses completed as part of the major or minor also satisfy modern language requirements for the B.A. All majors and minors, including those who score at or above the 301 level on the Placement Exam, will be required to take SPA 302. SPA 302 serves as a gateway course to the upper-level culture and literature courses. A minimum grade of C is required in 301 and 302. MLA 400 is required for the major; passing scores on the third year proficiency exams are required for entry into MLA 400.

Required Courses ...............................................................16 hrs
- MLA 099 Transitions (entering freshmen only)
- SPA 201 Intercultural Communications in Spanish
SPA 202 Practical Applications in Spanish  
or  
SPA 203 Spanish for the Working World  
SPA 301 Conversation and Composition I  
SPA 302 Conversation and Composition II  
MLA 400 Senior Seminar  

Note: Credit for SPA 101 and 102 may not be used for the major but will be counted for graduation.

Limited Electives  ......................................................... 6 hrs  
Select from the following literature courses:  
SPA 401 Survey of Spanish Literature  
SPA 403 Survey of Spanish-American Literature  
SPA 419 European Cinema  
SPA 421 Topics in Spanish Literature  
SPA 422 Topics in Spanish American Literature  
SPA 441 Topics in Spanish Cultural Studies  
SPA 450 Literary Masterpieces in Spanish  
SPA 460 Studies in a Genre  
SPA 503 Golden Age Literature  
SPA 504 Don Quixote  
SPA 505 Nineteenth-Century Spanish Literature  
SPA 507 Twentieth-Century Spanish Literature  
SPA 511 Spanish-American Short Story  
SPA 512 Spanish-American Novel  
SPA 521 Topics in Spanish Literature  
SPA 522 Topics in Spanish-American Literature  

Approved Electives in Spanish  ........................................... 12 hrs  
Select from SPA courses beyond SPA 203.

Required Support Course  ............................................... 3 hrs  
One related course outside of the Department of Modern Languages, selected from the approved list given in the departmental introduction. Note: The department strongly recommends that majors study abroad for at least one summer.

Required Minor  ............................................................. 21-24 hrs

Electives  ................................................................. 12-18 hrs

Total Curriculum Requirements ..................................... 120 hrs  

1 Each student must submit a senior research project.

AREA:  
Spanish/Teaching Certification (P-12)  

Bachelor of Arts Degree  
CIP 16.0905

University Studies Requirements  ................................. 44-47 hrs  
(See Chapter 5, University Studies Requirements)

University Studies selections must include:  
*University Studies Electives:  
CSC 199 Introduction to Information Technology  
Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details. All majors and minors, including those who score above the 301 level on the Placement Exam, will be required to take SPA 302. SPA 302 serves as a gateway course to the upper-level culture and literature courses. A minimum grade of C is required in 301 and 302. MLA 400 is required for the major; passing scores on the third year proficiency exams are required for entry into MLA 400. Intermediate level modern language courses completed as part of the major or minor also satisfy modern language requirements for the B.A.

Required Courses  ........................................................ 25 hrs  
MLA 099 Transitions  
MLA 400 Senior Seminar  
MLA 514 Methods of Teaching Foreign Languages  
SPA 201 Intercultural Communications in Spanish  
SPA 202 Practical Applications in Spanish  
or  
SPA 203 Spanish for the Working World  
SPA 301 Conversation and Composition I  
SPA 302 Conversation and Composition II  
SPA 323 Spanish Culture and Civilization  
or  
SPA 325 Spanish-American Culture  
SPA 331 Advanced Language Practice  

Note: Credit for SPA 101 and 102 may not be used for the major but will be counted for graduation.

Limited Electives  ......................................................... 6 hrs  
Select two from the following literature courses:  
SPA 401 Survey of Spanish Literature  
SPA 403 Survey of Spanish-American Literature  
SPA 419 European Cinema  
SPA 421 Topics in Spanish Literature  
SPA 441 Topics in Spanish Cultural Studies  
SPA 450 Literary Masterpieces in Spanish  
SPA 460 Studies in a Genre  
SPA 503 Golden Age Literature  
SPA 504 Don Quixote  
SPA 505 Nineteenth-Century Spanish Literature  
SPA 507 Twentieth-Century Spanish Literature  
SPA 511 Spanish-American Short Story  
SPA 512 Spanish-American Novel  
SPA 521 Topics in Spanish Literature  
SPA 522 Topics in Spanish-American Literature  

Approved Electives in Spanish  ........................................... 6 hrs  
Select from SPA courses beyond SPA 203.

Required Support Course  ............................................... 3 hrs  
One related course outside of the Department of Modern Languages, selected from the approved list given in the departmental introduction. Note: The department strongly recommends that majors study abroad for at least one summer.

Required for Teaching Certification  ............................... 38 hrs  
COM 372 Communication in Educational Environments  
CSC 199 Introduction to Information Technology  
EDP 260 Psychology of Human Development  
EDU 103 Issues and Practices of American Education  
EDU 303 Strategies of Teaching  
EDU 403 Structures and Foundations of Education  
EDU 405 Evaluation and Measurement in Education  
SEC 420 Practicum in Secondary Schools  
SEC 421 Student Teaching in the Secondary School  
SED 300 Educating Students with Disabilities

Total Curriculum Requirements ..................................... 122-125 hrs  

1 With a grade of C or better.  
2 May be counted as a University Studies social science elective.  
3 Each student must submit a senior research project.
French Minor.............................................. 21 hrs
FRE 201, 202 or 203, 301, 331 (a minimum grade of C required in 301 and 331), and nine hours of approved electives. Six hours must be upper-level courses completed in residence at Murray State University. The department strongly recommends that minors study abroad for at least one summer.

German Minor........................................... 21 hrs
GER 201, 202 or 203, 301, 331 (a minimum grade of C required in 301 and 331), and nine hours of approved electives. Six hours must be upper-level courses completed in residence at Murray State University. The department strongly recommends that minors study abroad for at least one summer.

Japanese Minor ........................................ 21 hrs
JPN 201, 202, 301, 331 (a minimum grade of C required in 301 and 331), and nine hours of approved electives. Six hours must be upper-level courses completed in residence at Murray State University. The department strongly recommends that minors study abroad for at least one summer.

Spanish Minor ......................................... 21 hrs
SPA 201, 202 or 203, 301, 302 (a minimum grade of C required in 302), and nine hours of approved electives. Six hours must be upper-level courses completed in residence at Murray State University. The department strongly recommends that minors study abroad for at least one summer.

The Department of Music at Murray State University strives to provide educational experiences that enhance student’s understanding, appreciation, and value of music through performance and curricular offerings; to engender in its students a pursuit of knowledge and wonder for music; to value and strengthen the traditions of music in academia while encouraging innovation; to be a hallmark of musical activity both on campus and in the region; to educate students for careers in performance, teaching, production, management, and other venues where music lives; to build an environment that fosters creativity and productivity among faculty, students, and staff; to serve out art and the community at large in preparing music educators for the future; to refine and extend the skills and knowledge of music students beyond the baccalaureate level; and to provide leadership, enrichment, and resources for the region’s music professionals.

It is also an objective of the department to enrich the cultural life of the university, local and state communities through educational and performance activities.

Undergraduate degrees offered in the department are the Bachelor of Arts, Bachelor of Science, and the Bachelor of Music. The Bachelor of Music degree program offers options in either composition, performance, or music education. An academic minor in music is also available.

The degree programs reflect a core of basic musicianship and general study needs common to all musicians. The attendant specialized courses help students develop and refine competencies toward careers in teaching and performing as well as other specific interests.

The general college student (non-music major) is encouraged to continue or develop music interests and involvements through participation in performance groups, attendance at performances, and by taking a wide variety of courses open to the non-major.

Music facilities in the Price Doyle Fine Arts Center include recital halls, rehearsal halls, computer-lab and digital synthesis, keyboard laboratories, practice rooms, repair facilities, recording facilities, specially equipped classrooms and storage facilities.

Note: Performance proficiencies in applied music must be passed after the second and fourth semesters of study to remain in the program and to progress to the next level of applied lessons. A grade of C or better must be achieved in all music coursework required for the music degree sought.

Admission
In addition to admission to the University, prospective music major and minor students must be admitted to Department of Music academic programs through a qualifying audition in their performance area. Contact the Department of Music for further information.

Degree Requirements
In addition to the requirements listed with each music degree, a grade of C or better is required for graduation in all courses, including ensembles, specifically required by the music degree being pursued.

Scholarships
Grants-in-aid and scholarships are available to the music major and, in some cases, for non-major music participation. For information refer to the scholarship section of this Bulletin or write to the Department of Music.

Accreditation
The Department of Music has been an institutional member of the National Association of Schools of Music since 1936. Degree programs are arranged in conformity with the requirements of the National Association of Schools of Music.

Graduate Degree
The Master of Music Education degree is offered in the department. For additional information refer to the Graduate Bulletin or contact the graduate advisor in music.

AREA:
Music/Music Education P-12 Certification Option Instrumental Emphasis

Bachelor of Music Degree
CIP 50.0901

ACCREDITED BY:
National Association of Schools of Music (NASM)

University Studies Requirements ....................................... 35 hrs
(See Chapter 5, Bachelor of Music degree requirements.)

University Studies selections must include:
• Global Awareness, Cultural Diversity and the World’s Artistic Traditions:
  One of the following:
  ART 105 Studio Art for Non-Majors
ART 121 Art Appreciation
ART 211 Introduction to the History of Art I
ART 212 Introduction to the History of Art II
•Social and Self-Awareness and Responsible Citizenship:
EDP 260 Psychology of Human Development
Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and MUS 123. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Required Music/Music Education Courses1 .................................. 71 hrs
MUS 098 Recital Attendance and Assembly2
MUS 099 Transitions
MUS 114-118 Applied Lesson3
(two semesters at two credits per semester)
MUS 123 Introduction to Music Education
MUS 131 Percussion Methods4
MUS 132 Woodwind Methods
MUS 133 String Methods
MUS 134 Voice Methods
MUS 135 Brass Methods
MUS 170 Theory I
MUS 171 Aural Skills I
MUS 172 Functional Keyboard I5
MUS 173 Theory II
MUS 174 Aural Skills II
MUS 175 Functional Keyboard II
MUS 214-218 Applied Lesson
(two semesters at two credits per semester)
MUS 270 Theory III
MUS 271 Aural Skills III
MUS 272 Functional Keyboard III
MUS 273 Theory IV
MUS 274 Aural Skills IV
MUS 275 Functional Keyboard IV
MUS 301 General Music Methods
MUS 302 Choral Methods
MUS 303 Instrumental Methods: Elementary and Middle School
MUS 304 Advanced Instrumental Methods
MUS 314-318 Applied Lesson
(two semesters at two credits per semester)
MUS 323 Basic Conducting
MUS 327 Arranging Techniques
MUS 381 Music History and Literature I
MUS 382 Music History and Literature II
MUS 383 Music History and Literature III
MUS 414-418 Applied Lesson
MUS 423 Instrumental Conducting
MUS 490 Senior Seminar
MUS 498 Senior Recital
MUS 513 Form and Analysis
Ensembles: Students are required to participate in a major ensemble involving their primary instrument concurrent with every semester of applied music study. Major ensembles for this degree include Symphonic Band, Wind Ensemble, University Orchestra, and Concert Band. Wind, brass, percussion, keyboard, and guitar students pursuing the instrumental emphasis must complete no less than two semesters of marching band. Up to two semesters of marching band may be substituted for a major ensemble for those students. Some performance areas have more specific requirements. Students should consult their advisors and applied lesson teachers for detailed requirements

Required for Teacher Certification................................. 26 hrs
EDU 403 Structures and Foundations of Education
EDU 405 Introduction to Educational Measurement
EDU 422 Student Teaching Seminar
ELE 421 Student Teaching Elementary P-5, IECE
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Total Curriculum Requirements ...................... 139 hrs
1All music education majors must successfully complete a Basic Vocal Skills Proficiency prior to enrolling in 300-level music methods courses.
2Six successful semesters of MUS 098 are required. To successfully complete the course each semester the student must gain credit for 13 approved recital attendances and have no more than one absence from required assembly programs. Attendance may be required at designated departmental recitals and/or events.
3A minimum of seven semesters of specified study to equal 14 hours in applied music is required as are periodic jury and proficiency examinations. A half-recital must be given in the final semester of study. Recital must be completed prior to the semester of student teaching.
4Students may be exempted from one of the technique classes upon satisfactory demonstration of teaching proficiency as determined by the instructor of the course.
5Students are advised into the correct section of Functional Keyboard according to demonstrated ability and achievement.

AREA:

Music/Music Education P-12 Certification Option Vocal Emphasis

Bachelor of Music Degree
CIP 50.0901

ACCREDITED BY:
National Association of Schools of Music (NASM)

University Studies Requirements ......................... 35 hrs
(See Chapter 5, Bachelor of Music degree requirements.)

University Studies selections must include:
•Global Awareness, Cultural Diversity and the World's Artistic Traditions:
One of the following:
ART 105 Studio Art for Non-Majors
ART 121 Art Appreciation
ART 211 Introduction to the History of Art I
ART 212 Introduction to the History of Art II
•Social and Self-Awareness and Responsible Citizenship:
EDP 260 Psychology of Human Development
Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and MUS 123. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Required Music/Music Education Courses1 ............... 69 hrs
MUS 098 Recital Attendance and Assembly2
MUS 099 Transitions
MUS 116, 117, or 119 Applied Lesson3
(two semesters at two credits per semester)
MUS 123 Introduction to Music Education
MUS 170 Theory I
MUS 171 Aural Skills I
MUS 172 Functional Keyboard I4
MUS 173 Theory II
MUS 174 Aural Skills II
MUS 175 Functional Keyboard II

College of Humanities and Fine Arts
College of Humanities and Fine Arts

MUS 216, 217, or 219 Applied Lesson
(two semesters at two credits per semester)
MUS 225 English and German Diction for Singers
MUS 226 French and Italian Diction for Singers
MUS 270 Theory III
MUS 271 Aural Skills III
MUS 272 Functional Keyboard III
MUS 273 Theory IV
MUS 274 Aural Skills IV
MUS 275 Functional Keyboard IV
MUS 301 General Music Methods
MUS 302 Choral Methods
MUS 303 Instrumental Methods: Elementary and Middle School
MUS 316, 317, or 319 Applied Lesson
(two semesters at two credits per semester)
MUS 320 Vocal Pedagogy for the Music Educator
MUS 321 Choral Repertoire
MUS 323 Basic Conducting
MUS 327 Arranging Techniques
MUS 381 Music History and Literature I
MUS 382 Music History and Literature II
MUS 383 Music History and Literature III
MUS 416, 417, or 419 Applied Lesson
MUS 424 Choral Conducting
MUS 490 Senior Seminar
MUS 498 Senior Recital
MUS 513 Form and Analysis

Ensembles: Students are required to participate in a major ensemble involving their primary instrument concurrent with every semester of applied music study. Major ensembles for this degree include University Chorale and Concert Choir. Vocal emphasis students must complete no less than two semesters of University Chorale. Some performance areas have more specific requirements. Students should consult their advisors and applied lesson teachers for detailed requirements.

Required for Teacher Certification .................................. 26 hrs
EDU 403 Structures and Foundations of Education
EDU 405 Introduction to Educational Measurement
EDU 422 Student Teaching Seminar
ELE 421 Student Teaching Elementary P-5, IECE
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Total Curriculum Requirements ........................................ 138 hrs

Bachelor of Arts/Bachelor of Science Degree
CIP 50.0999.02

ACCREDITED BY:
National Association of Schools of Music (NASM)

University Studies Requirements ................................. 41-47 hrs
(See Chapter 5, University Studies Requirements)

Required Music Courses ............................................ 54-58 hrs
MUS 098 Recital Attendance and Assembly
MUS 099 Transitions
MUS 114-119 Applied Lesson
(two semesters at two credits per semester)
MUS 170 Theory I
MUS 171 Aural Skills I
MUS 172 Functional Keyboard I
MUS 173 Theory II
MUS 174 Aural Skills II
MUS 175 Functional Keyboard II
MUS 214-219 Applied Lesson
(two semesters at two credits per semester)
MUS 270 Theory III
MUS 271 Aural Skills III
MUS 273 Theory IV
MUS 274 Aural Skills IV
MUS 314-319 Applied Lesson
(two semesters at one or two credits per semester)
MUS 323 Basic Conducting
MUS 381 Music History and Literature I
MUS 382 Music History and Literature II
MUS 383 Music History and Literature III
MUS 414-419 Applied Lesson
(two semesters at one or two credits per semester)
MUS 490 Senior Seminar
MUS 497 Final Project
or MUS 498 Senior Recital
Theory elective: MUS 511, 512 or 513

Ensembles: Students are required to participate in a major ensemble involving their primary instrument concurrent with every semester of applied music study. Major ensembles include Symphonic Band, Wind Ensemble, University Orchestra, Choral, and Concert Choir. Some performance areas have more specific requirements. Students should consult their advisors and applied lesson teachers for detailed requirements.

Electives ................................................................. 15-25 hrs

Total Curriculum Requirements ................................. 120 hrs

1All music education majors must successfully complete a Basic Vocal Skills Proficiency prior to enrolling in 300-level music methods courses.

2Six successful semesters of MUS 098 are required. To successfully complete the course each semester the student must gain credit for 13 approved recital attendances and have no more than one absence from required assembly programs. Attendance may be required at designated departmental recitals and/or events.

3A minimum of seven semesters of specified study to equal 14 hours in applied music is required as are periodic jury and proficiency examinations. A half-recital must be given in the final semester of study. Recital must be completed prior to the semester of student teaching.

4Students are advised to study a second major instrument (e.g., organ, harpsichord, voice, etc.) with the approval of the academic advisor.

5Research track. The student more interested in research than applied
music has the option of taking applied music instruction for two credit hours each semester for four semesters and then taking one credit hour of instruction for an additional four semesters. The student in the research track will take four credit hours of course work related to his/her area of research with the presentation of a final project (MUS 497) as the culmination of this study.

Research Project. In lieu of a recital, the student may propose a scholarly document. The proposal may be presented as early as the beginning of the fifth semester of study and no later than after the sixth semester of study. The proposal is prepared under the guidance of the student’s advisor and submitted to a three-member committee.

Performance Track. The student interested in performance has the option of taking applied music instruction for two credit hours each semester for eight semesters. The culmination of study will be the senior recital (MUS 498).

Recital. The student, in consultation with the applied teacher and the academic advisor, makes a preliminary decision at the end of the fourth semester of study toward either the performance or research track. The final decision must be made by the end of the sixth semester of study. If the performance track is chosen, a half-recital will be performed.

AREA:
Music/Music Business Option

Bachelor of Arts/Bachelor of Science Degree
CIP 50.0999.02

ACCREDITED BY:
National Association of Schools of Music (NASM)

University Studies Requirements .......................... 41-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Oral and Written Communication:
  CSC 199 Introduction to Information Technology
• Social and Self-Awareness and Responsible Citizenship:
  ECO 231 Principles of Microeconomics
• Recommended University Studies Elective:
  ECO 230 Principles of Macroeconomics

Required Music Courses ........................................ 52 hrs
MUS 098 Recital Attendance and Assembly 1
MUS 099 Transitions
MUS 114-119 Applied Lesson
   (two semesters at two credits per semester)
MUS 170 Theory I
MUS 171 Aural Skills I
MUS 172 Functional Keyboard I
MUS 173 Theory II
MUS 174 Aural Skills II
MUS 175 Functional Keyboard II
MUS 214-219 Applied Lesson
   (two semesters at two credits per semester)
MUS 270 Theory III
MUS 271 Aural Skills III
MUS 273 Theory IV
MUS 274 Aural Skills IV
MUS 323 Basic Conducting
MUS 381 Music History and Literature I
MUS 382 Music History and Literature II
MUS 383 Music History and Literature III
MUS 490 Senior Seminar
   300-level and above electives (9 hrs)
Ensembles:
   (four semesters at one credit per semester)
Ensembles: Students are required to participate in a major ensemble involving their primary instrument concurrent with every semester of applied music study. Major ensembles include Symphonic Band, Wind Ensemble, University Orchestra, Concert Band, University Chorale, and Concert Choir. Some performance areas have more specific requirements. Students should consult their advisors and applied lesson teachers for detailed requirements.

Music Business Courses ..................................... 30 hrs
ACC 200 Principles of Financial Accounting
JMC 391 Public Relations Principles
JMC 394 Introduction to Advertising
MGT 350 Fundamentals of Management
MKT 360 Principles of Marketing
MUS 230 Introduction to Music Industry
MUS 330 Music Business I
MUS 331 Music Business II
MUS 488 Cooperative Education/Internship
MUS 489 Cooperative Education/Internship

Total Curriculum Requirements ......................... 123-128 hrs

It is recommended that ACC 201 also be taken.

AREA:
Music/Keyboard Studies Option

Bachelor of Arts/Bachelor of Science Degree
CIP 50.0999.02

ACCREDITED BY:
National Association of Schools of Music (NASM)

University Studies Requirements .......................... 41-47 hrs
(See Chapter 5, University Studies Requirements)

Required Music Courses ........................................ 67 hrs
MUS 098 Recital Attendance and Assembly 1
MUS 099 Transitions
MUS 116 Organ (two semesters at two credits per semester or if organ is the major instrument)
MUS 117 Piano (two semesters at two credits per semester if piano is the major instrument)
MUS 170 Theory I
MUS 171 Aural Skills I
MUS 172 Functional Keyboard I
MUS 173 Theory II
MUS 174 Aural Skills II
MUS 175 Functional Keyboard II
MUS 216 Organ Level II
   (two semesters at one credit per semester)
MUS 217 Piano Level II
   (two semesters at one credit per semester)
MUS 270 Theory III
MUS 271 Aural Skills III
MUS 272 Functional Keyboard III
MUS 273 Theory IV
MUS 274 Aural Skills IV
MUS 275 Functional Keyboard IV
MUS 313 Introduction to Music Synthesis
   (two semesters at one credit per semester)
MUS 316 Organ Level III
   (two semesters at one credit per semester)
MUS 317 Piano Level III
(two semesters at one credit per semester)

MUS 323 Basic Conducting
MUS 381 Music History and Literature I
MUS 382 Music History and Literature II
MUS 383 Music History and Literature III
MUS 396 Repertoire/Pedagogy
MUS 416 Organ Level IV (two semesters at two credits per semester if organ is the major instrument)
MUS 417 Piano Level IV (two semesters at two credits per semester if piano is the major instrument)

MUS 439 Harpsichord
MUS 490 Senior Seminar
MUS 496 Repertoire/Pedagogy
MUS 497 Final Project

or

MUS 498 Senior Recital

Theory elective: MUS 511, 512 or 513

Ensembles: Students are required to participate in a major ensemble involving their primary instrument concurrent with every semester of applied music study. Major ensembles include Symphonic Band, Wind Ensemble, University Orchestra, Concert Band, University Chorale, and Concert Choir. Some performance areas have more specific requirements. Students should consult their advisors and applied lesson teachers for detailed requirements.

Electives ........................................................................... 6-12 hrs

Total Curriculum Requirements ........................................ 120 hrs

1Six successful semesters of MUS 098 are required. To successfully complete the course each semester the student must gain credit for 13 approved recitals and have no more than one absence from required assembly programs.

2All keyboard studies majors are expected to fulfill the functional keyboard requirement of completing Keyboard Level IV.

3Research track. The student more interested in research than applied music has the option of taking applied music instruction for two credit hours each semester for four semesters and then taking one credit hour of instruction on the major instrument for an additional four semesters. The student in the research track will take four credit hours of course work related to his/her area of research with the presentation of a final project (MUS 497) as the culmination of this study.

4Research project. In lieu of a recital, the student may propose a scholarly document. The proposal may be presented as early as the beginning of the fifth semester of study and no later than after the sixth semester of study. The proposal is prepared under the guidance of the student’s advisor and a three-member committee.

Performance track. The student interested in performance has the option of taking applied music instruction each semester for eight semesters. The culmination of study will be MUS 498.

Recital. The student, in consultation with the applied teacher and the academic advisor, makes a preliminary decision at the end of the fourth semester of study toward either the performance or research track. The final decision must be made by the end of the sixth semester of study. If the performance track is chosen, a half-recital will be performed.

AREA:
Music/Composition Option

Bachelor of Music Degree
CIP 50.0901

ACCREDITED BY:
National Association of Schools of Music (NASM)

University Studies Requirements .......................................... 35 hrs
(See Chapter 5, University Studies Requirements)

Required Music Courses .................................................... 81-83 hrs

MUS 098 Recital Attendance and Assembly
MUS 099 Transitions
MUS 114-119 Applied Lesson
(two semesters at two credits per semester)
MUS 170 Theory I
MUS 171 Aural Skills I
MUS 172 Functional Keyboard I
MUS 173 Theory II
MUS 174 Aural Skills II
MUS 175 Functional Keyboard II
MUS 214-219 Applied Lesson
(two semesters at two credits per semester)
MUS 240 Introduction to Composition
MUS 241 Composition Level I
(two semesters at three credits per semester)
MUS 270 Theory III
MUS 271 Aural Skills III
MUS 272 Functional Keyboard III
MUS 273 Theory IV
MUS 274 Aural Skills IV
MUS 275 Functional Keyboard IV
MUS 323 Basic Conducting
MUS 327 Arranging Techniques
MUS 341 Composition Level II
(two semesters at three credits per semester)
MUS 381 Music History and Literature I
MUS 382 Music History and Literature II
MUS 383 Music History and Literature III
MUS 427 Advanced Arranging and Orchestration
MUS 441 Composition Level III
(two semesters at three credits per semester)
MUS 490 Senior Seminar
MUS 498 Senior Recital
MUS 511 Analysis of Contemporary Music
MUS 512 Counterpoint
MUS 513 Form and Analysis

Ensembles ................................................................. 6 hrs

Students are required to participate in a major ensemble involving their primary instrument concurrent with every semester of applied music study. Major ensembles include Symphonic Band, Wind Ensemble, University Orchestra, Concert Band, University Chorale, and Concert Choir. Some performance areas have more specific requirements. Students should consult their advisors and applied lesson teachers for detailed requirements.

Electives ............................................................................. 4 hrs

Choose from the following:
MUS 131 Percussion Methods
MUS 132 Woodwind Methods
MUS 133 String Methods
MUS 134 Voice Methods
MUS 135 Brass Methods
MUS 313 Introduction to Musical Synthesis
MUS 423 Instrumental Conducting
MUS 424 Choral Conducting
MUS 510 Pedagogy of Theory

Total Curriculum Requirements ......................................... 120 hrs
Bachelor of Music Degree  
CIP 50.0901

ACCREDITED BY:  
National Association of Schools of Music (NASM)

University Studies Requirements .................................35 hrs  
(See Chapter 5, University Studies Requirements)

Required Music Courses ..............................................81-83 hrs

MUS 098 Recital Attendance and Assembly^2  
MUS 099 Transitions
MUS 114-119 Applied Lesson  
   (two semesters at two or three credits per semester)^3
MUS 114-119 Applied Lesson  
   (two semesters at one credit per semester)^4
MUS 170 Theory I
MUS 171 Aural Skills I
MUS 172 Functional Keyboard I^5  
MUS 173 Theory II
MUS 174 Aural Skills II
MUS 175 Functional Keyboard II
MUS 214-219 Applied Lesson  
   (two semesters at three credits per semester)^5
MUS 270 Theory III
MUS 271 Aural Skills III
MUS 272 Functional Keyboard III^6  
MUS 273 Theory IV
MUS 274 Aural Skills IV
MUS 275 Functional Keyboard IV^7  
MUS 314-319 Applied Lesson  
   (two semesters at three credits per semester)^6
MUS 323 Basic Conducting
MUS 381 Music History and Literature I
MUS 382 Music History and Literature II
MUS 383 Music History and Literature III
MUS 396 Repertoire/Pedagogy
MUS 398 Junior Recital
MUS 414-419 Applied Lesson  
   (two semesters at three credits per semester)^5
MUS 490 Senior Seminar
MUS 496 Repertoire/Pedagogy
MUS 498 Senior Recital
MUS 499 Concerto Performance
MUS 511 Analysis of Contemporary Music
MUS 512 Counterpoint
MUS 513 Form and Analysis
MUS 530 Special Topics

Electives from the following:

MUS 225 English and German Diction for Singers
MUS 226 French and Italian Diction for Singers
MUS 241 Composition Level I
MUS 313 Introduction to Music Synthesis
MUS 327 Arranging Techniques
MUS 328 Choral Arranging
MUS 423 Instrumental Conducting
MUS 424 Choral Conducting

Ensembles: Students are required to participate in a major ensemble involving their primary instrument concurrent with every semester of applied music study. Major ensembles include Symphonic Band, Wind Ensemble, University Orchestra, Concert Band, University Chorale, and Concert Choir. Some performance areas have more specific requirements. Students should consult their advisors and applied lesson teachers for detailed requirements.

Electives^6  .............................................................................2-4 hrs

Total Curriculum Requirements .................................120 hrs

^1Admission to this degree program is conditional for first year. Continuation in the program is dependent upon advice of applied teacher and departmental chair after assessment of performance talent, achievement and general musicianship. The student in pursuit of the degree is advised to gain an academic minor or minors and/or a companion degree.

^2Six successful semesters of MUS 098 are required. To successfully complete the course each semester the student must gain credit for 13 approved recitals and have no more than one absence from required assembly programs.

^3Applied music is studied at two or three credits in the first two semesters and three credits in semesters three through eight. Periodic jury and proficiency examinations are required. A half-recital (MUS 398) is required in the junior year and a full recital (MUS 498) is required in the senior year. A solo appearance with a performing ensemble approved by the applied teacher and department chair is required (MUS 499).

^4Vocal majors must complete the additional two credit hours in applied piano. Instrumental majors may complete the additional two credit hours on a secondary instrument in any applied area. If piano or organ is chosen as the secondary instrument, study will begin after the completion of MUS 275.

^5All students in the performance option of the B.M. degree must pass the Functional Keyboard IV competency exam followed by two credit hours of applied secondary study. Students are advised into the correct section of Functional Keyboard according to demonstrated ability and achievement.

^6At least one course must be an unrestricted elective outside the major.

Music Minor .................................................................25 hrs  
MUS 105, 114-119, 170, 171, 172, 173, 174, 175, 214-219, and four hours of MUS electives chosen from the following (to be approved by the chair and advisor): MUS 301, 302, 303, 313, 320, 321, 323, 326, 327, 381, 382, 383, 423, 424, 530. Students may also take 300-level applied study once the 200-level proficiency has been passed. Students must meet course prerequisites or have permission of the instructor if there is a prerequisite. Elective applied study is dependent upon studio space. At least six hours must be upper level courses completed in residence at Murray State. Students must earn the grade of C or better to progress in all sequence courses. Applied Lessons: Students study for four consecutive semesters with concurrent appropriate ensemble participation. Enrollment in MUS 170 at the earliest offering of the course or prior to completion of MUS 170 is required for enrollment in applied music study. Piano students with keyboard background may challenge one or both of the functional keyboarding classes. Ensembles: Students are required to participate in a major ensemble involving their primary instrument concurrent with every semester of applied music study. Four semesters of ensembles is the minimum requirement for a minor. Students should take two semesters of ensembles at the 100-level and two semesters of ensembles at the 300-level. Major ensembles include Symphonic Band, Wind Ensemble, University Orchestra, Concert Band, University Chorale, and Concert Choir. Some performance areas have more specific requirements. Students should consult their advisors and applied lesson teachers for detailed requirements.

College of Humanities and Fine Arts
Department of Psychology
212A Wells Hall
270-809-2851


The Department of Psychology provides a liberal arts oriented program of studies which covers the many topics of the broad discipline of psychology. The curriculum is designed to enable students who major in psychology to (1) become knowledgeable about the basic principles of behavior, (2) acquire research and problem-solving skills, and (3) learn how psychological knowledge can be applied in service settings to promote human welfare. The department also provides a flexible minor which can be combined with majors in other fields to provide students in those fields an appropriate background in psychology.

Completion of the psychology major prepares the student for a variety of activities in occupations in which an understanding of human behavior is important (e.g. public relations, personnel management, social welfare, mental health and child care). Professional careers in psychology normally require graduate training and the undergraduate major constitutes excellent preparation for entry into graduate programs in psychology. This major also serves as a good background for entry into graduate study in a number of other professional fields which have a strong psychological dimension or require a knowledge of behavioral science research techniques. The department offers its own graduate programs in two areas, general psychology and clinical psychology.

The department’s physical facilities include laboratories which are equipped for research and a computer laboratory. In addition, the Psychological Center, operated by the department, serves as a training facility for graduate students and as a mental health resource for referrals from university and community agencies. The center, located in Wells Hall, has facilities for psychological testing, and therapy.

MAJOR:
Psychology

Bachelor of Arts/Bachelor of Science Degree
CIP 42.0101

University Studies Requirements ......................44-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies and Quantitative Skills:
  BIO 101 Biological Concepts
  or
  BIO 221 Zoology: Animal Form and Function
Mathematics through at least MAT 117 is required for a B.A.
BIO 221 and MAT 140 are required for a B.S.

Required Courses ...........................................31 hrs
ENG 205 Writing for the Social Sciences
PSY 099 Transitions
PSY 180 General Psychology
PSY 260 Lifespan Development
PSY 300 Principles and Methods of Statistical Analysis
PSY 301 Principles and Methods of Psychological Research
PSY 303 Social Psychology
PSY 304 Psychology of Learning and Memory
PSY 305 Physiological Psychology
PSY 403 History and Systems of Psychology
PSY 407 Abnormal Psychology

Required Limited Electives.................................9 hrs
PSY electives approved by advisor.

Required Minor ...........................................21-24 hrs

Unrestricted Electives ....................................9-15 hrs

Total Curriculum Requirements .....................120 hrs

Psychology Minor...........................................21 hrs
PSY 180 and 18 hours of PSY electives. A minimum of 12 hours must be upper-division courses (300 level or above). Six hours must be upper-level courses completed in residence at Murray State University.

Department of Theatre
106 Fine Arts
270-809-4421

Chair: David Balthrop. Faculty: Balthrop, Graham, Hanan, Menchinger, Ortega, Walsh.

The Department of Theatre provides a balanced and comprehensive theatre experience for students that place an emphasis upon theatre production. The Department of Theatre provides experiential learning in acting, directing, design and technical theatre in an environment conducive to teaching, learning and personal development. We empower the student’s knowledge of the craft as they pursue theatre in a global, common-good context while learning a life-long respect for the theatrical art form and its history. Furthermore, the Department of Theatre is committed to providing educational and professional support to K-12 schools and regional theatres.

The department utilizes three (3) performance spaces: Robert E. Johnson Theatre (seats 344), Actor’s Studio Theatre (Seats 55) and Lovett Auditorium (seats 1200). The department utilizes “smart” classrooms, a dance/acting studio classroom and other facilities on the MSU campus for instruction.

Students are educated as actors, directors, managers, designers, technicians, in preparation for graduate study and/or employment in fields requiring high-level communication skills and teamwork.

For the student body at large, the program affords the opportunity to experience, as audience or participants, a wide range of dramatic forms selected both to educate and to entertain.

Each theatre major is required to work in or on twelve (12) faculty-directed productions prior to graduation. Theatre minors are required to work in or on 6 productions prior to graduation. Enrollment in THD 098 as required by the major and/or minor evaluate this production requirement. At least one study abroad experience is highly encouraged for all theatre majors and minors. The department faculty participates in study abroad courses to facilitate this activity. Students may participate in two organizations in the department: Alpha Psi Omega (national honorary dramatic society) and Sock and Buskin (theatre student organization).

Scholarships
Scholarships are available to qualified students who major in theatre. For additional information refer to the scholarship section.
of this Bulletin or contact the Chairman of the Theatre Department.

**Accreditation**

Murray State University is an accredited institutional member of the National Association of Schools of Theatre (NAST).

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### MAJOR:

**Theatre**

**Bachelor of Science/Bachelor of Arts Degree**

CIP 50.0501

**University Studies Requirements** ......................... 41-47 hrs

(See Chapter 5, University Studies Requirements)

**Core Courses** .......................................................... 34 hrs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THD 098</td>
<td>Theatre Attendance and Assembly</td>
</tr>
<tr>
<td>THD 099</td>
<td>Transitions</td>
</tr>
<tr>
<td>THD 111</td>
<td>Acting I</td>
</tr>
<tr>
<td>THD 120</td>
<td>Play Analysis</td>
</tr>
<tr>
<td>THD 221</td>
<td>Performance Theory</td>
</tr>
<tr>
<td>THD 240</td>
<td>Theatre Production</td>
</tr>
<tr>
<td>THD 241</td>
<td>Theatrical Makeup</td>
</tr>
<tr>
<td>THD 250</td>
<td>Basic Theatre Design</td>
</tr>
<tr>
<td>THD 310</td>
<td>Acting II</td>
</tr>
<tr>
<td>THD 392</td>
<td>Professional Theatre Engagement</td>
</tr>
<tr>
<td>THD 430</td>
<td>Directing I</td>
</tr>
<tr>
<td>THD 465</td>
<td>Directing II</td>
</tr>
</tbody>
</table>

*and one course chosen from the following:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THD 341</td>
<td>Advanced Theatrical Makeup</td>
</tr>
<tr>
<td>THD 350</td>
<td>Scene Design</td>
</tr>
<tr>
<td>THD 351</td>
<td>Lighting Design</td>
</tr>
<tr>
<td>THD 352</td>
<td>Costume Design</td>
</tr>
<tr>
<td>THD 358</td>
<td>Sound Design</td>
</tr>
</tbody>
</table>

**Required Limited Electives** ............................. 24 hrs

**Foundation of Theatre**

*Choose six hours from the following:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THD 103</td>
<td>Foundations of Theatre</td>
</tr>
<tr>
<td>THD 220</td>
<td>Creative Dramatics</td>
</tr>
<tr>
<td>THD 225</td>
<td>Children’s Theatre Touring Company</td>
</tr>
<tr>
<td>THD 260</td>
<td>Music Theatre Dance I</td>
</tr>
<tr>
<td>THD 262</td>
<td>Jazz Dance I</td>
</tr>
<tr>
<td>THD 320</td>
<td>Playwriting</td>
</tr>
<tr>
<td>THD 322</td>
<td>International Studies in Theatre</td>
</tr>
<tr>
<td>THD 330</td>
<td>Theatre Management and Leadership</td>
</tr>
<tr>
<td>THD 360</td>
<td>Music Theatre Dance II</td>
</tr>
<tr>
<td>THD 362</td>
<td>Jazz Dance II</td>
</tr>
</tbody>
</table>

**Acting/Directing**

*Choose six hours from the following:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THD 110</td>
<td>Movement for the Actor</td>
</tr>
<tr>
<td>THD 210</td>
<td>Voice for Performance</td>
</tr>
<tr>
<td>THD 312</td>
<td>Advanced Movement for Actors</td>
</tr>
<tr>
<td>THD 346</td>
<td>Acting Shakespeare</td>
</tr>
<tr>
<td>THD 400</td>
<td>Special Topics</td>
</tr>
<tr>
<td>THD 401</td>
<td>Special Topics in Performance</td>
</tr>
<tr>
<td>THD 410</td>
<td>Acting III</td>
</tr>
<tr>
<td>THD 590</td>
<td>Directed Independent Study in Theatre Arts</td>
</tr>
</tbody>
</table>

**Design/Technical Theatre**

*Choose six hours from the following:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THD 230</td>
<td>Stage Management</td>
</tr>
<tr>
<td>THD 341</td>
<td>Advanced Theatrical Makeup</td>
</tr>
<tr>
<td>THD 348</td>
<td>Advanced Costume Construction</td>
</tr>
<tr>
<td>THD 349</td>
<td>Advanced Stagecraft</td>
</tr>
<tr>
<td>THD 350</td>
<td>Scene Design</td>
</tr>
<tr>
<td>THD 351</td>
<td>Lighting Design</td>
</tr>
<tr>
<td>THD 352</td>
<td>Costume Design</td>
</tr>
<tr>
<td>THD 358</td>
<td>Sound Design</td>
</tr>
<tr>
<td>THD 402</td>
<td>Special Topics in Technical Theatre</td>
</tr>
<tr>
<td>THD 590</td>
<td>Directed Independent Study in Theatre Arts</td>
</tr>
</tbody>
</table>

**Theatre History and Literature Courses**

*Choose six hours from the following:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THD 420</td>
<td>Theatre History and Literature I</td>
</tr>
<tr>
<td>THD 421</td>
<td>Theatre History and Literature II</td>
</tr>
<tr>
<td>THD 422</td>
<td>Contemporary Theatre</td>
</tr>
<tr>
<td>THD 466</td>
<td>Theatre Literature</td>
</tr>
</tbody>
</table>

**Required Minor** ............................................... 21 hrs

*Choose courses not taken as part of core.*

**Total Curriculum Requirements** .......................... 120 hrs

---

**Theatre Minor** .................................................. 23 hrs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THD 098, 111, 120, 221, 240, 250, 392, 430; and one of the following: 350, 351, or 352. Six hours must be upper-level courses completed in residence at Murray State University.</td>
<td></td>
</tr>
</tbody>
</table>
College of Science, Engineering and Technology

Steve Cobb, Dean  Robert Pervine, Associate Dean
107C Applied Science Building
(270) 809-2888

Department of Biological Sciences ........................................... 121
Department of Chemistry .......................................................... 127
Department of Engineering and Physics .................................... 131
Department of Geosciences ....................................................... 135
Department of Industrial and Engineering Technology .......... 138
Department of Mathematics and Statistics ................................. 145

The departments in the College of Science, Engineering and Technology have a proud history of preparing students for careers in biology, chemistry, geosciences, mathematics, statistics, industrial technology, engineering technology, telecommunications, engineering and physics.

The college’s faculty are talented educators who make quality instruction a priority. They make themselves accessible to students and enjoy helping them achieve their academic, professional, and career goals. Faculty continuously refine the curriculum which ensures that our degree programs are current and timely in addressing the needs and expectations of our students. The faculty are also recognized scholars who carry out interesting research projects with funding from a variety of national, state, and private agencies. Like some of the finest liberal arts colleges in the country, we use our research program to enhance the learning environment for our undergraduate and graduate students. Many Murray State students have the opportunity to work side-by-side with faculty trying to solve some of the most interesting questions facing the scientific community today. Our students, both undergraduate and graduate, have published the results of their research in national journals and presented their work at regional and national conferences. In addition, students at Murray State have the opportunity to gain valuable hands-on experience through our co-op and internship programs. These kinds of experiences give our graduates the edge they need when applying for graduate school, professional school, or when entering the job market.

Our students study in comfortable, modern facilities, which now include a new science campus. The departments of biology and chemistry are housed in two beautiful state-of-the-art buildings, the Biology Building and Jesse D. Jones Hall. A proposed third building to house the engineering and physics programs will complete the campus. The college also enjoys excellent facilities in the Collins Center for Industry and Technology, Faculty Hall, and Blackburn Science Building.

Murray State’s designation as a Commonwealth Center of Excellence for Reservoir Research and the Program of Distinction in Telecommunication Systems Management adds to our distinctiveness both in the state and in the national and international academic communities.

Your academic experience in our college will be different from that found at many universities. The student-centered faculty, excellent facilities, and attractive curricular options offered here will provide you with an education that you will value throughout your life and career.

Programs and Facilities

Program of Distinction in Telecommunication Systems Management. The telecommunications field, which incorporates systems and networks of leading-edge technologies such as fiber optic systems, satellites, wireless, telephony and cable, is rapidly changing and growing. The changes taking place in this field are dramatically influencing how individuals and institutions communicate and how they conduct business. Technological advances in the telecommunications area have profoundly affected government, retail, finance, health care, education, industry and entertainment sectors. Murray State’s exciting program in telecommunications systems management is helping prepare our graduates to become the leaders in this important emerging field.

Watershed Studies Institute. Murray State University hosts one of the five designated Centers of Excellence in the Commonwealth of Kentucky. With funding support from agencies like the National Science Foundation, Department of Energy, Environmental Protection Agency, Tennessee Valley Authority and the Kentucky Department for Natural Resources, Murray State’s research program in ecosystem sciences is both nationally and internationally recognized.

Three distinct components make up the Institute: the Hancock Biological Station (HBS), the Mid-America Remote sensing Center (MARC), and the Chemical Services Laboratory (CSL). The Institute’s primary mission is to provide the infrastructure, support, and intellect for education and research of watershed ecosystems.

The Watershed Studies Institute provides outstanding research opportunities for scientists from around the world to study the region’s unique environment. The Institute also provides Murray State University undergraduate and graduate students with an opportunity to engage in hands-on research with faculty who are at the vanguard of ecosystem science.

Mid-America Remote sensing Center. Since the late 1970s when Murray State was declared the Commonwealth’s technology transfer agent for NASA’s Landsat satellite, MARC has distinguished itself in the area of remote sensing and Geographic Information Systems (GIS). Students from around the world have received classroom instruction and have been mentored in research by the MARC Associates, a group of faculty and staff with expertise in a wide variety of application areas, many of which are focused on natural and cultural resource areas including land cover mapping, archaeological site analysis, mineral exploration, water quality and wildlife habitat mapping, emergency preparedness, and demographic modeling. Research projects have been conducted for local, state, and federal agencies, the private sector, and the university. MARC provides training in remote sensing and GIS and acts as a resource center for those within and beyond the university. MARC is one component of the Watershed Studies Institute and, as such, maintains a GIS for the lower reaches of the Kentucky Lake drainage basin.

Hancock Biological Station. A year-round research and teaching facility located on beautiful Kentucky Lake, the HBS is one of the finest centers of its kind in the Midwest. HBS acts as the field research focal point for the Watershed Studies Institute and for the Ecological Consortium of Mid-America. The facilities, which include both faculty and student housing, are available year-round to...
all scientists interested in ecosystem research. Hancock Biological Station contains state-of-the-art laboratories for aquatic chemistry, scanning electron microscopy, ecology, wildlife and fisheries. A full-time technical staff operates the facilities. Field-oriented classes at the station attract students from around the nation. A wide variety of formal classes are offered each summer. These may include ecology, ornithology, limnology, field botany, stream ecology, reservoir ecology, scanning electron microscopy and vertebrate ecology. Independent research topics provide opportunities for individualized instruction and close interactions with researchers. Classes are open to undergraduates, graduate students, teachers and others interested in enhancing their knowledge of ecology, ecosystems and the natural environment.

**Chemical Services Laboratory.** The Chemical Services Laboratory provides reasonably priced analyses and instruction in environmental analytical chemistry at both the undergraduate and graduate levels. The Chemical Services Laboratory is a major contributor to the Institute’s research through its provision of chemical analyses for environmental chemistry, ecotoxicological trace element and acid deposition studies. In addition, it offers regional laboratory service for industries, institutions and individuals in west Kentucky, the greater Ohio Valley region and beyond in fulfillment of its regional economic service role.

**Pre-Professional Programs**

Students planning to pursue the following professions should consult with the appropriate advisor before beginning their studies.

- **Architecture:** Greg Mayes, Department of Industrial and Engineering Technology.
- **Dentistry:** Dr. Timothy Johnston, Department of Biological Sciences; Dr. Robert Volp, Department of Chemistry.
- **Engineering:** Dr. Ted Thiede, Professional Engineer, Department of Engineering and Physics; Dr. Mike Kemp, Professional Engineer, Department of Industrial and Engineering Technology.
- **Forensics:** Dr. Daniel Johnson, Department of Chemistry.
- **Medicine:** Dr. David Canning, Department of Biological Sciences; Dr. Ricky Cox, Department of Chemistry.
- **Optometry:** Dr. David Canning and Dr. Tom Timmons, Department of Biological Sciences.
- **Pharmacy:** Dr. Leon Duobinis-Gray, Department of Biological Sciences; Dr. Harry Fannin, Department of Chemistry.
- **Physical Therapy:** Dr. Terry Derting and Dr. Claire Fuller, Department of Biological Sciences.

**Sustainability Studies**

The Sustainability Studies minor is an interdisciplinary exploration of sustainability issues focusing on the environment and/or sustainable development. Integrating knowledge and experiences from the sciences, engineering, agriculture, business, humanities, and arts, the minor is designed to complement any major area of study by focusing on ecological health, sustainable agriculture, and economic sustainability.

**MINOR: Sustainability Studies**

**Total Minor Requirements** .................................................. 22-24

**Required Courses** .................................................................. 10 hrs

- BIO 103 Saving Planet Earth
- ENG 371 Literature and the Environment
- IDC 150 Issues in Sustainability Studies
- PHI 376 Environmental Ethics

**Restricted Electives** ................................................................ 6 hrs

Choose two of the following:

- AGR 353 World Food, Agriculture and Society
- CET 284 Sustainable Design and Construction
- REC 450 Recreational Use of Natural Resources

**Unrestricted Electives** ............................................................. 6-8 hrs

Choose from the following with program coordinator approval:

- AGR 345, 378, 455; ANT 320; ARC 314; BIO 112, 330, 506, 578; CHE 502, 513; ECO 345, 410; ENT 286; GSC 507, 524; PSY 373; SOC 325, 380, 455.

Note: Six hours of the minor must be upper-level courses completed in residence at Murray State University.

**Department of Biological Sciences**

2112 Biology Building
270-809-2786


The Department of Biological Sciences offers baccalaureate programs with a major in biology (pre-medicine, pre-dentistry, pre-optometry, pre-physical therapy, pre-physician assistant, molecular biology, fisheries, aquatic biology and secondary certification options available) or an area of concentration in wildlife and conservation biology. These programs are designed to prepare students for professional or graduate work in the life sciences. Curricula provide students with a basic core of science courses plus advanced biology courses in their particular field of interest. The department also offers a two-year, pre-professional program in pharmacy and a minor in biology.

The department has offices, classrooms, laboratories, and research facilities in the newly constructed Biology Building and on the third floor of the Blackburn Science Building. The department also has two off-campus resources which are utilized in field-oriented teaching and research programs. One of these, Murphy’s Pond, is a 300-acre preserve in Hickman County with one of the few remaining cypress swamps in western Kentucky. The other, Hancock Biological Station, is a modern classroom/laboratory complex located on the western shore of Kentucky Lake, 17 miles from the main campus. The station is ideally located in an area of diverse aquatic habitats and is the focal point for the reservoir research on Kentucky Lake and Lake Barkley.

**MAJOR:** Biology

**Bachelor of Science/Bachelor of Arts Degree**

CIP 26.0101

**University Studies Requirements** ................................. 45-46 hrs

(See Chapter 5, University Studies Requirements)

University Studies selections must include:

- Scientific Inquiry, Methodologies, and Quantitative Skills:
  - CHE 201 General College Chemistry
  - CHE 202 General Chemistry and Qualitative Chemistry
MAT 150 Algebra and Trigonometry
  or
MAT 250 Calculus and Analytic Geometry I
• University Studies Electives:
  PHY 130 General Physics I
  PHY 131 General Physics I Laboratory
  or
  PHY 235 Mechanics, Heat and Wave Motion
  PHY 236 Mechanics, Heat and Wave Motion Laboratory

Required Courses .............................................................. 41 hrs
BIO 099 Transitions
BIO 115 The Cellular Basis of Life
BIO 216 Biological Inquiry and Analysis
BIO 221 Zoology: Animal Form and Function
  or
BIO 222 Botany: Plant Form and Function
BIO 290 Biomedical Research I
BIO 300 Introductory Microbiology
BIO 321 Cell Biology: Mechanisms
  or
BIO 323 Cell Biology: Systems
BIO 322 Animal Physiology
  or
BIO 555 Plant Physiology
BIO 333 Genetics
BIO 388 Biomedical Research II
BIO 389 Biomedical Research III
BIO 438 Biomedical Research IV
BIO 439 Biomedical Research V
BIO 499 Senior Biology Seminar
BIO electives: 16 hrs approved by advisor, 300-level or above [BIO 488 and 489 will not count here]

Co-Requirements for Area .............................................. 14 hrs
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II
  or
CHE 210 Brief Organic Chemistry
CHE 215 Chemistry Laboratory
CHE 330 Basic Biochemistry

Restricted Electives ........................................................... 15 hrs
Choose from the following:
BIO 320 Comparative Vertebrate Anatomy
BIO 421 Vertebrate Histology
BIO 501 Immunology
BIO 504 Medical Cell Biology
BIO 521 Cell Biology Laboratory
BIO 528 Neurobiology
BIO 534 Molecular Genetics Laboratory
BIO 597 Topics in Advanced Molecular Biology
CHE 305 Analytical Chemistry
CHE 403 Basic Physical Chemistry
CHE 370 Introduction to Modern Physics

AREA: Biology/Biomedical Sciences Option

Bachelor of Science/Bachelor of Arts Degree
CIP 26.0101

University Studies Requirements ......................... 45 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  CHE 201 General College Chemistry
  MAT 250 Calculus and Analytic Geometry I
  PHY 130 General Physics
  PHY 131 General Physics I Laboratory
• University Studies Electives:
  CHE 202 General Chemistry and Qualitative Analysis
  PHY 132 General Physics II
  PHY 133 General Physics II Laboratory

Total Curriculum Requirements ......................... 120 hrs
1. Curriculum satisfies 9-10 hours of science University Studies requirements and ten hours of University Studies electives.
2. A maximum of three hours total from BIO 483, 484 and BIO 491, 492, 493, 494 may be used.
3. This course does not apply toward the chemistry minor.
4. Chemistry co-requirements may apply toward the requirements for a minor in chemistry.

MAJOR: Biology/Molecular Biology Option

Bachelor of Science/Bachelor of Arts Degree
CIP 26.0101

University Studies Requirements ......................... 45-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  CHE 201 General College Chemistry
MAT 250 Calculus and Analytic Geometry I
PHY 130 General Physics I
PHY 131 General Physics I Laboratory
or
PHY 235 Mechanics, Heat and Wave Motion and
PHY 236 Mechanics, Heat and Wave Motion Laboratory
• University Studies Electives:
  CHE 202 General Chemistry and Qualitative Analysis
  PHY 132 General Physics II
  PHY 133 General Physics II Laboratory
  or
  PHY 255 Electricity, Magnetism and Light and
  PHY 256 Electricity, Magnetism and Light Laboratory

Required Courses............................................................40 hrs
BIO 099 Transitions
BIO 115 The Cellular Basis of Life
BIO 216 Biological Inquiry and Analysis
BIO 221 Zoology: Animal Form and Function
BIO 222 Botany: Plant Form and Function
BIO 300 Introductory Microbiology
BIO 321 Cell Biology: Mechanisms
or
BIO 323 Cell Biology: Systems
BIO 333 Genetics
BIO 499 Senior Biology Seminar
BIO 533 Molecular Genetics
BIO 534 Molecular Genetics Laboratory
BIO 537 Experimental Biochemistry
BIO 597 Topics in Advanced Molecular Biology

Co-requirements for Biology Major........................................17 hrs
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II
CHE 530 Fundamentals of Biochemistry I
CHE 540 Fundamentals of Biochemistry II
MAT 560 Statistical Methods

Unrestricted Electives.........................................................16-18 hrs

Total Curriculum Requirements........................................120 hrs

MAJOR:
Biology/Pre-Medical/Pre-Dental Option

Bachelor of Science/Bachelor of Arts Degree
CIP 26.0101

University Studies Requirements.........................................45-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  CHE 201 General College Chemistry
  MAT 150 Algebra and Trigonometry
  or
  MAT 250 Calculus and Analytic Geometry I
  PHY 130 General Physics I

Required Courses............................................................40 hrs
PHY 131 General Physics I Laboratory
or
PHY 235 Mechanics, Heat and Wave Motion and
PHY 236 Mechanics, Heat and Wave Motion Laboratory
• University Studies Electives:
  CHE 202 General Chemistry and Qualitative Analysis
  PHY 132 General Physics II
  PHY 133 General Physics II Laboratory
  or
  PHY 255 Electricity, Magnetism and Light and
  PHY 256 Electricity, Magnetism and Light Laboratory
• Social and Self-Awareness and Responsible Citizenship:
  PSY 180 General Psychology (recommended)

Required Courses............................................................40 hrs
BIO 099 Transitions
BIO 115 The Cellular Basis of Life
BIO 216 Biological Inquiry and Analysis
BIO 221 Zoology: Animal Form and Function
BIO 222 Botany: Plant Form and Function
BIO 312 Cell Biology: Mechanisms
or
BIO 323 Cell Biology: Systems
BIO 333 Genetics
BIO 499 Senior Biology Seminar
BIO electives: 12 hrs approved by advisor 300 level or above
[BIO 488 and 489 will not count here]3

Co-requirements for Biology Major........................................8 hrs
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II

Required Minor............................................................3-21 hrs

Unrestricted Electives.........................................................4-24 hrs

Total Curriculum Requirements........................................120 hrs

MAJOR:
Biology/Pre-Optometry Option

Bachelor of Science/Bachelor of Arts Degree
CIP 26.0101

University Studies Requirements.........................................44-46 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 250 Calculus and Analytic Geometry I
  PHY 130 General Physics I
  PHY 131 General Physics I Laboratory
  and
  PHY 132 General Physics II
### College of Science, Engineering and Technology

**PHY 133** General Physics II Laboratory  
**or**  
**PHY 235** Mechanics, Heat and Wave Motion  
**PHY 236** Mechanics, Heat and Wave Motion Laboratory  
**and**  
**PHY 255** Electricity, Magnetism and Light  
**PHY 256** Electricity, Magnetism and Light Laboratory  
**Social and Self-Awareness and Responsible Citizenship:**  
**PSY 180** General Psychology  
**University Studies Electives:**  
**CHE 201** General College Chemistry  
**MAT 135** Introduction to Probability and Statistics  

### Required Courses .............................................................. **41 hrs**  
**BIO 099** Transitions  
**BIO 115** The Cellular Basis of Life  
**BIO 216** Biological Inquiry and Analysis  
**BIO 221** Zoology: Animal Form and Function  
**BIO 222** Botany: Plant Form and Function  
**BIO 300** Introductory Microbiology  
**BIO 322** Animal Physiology  
**BIO 333** Genetics  
**BIO 499** Senior Biology Seminar  
**BIO electives:** 12 hrs approved by advisor 300-level or above  
[BIO 488 and 489 will not count here]  

### Co-Requirements for Biology Major ........................................**19 hrs**  
**CHE 202** General Chemistry and Qualitative Analysis  
**CHE 312** Organic Chemistry I  
**CHE 320** Organic Chemistry II  
**CHE 330** Basic Biochemistry  
**or**  
**CHE 530** Fundamentals of Biochemistry I  
**ENG 204** Advanced Expository Writing  

### Required Minor** 2 .............................................................. **0 hrs**  

### Unrestricted Electives .................................................... **14-16 hrs**  

### Total Curriculum Requirements ........................................**120 hrs**  
1. A maximum of three hours total from BIO 483, 484 and BIO 491, 492, 493, 494 may be used.  
2. Chemistry co-requirements may apply toward the requirements for a minor in chemistry.  

### MAJOR: **Biology/Pre-Physical Therapy Option**  

**Bachelor of Science/Bachelor of Arts Degree**  
**CIP 26.0101**  

**University Studies Requirements** 1 ................................**45 hrs**  
(See Chapter 5, University Studies Requirements)  

University Studies selections must include:  
**Scientific Inquiry, Methodologies, and Quantitative Skills:**  
**CHE 201** General College Chemistry  
**MAT 150** Algebra and Trigonometry  
**or**  
**MAT 250** Calculus and Analytic Geometry I  
**PHY 130** General Physics I  
**PHY 131** General Physics I Laboratory  
**and**  

**Social and Self-Awareness and Responsible Citizenship:**  
**PSY 180** General Psychology  
**SOC 133** Introduction to Sociology  
**University Studies Electives:**  
**CHE 202** General Chemistry and Qualitative Analysis  
**PHY 132** General Physics II  
**PHY 133** General Physics II Laboratory  

### Required Courses .............................................................**39-40 hrs**  
**BIO 099** Transitions  
**BIO 115** The Cellular Basis of Life  
**BIO 216** Biological Inquiry and Analysis  
**BIO 221** Zoology: Animal Form and Function  
**BIO 222** Botany: Plant Form and Function  
**BIO 300** Introductory Microbiology  
**BIO 322** Animal Physiology  
**BIO 333** Genetics  
**BIO 499** Senior Biology Seminar  
**BIO electives:** 9 hrs approved by advisor, 300 level or above  
unless BIO 320 is taken, then four hours of 300-level or above, approved by advisor.  
[BIO 488 and 489 will not count here]  

### Co-Requirements for Biology Major ................................**17-18 hrs**  
**BIO 450** Exercise Physiology  
**CHE 312** Organic Chemistry I  
**CHE 320** Organic Chemistry II  
**MAT 135** Introduction to Probability and Statistics  
**or**  
**PSY 300** Principles and Methods of Statistical Analysis  
**PSY 260** Lifespan Development  

### Required Minor** 3 ............................................................ **3-21 hrs**  

### Unrestricted Electives ..................................................... **0-16 hrs**  

### Total Curriculum Requirements ........................................**120-128 hrs**  
1. Curriculum satisfies all science University Studies requirements.  
2. A maximum of three hours total from BIO 483, 484 and BIO 491, 492, 493, 494 may be used.  
3. Chemistry co-requirements may apply toward the requirements for a minor in chemistry.
### MAJOR: Biology/Pre-Physician Assistant Option

**Bachelor of Science/Bachelor of Arts Degree**  
CIP 26.0101

**University Studies Requirements** .................................. 45 hrs  
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
- **Scientific Inquiry, Methodologies, and Quantitative Skills:**
  - CHE 201 General College Chemistry  
  - MAT 150 Algebra and Trigonometry  
  or  
  - MAT 250 Calculus and Analytic Geometry I  
  - PHY 130 General Physics I  
  - PHY 131 General Physics I Laboratory

- **Social and Self-Awareness and Responsible Citizenship:**
  - PSY 180 General Psychology  
  - SOC 133 Introduction to Sociology

- **University Studies Electives:**
  - CHE 202 General Chemistry and Qualitative Analysis  
  - PHY 132 General Physics II  
  - PHY 133 General Physics II Laboratory

**Required Courses** .............................................................. 40 hrs
- BIO 099 Transitions  
- BIO 115 The Cellular Basis of Life  
- BIO 120 Scientific Etymology  
- BIO 216 Biological Inquiry and Analysis  
- BIO 220 Clinical Terminology  
- BIO 221 Zoology: Animal Form and Function  
- BIO 222 Botany: Plant Form and Function  
- BIO 300 Introductory Microbiology  
- BIO 321 Cell Biology: Mechanisms  
  or  
  - BIO 323 Cell Biology: Systems  
  - BIO 333 Genetics  
  - BIO 499 Senior Biology Seminar  
  - BIO electives: 10 hrs approved by advisor, 300-level or above  
  [BIO 488 and 489 will not count here]³

**Co-Requirements for Biology Major** ................................... 22-23 hrs
- BIO 227 Human Anatomy  
- BIO 228 Human Anatomy Laboratory  
- BIO 229 Human Physiology  
- BIO 230 Human Physiology Laboratory  
- CHE 312 Organic Chemistry I  
- CHE 320 Organic Chemistry II  
- MAT 135 Introduction to Probability and Statistics  
  or  
  - PSY 300 Principles and Methods of Statistical Analysis  
  - PSY 260 Lifespan Development

**Required Minor (Chemistry recommended)²** .................... 3 hrs

**Unrestricted Electives** .................................................... 9-10 hrs

**Total Curriculum Requirements** .................................... 120 hrs

¹A maximum of three hours total from BIO 483, 484 and BIO 491, 492, 493, 494 may be used.
²Chemistry co-requirements may apply toward the requirements for a minor in chemistry.
³Curriculum satisfies all hours of science University Studies requirements and nine hours of University Studies electives.
⁴Some aquatic classes are only offered as summer Hancock Biological Station courses.
⁵This course does not apply toward the chemistry minor.
⁶Chemistry co-requirements may apply toward the requirements for a minor in chemistry.
MAJOR:
Biology/Secondary Certification
(Grades 8-12)

Bachelor of Science/Bachelor of Arts Degree
CIP 26.0101

University Studies Requirements\(^{1}\) .............................................. 46 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• *Scientific Inquiry, Methodologies, and Quantitative Skills:*
  CHE 201 General College Chemistry
  CHE 202 General Chemistry and Qualitative Analysis
  MAT 150 Algebra and Trigonometry
• *Social and Self-Awareness and Responsible Citizenship:*
  EDP 260 Psychology of Human Development
• *University Studies Electives:*
  EDU 103 Issues and Practices of American Education\(^{2}\)
  PHY 130 General Physics I\(^{3}\)
  PHY 131 General Physics I Laboratory\(^{3}\)

Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Required Courses ................................................................. 41 hrs
BIO 099 Transitions
BIO 112 Field Biology
BIO 115 The Cellular Basis of Life
BIO 216 Biological Inquiry and Analysis
BIO 221 Zoology: Animal Form and Function
BIO 222 Botany: Plant Form and Function
BIO 300 Introductory Microbiology
BIO 320 Comparative Vertebrate Anatomy
BIO 322 Animal Physiology
BIO 330 Principles of Ecology
BIO 333 Genetics
BIO 499 Senior Biology Seminar

Co-Requirements for Biology Major ............................................ 11-12 hrs

Chemistry Requirement

\[ \text{Group 1:} \]
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II
\[ \text{or Group 2:} \]
CHE 210 Brief Organic Chemistry\(^{1}\)
CHE 215 Brief Organic Chemistry Laboratory\(^{1}\)
CHE 330 Basic Biochemistry

Physics Requirement

PHY 132 General Physics II\(^{3}\)
PHY 133 General Physics II Laboratory\(^{3}\)

Required for Secondary Certification\(^{4}\) ........................................... 29 hrs
COM 372 Communication in Educational Environments
EDU 303 Strategies of Teaching
EDU 403 Structures and Foundations of Education
EDU 405 Evaluation and Measurement in Education
EDU 422 Student Teaching Seminar (optional)
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Required Minor\(^{7}\) ........................................................................... 3-21 hrs

Total Curriculum Requirements ............................................. 130-149 hrs\(^{7}\)

\(^{1}\)Curriculum satisfies 15 hours of science University Studies requirements.

\(^{2}\)With a grade of C or better.

\(^{3}\)PHY 235 and 236 will also meet this requirement.

\(^{4}\)This course does not apply toward the chemistry minor.

\(^{5}\)PHY 255 and 256 will also meet this requirement.

\(^{6}\)PRAXIS Exam required during last semester before student teaching. Certification requires a grade of B or better in one English composition course and a grade of C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

\(^{7}\)Chemistry co-requirements may apply toward the requirements for a minor in chemistry.

AREA:
Wildlife and Conservation Biology

Bachelor of Science/Bachelor of Arts Degree
CIP 03.0601

University Studies Requirements ............................................. 45 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• *Scientific Inquiry, Methodologies, and Quantitative Skills:*
  CHE 201 General College Chemistry
  MAT 150 Algebra and Trigonometry
  or
  MAT 250 Calculus and Analytical Geometry I
  PHY 130 General Physics I
  PHY 131 General Physics I Laboratory
• *University Studies Electives:*
  CHE 202 General Chemistry and Qualitative Analysis
  MAT 135 Introduction to Probability and Statistics

Core Courses ................................................................. 33-37 hrs
BIO 099 Transitions
BIO 115 The Cellular Basis of Life
BIO 216 Biological Inquiry and Analysis
BIO 221 Zoology: Animal Form and Function
BIO 222 Botany: Plant Form and Function
BIO 330 Principles of Ecology
BIO 333 Genetics
BIO 350 Systematic Botany
BIO 553 Field Botany
BIO 499 Senior Biology Seminar

and the following two courses:
CHE 210 Brief Organic Chemistry
CHE 215 Organic Chemistry Laboratory

or the following two courses:
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II

Option of Study ................................................................. 40-41 hrs

Choose one of the following three options:

Wildlife Biology\(^{1}\)
BIO 154 Dendrology
BIO 320 Comparative Vertebrate Anatomy
BIO 380 Wildlife Techniques
Pre-Pharmacy Curriculum

Required Courses .................................................. 58 hrs
BIO 221 Zoology: Animal Form and Function
BIO 227 Human Anatomy
BIO 228 Human Anatomy Laboratory
BIO 300 Introductory Microbiology
CHE 201 General College Chemistry
CHE 202 General Chemistry and Qualitative Analysis
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II
CHE 325 Organic Chemistry II Laboratory
ECO 231 Principles of Microeconomics
ENG 105 Reading, Writing and Inquiry
ENG 204 Advanced Expository Writing
MAT 135 Introduction to Probability and Statistics
MAT 250 Calculus and Analytic Geometry I
PHY 130 General Physics I
PHY 131 General Physics I Laboratory
PHY 132 General Physics II
PHY 133 General Physics II Laboratory
Elective hours:
Cross-cultural^ (3) General electives (4) Humanities^ (6)
Social and Self-Awareness and Responsible Citizenship (3)

Total Curriculum Requirements ........................................ 74 hrs

^The above program is based on the current admission requirements of the College of Pharmacy, University of Kentucky. Other colleges of pharmacy will have somewhat different requirements from those listed above. The curriculum can be modified to meet the requirements of most professional programs. Pre-pharmacy students desiring a four year program to receive the B.S. degree should follow the pre-medicine option and include all the courses listed above. The pre-pharmacy advisor should be consulted.

^A course focusing on the study of a Third World or non-Western country.

^Must be a two-course series.

Biology Minor .......................................................... 21 hrs

Complete BIO 115, 216, and either 221 or 222 (or both). A maximum of three hours total from BIO 483, 484, 491, 492, 493, or 494 may be used. Remaining BIO hours should be chosen with advisor’s approval (BIO 330 and 333 are highly recommended). BIO 101, 488, 489, and 499 will not count toward this minor. Six hours must be upper-level (300 and greater) courses completed in residence at Murray State University.

Department of Chemistry
1209 Jesse D. Jones Hall
270-809-2584

Chair: Ricky Cox, interim. Faculty: Allenbaugh, Anderson, Brown, Cox, Fannin, Fawzy, Johnson, Loganathan, McCreary, Miller, Ratliff, Revell, Volp.

The Department of Chemistry is certified by the American Chemical Society’s Committee on Professional Training. The department offers an area in chemistry or a major with options in teacher certification, forensics, pre-medical, pre-dental, pre-pharmacy, biochemistry or pre-MBA.

The chemistry area program is designed for students planning careers in engineering, the chemical industry, or for those who plan to pursue graduate study following the baccalaureate degree. Upon completion of this program, graduates are certified as professional chemists. Alumni with the area are well prepared to succeed in nationally recognized Ph.D. programs in chemistry.

Unrestricted Electives ............................................. 0-2 hrs

Total Curriculum Requirements ................................ 120-123 hrs

^Certification available from The Wildlife Society.

^Will count as University Studies Social Science elective.
College of Science, Engineering and Technology

The chemistry major program is recommended for students planning careers in medicine, dentistry, veterinary medicine, pharmacy, secondary education, toxicology, or biochemistry.

The department offers a minor in chemistry as well as a Master of Science in Chemistry.

Murray State has a nationally recognized chemistry student organizations, the Student Members of the American Chemical Society, the Forensic Science Student Association, and a national chemistry honor society-Gamma Sigma Epsilon.

The department is closely aligned with the Chemical Services Laboratory (CSL), the Watershed Studies Institute (WSI), and efforts to enhance environmental and biomedical sciences at Murray State University.

An excellent undergraduate research program is maintained that allows students to become involved in research projects during their first semester at MSU or later if they so desire. Students present posters or talks each semester at local and/or national meetings.

Students interested in chemistry, should contact the chair of the Department of Chemistry, Murray State University, 1201 Jesse D. Jones Hall, Murray, KY 42071-3300, Phone: (270) 809-2584 Fax: (270) 809-6474, or visit our website at www.murraystate.edu/chemistry

### AREA: Chemistry

**Bachelor of Science/Bachelor of Arts Degree**

**CIP 40.0501**

**ACCREDITED BY:**

American Chemical Society

**University Studies Requirements** .................................41-47 hrs

(See Chapter 5, University Studies Requirements.)

University Studies selections must include:

• *Scientific Inquiry, Methodologies, and Quantitative Skills:*
  MAT 250 Calculus and Analytic Geometry I
  PHY 235 Mechanics, Heat and Wave Motion
  PHY 236 Mechanics, Heat and Wave Motion Lab
  PHY 255 Electricity, Magnetism and Light
  PHY 256 Electricity, Magnetism and Light Lab

**Required Courses** ............................................................ 63 hrs

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<td>CHE 099 Transitions</td>
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<td>CHE 201 General College Chemistry</td>
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<td>CHE 400 Chemical Literature</td>
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<td>CHE 401 Ethics for the Chemist</td>
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<td>CHE 410 Physical Chemistry I</td>
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<td>CHE 420 Physical Chemistry II</td>
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<td>CHE 512 Inorganic Chemistry Laboratory</td>
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<td>CHE 519 Instrumental Analysis</td>
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<td>CHE 530 Fundamentals of Biochemistry I</td>
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<td>CSC 232 Visual Basic Programming I</td>
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<td>MAT 308 Calculus and Analytic Geometry II</td>
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<td>MAT 309 Calculus and Analytic Geometry III</td>
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**Required Limited Electives** .................................................. 3 hrs

- CHE 488 Cooperative Education/Internship
- or
- CHE 495 Senior Research

**Unrestricted Electives** ..................................................7-13 hrs

**Total Curriculum Requirements** ..................................120 hrs

1 Required for major if not taken as a University Studies elective.
2 EGR 140 may be substituted.
3 In conjunction with this program it is possible through careful course selection to obtain an M.S. degree with one additional year of study following the awarding of the B.S. degree. Students interested in this M.S. option should contact the graduate coordinator in the department no later than during the junior year.

### MAJOR: Chemistry

**Bachelor of Science/Bachelor of Arts Degree**

**CIP 40.0501**

University Studies selections must include:

• *Scientific Inquiry, Methodologies, and Quantitative Skills:*
  MAT 250 Calculus and Analytic Geometry I
  PHY 130 General Physics I and
  PHY 131 General Physics I Laboratory
  PHY 132 General Physics II and
  PHY 133 General Physics II Laboratory

**Required Courses** ............................................................ 36 hrs

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<td>CHE 400 Chemical Literature</td>
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<td>CHE 410 Physical Chemistry I</td>
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<td>CHE 530 Fundamentals of Biochemistry I</td>
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</tr>
<tr>
<td>CSC 232 Visual Basic Programming I</td>
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</tr>
</tbody>
</table>

**Required Limited Electives** .................................................. 3 hrs

- CHE 488 Cooperative Education/Internship
- or
- CHE 495 Senior Research

**Required Minor** ............................................................ 21 hrs

**Electives** ............................................................ 13-19 hrs

**Total Curriculum Requirements** ..................................120 hrs

1 Required for major if not taken as a University Studies elective.
2 EGR 140 may be substituted.
3 At least one three-hour free elective must be chosen from outside Chemistry and may not be counted as a University Studies requirement.
MAJOR: Chemistry/Secondary Certification (Grades 8-12)

Bachelor of Science/Bachelor of Arts Degree
CIP 40.0501

NOTE: Requirements for teacher certification are established by the Kentucky Education Professional Standards Board. Students are cautioned that requirements may change. For current information, students should check with an advisor in the Department of Adolescent, Career, and Special Education.

University Studies Requirements ......................... 41-47 hrs
(See Chapter 5, University Studies Requirements.)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 250 Calculus and Analytic Geometry
  PHY 130 General Physics I
  PHY 132 General Physics II

• Social and Self-Awareness and Responsible Citizenship:
  EDP 260 Psychology of Human Development

• University Studies Electives:
  CSC 199 Introduction to Information Technology
  EDU 103 Issues and Practices of American Education
  Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Required Courses ................................................. 32 hrs
CHE 099 Transitions
CHE 120 Chemical Laboratory Safety
CHE 201 General College Chemistry
CHE 202 General Chemistry and Qualitative Analysis
CHE 303 Strategies of Teaching Chemistry
or
EDU 303 Strategies of Teaching
CHE 305 Analytical Chemistry
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II
CHE 403 Basic Physical Chemistry

Required Limited Electives .................................. 3 hrs
Select from the following:
CHE 330 Basic Biochemistry
CHE 352 Basic Chemical Instrumentation
CHE 502 Fundamentals of Toxicology
CHE 513 Environmental Chemistry

Secondary Certification Courses ......................... 26 hrs
COM 372 Communication in Educational Environments
EDU 403 Structures and Foundations of Education
EDU 405 Evaluation and Measurement in Education
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Required Minor ...................................................... 21 hrs

College of Science, Engineering and Technology

Total Curriculum Requirements ......................... 123-129 hrs

1 Required for major if not taken as a University Studies elective. Students pursuing a Physics minor may substitute PHY 235/236 and 255/256 for PHY 130/131 and 132/133.
2 Required for secondary certification if not taken as a University Studies elective.
3 With a grade of C or better.
4 May substitute CSC 232 or EGR 140, but these will not count for University Studies electives.

Chemistry Teaching Specialization

The teaching specialization in chemistry is a path to Secondary Certification in Chemistry, designed to accompany certification in another science content area. (All College of Education secondary certification course requirements must be met.) The teaching specialization in chemistry meets and exceeds Murray State University’s requirements for a minor in Chemistry. Note: Even though this program meets the University’s requirements for a chemistry minor, in order for a Chemistry Minor to appear on your transcript, a minor must be declared, and all residential and graduation requirements must be met.

Requirements for teacher certification are established by the Kentucky Education Professional Standards Board. Students are cautioned that changes in these requirements may occur. Therefore, for the most current information, students should check with an advisor in the College of Education.

CHE 120 Chemical Laboratory Safety
CHE 201 General College Chemistry
CHE 202 General Chemistry and Qualitative Analysis
CHE 305 Analytical Chemistry
CHE 312 Organic Chemistry I
Choose one elective from the following:
CHE 320 Organic Chemistry II
CHE 352 Basic Chemical Instrumentation
CHE 330 Basic Biochemistry
CHE 403 Basic Physical Chemistry

Chemistry Teaching Specialization ....................... 24 hrs

MAJOR: Chemistry/Pre-Medical/Pre-Dental Option

Bachelor of Science/Bachelor of Arts Degree
CIP 40.0501

University Studies Requirements .............. 41-47 hrs
(See Chapter 5, University Studies Requirements.)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 250 Calculus and Analytic Geometry I
  PHY 130 General Physics I
  PHY 131 General Physics I Laboratory
  PHY 132 General Physics II
  PHY 133 General Physics II Laboratory

Required Courses ................................................. 39 hrs
CHE 099 Transitions
CHE 201 General College Chemistry
CHE 202 General Chemistry and Qualitative Analysis
CHE 305 Analytical Chemistry
MAJOR:
Chemistry/Forensics Option

Bachelor of Science/Bachelor of Arts Degree
CIP 40.0501

University Studies Requirements ..................41-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 250 Calculus and Analytic Geometry I
  PHY 130 General Physics I and
  PHY 131 General Physics I Laboratory
  PHY 132 General Physics II and
  PHY 133 General Physics II Laboratory

Required Courses .............................................35 hrs
CHE 099 Transitions
CHE 201 General College Chemistry
CHE 202 General Chemistry and Qualitative Analysis
CHE 305 Analytical Chemistry
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II
CHE 325 Organic Chemistry II Laboratory
CHE 403 Basic Physical Chemistry I
CSC 232 Visual Basic Programming I

Required Limited Electives .........................10 hrs
ARC 335 Forensic Archaeology
CHE 330 Basic Biochemistry
CHE 352 Basic Chemical Instrumentation

Criminal Justice Minor ..................................21 hrs
CRJ 220, 333, and 346 are required selections.

Unrestricted Electives ...................................4-10 hrs

Total Curriculum Requirements ..................120 hrs
1 Required for major if not taken as a University Studies elective.
2 EGR 140 may be substituted.
3 A second major in Criminal Justice can substitute for the minor.

MAJOR:
Chemistry/Biochemistry Option

Bachelor of Science/Bachelor of Arts Degree
CIP 40.0501

University Studies Requirements ..................41-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 250 Calculus and Analytic Geometry I
  PHY 130 General Physics I and
  PHY 131 General Physics I Laboratory
  PHY 132 General Physics II and
  PHY 133 General Physics II Laboratory

Required Courses .............................................45 hrs
CHE 099 Transitions
CHE 201 General College Chemistry
CHE 202 General Chemistry and Qualitative Analysis
CHE 305 Analytical Chemistry
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II
CHE 325 Organic Chemistry II Laboratory
CHE 403 Basic Physical Chemistry I
CHE 530 Fundamentals of Biochemistry I
CHE 537 Experimental Biochemistry
CHE 540 Fundamentals of Biochemistry II
CSC 232 Visual Basic Programming I

Required Minor ..............................................21 hrs

Electives ....................................................4-10 hrs

Total Curriculum Requirements ..................120 hrs
1 Required for major if not taken as a University Studies elective.
2 EGR 140 may be substituted.
3 Biology minor required, including BIO 221, 222, 300, and 333; remaining courses must include 533 and 534. A biology minor must be declared, and all residential and graduation requirements met.

MAJOR:
Chemistry/Pre-Pharmacy Option

Bachelor of Science/Bachelor of Arts Degree
CIP 40.0501

University Studies Requirements ..................41-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 250 Calculus and Analytic Geometry I
  PHY 130 General Physics I
  PHY 131 General Physics I Laboratory
  PHY 132 General Physics II
  PHY 133 General Physics II Laboratory

Required Courses .............................................35 hrs
CHE 099 Transitions
CHE 201 General College Chemistry
CHE 202 General Chemistry and Qualitative Analysis
CHE 305 Analytical Chemistry
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II
CHE 325 Organic Chemistry II Laboratory
CHE 403 Basic Physical Chemistry I
CSC 232 Visual Basic Programming I

Required Limited Electives .........................10 hrs
ARC 335 Forensic Archaeology
CHE 330 Basic Biochemistry
CHE 352 Basic Chemical Instrumentation

Criminal Justice Minor ..................................21 hrs
CRJ 220, 333, and 346 are required selections.

Unrestricted Electives ...................................4-10 hrs

Total Curriculum Requirements ..................120 hrs
1 Required for major if not taken as a University Studies elective.
2 EGR 140 may be substituted.
3 A second major in Criminal Justice can substitute for the minor.

Electives ....................................................4-10 hrs

Total Curriculum Requirements ..................120 hrs
1 Required for major if not taken as a University Studies elective.
2 EGR 140 may be substituted.
3 A biology minor required, including BIO 221, 222, 300, and 333; remaining courses must include 533 and 534. A biology minor must be declared, and all residential and graduation requirements met.

Electives ....................................................4-10 hrs

Total Curriculum Requirements ..................120 hrs
1 Required for major if not taken as a University Studies elective.
2 EGR 140 may be substituted.
3 A second major in Criminal Justice can substitute for the minor.
Required Courses..............................................................47 hrs
CHE 099 Transitions
CHE 201 General College Chemistry
CHE 202 General Chemistry and Qualitative Analysis
CHE 305 Analytical Chemistry
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II
CHE 325 Organic Chemistry II Laboratory
CHE 330 Basic Biochemistry
CHE 352 Basic Chemical Instrumentation
CHE 403 Basic Physical Chemistry I
MAT 135 Introduction to Probability and Statistics

Biophysics Minor ..................................................................21 hrs
Complete any two of BIO 115, 216, 221 and 222. Twelve hours of electives 300 level or above (BIO 330 and 333 are highly recommended) A maximum of three hours total from BIO 483, 484, 491, 492, 493, or 494 may be used. Remaining BIO hours should be chosen with advisor’s approval. BIO 101 and 201 will not count toward this minor. Six hours must be upper-level (300 and greater) courses completed in residence at Murray State University.

University Studies Requirements ..............................41-47 hrs
(See Chapter 5, University Studies Requirements.)

University Studies selections must include:

Scientific Inquiry, Methodologies, and Quantitative Skills:
MAT 250 Calculus and Analytic Geometry I
PHY 130 General Physics I
PHY 131 General Physics I Laboratory
PHY 132 General Physics II
PHY 133 General Physics II Laboratory

Social and Self-Awareness and Responsible Citizenship:
ECO 230 Principles of Macroeconomics

Required Courses..............................................................36 hrs
CHE 099 Transitions
CHE 201 General College Chemistry
CHE 202 General Chemistry and Qualitative Analysis
CHE 305 Analytical Chemistry
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II
CHE 352 Basic Chemical Instrumentation
CHE 403 Basic Physical Chemistry
CSC 232 Visual Basic Programming I

Required Courses/Minor .......................................................24 hrs
ACC 200 Principles of Financial Accounting
ACC 201 Principles of Managerial Accounting
BPA 355 Information Systems and Decision Making
CIS 443 Business Statistics III
ECO 231 Principles of Microeconomics
FIN 330 Principles of Finance
MGT 350 Fundamentals of Management
MKT 360 Principles of Marketing

Unrestricted Electives..........................................................10-16 hrs

Total Curriculum Requirements .........................................120 hrs
1This program is based on the current admission requirements of the College of Pharmacy, University of Kentucky. Other colleges of pharmacy will have somewhat different requirements from those listed above. The curriculum can be modified to meet the requirements of most professional programs. The pre-pharmacy advisor should be consulted.
2Required for major if not taken as a University Studies elective.
3EGR 140 may be substituted.

MAJOR:
Chemistry/Pre-MBA Option

Bachelor of Science/Bachelor of Arts Degree
CIP 40.0501

University Studies Requirements ..........................46-55 hrs
(See Chapter 5, University Studies Requirements)

Even though this program exceeds Murray State University’s requirements for a business administration minor, for a business administration minor to appear on your transcript, a minor must be declared, and all residential and graduation requirements must be met.

Chemistry Minor ..............................................................21 hrs
CHE 201, 202 and electives selected from the following chemistry courses: 305, 312, 320, 325, 352, 400, 403, 410, 420, 435, 488, and 330 or 530, but not both. A maximum of three hours may be counted from CHE 488. At least 21 hours is required. Six hours must be 300-level or above courses completed in residence at Murray State University.

Bachelor of Science/Bachelor of Arts Degree
CIP 40.0801

University Studies Requirements ..........................41-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

Scientific Inquiry, Methodologies, and Quantitative Skills:
MAT 250 Calculus and Analytic Geometry I
PHY 130 General Physics I
PHY 131 General Physics I Laboratory
PHY 132 General Physics II
PHY 133 General Physics II Laboratory

Social and Self-Awareness and Responsible Citizenship:
ECO 230 Principles of Macroeconomics

Required Courses ..............................................................32 hrs
EGR 140 Introduction to Computing Applications
CIS 443 Business Statistics III
MAT 250 Calculus and Analytic Geometry I

MAJOR:
Physics

Bachelor of Science/Bachelor of Arts Degree
CIP 40.0801

University Studies Requirements ..........................46-55 hrs
(See Chapter 5, University Studies Requirements)

Note: See required courses below before selecting Scientific Inquiry, Methodologies, and Quantitative Skills University Studies electives.

Required Courses ..............................................................32 hrs
EGR 140 Introduction to Computing Applications
CIS 443 Business Statistics III
MAT 250 Calculus and Analytic Geometry I
College of Science, Engineering and Technology

EGR 390 Engineering Measurements
PHY 236 Mechanics, Heat and Wave Motion Laboratory
PHY 226 Mechanics, Heat and Wave Motion
PHY 255 Electricity, Magnetism and Light
PHY 256 Electricity, Magnetism and Light Laboratory
PHY 460 Electricity and Magnetism I
PHY 470 Optics
PHY 530 Mechanics I
PHY 580 Modern Physics I

Co-requirements for Major............................................6 hrs
CHE 201 General College Chemistry
CHE 202 General Chemistry and Qualitative Analysis
CSC 420 Numerical Analysis I
or MAT 442 Introduction to Numerical Analysis
MAT 250 Calculus and Analytic Geometry I
MAT 308 Calculus and Analytic Geometry III
MAT 309 Calculus and Analytic Geometry III
MAT 338 Ordinary Differential Equations

Required Limited Electives............................................3 hrs
PHY/EGR courses numbered 300 or above.

Required Minor...................................................... 3-21 hrs

Unrestricted Electives................................................3-30 hrs

Total Curriculum Requirements ...............................120 hrs

MAJOR:
Physics/Secondary Certification
(Grades 8-12)

Bachelor of Science/Bachelor of Arts Degree
CIP 40.0801

NOTE: Requirements for teacher certification are established by the Kentucky Education Professional Standards Board. Students are cautioned that changes in these requirements may occur. For current information, students should check with an advisor in the Department of Adolescent, Career and Special Education and with Teacher Education Services.

University Studies Requirements ....................46-55 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Social and Self-Awareness and Responsible Citizenship:
  EDP 260 Psychology of Human Development
Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Required Courses..................................................32 hrs
EGR 140 Introduction to Computing Applications
  in Science and Engineering
EGR 240 Thermodynamics I
EGR 390 Engineering Measurements
PHY 099 Transitions
PHY 235 Mechanics, Heat and Wave Motion

Required Limited Electives ........................................6 hrs
PHY 236 Mechanics, Heat and Wave Motion Laboratory
PHY 255 Electricity, Magnetism and Light
PHY 256 Electricity, Magnetism and Light Laboratory
PHY 460 Electricity and Magnetism I
PHY 470 Optics
PHY 530 Mechanics I
PHY 580 Modern Physics I

Co-requirements for Major............................................6 hrs
CHE 201 General College Chemistry
CHE 202 General Chemistry and Qualitative Analysis
CSC 420 Numerical Analysis I
or MAT 442 Introduction to Numerical Analysis
MAT 250 Calculus and Analytic Geometry I
MAT 308 Calculus and Analytic Geometry III
MAT 309 Calculus and Analytic Geometry III
MAT 338 Ordinary Differential Equations

Required Limited Electives............................................3 hrs

Required for Secondary Certification......................32 hrs
COM 372 Communication in Educational Environments
EDU 103 Issues and Practices of American Education
EDU 303 Strategies of Teaching
EDU 403 Structures and Foundations of Education
EDU 405 Evaluation and Measurement in Education
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Required Minor...................................................... 3-21 hrs

Total Curriculum Requirements ............................122-149 hrs

Physics Teaching Specialization

The teaching specialization in physics is a path to Secondary Certification in Physics, designed to accompany certification in another science content area. (All College of Education secondary certification course requirements must be met.) Note: Even though this program exceeds Murray State University’s requirements for a physics minor, in order for a Physics Minor to appear on your transcript, a minor must be declared, and all residential and graduation requirements must be met.

Requirements for teacher certification are established by the Kentucky Education Professional Standards Board. Students are cautioned that changes in these requirements may occur. Therefore, for the most current information, students should check with an advisor in the College of Education.

AST 115 Introductory Astronomy
AST 116 Introductory Astronomy Laboratory
MAT 250 Calculus and Analytic Geometry I
MAT 308 Calculus and Analytic Geometry II
PHY 236 Mechanics, Heat and Wave Motion
PHY 236 Mechanics, Heat and Wave Motion Laboratory
PHY 255 Electricity, Magnetism and Light
College of Science, Engineering and Technology

Mathematics Depth Elective ..........................3-4 hrs
Each student must complete a mathematics depth elective chosen from a departmental list of approved depth electives, or as approved by the department chair. Students with a Biomedical Engineering emphasis must take MAT 135, 540, or 560 for this elective.

Technical Electives..................................18-29 hrs
Each student must complete 18 hours of technical electives. A minimum of 12 technical elective credit hours must be obtained from EGR courses. Completion of an area emphasis is encouraged but not required.

Advanced Physics Emphasis
Completion of nine hours of 300-level and above PHY courses beyond the core course requirements.

Biomedical Engineering Emphasis

Electrical Engineering Emphasis

Choose three of the following courses:
EGR 360 Electric Machines
EGR 365 Linear Circuits II
EGR 366 Analog Electronics I
EGR 376 Computational Analysis in Engineering
EGR 378 Logic Design I
EGR 461 Electricity and Magnetism II
EGR 468 Digital Signal Processing

Mechanical Engineering Emphasis

Choose three of the following courses:
EGR 340 Wave Analysis of Dynamic Systems
EGR 342 Thermodynamics II
EGR 344 Fluid Mechanics
EGR 346 Heat Transfer
EGR 359 Mechanics of Materials
EGR 459 Mechanical Design
EGR 375 Materials Science
ITD 102 CAD Applications

Unrestricted Elective ..................................0-2 hrs

Total Curriculum Requirements ..................121-131 hrs

1Must be admitted to teacher education. See Chapter 6 for requirements.

2These courses are required and also fulfill University Studies requirements.

3This course is considered a program corequisite and may be shared with a minor or second major.

4Previous credit for EGR 195 fulfills this requirement.

5Technical Electives must come from the courses listed in the areas of emphasis or EGR/PHY courses, 300-level and above, or as approved by department chair.

6Mathematics depth electives should be courses at the 300-level and above.

7A maximum of six technical elective credit hours may come from combinations of EGR/PHY 488, 489, 520, and EGR 388.

8Students completing the concentration in Biomedical Engineering and intending to seek admission to medical school are encouraged to complete the following: BIO 321, 333; CHE 320 and 325.
**AREA: Applied Physics**

**Bachelor of Science/Bachelor of Arts Degree**

**CIP 40.0801**

**University Studies Requirements** ........................................... 46-55 hrs

(See Chapter 5, University Studies Requirements)

University Studies selections must include:

• *Oral and Written Communication:*
  - COM 161 Introduction to Public Speaking

**Note:** See required courses below before selecting Scientific Inquiry, Methodologies, and Quantitative Skills University Studies electives.

**Required Courses** ............................................................... 33 hrs

- EGR 140 Introduction to Computing Applications in Science and Engineering
- EGR 240 Thermodynamics I
- EGR 264 Linear Circuits I
- PHY 099 Transitions
- PHY 235 Mechanics, Heat and Wave Motion
- PHY 236 Mechanics, Heat and Wave Motion Laboratory
- PHY 255 Electricity, Magnetism and Light
- PHY 256 Electricity, Magnetism and Light Laboratory
- PHY 370 Introduction to Modern Physics
  or
  - PHY 580 Modern Physics I
- PHY 460 Electricity and Magnetism I
- PHY 470 Optics
- PHY 530 Mechanics I

**Co-requirements for Area** .................................................. 6 hrs

- CHE 201 General College Chemistry¹,²
- CHE 202 General Chemistry and Qualitative Analysis¹,²
- CSC 420 Numerical Analysis I
  or
  - MAT 442 Introduction to Numerical Analysis²
- MAT 250 Calculus and Analytic Geometry I¹,²
- MAT 308 Calculus and Analytic Geometry II¹,²
- MAT 309 Calculus and Analytic Geometry III¹,²
- MAT 338 Ordinary Differential Equations²

**Technical Electives**³ ......................................................... 24 hrs

**Unrestricted Electives** ....................................................... 2-11 hrs

**Total Curriculum Requirements** ........................................... 120 hrs

¹Fulfill University Studies requirements.
²This course is considered a program corequisite and may be shared with a minor or second major.
³The technical electives are to be a coherent set of courses chosen to supply depth and breadth necessary for the pursuit of a particular career objective. The chosen electives must be approved by a departmental curriculum committee.

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**AREA: Applied Physics/Pre-MBA Option**

**Bachelor of Science/Bachelor of Arts Degree**

**CIP 40.0801**

Students who wish to complete a scientific course of study and qualify for admission to Murray State’s Master of Business Administration program may follow the Applied Physics Curriculum/Pre-MBA option. Course requirements are identical to those listed under the Applied Physics program, with the exception of technical electives. Technical electives must be chosen in accordance with MBA admission guidelines, and are as follows:

**Pre-MBA Required Electives** ............................................. 27 hrs

- ACC 200 Principles of Financial Accounting
- ACC 201 Principles of Managerial Accounting
- BPA 355 Information Systems and Decision Making
- CIS 443 Business Statistics III
- ECO 230 Principles of Macroeconomics
- ECO 231 Principles of Microeconomics
- FIN 330 Principles of Finance
- MGT 350 Fundamentals of Management
- MKT 360 Principles of Marketing

**Unrestricted Electives** ..................................................... 6 hrs

**Physics Minor** ................................................................. 22 hrs

- PHY 235, 236, 255, 256, 370, and nine additional hours of approved physics courses numbered 300 and above. PHY 130 and 132 may be substituted for PHY 235 and 255 with approval from the department chair. Six hours must be upper-level courses completed in residence at Murray State University.

**Engineering Science Minor** ............................................. 22 hrs

- EGR 240, 259, 264, and 330, plus nine additional hours of engineering-related courses approved by an advisor in the Department of Engineering and Physics. Six hours must be upper-level courses completed in residence at Murray State University.

**Pre-Engineering Curriculum (64 hrs)**

- CHE 201 General College Chemistry
- CHE 202 General Chemistry and Qualitative Analysis
- EGR 140 Introduction to Computing Applications in Science and Engineering
- MAT 250 Calculus and Analytic Geometry I
- MAT 308 Calculus and Analytic Geometry II
- MAT 309 Calculus and Analytic Geometry III
- MAT 338 Ordinary Differential Equations
- PHY 235 Mechanics, Heat and Wave Motion
- PHY 236 Mechanics, Heat and Wave Motion Laboratory
- PHY 255 Electricity, Magnetism and Light
- PHY 256 Electricity, Magnetism and Light Laboratory

University Studies courses

 Discipline-specific courses
Department of Geosciences
334 Blackburn Science Building
270-809-2591

Chair: George Kipphut. Faculty: Cetin, Homsey, Hong, Keen-Zebert, Kipphut, Ortmann, Wesler, Yorke, Zhang.

An area in geoscience with options in earth science, earth science teacher certification, environmental geology, geoaquarcheology, and geographic information science are provided by the department faculty. In addition to the more traditional curricula, geoscience students have access to the Murray State Archaeology Lab, a summer field archaeology school, and the Mid-America Remote sensing Center (MARC), a core entity in the Murray State University Watershed Studies Institute (WSI).

Geosciences majors are encouraged to participate in internships and cooperative education experiences. Graduates have outstanding opportunities for employment as archaeologists, planners, cartographers, environmental geologists, remote sensing/GIS professionals, and other mapping science positions in business, government, and education.

AREA:
Geoscience/Earth Science Option

Bachelor of Science Degree
CIP 40.0601

University Studies Requirements ......................41–46 hrs
(See Chapter 5, University Studies Requirements)

•Recommended University Studies Elective:
CSC 101 Introduction to Problem Solving Using Computers

Required Courses .................................................47 hrs
ARC 150 Introduction to Archaeology
AST 115 Introductory Astronomy
AST 116 Introductory Astronomy Laboratory
GSC 099 Transitions
GSC 101 The Earth and the Environment
GSC 102 Earth through Time
GSC 125 Weather and Climate
GSC 202 Introduction to Geographic Information Sciences
GSC 301 Understanding Scientific Communication
GSC 303 Introduction to Water Science
GSC 305 Map Analysis
GSC 336 Principles of Geomorphology
GSC 339 Field Geology

or
GSC 350 Field Techniques in Geosciences
GSC 512 Remote Sensing
GSC 521 Geographic Information Systems

Required Limited Electives ......................................5–6 hrs
Select upper-level courses from the list of approved geology electives given under the option in environmental geology.

Collateral requirement .........................................5 hrs
MAT 150 (or above)

Unrestricted Electives ............................................17–22 hrs

College of Science, Engineering and Technology

Total Curriculum Requirements ................................120 hrs

†Will count towards University Studies Scientific Inquiry, Methodologies, and Quantitative Skills requirements.

AREA:
Geoscience/Earth Science Option/
Secondary Certification (Grades 8-12)

Bachelor of Science Degree
CIP 40.0601

University Studies Requirements ......................44 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
•Scientific Inquiry, Methodologies, and Quantitative Skills:
GSC 101 The Earth and the Environment
GSC 102 Earth through Time
MAT 150 Algebra and Trigonometry
•Global Awareness, Cultural Diversity and the World’s Artistic Traditions:
GSC 110 World Geography
•Social and Self-Awareness and Responsible Citizenship
EDP 260 Psychology of Human Development
•University Studies Electives:
CSC 199 Introduction to Information Technology†
•Recommended University Studies Elective:
CSC 101 Introduction to Problem Solving Using Computers

Required Courses .................................................39 hrs
ARC 150 Introduction to Archaeology
AST 115 Introductory Astronomy
AST 116 Introductory Astronomy Laboratory
GSC 099 Transitions
GSC 125 Weather and Climate
GSC 202 Introduction to Geographic Information Sciences
GSC 301 Understanding Scientific Communication
GSC 303 Introduction to Water Science
GSC 305 Map Analysis
GSC 336 Principles of Geomorphology
GSC 339 Field Geology
GSC 512 Remote Sensing
GSC 521 Geographic Information Systems

Required Limited Electives ......................................8–9 hrs
Select upper-level courses from the list of approved geology electives given under the option in environmental geology, below.

The National Science Teachers Association (NSTA) recommends a minimum of one course from each of the following three areas, with total of recommended supplemental science hours to include no fewer than 16 semester hours.

A. Biology
BIO 101 Biological Concepts
BIO 112 Field Biology
BIO 221 Zoology: Animal Form and Function
BIO 222 Botany: Plant Form and Function

Note:
Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EGU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.
College of Science, Engineering and Technology

B. Chemistry
CHE 101 Consumer Chemistry
CHE 105 Introductory Chemistry I
CHE 106 Introductory Chemistry II
CHE 201 General College Chemistry
CHE 202 General Chemistry and Qualitative Analysis

C. Physics
PHY 235 Mechanics, Heat and Wave Motion
PHY 236 Mechanics, Heat and Wave Motion Laboratory
PHY 255 Electricity, Magnetism and Light
PHY 256 Electricity, Magnetism and Light Laboratory

Required for Secondary Certification ......................... 32 hrs
EDU 103 Issues and Practices of American Education
EDU 303 Strategies of Teaching
EDU 403 Strategies of Teaching
EDU 422 Student Teacher Seminar
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Total Curriculum Requirements ................................. 123-124 hrs

1 With a grade of C or better

Earth Science Teaching Specialization

The teaching specialization in earth science is a path to Secondary Certification in Earth Science designed to accompany certification in another science content area (biology/chemistry/physics). All College of Education secondary certification course requirements must be met. Note: Even though this program exceeds Murray State University’s requirements for an earth science minor, in order for a Earth Science Minor to appear on your transcript, a minor must be declared, and all residential and graduation requirements must be met.

Requirements for teacher certification are established by the Kentucky Education Professional Standards Board. Students are cautioned that changes in these requirements may occur. Therefore, for the most current information, students should check with an advisor in the College of Education.

Earth Science Teaching Specialization .......................... 30 hrs
AST 115 Introductory Astronomy
AST 116 Introductory Astronomy Laboratory
GSC 101 The Earth and the Environment
GSC 102 Earth through Time
GSC 125 Weather and Climate
GSC 202 Introduction to Geographic Information Sciences
GSC 303 Introduction to Water Science
GSC 336 Principles of Geomorphology
GSC 339 Field Geology
or
GSC 350 Field Techniques in Geosciences

AREA: Geoscience/Environmental Geology Option

Bachelor of Science Degree
CIP 40.0601

University Studies Requirements ............................... 41-46 hrs
(See Chapter 5, University Studies Requirements)

Recommended University Studies Elective:
CSC 101 Introduction to Problem Solving Using Computers

Required Courses ..................................................... 46 hrs
ARC 150 Introduction to Archaeology
GSC 099 Transitions
GSC 101 The Earth and the Environment
GSC 102 Earth through Time
GSC 202 Introduction to Geographic Information Sciences
GSC 210 Hydrology
GSC 301 Understanding Scientific Communication
GSC 305 Map Analysis
GSC 310 Rock and Mineral Resources
GSC 314 Sediments and Soils
GSC 336 Principles of Geomorphology
GSC 512 Remote Sensing
GSC 521 Geographic Information Systems
GSC 562 Hydrogeology

Required Limited Electives ....................................... 8-9 hrs
Choose from the following approved electives:
ARC 300 Archaeology Method and Theory
ARC 302 Archaeological Field Work I
ARC 304 Archaeology Laboratory Methods
ARC 390 Geoarchaeology
CET 280 Plane Surveying
GSC 303 Introduction to Water Science
GSC 312 Introduction to Remote Sensing
GSC 335 Landscapes of the National Parks
GSC 339 Field Geology
GSC 350 Field Techniques in Geosciences
GSC 424 Conservation and Environmental Geology
GSC 430 Crystallography and Optical Mineralogy
GSC 431 Igneous and Metamorphic Petrology
GSC 432 Stratigraphy and Sedimentary Petrology
GSC 433 Structural Geology
GSC 488 Cooperative Education/Internship
GSC 489 Cooperative Education/Internship
GSC 507 Land Use Planning
GSC 522 Digital Cartography
GSC 534 Invertebrate Paleontology
GSC 542 Watershed Ecology
GSC 575 Field Vertebrate Paleontology
GSC 591 Special Problems
GSC 592 Special Problems
GSC 593 Special Problems

Collateral requirement ............................................. 5 hrs
MAT 150 1 (or above)

Unrestricted Electives .............................................. 14-20 hrs
Board of Registration for Professional Geologists recommends the following courses to enhance performance on the Professional Geologist Examination.

1 Board of Registration for Professional Geologists recommends the following courses to enhance performance on the Professional Geologist Examination.
CHE 105 Introductory Chemistry I
or
CHE 201 General College Chemistry
CHE 106 Introductory Chemistry II
or
CHE 202 General Chemistry and Qualitative Analysis
CSC 101 Introduction to Problem Solving Using Computers
(or other computer science course)
or
PHY 130 General Physics I

Total Curriculum Requirements .................................. 120 hrs

1 Will count towards University Studies Scientific Inquiry, Methodologies, and Quantitative Skills requirements.

AREA:
Geoscience/Geoarchaeology Option

Bachelor of Science Degree
CIP 40.0601

University Studies Requirements .........................41-46 hrs
(See Chapter 5, University Studies Requirements)

Recommended University Studies selection:
• Social and Self-Awareness and Responsible Citizenship
  ANT 140 Introduction to Cultural Anthropology
• Recommended University Studies Elective:
  CSC 101 Introduction to Problem Solving Using Computers

Required Courses....................................................47 hrs
ARC 150 Introduction to Archaeology
ARC 300 Archaeological Method and Theory
ARC 304 Archaeological Laboratory Methods
ARC 330 North American Archaeology
ARC 390 Geoaarchaeology
GSC 099 Transitions
GSC 101 The Earth and the Environment1
GSC 102 Earth through Time1
GSC 202 Introduction to Geographic Information Sciences
GSC 301 Understanding Scientific Communication
GSC 305 Map Analysis
GSC 336 Principles of Geomorphology
GSC 512 Remote Sensing
GSC 521 Geographic Information Systems
  Five credit hours chosen from the following:
  ARC 302 Archaeological Field Work I
  ARC 402 Archaeological Field Work II
  ARC 510 Advanced Archaeological Field Work

Required Limited Electives.........................................5 hrs
Choose from the following approved electives:
ANT 325 Biological Anthropology
ARC 314 Sediments and Soils
ARC 315 Special Topics in Archaeology
ARC 321 Ancient Civilizations
ARC 335 Forensic Archaeology
ARC 340 Archaeology of Africa
ARC 350 Public Archaeology
ARC 360 Historical Archaeology
ARC 370 Archaeology of the Eastern Woodlands
ARC 375 Archaeology of the Western Great Lakes
ARC 385 Archaeology of Eastern Asia
ARC 402 Archaeological Field Work II
ARC 425 Advanced Archaeological Laboratory Methods
ARC 498 Museum Studies
ARC 500 Directed Studies
ARC 510 Advanced Archaeological Field Work
CET 280 Plane Surveying
GSC 310 Rock and Mineral Resources
GSC 339 Field Geology
GSC 350 Field Techniques in Geosciences
GSC 522 Digital Cartography

Collateral requirement .................................................5 hrs
MAT 1501 (or above)

Unrestricted Electives............................................17-22 hrs

Total Curriculum Requirements ...............................120 hrs

1 Will count towards University Studies Scientific Inquiry, Methodologies, and Quantitative Skills requirements.

AREA:
Geoscience/Geographic Information Science Option

Bachelor of Science Degree
CIP 40.0601

University Studies Requirements .........................41-46 hrs
(See Chapter 5, University Studies Requirements)

• Recommended University Studies Elective:
  CSC 101 Introduction to Problem Solving Using Computers

Required Courses....................................................46 hrs
ARC 150 Introduction to Archaeology
GSC 099 Transitions
GSC 101 The Earth and the Environment1
GSC 102 Earth through Time1
GSC 110 World Geography
GSC 125 Weather and Climate1
GSC 202 Introduction to Geographic Information Sciences
GSC 301 Understanding Scientific Communication
GSC 305 Map Analysis
GSC 336 Principles of Geomorphology
GSC 507 Land Use Planning
GSC 512 Remote Sensing
GSC 521 Geographic Information Systems
GSC 522 Digital Cartography

Required Limited Electives ........................................5-6 hrs
Choose from the following approved electives:
ARC 300 Archaeology Method and Theory
ARC 302 Archaeological Field Work I
ARC 304 Archaeology Laboratory Methods
ARC 360 Historical Archaeology
GSC 210 Hydrology
GSC 303 Introduction to Water Science
GSC 312 Introduction to Remote Sensing
GSC 335 Landscapes of the National Parks
GSC 350 Field Techniques in Geosciences
GSC 424 Conservation and Environmental Geosciences
GSC 488 Cooperative Education/Internship
GSC 489 Cooperative Education/Internship
College of Science, Engineering and Technology

GSC 523 Problems in Urban Geography and Urban Planning
GSC 542 Watershed Ecology
GSC 562 Hydrogeology
GSC 570 Computer Applications in Geosciences
GSC 591 Special Problems
GSC 592 Special Problems
GSC 593 Special Problems

Collateral requirement .................................................... 5 hrs
MAT 150 (or above)

Unrestricted Electives .................................................. 17-23 hrs

Total Curriculum Requirements ................................. 120 hrs

Anthropology Minor .................................................... 21 hrs
ANT 140, ANT 325, ARC 150, plus 12 hours of ANT 300-level or above electives. Electives may include ARC 325, 330, 340, and 385. Electives may substitute up to six hours selected from the following as approved by advisor: HIS 309, 354, 370, 451, SOC 337, 434. Six hours must be upper-level courses completed in residence at Murray State University.

Archaeology Minor ..................................................... 21 hrs
ARC 150, 300, 302, 304, 350, plus six hours of ARC electives 300-level or above. Six hours must be upper-level courses completed in residence at Murray State University.

Earth Science Minor .................................................. 25-26 hrs
GSC 101, 102, 125, 202, and 339 or 350; AST 115 and 116 or AST 215. Three additional hours of earth science coursework at the 300 level or above. Six hours must be upper-level courses completed in residence at Murray State University.

Environmental Geology Minor .................................. 21 hrs
GSC 101, 102, 202, and three additional geology courses chosen with the advice and consent of the chair of the Department of Geosciences. Six hours must be upper-level courses completed in residence at Murray State University.

Geographic Information Science Minor ........................ 24 hrs
GSC 110, 125, 202, 305, 336, and six hours of electives in geographic information science approved by the chair of the Department of Geosciences. Six hours must be upper-level courses completed in residence at Murray State University.

Social Science Minor ................................................ 24 hrs
Open only to majors in economics, geoscience, history, or political science who seek secondary certification in social studies. ECO 231, GSC 110, HIS 221, POL 140, SOC 133; and six hours of upper level courses (300 or above) from the social science disciplines with approval of advisor. Courses required for a minor may not be counted toward the major; substitutions must be from a social science discipline other than the major and be approved by the advisor; and requirements for certification for teaching secondary school social studies, grades 8 through 12 through the College of Education must also be met. Six hours must be upper-level courses completed in residence at Murray State University.

• Business Geographic Information Systems

The undergraduate certificate in Business Geographic Information Systems (GIS) is designed to provide students in business disciplines and geosciences the opportunity to develop competence in the application of geographic information system tools to business decision making. In this context, the certificate may be completed by marketing, business administration, and geoscience students as part of their degree program.

CERTIFICATE:
Business Geographic Information Systems

Total Course Requirements ..................................... 19 hours
BPA 140 Introduction to Business
or
MKT 360 Principles of Marketing
GSC 521 Geographic Information Systems
MKT 475 Marketing Strategies for eCommerce
or
MKT 579 Social Media Consulting
MKT 485 Business GIS in Marketing
MKT 585 Integrated Business GIS

Department of Industrial and Engineering Technology
263A Collins Center
270-809-3392

Chair: Danny Claiborne. Faculty: Bahadir, Benson, Claiborne, Combs, Hart, Kellie, Kemp, Mayes, Okuda, Ottway, Palmer, Perry, Schneiderman, Siebold, Spencer, Tubbs, Weatherly, Yarali, Zirbel.

The Department of Industrial and Engineering Technology offers associate and baccalaureate programs. Also offered are a technical minor and master of science degrees.

Graduates from the Department of Industrial and Engineering Technology are prepared to succeed in a modern industrial environment. Typical positions within industrial and engineering applications include manufacturing and processes, construction and public works, computer systems and electronic systems, environmental management, pollution control, telecommunications, technical sales and management. Graduates fulfill management and supervisory positions, in addition to design, maintenance, and regulatory positions.

The department supports the university mission through the following services: (1) technical education to meet the needs of MSU students; (2) programs for non-traditional students; and (3) consulting and regional service for schools, industry and government agencies.

All undergraduate students in the Department of Industrial and Engineering Technology are required to obtain on-the-job experience. The experience can occur via cooperative work/study, internships, summer employment or other methods which fulfill program requirements.

Engineering Technology Accreditation

The Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET) accredits Murray State programs in civil and construction engineering technology. The Civil Engineering Technology/General Option and the Civil Engineering Technology/Construction Option programs are accredited by the Technology Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012. Phone (410) 347-7700.
Professional Licensure
Students interested in pursuing a career as a professional land surveyor must complete courses specified by the Kentucky Board of Licensure for Professional Engineering and Land Surveyors (www.boels.ky.gov). Required courses may be taken as electives by students in the Civil Engineering Technology program under the supervision of an advisor. Students completing Board requirements normally sit for the Fundamentals of Surveying exam in their last semester at Murray State University.

Engineering Technology
The Engineering Technology programs are: Architectural Engineering Technology, Civil Engineering Technology, Construction Engineering Technology, Electromechanical Engineering Technology, and Environmental Engineering Technology.

•Architectural Engineering Technology
A baccalaureate degree in architectural engineering technology provides students with a background in architectural design, computer-aided design, building structures and structural design, steel and concrete structures, surveying and site planning, and construction estimating. Potential employers include architectural firms, construction (design/build) companies, consulting engineering firms, state and federal governments, municipalities, materials suppliers, and utilities. Architectural engineering technologists are educated in the process of taking a project from the drawing to the completed structure. Working together with architects and engineers, they assist in producing drawings and specifications for major construction projects. Architectural engineering technology prepares graduates for careers in architectural design, planning, development, and construction as well as technical or sales positions in a variety of manufacturing organizations associated with the building industry. An architectural engineering technology graduate seeking registration/licensure as an architect would usually pursue a Master of Architecture degree, typically requiring two or three years of additional study.

•Civil Engineering Technology
A baccalaureate degree in civil engineering technology provides students with a background in the design of steel and concrete structures, surveying, soil mechanics and foundations, construction materials, and engineering mechanics. Potential employers include construction companies, consulting engineering and architectural firms, state and federal governments, municipalities, testing laboratories, surveying firms, utilities, and materials suppliers.

The civil engineering technology program prepares graduates for careers in design (working with a team of engineers or architects in the preparation of engineering or architectural design documents), construction (as a field engineer, project engineer, or surveyor), or technical sales. An associate degree in civil engineering technology may also be obtained from Murray State University.

•Construction Engineering Technology
A baccalaureate degree in construction engineering technology provides students with experience in construction, estimating, project management, scheduling, surveying, building structures, construction materials, and engineering mechanics. The curriculum stresses the application of technical knowledge, construction methods, problem-solving ability, and communication skills toward the completion of large-scale construction projects. Career opportunities for the construction-engineering technologist are as diverse as the industry. Potential employers include construction companies, general contractors, subcontractors, construction equipment and materials suppliers, testing laboratories, governments, industrial companies, and utilities.

•Electromechanical Engineering Technology
A baccalaureate degree in electromechanical engineering technology provides students with backgrounds in mechanical and electrical systems, fluid power, controls, and industrial networks. Electromechanical graduates work in manufacturing and process plant engineering, operation, maintenance, new product design, systems design, system analysis, and systems integration.

The electromechanical engineering technologist is a blend of mechanical and electrical engineering technology, computer science, information technology, and control systems. Graduates have broad application backgrounds in automation, electronics, data acquisition, controls, programming, and mechanical and electrical science principles. This allows students to understand the design and operation of systems found in the plant environment.

•Environmental Engineering Technology
A baccalaureate degree in environmental engineering technology provides graduates with backgrounds in municipal and industrial water and wastewater treatment system design and operations, water pollution control, solid and hazardous waste management and site remediation, air pollution control, and environmental regulatory compliance. Course work includes field and laboratory sampling and analysis plus design of pollution control systems.

Graduates obtain careers with industries, environmental consultants and remediation contractors, municipalities, testing laboratories, state or federal government agencies, and chemical manufacturing corporations.

AREA: Civil Engineering Technology/Architectural Engineering Technology Option

Bachelor of Science Degree
CIP 15.0201

University Studies Requirements .........................44-46 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
•Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 130 Technical Math I
  PHY 130 General Physics I
  PHY 131 General Physics I Laboratory
  PHY 132 General Physics II
  PHY 133 General Physics II Laboratory

•Social and Self-Awareness and Responsible Citizenship:
  ECO 230 Principles of Macroeconomics

•University Studies Electives:
  GSC 101 The Earth and the Environment
  MAT 230 Technical Math II

Core Courses .......................................................41 hrs
  CET 280 Plane Surveying
  CET 284 Sustainable Design and Construction
  CET 385 Construction Estimating I
  CET 480 Construction Planning and Management

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**College of Science, Engineering and Technology**

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<tr>
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</tr>
<tr>
<td>ENT 393</td>
<td>Engineering Economy</td>
</tr>
<tr>
<td>ENT 419</td>
<td>Senior Project I</td>
</tr>
<tr>
<td>IET 399</td>
<td>Professional Development Seminar I</td>
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<tr>
<td>ITD 107</td>
<td>Introduction to Technical Drawing and Computer Aided Drafting</td>
</tr>
<tr>
<td>MAT 330</td>
<td>Technical Math III</td>
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</table>

**Option Courses**........................................................................................................35 hrs

<table>
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<td>ITD 301</td>
<td>Architectural Drawing and Residential Planning</td>
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<tr>
<td>ITD 401</td>
<td>Architectural Drafting &amp; Design-Multi-Family Light Commercial</td>
</tr>
</tbody>
</table>

**Technical Electives (5 hrs)**

**Total Curriculum Requirements ..................................120 hrs**

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**AREA: Civil Engineering Technology/Construction Engineering Technology Option**

**Bachelor of Science Degree**

CIP 15.0201

**ACCREDITED BY:**
Technology Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012. (410) 347-7700

**University Studies Requirements ..............................44-46 hrs**
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

- **Scientific Inquiry, Methodologies, and Quantitative Skills:**
  - MAT 130 Technical Math I
  - PHY 130 General Physics I and
  - PHY 131 General Physics I Laboratory
  - PHY 132 General Physics II and
  - PHY 133 General Physics II Laboratory

- **Social and Self-Awareness and Responsible Citizenship:**
  - ECO 230 Principles of Macroeconomics
  - University Studies Electives:
    - GSC 101 The Earth and the Environment
    - MAT 230 Technical Math II

**Core Courses .........................................................41 hrs**

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<tr>
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</tr>
<tr>
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<tr>
<td>CET 484</td>
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**Technical Electives (5 hrs)**

**Total Curriculum Requirements ..................................120 hrs**

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**AREA: Civil Engineering Technology**

**Bachelor of Science Degree**

CIP 15.0201

**ACCREDITED BY:**
Technology Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012. (410) 347-7700

**University Studies Requirements ..............................44-46 hrs**
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

- **Scientific Inquiry, Methodologies, and Quantitative Skills:**
  - MAT 130 Technical Math I
  - PHY 130 General Physics I
  - PHY 131 General Physics I Laboratory
  - PHY 132 General Physics II
  - PHY 133 General Physics II Laboratory

- **Social and Self-Awareness and Responsible Citizenship:**
  - ECO 230 Principles of Macroeconomics
  - University Studies Electives:
    - GSC 101 The Earth and the Environment
    - MAT 230 Technical Math II

**Core Courses .........................................................41 hrs**

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**Technical Electives (5 hrs)**

**Total Curriculum Requirements ..................................120 hrs**
IET 488 Cooperative Education/Internship
ITD 107 Introduction to Technical Drawing and CAD
MAT 330 Technical Math III

Option Courses .................................................. 36 hrs
ACC 200 Principles of Financial Accounting
CET 298 Strength of Materials
CET 310 Anatomy of Buildings
CET 386 Construction Estimating II
CET 481 Structural Steel Design
CET 482 Reinforced Concrete Design
CET 483 Construction Materials
CET 484 Soil Mechanics and Foundations
CET 490 Construction Scheduling and Methods
MGT 350 Fundamentals of Management
OSH 384 Construction Safety

Total Curriculum Requirements ......................... 121 hrs

AREA: Civil Engineering Technology/Environmental Engineering Technology Option

Bachelor of Science Degree
CIP 15.0201

University Studies Requirements ...................... 44-46 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 130 Technical Math I
  PHY 130 General Physics I
  PHY 131 General Physics I Laboratory
  PHY 132 General Physics II
  PHY 133 General Physics II Laboratory
• Social and Self-Awareness and Responsible Citizenship:
  ECO 230 Principles of Macroeconomics
• University Studies Electives:
  GSC 101 The Earth and the Environment
  MAT 230 Technical Math II

Core Courses .................................................... 41 hrs
CET 280 Plane Surveying
CET 284 Sustainable Design and Construction
CET 385 Construction Estimating I
CET 480 Construction Planning and Management
ENG 324 Technical Writing
ENT 099 Transitions
ENT 287 Statics for Technology
ENT 358 Mechanical and Electrical Systems
ENT 382 Hydraulics
ENT 393 Engineering Economy
ENT 419 Senior Project
IET 399 Professional Development Seminar I
IET 488 Cooperative Education/Internship
ITD 107 Introduction to Technical Drawing and CAD
MAT 330 Technical Math III

Option Courses .................................................. 35 hrs
CET 330 Water Quality Technology I
CET 331 Water Quality Technology II
CET 342 Air Quality Technology
CET 353 Solid and Hazardous Waste Management

CET 555 Environmental Regulatory Affairs
CET 585 Remediation Technology
CHE 111 Essentials of Chemistry and Biochemistry
ENT 286 Introduction to Environmental Engineering Technology
ENT 400 Energy Management
Technical Electives (6 hrs)

Total Curriculum Requirements ......................... 120 hrs

ASSOCIATE:
Civil Engineering Technology

Associate of Science Degree
CIP 15.0201

University Studies Requirements ...................... 23 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  PHY 130 General Physics I
  PHY 131 General Physics I Laboratory

Required Courses .............................................. 32 hrs
CET 280 Plane Surveying
CET 284 Sustainable Design and Construction
CET 385 Construction Estimating I
ENG 324 Technical Writing
ENT 099 Transitions
ENT 287 Statics for Technology
ENT 358 Mechanical and Electrical Systems
ITD 107 Introduction to Technical Drawing and Computer Aided Drafting

Support Courses .............................................. 13 hrs
GSC 101 The Earth and the Environment
MAT 130 Technical Math I
PHY 132 General Physics II
PHY 133 General Physics II Laboratory

Total Curriculum Requirements ......................... 62 hrs

AREA: Electromechanical Engineering Technology

Bachelor of Science Degree
CIP 15.0403

University Studies Requirements ...................... 43-47 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 130 Technical Math I
  or
  MAT 150 Algebra and Trigonometry
  MAT 308 Calculus and Analytic Geometry II
  or
  MAT 330 Technical Math III
  PHY 130 General Physics I and
  PHY 131 General Physics I Laboratory
  or
  PHY 235 Mechanics, Heat and Wave Motion and
Engineering graphics and design graduates typically find jobs in manufacturing companies, engineering consulting firms, and architectural firms utilizing cutting edge computer graphic design capabilities and applied engineering concepts in the design of modern processes, components and structures.

•Interior Design

A baccalaureate degree in interior design provides students with the fundamentals of design, design analysis, space planning, the design of all interior spaces, and an understanding of related aspects of environmental design. In addition, graduates will be able to conduct research and solve problems relative to the function and quality of interior design. Graduates will be prepared to work as a professional interior designer, and with architects and engineers in designing interiors for residential and commercial buildings.

This program prepares graduates to enter positions in interior design and related areas in environmental design and to work in private business where interior design knowledge is critical. With a broad range of skills in technical drawing and CAD, architectural drawing, engineering graphics, and designing interiors graduates are prepared to work in a variety of architectural construction, and engineering consulting firms as interior designers.

•Manufacturing Technology

A baccalaureate degree in manufacturing technology provides students with a broad range of knowledge and skills related to industry and industrial supervision. Graduates from this program are exposed to the applied aspects of industrial processes, production systems, production management, computer integrated design, computer aided drafting, manufacturing systems, human relations and human resource development. The graduates from this program will generally work in one of a variety of industries working directly with engineers, designers, and production personnel as supervisors and technical support, utilizing skills in computer numerical control, hydraulics, machine tool processes, CAD, CAM, computer integration, industrial automation and system integration. Additional skills in electrical systems, accounting, marketing, human resource management and business management allows graduates to work in a variety of industrial environments.
IET 488 Cooperative Education/Internship
ITD 099 Transitions
ITD 101 Introduction to Design and Graphic Communications
ITD 104 Computer Aided Design
ITD 130 Manufacturing Processes and Materials
ITD 204 Parametric Modeling and Rendering
ITD 301 Architectural Drawing & Residential Planning
ITD 350 Construction Systems
MAT 130 Technical Math I
MGT 350 Fundamentals of Management

Required Courses ............................................................ 30 hrs
CET 298 Strength of Materials
ENT 287 Statics for Technology
ITD 202 Applied Technical Drawing
ITD 304 Advanced Parametric Modeling
ITD 306 Engineering Graphics
ITD 330 Machine Tool Processes
ITD 333 ANSI Fundamentals for Mechanical Product Design

Technical Elective (4 hrs)

Emphasis ............................................................................. 7 hrs
Choose one area of emphasis below:
Industrial/Manufacturing Design
IET 587 Quality Control
ITD 403 Product and Tooling Design

Architectural/Construction Design
CET 310 Anatomy of Buildings
ITD 401 Architectural Drafting and Design-Multi-Family Light Commercial

Total Curriculum Requirements ................................. 120 hrs

AREA:
Interior Design

Bachelor of Science Degree
CIP 15.1399

ACCREDITED BY:
The National Kitchen and Bath Association (NKBA)

University Studies Requirements ............................... 46 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
*Scientific Inquiry, Methodologies, and Quantitative Skills:
CHE 105 Introductory Chemistry I
MAT 135 Introduction to Probability and Statistics
PHY 130 General Physics I
PHY 131 General Physics I Laboratory
*Social and Self-Awareness and Responsible Citizenship:
ECO 231 Principles of Microeconomics

or
SOC 133 Introduction to Sociology
*University Studies Electives:
CSC 199 Introduction to Information Technology
MAT 117 Mathematical Concepts (or higher)

Core Courses ................................................................. 38 hrs
ENG 324 Technical Writing
IET 399 Professional Development Seminar I
IET 488 Cooperative Education/Internship
ITD 099 Transitions
ITD 101 Introduction to Design and Graphic Communications
ITD 107 Introduction to Technical Drawing and Computer Aided Drafting
ITD 104 Computer Aided Design
ITD 130 Manufacturing Processes and Materials
ITD 204 Parametric Modeling and Rendering
ITD 301 Architectural Drawing and Residential Planning
ITD 350 Construction Systems
MAT 130 Technical Math I
MGT 350 Fundamentals of Management

Required Courses ............................................................ 37 hrs
CET 284 Sustainable Design and Construction
ITD 221 Design Visualization
ITD 253 Interior Design Studio I
ITD 351 Materials and Textiles for Interiors
ITD 352 History of Interiors I
ITD 353 Interior Design Studio II
ITD 357 Interior Design Studio III
ITD 401 Architectural Drafting and Design Multi-Family Light Commercial
ITD 452 History of Interiors II
ITD 453 Interior Design Studio IV
ITD 455 Interior Design Studio V
ITD 458 Professional Support
ITD 459 Professional Practice
Technical Elective (3 hrs)

Total Curriculum Requirements ................................. 121 hrs

AREA:
Manufacturing Technology

Bachelor of Science Degree
CIP 15.0613

University Studies Requirements ............................... 45 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
*Scientific Inquiry, Methodologies, and Quantitative Skills:
CHE 105 Introductory Chemistry I
MAT 135 Introduction to Probability and Statistics
PHY 130 General Physics I
PHY 131 General Physics I Laboratory
*Social and Self-Awareness and Responsible Citizenship:
ECO 231 Principles of Microeconomics

*University Studies Electives:
CSC 199 Introduction to Information Technology
MAT 230 Technical Math II

Core Courses ................................................................. 38 hrs
ENG 324 Technical Writing
IET 399 Professional Development Seminar I
IET 488 Cooperative Education/Internship
ITD 099 Transitions
**Telecommunications Systems Management**

Telecommunications systems are networks of leading-edge technologies such as fiber optic systems, satellites, wireless, telephony, and cable, which are connected to computers that allow organizations and individuals throughout business and industry to communicate instantaneously around the world. Telecommunications systems provide the architectural structure for such activities as electronic commerce, electronic banking, video teleconferencing, distance learning, telemedicine, data interchange, on-demand video, wireless technology, information security, and a host of other traditional and new uses for business and industry.

The baccalaureate program provides students specialization options within the curriculum. Students in the baccalaureate program will have the insight and ability to function in all areas of Telecommunications Systems Management (TSM) but will choose a program emphasis that will support the aspect of management which interests them most: the physical system and its components, the software that drives the system, or the business structure and operations that depend on the system. In addition, they will be prepared to move on to the Master of Science in Telecommunications Systems Management if they so choose.

Telecommunications Systems Management is an interdisciplinary program drawing upon the strengths of the College of Business and the College of Science, Engineering and Technology. These programs which are jointly administered by the two colleges provide students a unique opportunity to develop both technical expertise and management expertise in this dynamic field.

Due to the dynamic nature of the field of telecommunications, new courses may be developed that may require substitution for existing courses in the program.

**AREA:**

**Telecommunications Systems Management**

Bachelor of Science

CIP 11.041

University Studies Requirements ............... 44 hrs

(See Chapter 5, University Studies Requirements)

University Studies selections must include:

• **Scientific Inquiry, Methodologies, and Quantitative Skills:**
  - MAT 135 Introduction to Probability and Statistics
  - MAT 140 College Algebra

• **Social and Self-Awareness and Responsible Citizenship:**
  - ECO 231 Principles of Microeconomics

**Required Courses** .................................................... 58 hrs

- ACC 200 Principles of Financial Accounting
- ACC 201 Principles of Managerial Accounting
- CIS 307 Decision Support Technologies
- CIS 317 Principles of Information Systems Analysis and Design
- CSC 101 Introduction to Problem Solving Using Computers
- ECO 335 Economics and Public Policy of Telecommunications Industry
Choose in residence at Murray State University.

Electives. Six hours must be 300- or 400-level courses completed
TSM 133, 232, 233, and 241. Nine hours of advisor approved
Telecommunications Systems Minor ..............................
counts toward a degree.

Total Curriculum Requirements .................................. 126 hrs

1. Select specific classes;
2. Select one or more complete emphasis areas;
3. Select approved electives to total 24 hours.

Note: When selecting courses for an area of emphasis or as an elec-
tive, a maximum of nine hours may be selected from courses with
a business prefix including: ACC, BPA, CIS, FIN, MGT, MKT, or
OSY. Adherence to course prerequisites is critical.

Wireless Communications Electrons
TSM 321 Wireless Communications
TSM 322 Wireless Communications II
TSM 421 Mobile Satellite Communications

Network Security
TSM 351 Principles of Information Security
TSM 352 System Security
TSM 353 Network Security
TSM 441 Advanced Information Security

System Administration
CSC 235 Programming in C++
CSC 310 Database Administration
CSC 360 Scripting Languages
TSM 517 Systems Planning

Approved Electives
MGT 358 Entrepreneurial Business Plan Development
MGT 443 Management of Operations and Technology
MKT 475 Marketing Strategies in E-Commerce
TSM 440 Information Policy and Security Auditing
TSM 444 Wide Area Networks

Total Curriculum Requirements ................................. 41-47 hrs

Bachelor of Science/Bachelor of Arts Degree
CIP 27.0101

University Studies Requirements ......................... 41-47 hrs
(See Chapter 5, University Studies Requirements)

Required Courses ................................................ 25 hrs
MAT 099 Transitions
MAT 250 Calculus and Analytic Geometry I
MAT 308 Calculus and Analytic Geometry II
MAT 309 Calculus and Analytic Geometry III
MAT 312 Mathematical Reasoning
MAT 335 Matrix Theory and Linear Algebra
MAT 540 Mathematical Statistics I

Required Limited Electives ............................................. 15 hrs
Five MAT courses (3 or 4 credit hour) selected from MAT 338 and MAT courses numbered 400 or above including:
at least one of the following:
MAT 516 Introduction to Algebraic Structures
MAT 521 Abstract Algebra I
MAT 525 Advanced Calculus I
MAT 526 Advanced Calculus II

Required Minor .............................................................. 21 hrs
Electives 1 ...................................................................... 12-18 hrs
(including one course in computer programming 4 selected from a list approved by the Department of Mathematics and Statistics)

Total Curriculum Requirements ....................................... 120 hrs
1 May be taken as a University Studies elective.
2 This is a University Studies writing intensive course.
3 At least one three-hour free elective must be chosen from outside mathematics and may not be counted as a University Studies requirement.
4 This is a University Studies technology intensive course.

AREA:
Mathematics/Secondary Certification Option (Grades 8-12)

Bachelor of Science/Bachelor of Arts Degree
CIP 27.0101

University Studies Requirements .......................... 46-49 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 250 Calculus and Analytic Geometry I
  MAT 308 Calculus and Analytic Geometry II
• Social and Self-Awareness and Responsible Citizenship:
  PSY 180 General Psychology
• University Studies Electives:
  EDP 260 Psychology of Human Development
  EDU 103 Issues and Practices of American Education 1
  MAT 309 Calculus and Analytic Geometry III

Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Required Courses ................................................... 24 hrs
MAT 099 Transitions
MAT 312 Mathematical Reasoning 2
MAT 335 Matrix Theory and Linear Algebra
MAT 510 Foundations of Geometry
MAT 540 Mathematical Statistics I
MAT 550 Teaching Mathematics
MAT 551 Mathematics for Teachers
Computer programming course (3 hrs) 4

Required Limited Electives ............................................. 18 hrs
Five MAT courses (3 or 4 credit hour) selected from MAT 338 and MAT courses numbered 400 or above including:
at least one of the following:
MAT 421 Introduction to Algebraic Structures
MAT 516 Introduction to Algebraic Structures
MAT 521 Abstract Algebra I
MAT 525 Advanced Calculus I
MAT 525 Advanced Calculus II

and at least one of the following:
MAT 442 Introduction to Numerical Analysis
MAT 506 Mathematical Modeling I
MAT 524 Boundary Value Problems
MAT 541 Mathematical Statistics II

An additional course (at least 3 credit hours) selected from MAT 338 and MAT courses numbered 400 or above.

and

At least three (3 or 4 credit hour) courses selected from courses numbered 400 or above from courses related to the application of mathematics selected from a list approved by the Department of Mathematics and Statistics.

Required for Secondary Certification ................................ 32 hrs
COM 372 Communication in Educational Environments
EDU 303 Principles of Education
EDU 403 Principles of Education
EDU 405 Evaluation and Measurement in Education
HEA 191 Personal Health 6
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Total Curriculum Requirements ...................................... 120-123 hrs
1 With a grade of C or better.
2 This is a University Studies writing intensive course.
3 Selected from a department-approved list. This is a University Studies technology intensive course.
4 Department of Mathematics requirement.

MAJOR:
Mathematics/Secondary Certification
(Grades 8-12)

Bachelor of Science/Bachelor of Arts Degree
CIP 27.0101

University Studies Requirements .......................... 46-49 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  MAT 250 Calculus and Analytic Geometry I
  MAT 308 Calculus and Analytic Geometry II
• Social and Self-Awareness and Responsible Citizenship:
  PSY 180 General Psychology
• University Studies Electives:
  EDP 260 Psychology of Human Development
  EDU 103 Issues and Practices of American Education 1
  MAT 309 Calculus and Analytic Geometry III

Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.
Required Courses ............................................................... 21 hrs
MAT 099 Transitions
MAT 312 Mathematical Reasoning\(^2\)
MAT 335 Matrix Theory and Linear Algebra
MAT 510 Foundations of Geometry
MAT 540 Mathematical Statistics I
MAT 550 Teaching Mathematics
Computer programming course (4 hrs)\(^3\)

Required Limited Electives ............................................... 9 hrs
Three MAT courses (3 or 4 credit hour) selected from MAT 338 and MAT courses numbered 400 or above including
MAT 421 Introduction to Algebraic Structures
MAT 516 Introduction to Topology
MAT 521 Abstract Algebra I
MAT 525 Advanced Calculus I
and at least one of the following:
MAT 442 Introduction to Numerical Analysis
MAT 506 Mathematical Modeling I
MAT 524 Boundary Value Problems
MAT 541 Mathematical Statistics II
An additional course (at least 3 credit hours) selected from MAT 338 and MAT courses numbered 400 or above.

Required Minor .................................................................... 21 hrs

Required for Secondary Certification ................................. 32 hrs
COM 372 Communication in Educational Environments
EDU 303 Strategies of Teaching
EDU 403 Structures and Foundations of Education
EDU 405 Evaluation and Measurement in Education
HEA 191 Personal Health\(^4\)
SEC 420 Practicum in Secondary Schools
SEC 421 Student Teaching in the Secondary School
SED 300 Educating Students with Disabilities

Total Curriculum Requirements .................................... 129-132 hrs
\(^1\)With a grade of C or better.
\(^2\)This is a University Studies writing intensive course.
\(^3\)Selected from a department-approved list. This is a University Studies technology intensive course.
\(^4\)Department of Mathematics requirement.

AREA: Mathematics/Pre-MBA Option
Bachelor of Science/Bachelor of Arts Degree
CIP 27.0101
University Studies Requirements ................................. 41-47 hrs
(See Chapter 5, University Studies Requirements)

Required Courses ............................................................... 59 hrs
ACC 200 Principles of Financial Accounting
ACC 201 Principles of Managerial Accounting
BPA 355 Information Systems and Decision Making
CSC 199 Introduction to Information Technology\(^1\)
FIN 330 Principles of Finance
MAT 099 Transitions
MAT 312 Mathematical Reasoning\(^2\)
MAT 335 Matrix Theory and Linear Algebra
MAT 540 Mathematical Statistics I
MAT 565 Applied Statistics I
MGT 350 Fundamentals of Management
MGT 443 Management of Operations and Technology
MKT 360 Principles of Marketing

Required Limited Electives ............................................... 15-16 hrs
A. Four (3 or 4 credit hour) courses selected from MAT 338 and MAT courses numbered 400 or above.
B. One course in computer programming\(^3\)

Unrestricted Electives ....................................................... 18-25 hrs

Total Curriculum Requirements .................................... 120 hrs
\(^1\)This is a University Studies technology intensive course.
\(^2\)This is a University Studies writing intensive course.
\(^3\)Approved by the student’s advisory committee. Will be a University Studies technology intensive course.

AREA: Mathematics/Applied Mathematics Option
Bachelor of Science/Bachelor of Arts Degree
CIP 27.0101
University Studies Requirements ................................. 41-47 hrs
(See Chapter 5, University Studies Requirements)

Required Courses ............................................................... 31 hrs
MAT 099 Transitions
MAT 250 Calculus and Analytic Geometry I\(^1\)
MAT 308 Calculus and Analytic Geometry II\(^1\)
MAT 309 Calculus and Analytic Geometry III\(^1\)
MAT 312 Mathematical Reasoning\(^2\)
MAT 335 Matrix Theory and Linear Algebra
MAT 338 Ordinary Differential Equations
MAT 442 Introduction to Numerical Analysis
MAT 540 Mathematical Statistics I

Required Limited Electives ............................................... 33-36 hrs
A. Three (3 or 4 credit hour) courses selected from MAT courses numbered 400 or above.
B. Two courses in computer programming\(^3\).
C. Five or six courses (at least 3 credit hours) related to the application of mathematics.\(^4\)

Unrestricted Electives ....................................................... 6-15 hrs

Total Curriculum Requirements .................................... 120 hrs
\(^1\)May be taken as a University Studies elective.
\(^2\)This is a University Studies writing intensive course.
\(^3\)Approved by the student’s advisory committee. Will be a University Studies technology intensive course.
\(^4\)The program is very flexible. For example, possible options include, but are not limited to, an emphasis in either Biology, Chemistry, Computer Science, Geosciences, Physics, Statistics and Finance, or Actuarial Science.
Mathematics Minor

MAT 250, 308, 309 and nine hours of selected mathematics courses numbered above 309 (except for 330, 399, 554). Departmental approval required. Six hours must be upper-level courses completed in residence at Murray State University.
Broad opportunities for young people to prepare for agricultural and related careers are offered by the Hutson School of Agriculture. The Hutson School of Agriculture offers three undergraduate degree programs: a Bachelor of Science in Agriculture, a Bachelor of Science with a major in Agriculture, and an Associate of Science with emphasis in agricultural science and technology. Minors are available in agriculture and in equine science.

The School of Agriculture includes the Department of Agricultural Science, the Department of Animal and Equine Science, and the Department of Veterinary Technology and Pre-Veterinary Medicine. Agricultural facilities include the farm laboratory complex, the Cherry Agricultural Exposition Center, and the Breathitt Veterinary Center. The horse, beef, agronomy, and horticulture facilities are a part of the farm-laboratory complex. The Cherry Agricultural Exposition Center is utilized for equine and rodeo classes, contests, field days, judging contests, clinics, and numerous agricultural activities.

MSU’s Breathitt Veterinary Center (BVC), located in Hopkinsville, Kentucky, has as its primary mission the provision of diagnostic data; however, its mission also includes instruction and research. The laboratory is accredited through the American Association of Veterinary Laboratory Diagnosticians. The center’s facilities and personnel provide learning experiences for students in the animal health technology program. The BVC also conducts research dealing with infectious diseases of food animals.

**Department of Agricultural Science**

**Head:** Dwayne Driskill. **Faculty:** Blankenship, Driskill, Ferguson, Handayani, Helmers, Hoover, Morrow, Payne, Williams, Wilson.

The Department of Agricultural Science offers a Bachelor of Science in Agriculture Degree with the following options: (1) agronomy, (2) agriculture science/ agriscience technology option, (3) agricultural education, (4) agribusiness, (5) agriculture systems technology, and (6) horticulture. The agriculture science/agricience technology option includes emphases in emerging technology, communications/public relations, environmental/health, agriculture public service/leadership, and agriculture technology.

Facilities for agriculture science include classrooms and labs in Oakley Applied Science South, Howton Agriculture Engineering Building, the West Farm, the Garrett Farm, the North Farm, the Pullen Farm Complex with three greenhouses and environmental center lab, and the agriculture systems technology farm lab.

**Area:**

**Agricultural Science/Agriscience Technology Option**

**Bachelor of Science in Agriculture Degree**

*CIP 01.0000*

**University Studies Requirements** ....................................... 44 hrs

(See Chapter 5, University Studies Requirements)

University Studies selections must include:

- Global Awareness, Cultural Diversity and the World’s Artistic Traditions: (Choose one of the following.)
  - AGR 200 International Agricultural Experience
  - AGR 353 World Food, Agriculture and Society
  - SPA 106 Basic Spanish and Culture for Agriculture
- Scientific Inquiry, Methodologies, and Quantitative Skills:
  - BIO 101 Biological Concepts
  - CHE 105 Introductory Chemistry I
  - MAT 140 College Algebra
- Social and Self-Awareness and Responsible Citizenship:
  - AGR 199 Contemporary Issues in Agriculture
  - BIO 103 Saving Planet Earth
  - POL 140 American National Government
- University Studies Electives:
  - CHE 106 Introductory Chemistry II
  - GSC 199 Earth Science

**Agriculture Core Courses** ................................................ 26 hrs

- AGR 099 Transitions
- AGR 100 Animal Science
- AGR 130 Agricultural Economics
- AGR 133 Field Applications for Agriculture
- AGR 160 Horticultural Science
  - or
- AGR 240 Crop Science
- AGR 170 Introduction to Agricultural Systems Technology
- AGR 199 Contemporary Issues in Agriculture
- AGR 339 Computer Applications for Agriculture
- AGR 345 Soil Science
- AGR 399 Professional Development Seminar I
- AGR 599 Agriculture Senior Capstone

**Agriscience Technology Option** ...................................... 24 hrs

- AGR 377 Agriculture Safety
- AGR 433 Farm Management
  - and one of the following:
- AGR 300 Principles of Animal Nutrition
- AGR 301 Livestock Judging and Evaluation
- AGR 302 Horse Science
AGR 311 Beef Science
AGR 312 Dairy Science
AGR 321 Poultry Science
AGR 326 Swine Science
and one of the following:
AGR 330 Principles of Agribusiness
AGR 333 Agribusiness Records and Analysis
AGR 337 Agricultural Sales and Merchandising
and one of the following:
AGR 360 Greenhouse Production and Management
AGR 461 Plant Propagation
AGR 542 Plant Breeding I
AGR 549 Weeds and Their Control
one of the following:
AGR 372 Agricultural Metal Processes
AGR 379 Field Equipment Technology Management
AGR 470 Soil and Water Engineering
AGR 477 Agricultural Power Units
AGR 576 Agricultural Electrification Systems
AGR 577 Tractor Power Principles

AGR electives: 6 hrs

Required Support Courses .............................................21-22 hrs
Choose one of the following support course emphases.

Emerging Technology Emphasis: 22 hrs
AGR 471 Applications in Precision Agriculture
AGR 571 Advanced Precision Agriculture
GSC 202 Introduction to Geographic Information Science
GSC 561 Precision GIS/GPS Applications
Select three of the following:
AGR 439 Software Applications for Agriculture
AGR 539 Advanced Computer Applications for Agriculture
CSC 125 Internet and World Wide Web Technologies
GSC 521 Geographic Information Systems
TSM 120 Introduction to Telecommunications

Communications/Public Relations Emphasis: 21 hrs
JMC 168 Contemporary Mass Media
JMC 194 Newswriting
JMC 330 Mass Media Effects
JMC 391 Public Relations Principles
JMC 412 Writing for Public Relations
JMC 590 Mass Communications Law
AGR 585 Specialized Journalism/RTV
or
JMC 591 Advanced Public Relations

Environmental/Health Emphasis: 21 hrs
AGR 378 Agricultural Environmental Management Systems
CET 555 Environmental Regulatory Affairs
CET 587 Biosolids and Nutrient Management Systems
ENT 286 Introduction to Environmental Engineering Technology
AGR/CET/OSH Electives: 9 hrs approved by advisor

Agriculture Public Service/Leadership Emphasis: 21 hrs
AED 583 Practicum in Agricultural Education, Extension, and Public Service Leadership
AGR 488 Cooperative Education/Internship
AGR 489 Cooperative Education/Internship
Advisor approved Electives in AGR, AED, COM, CTE, MGT, YNL: 12 hrs

Agricultural Technology Emphasis: 21-22 hrs
AGR 313 Livestock Production Management Systems
AGR 439 Software Applications for Agriculture
AGR 471 Applications in Precision Agriculture
AGR 499 Leadership/Professional Development Seminar II
AGR 537 Seminar in Agricultural Business Systems
AGR 538 Seminar in Production Agricultural Systems

AGR 571 Advanced Precision Agriculture
AGR 539 Advanced Computer Applications for Agriculture
AGR 547 Crop Management

Unrestricted Electives ....................................................4-5 hrs

Total Curriculum Requirements ......................................120 hrs

1 AGR 199 fulfills both Agriculture Core and a University Studies elective requirement.

These agriculture electives may be fulfilled by agriculture courses used in the chosen emphasis.

AREA:
Agricultural Science/Agricultural Education Certification Option (5-12)

Bachelor of Science in Agriculture Degree
CIP 01.0000

University Studies Requirements .....................................44 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Global Awareness, Cultural Diversity and the World’s Artistic Traditions:
  AGR 200 International Agricultural Experience
  or
  SPA 106 Basic Spanish and Culture for Agriculture
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  BIO 101 Biological Concepts
  CHE 105 Introductory Chemistry I
  or
  MAT 135 Introduction to Probability and Statistics
  MAT 140 College Algebra
  or
  MAT 135 Introduction to Probability and Statistics
  or
  MAT 140 College Algebra

Social and Self-Awareness and Responsible Citizenship:
• BIO 103 Saving Planet Earth
  or
  EDP 260 Psychology of Human Development

University Studies Electives:
AGR 199 Contemporary Issues in Agriculture

Choose one of the following:
BIO 221 Zoology
BIO 222 Botany
CHE 106 Introductory Chemistry II
GSC 199 Earth Science

Note: Certification requires a grade of B or better in one English composition course and a C or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Agriculture Core Courses ..............................................26 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 160 Horticultural Science
or
AGR 240 Crop Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture^2
AGR 339 Computer Applications for Agriculture^1
AGR 345 Soil Science
AGR 399 Professional Development Seminar I
AGR 599 Agriculture Senior Capstone

**Agricultural Education Option** ........................................ 24 hrs
AED 380 Agricultural Education, Extension, and Leadership
AED 583 Practicum in Agricultural Education, Extension, and Public Service Leadership
AGR 360 Greenhouse Production and Management
AGR 337 Agricultural Sales and Merchandising
or
AGR 433 Farm Management
Choose one of the following:
AGR 303 Advanced Horse Science
AGR 321 Poultry Science
AGR 325 Small Animal Science
AGR 461 Plant Propagation
AGR 471 Applications in Precision Agriculture
AGR 555 Advanced Soil Fertility
AGR 573 Agricultural Processing Systems
Choose one of the following:
AGR 362 Floral Design
AGR 364 Nursery Management
AGR 367 Residential Landscape Design
AGR 368 Landscape Construction

**Required Support Courses** ........................................... 31 hrs
AED 580 Methods of Teaching Agricultural Education^1
CTE 501 Teaching through Application
CTE 502 Instructional Media, Curricula and Assessment in CTE
CTE 503 Planning and Implementing Instruction in CTE
HEA 195 First Aid and Safety
SEC 421 Student Teaching in Secondary School
SED 300 Educating Students with Disabilities

**Total Curriculum Requirements** ..................................... 122 hrs
^1With a grade of C or better.
^2AGR 199 will fulfill both the agriculture core and university studies elective.

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**AREA:**
**Agricultural Science/Agribusiness Option**

**Bachelor of Science in Agriculture Degree**
CIP 01.0000

**University Studies Requirements** .................................. 43 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

- **Global Awareness, Cultural Diversity and the World’s Artistic Traditions:** Choose one of the following.
  - AGR 200 International Agricultural Experience
  - AGR 353 World Food, Agriculture and Society
  - SPA 106 Basic Spanish and Culture for Agriculture

- **Scientific Inquiry, Methodologies, and Quantitative Skills:**
  - BIO 101 Biological Concepts
  - CHE 105 Introductory Chemistry I
  - MAT 140 College Algebra

- **Social and Self-Awareness and Responsible Citizenship:**
  - BIO 103 Saving Planet Earth
  - POL 140 American National Government
  - ECO 230 Principles of Macroeconomics

- **University Studies Electives:**
  - AGR 199 Contemporary Issues in Agriculture
  - AGR 339 Computer Applications for Agriculture
  - AGR 345 Soil Science
  - AGR 399 Professional Development Seminar I
  - AGR 599 Agriculture Senior Capstone

**Agriculture Core Courses** ............................................ 26 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 160 Horticultural Science
or
AGR 240 Crop Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture
AGR 339 Computer Applications for Agriculture
AGR 345 Soil Science
AGR 399 Professional Development Seminar I
AGR 599 Agriculture Senior Capstone

**Agribusiness Option** .................................................. 24 hrs
AGR 328 Statistics for Food and Agriculture
AGR 330 Principles of Agribusiness
AGR 336 Agricultural Marketing and Price Analysis
AGR 337 Agricultural Sales and Merchandising
AGR 433 Farm Management
AGR 531 Agricultural Finance
AGR 535 Agricultural Policy
AGR electives: **3 hrs**

**Required Support Courses** ........................................... 12-24 hrs
Choose one of the following support course emphases.

**Crop Production Emphasis**
ACC 200 Principles of Accounting I
AGR 455 Soil Management
AGR 546 Integrated Pest Management
AGR 547 Crop Management
AGR 549 Weeds and their Control
AGR 555 Advanced Soil Fertility
### Hutson School of Agriculture

#### Agriculture

**MGT 350 Fundamentals of Management**

**MKT 360 Principles of Marketing**

**Entrepreneurship Emphasis**

**ACC 200 Principles of Accounting I**

**AGR 334 Entrepreneurship in Agribusiness**

**MGT 350 Fundamentals of Management**

**MGT 358 Entrepreneurial Business Plan Development**

**Global Emphasis**

**ACC 200 Principles of Accounting I**

**MKT 360 Principles of Marketing**

**MKT 568 Global Marketing Management**

Choose one of the following:

**AGR 353 World Food, Agriculture and Society**

**AGR 529 International Trade and Agriculture**

**AGR 533 Seminar in International Agriculture Systems**

Three hours of foreign language

**Marketing/Management Emphasis**

**ACC 200 Principles of Accounting I**

**MKT 350 Fundamentals of Management**

**MKT 360 Principles of Marketing**

Approved upper-level, 3 hour business elective

**Unrestricted Electives ................................................ 3-15 hrs**

**Total Curriculum Requirements ................................... 120 hrs**

1 AGR 199 will fulfill both the agriculture core and university studies elective.

2 Students wishing to qualify for admission to Murray State’s Master of Business Administration (MBA) program should choose the following courses as part of the Unrestricted Elective requirement: ACC 201, BPA 355, CIS 443, FIN 330, MGT 220 (this course will fulfill a University Studies Elective).

### AREA:

#### Agricultural Science/Agricultural Systems Technology Option

**Bachelor of Science in Agriculture Degree**

**CIP 01.0000**

**University Studies Requirements ......................... 45 hrs**

(See Chapter 5, University Studies Requirements)

University Studies selections must include:

- *Global Awareness, Cultural Diversity and the World’s Artistic Traditions: Choose one of the following.*
  - **AGR 200 International Agricultural Experience**
  - **AGR 353 World Food, Agriculture and Society**

- **SPA 106 Basic Spanish and Culture for Agriculture**

- **Scientific Inquiry, Methodologies, and Quantitative Skills:**
  - **BIO 101 Biological Concepts**
  - **CHE 105 Introductory Chemistry I**
  - **MAT 130 Technical Math I**

- **Social and Self-Awareness and Responsible Citizenship:**
  - **AGR 199 Contemporary Issues in Agriculture**

- **University Studies Electives: (Choose one of the following.)**
  - **CHE 106 Introductory Chemistry II**
  - **GSC 199 Earth Science**
  - **PHY 130 General Physics I**

**Agriculture Core Courses ........................................... 26 hrs**

**AGR 099 Transitions**

**AGR 100 Animal Science**

**AGR 130 Agricultural Economics**

**AGR 133 Field Applications for Agriculture**

**AGR 160 Horticultural Science**

**AGR 240 Crop Science**

**AGR 170 Introduction to Agricultural Systems Technology**

**AGR 199 Contemporary Issues in Agriculture**

**AGR 339 Computer Applications for Agriculture**

**AGR 345 Soil Science**

**AGR 399 Professional Development Seminar I**

**AGR 599 Agriculture Senior Capstone**

**Agriculture Systems Technology Option.................. 24 hrs**

**AGR 371 Agricultural Buildings and Construction**

**AGR 372 Agricultural Metal Processes**

**AGR 377 Agriculture Safety**

**AGR 477 Agricultural Power Units**

2 Students wishing to qualify for admission to Murray State’s Master of Business Administration (MBA) program should choose the following courses as part of the Unrestricted Elective requirement: ACC 201, BPA 355, CIS 443, FIN 330, MGT 220 (this course will fulfill a University Studies Elective).

**Support Courses....................................................... 6 hrs**

**AGR 471 Applications in Precision Agriculture**

**AGR 488 Cooperative Education/Internship**

3 Or select two of the following with advisor approval:

**AGR 489 Cooperative Education/Internship**

**AGR 543 Records Management and Regulatory Issues**

**AGR 571 Advanced Precision Agriculture**

**ENT 111 Electric Systems**

**ITD 101 Introduction to Design and Graphic Communication**

**ITD 104 CAD Application and Design Communication**

**ITD 304 Computer Graphics and Design**

**ITD 330 Machine Tool Processes**

**Unrestricted Electives ................................................ 19 hrs**

**Total Curriculum Requirements ................................ 120 hrs**

1 AGR 199 will fulfill both the agriculture core and university studies elective.

### AREA:

#### Agricultural Science/Agronomy Option

**Bachelor of Science in Agriculture Degree**

**CIP 01.0000**

**University Studies Requirements ......................... 47 hrs**

(See Chapter 5, University Studies Requirements)

University Studies selections must include:

- *Global Awareness, Cultural Diversity and the World’s Artistic Traditions: Choose one of the following.*
  - **AGR 200 International Agricultural Experience**
  - **AGR 353 World Food, Agriculture and Society**

- **SPA 106 Basic Spanish and Culture for Agriculture**

- **Scientific Inquiry, Methodologies, and Quantitative Skills:**
  - **BIO 101 Biological Concepts**
  - **CHE 105 Introductory Chemistry I**
  - **MAT 140 College Algebra**

- **Social and Self-Awareness and Responsible Citizenship:**
  - **BIO 103 Saving Planet Earth**

- **University Studies Electives: (Choose one of the following.)**
  - **CHE 105 Introductory Chemistry I**
  - **MAT 140 College Algebra**

- **Social and Self-Awareness and Responsible Citizenship:**
  - **CHE 105 Introductory Chemistry I**
  - **MAT 140 College Algebra**

2 Students wishing to qualify for admission to Murray State’s Master of Business Administration (MBA) program should choose the following courses as part of the Unrestricted Elective requirement: ACC 201, BPA 355, CIS 443, FIN 330, MGT 220 (this course will fulfill a University Studies Elective).
Hutson School of Agriculture

Agriculture Core Courses ................................................ 26 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 160 Horticultural Science
AGR 240 Crop Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture
AGR 339 Computer Applications for Agriculture
AGR 345 Soil Science
AGR 399 Professional Development Seminar I
AGR 599 Agriculture Senior Capstone

Agronomy Option ............................................................ 25 hrs
AGR 346 Soil Science Laboratory
AGR 455 Soil Management
AGR 470 Soil and Water Engineering
AGR 471 Applications in Precision Agriculture
AGR 542 Plant Breeding I
AGR 546 Integrated Pest Management
AGR 547 Crop Management
AGR 549 Weeds and Their Control
AGR electives (3 hrs)

Required Support Courses ............................................. 15 hrs
Choose one of the following support course emphases.

Practicum Emphasis
AGR 498 Agronomy Practicum
Choose one of the following:
AGR 330 Principles of Agribusiness
AGR 433 Farm Management
AGR 543 Records Management and Regulatory Issues
AGR 571 Advanced Precision Agriculture

Research Emphasis
AGR 328 Statistics for Food and Agriculture
AGR 571 Advanced Precision Agriculture
BIO 300 Introductory Microbiology
Agronomy advisor approved research electives (5 hrs)

Sales/Production Emphasis
AGR 330 Principles of Agribusiness
AGR 433 Farm Management
AGR 333 Agribusiness Records and Analysis
AGR 336 Agricultural Marketing and Price Analysis
AGR 337 Agricultural Sales and Merchandising
AGR 543 Records Management and Regulatory Issues
Agronomy advisor approved electives (3 hrs)

Unrestricted Electives ................................................... 11 hrs

Total Curriculum Requirements .................................... 120 hrs

1AGR 199 will fulfill both the agriculture core and university studies elective.
MAJOR:
Agricultural Science

Bachelor of Science/Bachelor of Arts Degree
CIP 01.0000

University Studies Requirements .................................. 46-58 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Global Awareness, Cultural Diversity and the World’s Artistic Traditions: Choose one of the following.
  AGR 200 International Agricultural Experience
  AGR 353 World Food, Agriculture and Society
  SPA 106 Basic Spanish and Culture for Agriculture

• Scientific Inquiry, Methodologies, and Quantitative Skills:
  BIO 101 Biological Concepts
  CHE 105 Introductory Chemistry I
  PHY 120 General Physics I
  MAT 140 College Algebra

• Social and Self-Awareness and Responsible Citizenship:
  BIO 103 Saving Planet Earth
  POL 140 American National Government
  AGR 199 Contemporary Issues in Agriculture1

University Studies Electives:

Agriculture Core Courses ............................................ 38 hrs

AGR 099 Transitions
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 160 Horticultural Science

AGR 240 Crop Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture1
AGR 339 Computer Applications for Agriculture
AGR 345 Soil Science
AGR 399 Professional Development Seminar I

AGR electives: 12 hrs

Required Minor .......................................................... 21 hrs

Unrestricted Electives .................................................... 17 hrs

Total Curriculum Requirements .................................. 120 hrs

1 AGR 199 will fulfill both the agriculture core and university studies elective.

ASSOCIATE:
Agricultural Science and Technology

Associate of Science Degree
CIP 01.0000

University Studies Requirements .................................. 18 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  BIO 101 Biological Concepts
  or
  CHE 105 Introductory Chemistry I
  or
  PHY 120 General Physics I
  MAT 140 College Algebra

Agriculture Core Courses ............................................ 44 hrs

AED 380 Agricultural Education, Extension, and Leadership
AGR 099 Transitions
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 160 Horticultural Science

AGR 240 Crop Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture1
AGR 339 Computer Applications for Agriculture
AGR 345 Soil Science
AGR 399 Professional Development Seminar I
AGR electives: 16 hrs

Required Minor .......................................................... 21 hrs

Unrestricted Electives .................................................... 17 hrs

Total Curriculum Requirements .................................. 120 hrs

1 AGR 199 will fulfill both the agriculture core and university studies elective.

Department of Animal and Equine Science

212 Oakley Applied Science South
270-809-3327

Head: James Davis. Faculty: Davis, Delaney, Pugh, Robertson, Robinson, Shultz, Van Hooser.

The Department of Animal and Equine Science offers a bachelor of science in agriculture degree with three emphases: (1) food animal emphasis and (2) equine science emphasis and (3) equine management. The department also offers a minor in equine science. Career preparations include the scientific study of feeding, breeding, management and marketing of animals and their products along with the multitude of related businesses and industries.

Facilities for animal and equine science include an equine center, rodeo facilities, and a beef cattle complex including a registered Angus herd and stocker calf intensive grazing systems.
AREA:
Animal Technology/Animal/Equine Science Option

Bachelor of Science in Agriculture Degree
CIP 51.0808

University Studies Requirements ......................... 44-46 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:

- **Scientific Inquiry, Methodologies, and Quantitative Skills:**
  - BIO 101 Biological Concepts
  - or
  - BIO 221 Zoology: Animal Form and Function
  - MAT 140 College Algebra
  - and one of the following:
  - CHE 101 Consumer Chemistry
  - CHE 105 Introductory Chemistry I
  - CHE 201 General College Chemistry
- **Social and Self-Awareness and Responsible Citizenship:**
  - AGR 199 Contemporary Issues in Agriculture
- **University Studies Electives:** (Choose one of the following.)
  - CHE 106 Introductory Chemistry II
  - CHE 202 General Chemistry and Qualitative Analysis
  - GSC 101 The Earth and the Environment
  - GSC 102 Earth Through Time
  - GSC 199 Earth Science

Agriculture Core Courses ................................. 24-25 hrs
- AGR 099 Transitions
- AGR 100 Animal Science
- AGR 300 Principles of Animal Nutrition
- AGR 310 Applications in Animal Technology
- AGR 339 Computer Applications for Agriculture
- AGR 399 Professional Development Seminar I
- AGR 501 Diseases of Livestock
- AGR 599 Agriculture Senior Capstone
  - and one of the following:
  - AGR 170 Introduction to Agricultural Systems Technology
  - AGR 377 Agriculture Safety
  - AGR 373 Animals in Disaster
  - AGR 374 Livestock in Disaster
  - and one of the following:
  - AGR 403 Equine Reproduction
  - AGR 506 Reproductive Physiology
  - AGR 523 Artificial Insemination Techniques for Cattle

Required Emphasis Courses .............................. 23-24 hrs

Choose one of the following emphases.

**Food Animal Emphasis**
- AGR 130 Agricultural Economics
- AGR 133 Field Applications for Agriculture
- AGR 140 Plant Science
  - or
  - AGR 240 Crop Science
  - AGR 345 Soil Science
  - and two of the following:
  - AGR 311 Beef Science
  - AGR 321 Poultry Science
  - AGR 324 Veterinary Diagnostic Imaging
  - AGR 326 Swine Science

and one of the following:
- AGR 301 Livestock Judging and Evaluation
- AGR 313 Livestock Production Management Systems
- AGR 320 Livestock Behavioral Analysis
- AGR 402 Advanced Livestock Judging

**Equine Management Emphasis**
- AGR 130 Agricultural Economics
- AGR 133 Field Applications for Agriculture
- AGR 201 Intermediate Horsemanship
- AGR 302 Horse Science
- AGR 304 Advanced Stock Seat
  - or
  - AGR 306 Advanced Forward Seat
- AGR 308 Equine Practicum
- AGR 309 Equine Facility Management
  - or
  - AGR 315 Alternative Equine Care
  - and one of the following:
  - AGR 318 Equine Forage Management
  - AGR 405 Breaking and Training
  - AGR 407 Equine Selection and Evaluation

**Equine Science Emphasis**
- AGR 130 Agricultural Economics
- AGR 133 Field Applications for Agriculture
- AGR 201 Intermediate Horsemanship
- AGR 302 Horse Science
- AGR 303 Advanced Horse Science
- AGR 309 Equine Facility Management
  - or
  - AGR 315 Alternative Equine Care
  - AGR 318 Equine Forage Management
  - AGR 345 Soil Science

**Equine Science Minor** .................................

Program must be approved by an advisor and include nine hours of required courses (AGR 302, 303 and 401). Six hours must be selected from AGR 101, 201, 304 and 306. Six hours must be upper-level courses completed in residence at Murray State University.

**Required Support Courses** ........................... 12 hrs

Choose the following support courses for the equine management or equine science emphases only:

**Equine Management**
- AGR 330 Principles of Agribusiness
- AGR 333 Agribusiness Records and Analysis
- AGR 433 Farm Management
- MGT 350 Fundamentals of Management

**Equine Science**
- AGR 133 Field Applications for Agriculture
- AGR 328 Statistics for Food and Agriculture

**Unrestricted Electives** ................................. 13-29 hrs

Total Curriculum Requirements ....................... 120 hrs
Agriculture

The Veterinary Technology Program at Murray State University is one of only 14 schools in the nation that offers a fully accredited bachelor of science degree in the area of animal health. Students are also given the option to complete the prerequisite courses required by any of the twenty-seven veterinary schools in the U.S. The program involves hands-on experience with many animal species including small, large, and exotic animals. The program has been continually accredited by the American Veterinary Medical Association (AVMA) since 1986. Facilities for the animal health/pre-veterinary medicine program include classrooms and laboratories at the A. Carman Animal Health Technology Center and the university farms.

A portion of the animal health technology and pre-veterinary curriculum will involve students taking courses, which have been labeled the BVC (Breathitt Veterinary Center) courses. The BVC courses include AGR 340, AGR 400, AGR 410, AGR 420, and AGR 430. BVC courses must be taken together in one semester. Because the veterinary technology/pre-veterinary program is an accredited program, available space is limited to ensure the quality of instruction. Registration in BVC courses is based on available openings. The veterinary technology program will make every effort to ensure that students who need BVC courses will be placed, but no guarantee is made that the student will be enrolled during the preferred semester. Applications are due February 1st for the fall term and September 1st for the spring term. Once completed applications are reviewed, students will be notified of their placement into BVC courses by March 1st for the fall semester and October 1st for the spring semester.

The following prerequisites are required for the BVC classes: AGR 300, AGR 322, AGR 329, BIO 101 or 221, CHE 105 or 201, CHE 106 or 202. The student must have a passing grade in AGR 300, AGR 322, AGR 329, BIO 101 or 221, CHE 105 or 201, CHE 106 or 202. The student must have a passing grade in any BVC course, will only be able to repeat the course if space is available.

Completed applications were submitted by the appropriate deadline.

The following courses are required by the American Veterinary Medical Association for Veterinary Technician certification: AGR 340, 400, 410, 420, 430, 511, and 530.


AREA:
Animal Technology/Veterinary Technology Option

Bachelor of Science in Agriculture Degree
CIP 51.0808

ACCREDITED BY:
American Veterinary Medical Association

University Studies Requirements .........................46-48 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• Scientific Inquiry, Methodologies, and Quantitative Skills:
  BIO 101 Biological Concepts
  CHE 105 Introductory Chemistry I
  MAT 140 College Algebra
• Social and Self-Awareness and Responsible Citizenship:
  AGR 199 Contemporary Issues in Agriculture
• University Studies Electives:
  CHE 106 Introductory Chemistry II

Agriculture Core Courses .................................28-30 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 300 Principles of Animal Nutrition
AGR 310 Applications in Animal Technology
AGR 339 Computer Applications for Agriculture
AGR 399 Professional Development Seminar I
AGR 501 Diseases of Livestock
AGR 599 Agriculture Senior Capstone

and one of the following:
AGR 170 Introduction to Agricultural Systems Technology
AGR 377 Agriculture Safety
AGR 373 Animals in Disaster
AGR 374 Livestock in Disaster

and one of the following:
AGR 403 Equine Reproduction
AGR 506 Reproductive Physiology
AGR 523 Artificial Insemination Techniques for Cattle

Veterinary Technology Option ..........................22 hrs
AGR 322 Veterinary Laboratory Principles
AGR 324 Veterinary Diagnostic Imaging
AGR 332 Animal Nursing
AGR 510 Animal Anatomy and Physiology
AGR 540 Veterinary Surgery and Anesthesia
AGR 489 Cooperative Education/Internship
AGR 590 Internship in Animal Technology
BIO 300 Introductory Microbiology

Required Support Courses .............................30-31 hrs
Choose one of the following support courses emphases:

Animal Health Technology Emphasis
AGR 331 Small Animal Diseases
AGR 340 Veterinary Laboratory Sciences
AGR 400 Veterinary Microbiology
AGR 410 Advanced Veterinary Hematology
AGR 420 Veterinary Clinical Chemistry
AGR 430 Veterinary Parasitology
AGR 511 Animal Anatomy and Physiology Laboratory
AGR 550 Applied Pharmacology
Approved Electives (6 hrs)

**Large Animal Emphasis**
AGR 313 Livestock Production Management Systems
AGR 340 Veterinary Laboratory Sciences
AGR 400 Veterinary Microbiology
AGR 410 Advanced Veterinary Hematology
AGR 420 Veterinary Clinical Chemistry
AGR 430 Veterinary Parasitology
AGR 511 Animal Anatomy and Physiology Laboratory
AGR 550 Applied Pharmacology
AGR Elective - Animal Science or Animal Health Technology and one of the following:
AGR 302 Horse Science
AGR 311 Beef Science
AGR 326 Swine Science

**Zoological Animal Health Technology Emphasis**
AGR 331 Small Animal Diseases
AGR 340 Veterinary Laboratory Sciences
AGR 400 Veterinary Microbiology
AGR 410 Advanced Veterinary Hematology
AGR 420 Veterinary Clinical Chemistry
AGR 430 Veterinary Parasitology
AGR 511 Animal Anatomy and Physiology Laboratory
AGR 550 Applied Pharmacology
Approved Elective (3 hrs) and one of the following:
BIO 570 Ichthyology
BIO 572 Herpetology
BIO 573 Ornithology
BIO 574 Mammalogy

**Total Curriculum Requirements** .......................... 120 hrs

*Required by American Veterinary Medical Association for certification.

**AREA:**
**Animal Technology/Veterinary Technology/Pre-Veterinary Medicine Option**

**Bachelor of Science in Agriculture Degree**
CIP 51.0808

**ACCREDITED BY:**
American Veterinary Medical Association

**University Studies Requirements** .......................... 46-52 hrs
(See Chapter 5, University Studies Requirements)

University Studies selections must include:
• **Scientific Inquiry, Methodologies, and Quantitative Skills:**
  BIO 101 Biological Concepts
  CHE 201 General College Chemistry
  MAT 150 Algebra and Trigonometry
• **Social and Self-Awareness and Responsible Citizenship:**
  PSY 180 General Psychology
  SOC 133 Introduction to Sociology
• **World’s Historical, Literary, and Philosophical Traditions:**
  CIV 201 World Civilizations I
• **University Studies Electives:**

AGR 199 Contemporary Issues in Agriculture
CHE 202 General Chemistry and Qualitative Analysis
CIV 202 World Civilizations II

**Note:** 3rd year Veterinary School Applicants must also take HUM 212 and English Literature.

**Agriculture Core Courses** ................................. 24-25 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 300 Principles of Animal Nutrition
AGR 310 Applications in Animal Technology
AGR 339 Computer Applications for Agriculture
AGR 399 Professional Development Seminar I
AGR 501 Diseases of Livestock
AGR 599 Agriculture Senior Capstone

**Pre-Veterinary Medicine Option** .......................... 22 hrs
AGR 322 Veterinary Laboratory Principles
AGR 324 Veterinary Diagnostic Imaging
AGR 332 Animal Nursing and Radiography
AGR 510 Animal Anatomy and Physiology
AGR 550 Applied Pharmacology
AGR 489 Cooperative Education/Internship

**Required Support Courses** ............................... 26 hrs
AGR 331 Small Animal Diseases
BIO 221 Zoology: Animal Form and Function
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II
CHE 330 Biochemistry
PHY 130 General Physics I
PHY 131 General Physics I Laboratory
PHY 132 General Physics II
PHY 133 General Physics II Laboratory

**Unrestricted Electives** ....................................... 0-1 hrs

**Total Curriculum Requirements** .......................... 120 hrs
Faculty: Byers, Cross, Farrell, Fowler, Garth, Grider, Kearney, Lovett, Manley, Naber, Perlow, Smith, Tinsley, Wallace.

The School of Nursing offers two degree programs, the baccalaureate program leading to the Bachelor of Science in Nursing (B.S.N.) and the Master of Science in Nursing (M.S.N.), both of which are accredited by the Commission on Collegiate Nursing Education. The M.S.N., Anesthesia Option, is also accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs.

The purpose of the undergraduate nursing program is to prepare:
• a liberally educated individual;
• a professional graduate who practices as a generalist;
• one who is qualified to pursue graduate study in nursing.

Upon completing the program of study, students will be eligible to apply to write the licensing examination for registered nurses (NCLEX-RN)1.

The baccalaureate nursing program is typically composed of two semesters of pre-nursing and six semesters of full-time study in the arts, sciences, and nursing. Upon completion of necessary prerequisite courses, students may apply for formal admission to the nursing program. This typically occurs the beginning of the sophomore year of study. The student should request the application from the assigned faculty advisor. Proof of up-to-date immunizations, tuberculin testing, and CPR certification must be submitted with the application. The prerequisite courses for admission consideration are ENG 105, BIO 101, BIO 227, BIO 228, CHE 111, MAT 140, and PSY 180. A grade point average of 2.50 and 30 hours completed are the minimum standards for admission into the program. Admission is competitive and based on available space. Students are expected to maintain a grade point average of at least 2.00 and may pursue either a full-time or part-time (with approval) course of study. Licensed practical nurses may apply for NUR 206 credit upon successful completion of NUR 200, 201, and 205.

Students must earn a grade of C or better in all course work. Students must pass both theory and clinical practice in all clinical nursing courses or the entire course must be repeated. Once a student has a clinical failure, the student will receive an E for the course and may not withdraw from the course, regardless of the university calendar. If a transfer student earned a D or E in a nursing course, it counts as a first failure in the MSU program. A student who must repeat a course is admitted to future courses on a space-available basis.

If a grade less than C is received in one nursing course, the student may repeat the course as soon as it is offered on a space-available basis. If a grade less than C is received in one nursing course for the second time, the course cannot be repeated and the student is not eligible for readmission. If two nursing courses are failed (less than a C), the student is dismissed from the program, and is not eligible for readmission to the same option (the options are basic B.S.N. and R.N.-B.S.N.).

Prior to admission to clinical experiences, students are responsible for obtaining, maintaining and providing official documentation of professional liability insurance (minimum of three million dollars). Admission deadlines are May 1, for fall semesters and the third week of November for spring semesters. Clinical facilities require drug screening and criminal background checks.

Students are responsible for the purchase of uniforms, miscellaneous equipment and transportation during their program of study. Undergraduate nursing course clinical hours are calculated on a one-credit-hour-to-three-clinical-hour ratio. Clinical courses usually require more clinical hours than are listed in the class schedules. Students are encouraged to check with advisors about the necessary time commitment.

Detailed information about these and other policies, such as academic honesty and confidentiality, is available from the School of Nursing and in the MSU Student Handbook.

For further information write: School of Nursing, Murray State University, 120 Mason Hall, Murray KY 42071-3302.

1 Applicants must submit a certified copy of the court record of each misdemeanor or felony conviction and a letter of explanation that addresses each conviction. (201 KAR 20:270).

AREA:

Nursing

Bachelor of Science in Nursing Degree
CIP 51.3801

ACCREDITED BY:
Commission on Collegiate Nursing Education (CCNE)

University Studies Requirements ......................... 43 hrs

• Oral and Written Communication:
  COM 161 Introduction to Public Speaking
  ENG 105 Critical Reading, Writing, and Inquiry

• Global Awareness, Cultural Diversity, and the World’s Artistic Traditions:
  One University Studies elective in this category

• Scientific Inquiry, Methodologies and Quantitative Skills:
  BIO 101 Biological Concepts1
  or
  BIO 221 Zoology: Animal Form and Function
  MAT 135 Introduction to Probability and Statistics1
  MAT 140 College Algebra1

• Social and Self-Awareness and Responsible Citizenship:
  PHI 202 Ethics1

• World’s Historical, Literary, and Philosophical Traditions:
  CIV 201 World Civilizations I
  or
  CIV 202 World Civilizations II
  HUM 211 Western Humanities Tradition
Required Courses ............................................................ 80 hrs
BIO 227 Human Anatomy
BIO 228 Human Anatomy Laboratory
BIO 229 Human Physiology
BIO 230 Human Physiology Laboratory
CHE 111 Essentials of Chemistry
NUR 099 Transitions
NUR 200 Introduction to Nursing Concepts
NUR 201 Nursing Assessment
NUR 203 Mental Health Nursing
NUR 205 Pharmacology in Nursing
NUR 206 Nursing Practice Fundamentals
NUR 207 Nursing Informatics
NUR 301 Pathophysiology
NUR 302 Nursing Care of Childbearing Families
NUR 305 Nursing Care of Childrearing Families
NUR 306 Introduction to Research in Nursing
NUR 307 Nursing Care of Adults I
NUR 308 Nursing Care of Adults II
NUR 400 Applied Pharmacology
NUR 402 Psychiatric Nursing
NUR 407 Integration Practicum (Basic BSN only)
NUR 408 Nursing Care of Adults III
NUR 409 Nursing Profession and Health Care Delivery
NUR 410 Community Health Nursing
NUR 412 Leadership and Management in Nursing

Total Curriculum Requirements .................................. 123 hrs

RN to BSN
Registered nursing students may complete requirements for the baccalaureate degree in nursing at Murray State University. Selected nursing courses may be earned by validation. The remaining nursing hours are taken from the nursing area curriculum shown below. A grade of C or better is required of all courses to be used toward the BSN degree, including transfer work.

Requirements for Admission to RN to BSN
The prerequisite courses for admission consideration are ENG 105; BIO 227, 228, 229, and 230; CHE 105 or 106 (with lab) or 111; COM 161; MAT 135 and 140; and PSY 180.

Compliance with the School of Nursing Health Policy: 1) proof of immunizations (MMR, tetanus (within last 10 years), Varicella titer, Hep B or waiver, and tuberculin screening; 2) proof of CPR certification; 3) proof of RN licensure; and 4) professional liability insurance = $1,000,000/$3,000,000.

University Studies Requirements .................................. 41-46 hrs

Required Courses ......................................................... 79-80 hrs
NUR 201 Nursing Assessment
NUR 306 Introduction to Research in Nursing
NUR 314 Introduction to the Process and Practice of Professional Nursing
NUR 403 Community Health Nursing
NUR 404 Leadership and Management in Nursing
NUR 405 The Nursing Profession and Health Care Delivery
NUR elective (3 hrs)

Courses required by validation or challenge
NUR 205 Pharmacology in Nursing
NUR 303 Nursing Care of Childbearing Families
NUR 304 Nursing Care of Childrearing Families
NUR 311 Nursing Care of Adults I
NUR 312 Nursing Care of Adults II
NUR 401 Psychiatric and Mental Health Nursing
NUR 407 Integration Practicum

Total Curriculum Requirements .................................. 122-123 hrs
The university recognizes its responsibility to its designated service region (18 counties) and to non-traditional students who desire educational opportunities. The function of the Center for Continuing Education and Academic Outreach (CE/AO) is to organize all extended campus courses, correspondence courses, online courses, workshops, conferences, non-credit courses, community education, military programs, student center and adult outreach programs. Murray State University is a member of the Association for Continuing Higher Education.

**Distance Learning Programs**

Murray State University offers an extensive schedule of degree programs and courses at regional campus locations and/or via distance learning technologies, including interactive television (ITV), and the Internet. Graduate and undergraduate degree programs and courses are offered in Paducah, Hopkinsville, Madisonville, Henderson, and Ft. Campbell, as well as other locations throughout the region. Murray State University has a fully interactive two-way video classroom network. This network links the main campus with the MSU regional campuses and centers throughout the 18-county service region. Information concerning admission, registration, and class schedules is published each semester in the Distance Learning Programs Schedule. To obtain a copy of the current schedule, contact the CE/AO at 270-809-4159; outside Calloway County, call toll free, 1-800-669-7654.

**Non-Credit and Youth Programs**

Continuing education programs and services include non-credit professional development courses, workshops, teleconferences, and seminars; conference coordination, continuing education unit (CEU) administration; and other special programs. Online professional certificate programs are also offered through a partnership with ed2go.com. University faculty/staff, business and industry, and other interested individuals are encouraged to contact the office regarding their special training needs and interests.

CE/AO also offers a wide range of youth programs, including camps with commuter and residential options, and ACT prep workshops. Registration services are available for youth and adult programming as well as conference and event coordination services.

For more information about youth programs, online certificates, conferences and workshops, or any of the non-credit programs, contact the Office of Non-Credit and Youth Programs, 270-809-3659.

**Transfer Center**

Transfer students are very important to Murray State University’s success, and recognizing that transfer students have a variety of needs, the University has created a one-stop Transfer Center to serve those needs. The Transfer Center coordinates with the regional campuses to recruit and retain transfer students to Murray State from initial prospect stage through admission and transfer credit articulation. The services of the Transfer Center include personalized campus visits, admission services, transfer credit evaluation, transfer scholarship, veteran services, and transfer student orientation. Transfer Center staff work with area community colleges and make frequent visits for recruitment and advising purposes to community colleges throughout the area. For more information about the Transfer Center, or to inquire about transferring to Murray State University, contact the office at (270) 809-3350 or (800) 669-7654 or by emailing msu.transfercenter@murraystate.edu.

**Adult Outreach**

Murray State has a growing number of adult students. To attract more of these students and to serve their needs as well as the needs of the currently enrolled adult students, the Office of Adult Outreach was created as a division of the CE/AO. The mission of the adult outreach office is to provide services for adults who want to continue their education. These services include pre-admission advising, adults-only orientations, a lounge and resource center, adult student scholarships, Alpha Gamma Epsilon, a club for non-traditional students, and Alpha Sigma Lambda, a national honor society for adult students. For more information about these services, contact the adult outreach office in the Lowry Center, 270-809-2186 or 800-669-7654.

**Correspondence/Distance Learning**

For students who cannot attend traditional classes either on the main campus or at one of the off-campus locations, the university offers correspondence, distance learning, and Internet courses.

The university publishes a Correspondence Course Guide which details enrollment requirements, procedures, completion criteria, and courses available.

Distance learning courses are similar to correspondence courses with two exceptions: (1) audio or video instruction sometimes accompanies the written lesson, and (2) courses follow the regular university semester time schedule. Distance learning courses are published in the official schedule of classes each semester.

Online courses are conducted entirely on the Internet. Only a small number of online courses require proctored exams. Students should have a working knowledge of the World Wide Web, Internet access and experience using e-mail. Internet courses are published in the official schedule of classes each semester.

For more information about these courses, contact the Center for Continuing Education at 270-809-4159 or 1-800-669-7654.

**Community College**

Consistent with its obligation to provide access to higher education for students in its immediate service area, Murray State University has a Community College authorized by statute since 1966. The Community College program provides academic assistance through developmental courses, support courses, and free peer tutoring. Mandates from the Kentucky Council on Postsecondary Education (for students with ACT scores below 18 in English, 19 in mathematics, and 20 in reading) are satisfied.
by courses offered in the Murray State University Community College.

Applicants from Kentucky and the Tennessee counties of Henry Obion, Stewart, and Weakley who score 14 to 17 on the ACT and graduate with a GPA under 3.00, resulting in a ranking in the lower half of their high school class, may be admitted to MSU with restrictions. **Restricted status students are required to enroll in a specific seven-hour block of courses that is offered in the Community College on a very limited basis.** Additionally, restricted admission status students are limited to a maximum course load of 16 semester hours. Upon satisfactory completion of the restricted status curriculum, students advance to conditional status.

**Bachelor of Integrated Studies (B.I.S.)**

Applications, admission information, and assistance in applying may be obtained by writing Bachelor of Integrated Studies Degree, CE/EO, Murray State University, 303 Sparks Hall, Murray KY 42071-0009, or by calling the B.I.S. Director at 270-809-4159; outside Calloway County, call toll free, 1-800-669-7654. Only adult students who have earned 60 or more semester hours of college credit (or with approval of the dean of Continuing Education) may be admitted to the B.I.S. program.

**An Alternative for Adults**

The Bachelor of Integrated Studies is an alternative baccalaureate degree for adults who already have college credits. The Integrated Studies program works best for students established in careers who do not need specific academic credential for a new career. It also works well for students who desire a liberal arts education and for some students who plan to enter graduate programs.

Adults find the B.I.S. attractive for its flexible degree requirements, which make it easier to apply previous college work to a Murray State degree. Other attractive features include acceptance of correspondence courses and transfer coursework, encouragement of students to seek college credit for prior learning, and the learning contract which enables Integrated Studies students to complete requirements in some courses without attending classes.

**General Degree Requirements**

The Bachelor of Integrated Studies degree requires 120 semester hours. Thirty-two semester hours must be taken with Murray State University. Thirty-nine upper-division credits, courses taken at or above the 300 level, must be completed. An overall Grade Point Average (GPA) of 2.0, 32 semester hours of credit with Murray State University with a GPA of 2.0, and 30 semester hours in a field of study with a GPA of 2.5 are required. **Note:** This degree does not restrict the final hours from transferring into Murray State so long as the transfer hours are pre-approved by the Integrated Studies advisor and the Registrar. See Mandatory Developmental Courses section in Chapter 5.

**Bachelor of Integrated Studies**

**Bachelor of Integrated Studies Degree**

CIP 24.0102

**University Studies Requirements** ........................................... 38-44 hrs

**Oral and Written Communication** ........................................... 7 hrs

ENG 105 [or ENG 104] ................................................................. 4

One University Studies elective in this category ................... 3

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**Continuing Education and Academic Outreach**

*Global Awareness, Cultural Diversity, and the World’s Artistic Traditions* ........................................... 3 hrs

One University Studies elective in this category .................... 3

**Scientific Inquiry, Methodologies, and Quantitative Skills** ........................................... 7-10 hrs

One University Studies science course with lab ................... 4-5

One University Studies mathematics course ....................... 3-5

**Social and Self-Awareness and Responsible Citizenship** ........................................... 6 hrs

One Ethics, Social Responsibility and Civic Engagement category course ........................................... 3

One Social Science category course .................................. 3

**World’s Historical, Literary, and Philosophical Traditions** ........................................... 6 hrs

CIV 201 or CIV 202 [or HON 201 or 202] .............................. 3

HUM 211 [or honors course HON 251] ................................. 3

**University Studies Approved Electives** ........................................... 9 hrs

Choose from the list of University Studies electives.

No more than two courses from one thematic category and no more than one course from the Enrichment Electives category.

**BIS 399 Seminar in Integrated Studies** ........................................... 3 hrs

**Research and Field of Study** ........................................... 30 hrs

Field of Study: ........................................................................... 18 hrs

Research Methods: ................................................................. 6 hrs

Field of Study Project: ............................................................. 6 hrs

**Unrestricted Electives** ........................................... 47-52 hrs

Portfolio credits (max. 30 semester credit hours)

Military and professional courses

Credits from accredited institutions

**Total Curriculum Requirements** ........................................... 120 hrs

**Field of Study**

The field of study is a planned academic concentration agreed upon by the student and the Integrated Studies advisor. The field may be interdisciplinary (for example, humanities or American studies) or it might be built upon a core consisting of a traditional major or minor. Some students build their field of study on the basis of courses required for admission to a graduate program. The point is that Integrated Studies students have individually designed academic concentrations that need not follow the major requirements for traditional degrees.

However designed, the field of study must include two appropriate courses in research methodology. These courses prepare the student for the culmination of the Integrated Studies program, the field of study project, a senior baccalaureate thesis required of every student.

The field of study project is the final step in completing the Bachelor of Integrated Studies degree. The project report will be bound and displayed in the Murray State University library. It serves as a synthesis of applied learning and as a basis for an assessment of the student’s analytical skills.

**Limitations**

This degree is not for everyone. Only adults who have already earned 60 semester hours of college credits may be admitted and declare this area. Students with numerous business courses face...
restrictions imposed by accreditation requirements. Teacher education and nursing program courses are not available to Integrated Studies students. The degree is not well adapted to students who want credentials for entry into a new professional field — for such a purpose, a traditional degree is a better choice.

**Applying business courses.** Students who wish to apply credits for business courses to the Integrated Studies degree requirements must consult a Integrated Studies advisor to determine whether they must complete the business core. Students who will have more than 25% of their coursework in business courses may be required to complete the business core.

**Active Status**

Students may proceed at their own pace, taking as many or as few courses as they can handle. See MSU reenrollment requirements in Chapter 2 for students who have been out of school for more than two semesters.

**Fees**

The following fees are applicable to the Bachelor of Integrated Studies degree:

- **application fee**—$30; non-refundable; does not apply to tuition;
- **portfolio assessment**—$25 for portfolio administration process and $25 for each portfolio plus $5 per credit hour for credits approved;
- **undergraduate semester credit hour**—refer to the schedule of fees for Kentucky residents, border county agreements, and out-of-state fees in Chapter 3;
- **departmental challenge examination fee**—$5 per credit hour challenged.
- **web-based course fee**—web-based courses have additional course fees. Refer to the Schedule of Fees for information.

**Earning Academic Credit**

BIS 399 is required of all Integrated Studies students for three semester hours of credit.

The learning contract is a method by which a student completes an arranged course sponsored by a department and supervised by a Murray State University faculty member. A guide to developing learning contracts will be covered during the introductory seminar.

Departmental challenge examinations measure how well a student has mastered the content of courses which are normally offered to traditional students. Applications for departmental challenge examinations are made to the concerned department.

The College Level Examinations Program (CLEP) provides a way to earn college credit by taking standardized tests. A student may arrange to take these tests at any higher education institution offering the tests. Students who have ever enrolled at Murray State must have permission to take the CLEP tests. Contact Counseling and Testing, 100 Ordway Hall, 270-809-6851.

Correspondence courses are taken by mail for credit from Murray State University and other accredited institutions. For the working adult, these integrated study courses allow the student to work at his or her own pace at times convenient to the student.

Integrated Studies students may apply for credit in Murray State courses by submitting a portfolio of materials to show that the student has learned the course content. A maximum of 30 semester credit hours may be awarded for credit. The Integrated Studies program maintains a portfolio guide setting forth procedures for submission and evaluation of portfolios. Each department will determine the methods for evaluation of portfolios. Any awarded credit will not be posted to the student’s official MSU transcript until the student is up for graduation with a Integrated Studies degree.

Traditional classroom courses scheduled by Murray State University both on-campus and off-campus may be a method for completing the external degree requirements. Many courses have been especially scheduled in the evenings for the adult student. Schedules of classes can be obtained from the CE/AO.

Transfer credit from other accredited colleges or universities can become a part of the degree program of studies. There is no maximum limit of credit hours which may be transferred to the external degree program from an accredited college or university as long as the student has maintained an overall C average. The student must earn a minimum of 32 semester hours of degree credit at Murray State.

Policies not stated in this section may be found by referring to Murray State University’s policies in other sections of this catalog. For additional information regarding admission criteria, degree requirements, curriculum and fees, contact a Integrated Studies Advisor, CE/AO, Murray State University, 303 Sparks Hall, Murray KY 42071-0009, or call 270-809-4159; outside Calhoun County, call toll free, 1-800-669-7654.

**Associate of Arts — General Studies**

The Associate of Arts in General Studies is a degree for special populations and includes the following course requirements. Refer to the “Degrees” section of Chapter 5 for additional degree requirements.

**ASSOCIATE: General Studies**

<table>
<thead>
<tr>
<th>Associate of Arts Degree</th>
<th>CIP 24.0101</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Studies Requirements</td>
<td>40 hrs</td>
</tr>
<tr>
<td>(See this chapter for approved University Studies selections and the section on Mandatory Developmental Courses.)</td>
<td></td>
</tr>
<tr>
<td>Oral and Written Communication</td>
<td>4</td>
</tr>
<tr>
<td>ENG 105 [or ENG 104]</td>
<td></td>
</tr>
<tr>
<td>Select courses from the categories indicated below from the approved list of University Studies courses in Chapter 4. No more than two courses in any one discipline may be taken within any one University Studies category to fulfill University Studies requirements.</td>
<td></td>
</tr>
<tr>
<td>Global Awareness, Cultural Diversity, and the World’s Artistic Traditions</td>
<td>3</td>
</tr>
<tr>
<td>Scientific Inquiry, Methodologies, and Quantitative Skills</td>
<td>12</td>
</tr>
<tr>
<td>Social and Self-Awareness and Responsible Citizenship</td>
<td>6</td>
</tr>
<tr>
<td>One Ethics, Social Responsibility and Civic Engagement category course</td>
<td>3</td>
</tr>
<tr>
<td>One Social Science category course</td>
<td>3</td>
</tr>
<tr>
<td>World’s Historical, Literary, and Philosophical Traditions</td>
<td>6</td>
</tr>
<tr>
<td>University Studies Approved Electives</td>
<td>9 hrs</td>
</tr>
<tr>
<td>Approved Electives</td>
<td>20 hrs</td>
</tr>
<tr>
<td>Total Curriculum Requirements</td>
<td>60 hrs</td>
</tr>
</tbody>
</table>
The purpose of the Reserve Officer Training Corps (ROTC) program is to qualify college students for commissioning in the United States Army as officers in the grade of Second Lieutenant. This includes the Active Army (AD), National Guard (NG), and U.S. Army Reserves (USAR). This program of study is designed to develop the individual leadership and management skills that are necessary as an officer and equally beneficial and applicable to most other professions or vocations.

The Department of Military Science offers a four-year and two-year course of instruction which are divided into two phases, the basic course and the advanced course. Prerequisites for entry into the advanced course are 10 hours of basic Military Science courses, which include MIL 101, MIL 102, MIL 201, and MIL 202, or complete MIL 210 (Leadership Training Course at Ft. Knox, KY). Qualified veterans, NG, or USAR personnel may qualify for immediate placement in the advanced course. Students must have at least 54 credit hours and two years (4 semesters) left at Murray State University for entry into the advanced course as well.

Qualified students can also obtain a minor in Military Science. Department of Military Science requires at least 26 hours of Military Science in the 300- and 400-level and HIS 333 to receive a minor and/or to receive a commission. Six minor hours must be upper-level courses completed in residence at Murray State University. Military Science courses such as MIL 101, MIL 102, MIL 201, and MIL 202 may be used as elective hours for students pursuing any degree at Murray State.

Upon the completion of the advance course requirements and hold a Bachelor’s Degree, you will serve on Active Duty or in one of the Reserve Components (NG/USAR). You will have the opportunity to choose the branch or “area” that you would like to be commissioned in. There are several branches to choose from:

- Adjutant General’s Corps
- Air Defense
- Armor
- Artillery
- Aviation
- Chemical Corps
- Corps of Engineers
- Field Artillery
- Finance
- Infantry
- Medical Service Corps
- Military Intelligence
- Military Police Corps
- Nurse Corps
- Ordnance Corps
- Quartermaster Corps
- Signal Corps
- Transportation

Those students who desire to enter active duty are obligated to serve up to four years (depending if scholarship or not). Students choosing a Reserve Component option may request a Guaranteed Reserve Forces Duty (GRFD) contract. Students selecting this option serve on active duty for the duration of the branch school chosen then serve six (6) years for the NG or USAR.

Two, three, and four-year scholarships are available which cover the cost of tuition, books, and fees. Students must apply for four-year scholarships during their junior or senior year of high school. Scholarship recipients and contracted cadets receive a monthly stipend during the school year. ROTC enrolled students may apply for housing scholarships, renewable for up to eight semesters. For more information on scholarships, contact the Department of Military Science (270) 809-5061. Students qualifying for the advanced courses may also belong in a NG or USAR unit under the Simultaneous Membership Program (SMP) and receive financial benefits by both ROTC and NG or USAR unit.

Military manuals are provided by the Department of Military Science. All advanced course students attend a five-week leadership practicum in the summer between their junior and senior year of ROTC.

### FOUR YEAR MINOR:
**Military Science**

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 333 Military History of the United States</td>
<td>3</td>
</tr>
<tr>
<td>MIL 100 Physical Conditioning Lab</td>
<td>3</td>
</tr>
<tr>
<td>MIL 101 Marksmanship and Land Navigation</td>
<td>3</td>
</tr>
<tr>
<td>MIL 102 Army Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>MIL 201 Basic Leadership</td>
<td>3</td>
</tr>
<tr>
<td>MIL 202 Team Building and Military Doctrine</td>
<td>3</td>
</tr>
<tr>
<td>MIL 301 Military Leadership and Management</td>
<td>3</td>
</tr>
<tr>
<td>MIL 302 Military Leadership and Advanced Tactical Skills</td>
<td>3</td>
</tr>
<tr>
<td>MIL 401 Professional Leadership Skills</td>
<td>3</td>
</tr>
<tr>
<td>MIL 402 Role of the Army Officer</td>
<td>3</td>
</tr>
<tr>
<td>MIL 410 Leader Development and Assessment Course</td>
<td>4</td>
</tr>
</tbody>
</table>

*Five-week leadership practicum during the summer session.

Students enrolling in MIL 100 and 200 (basic) level courses incur no military obligation. Basic level courses are conducted in the same manner as are other courses taught at the University.

Students entering into the advance course must be of high moral character and meet required medical, aptitude, and GPA requirements. In addition, they must sign an agreement to fulfill a military service requirement in either the Reserve Component, or Active Army upon completion of ROTC and graduating from Murray State.

### TWO YEAR MINOR:
**Military Science**

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 333 Military History of the United States</td>
<td>3</td>
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<tr>
<td>MIL 100 Physical Conditioning Lab</td>
<td>3</td>
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<tr>
<td>MIL 210 Leader’s Training Course (LTC)</td>
<td>1</td>
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<tr>
<td>MIL 301 Military Leadership and Management</td>
<td>3</td>
</tr>
<tr>
<td>MIL 302 Military Leadership and Advanced Tactical Skills</td>
<td>3</td>
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<tr>
<td>MIL 401 Professional Leadership Skills</td>
<td>3</td>
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<tr>
<td>MIL 402 Role of the Army Officer</td>
<td>3</td>
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<tr>
<td>MIL 410 Leader Development and Assessment Course</td>
<td>2</td>
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</tbody>
</table>

*Course not required if completion of Basic Combat Training or credit for prior military service.

*Five-week leadership practicum during the summer session.

The two-year program is designed for transfer students and Murray State students who wish to earn a commission as an Army officer, but did not participate in the four-year program. Students desiring to participate in the two-year program must gain credit for basic military science courses. This credit can be awarded to students who are veterans, National Guard and Reserve personnel that have completed Basic Training. College freshman and sophomores or other college students with at least two years remaining in college, may gain credit for basic military science courses by completing a 28 day ROTC leadership practicum (MIL 210) at Fort Knox, Kentucky, conducted each summer. Students participating in MIL 210 must meet screening height and weight standards, pass an entrance level Army Physical Fitness Test (APFT), entrance medical exam, and have the approval of the chair of the Department of Military Science.
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  Re’Nita Avery-Meriwether—director, Student Life and CURRIS Center
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  Karol Hardison—director, University Store
  Jennifer Caldwell—director, Upward Bound
  Jane Etheridge—director, Women’s Center
  Bert Siebold—college head, Clark College
  Crystal Coleman—college head, Elizabeth College
  Lou Tillson—college head, Hart College
  Kenny Fister—college head, Hester College
  Cynthia Gayman—college head, Regents College
  Leon Bodevin—college head, Richmond College
  Paul Lucko—college head, Springer/Franklin College
  Chanda Islam—college head, White College

Faculty

Dates in parentheses indicate year of appointment at Murray State University.

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<tr>
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<tbody>
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Administration and Faculty

Teaching Awards

• Distinguished Professor Award

Since 1964, each year members of Alpha Chi, Omicron Delta Kappa, junior and senior Presidential Scholars, and students elected to Who’s Who Among Students in American Colleges and Universities nominate candidates for this award. An alumni association committee selects the recipient. The following persons have been selected as Distinguished Professor of Murray State University:

1964 C.S. Lowry
1965 Liza Spann
1966 Max Carman
1967 Walter Blackburn
1968 Evelyn Linn Allbritten
1969 Robert Baar
1970 William Taylor
1971 Karl Hussung
1972 E.B. Howton
1973 Rubie E. Smith
1974 Robert F. Alsup
1975 Richard Farrell
1976 Rex E. Alexander
1977 John C. Winter
1978 Frances E. Brown
1979 Robert L. Hendon
1980 George N. Britt, Jr.
1981 Robert W. Head
1982 Howard Giles
1983 Charles Homra
1984 Harold Eversmeyer
1985 John Thompson
1986 Howell R. Clark
1987 Ray Mofield
1988 Harvey L. Elder
1989 Charles G. Smith
1990 Robert H. McGaughey III
1991 Thomas I. Miller
1992 Chad Stewart
1993 Gene J. Garfield
1994 Suzanne M. Keeslar
1995 Farouk F. Umar
1996 Vernon Gant
1997 Rose Bogal-Allbritten
1998 Frank Julian
1999 Mark Malinauskas
2000 Bonnie Higginson
2001 Kenneth Wolf
2002 J. Milton Grimes
2003 Janice Hooks
2004 J. David Earnest
2005 Stephen Cobb
2006 Celia Wall
2007 Bonnie McNeeley
2008 David Kraemer
2009 Charlotte Beahan
2010 John Fannin
2011 J. Ricky Cox

Presidents of Murray State University

John W. Carr 1923-1926
Rainey T. Wells 1926-1932
John W. Carr 1932-1936
James Richmond 1936-1945
Ralph Woods 1945-1968
Harry Sparks 1968-1973
Constantine W. Curris 1973-1983
Kala M. Stroup 1983-1990
Ronald J. Kurth 1990-1994
Kern Alexander 1994-2001
F. King Alexander 2001-2006
Randy Dunn 2006-present

McIntosh, Dwain F., journalism and radio-television. (1968-1992)
McLaren, John, telecommunication systems management. (1978-2005)
Miller, Michael, English. (1968-1997)
Miller, Thomas L., accounting. (1967-2010)
Muchelme, Thomas, psychology. (1971-1998)
Muscio, Oliver J., chemistry. (1976-2008)
Nichols, George V., occupational safety and health. (1969-2010)
Nichols, Paty A., business administration, and office systems. (1978-2008)
Niffenegger, Phillip B., marketing. (1975-2007)
Owen, David A., chemistry. (1978-2009)
Rayburn, J.D., education. (1966-1977)
Reagan, Johnny L., marketing. (1957-1987)
Robertson, Harold G., mathematics. (1966-1997)
Rogers, Verona L., education. (1956-1977)
Rowan, Robert, guidance and counseling. (1965-1979)
Royalty, Joel L., psychology. (1985-2009)
Sasso, Paul, art. (1981-2008)
Schoenfeldt, Roger C., management. (1968-2007)
Scott, Artie, agriculture. (1949-1984)
Sheeks, Russell W., philosophy. (1965-1993)
Shelton, V.R., agriculture/agricultural mechanization. (1968-1985)
Shepard, Frederick W., art. (1963-1999)
Sholar, T.P., library science. (1965-1987)
Simmons, Mary Boaz, office administration and business education. (1966-1984)
Smith, June, education. (1965-1979)
Spight, Jerry B., art. (1975-2005)
Stewart, Chad L., health and physical education. (1962-1993)
Story, Donald L., music. (1967-1993)
Strobecker, Edwin, library science. (1972-1983)
Thompson, James F., economics. (1967-1991)
Wall, Celia J., journalism and mass communications. (1980-2011)
Watkins, Yancey, education. (1966-2007)
Wattier, Mark J., political science. (1980-2011)
Weatherly, James G., telecommunications systems management. (1975-2010)
Whitaker, William J., industrial and engineering technology. (1975-2008)
Williams, Raffie Lee, home economics. (1962-1973)
Willis, James, education. (1977-2004)
Winter, Kenneth W., industrial education. (1965-1988)
Winters, John C., music. (1948-1979)
Wolfson, Emily, art. (1941-1969)
Yates, John, Center for Continuing Education. (1967-2008)
Max G. Carman
Outstanding Teacher Award

The Student Government Association created this annual award in 1974, in order to recognize those professors at Murray State University who excel in the classroom and exhibit overall teaching excellence. Professors are nominated by the student body and selected by a student committee that is chaired by the vice president for student affairs. Past recipients of the award are:

1980 Howell R. Clark
1981 Dennis E. Poplin
1982 R. Andrew Batts
1983 James David Earnest
1984 Robert H. McGaughey III
1985 Gene J. Garfield
1986 William E. Maddox
1987 Eddie Adams
1988 Gary Brockway
1989 Suzanne M. Keeslar
1990 Gayne R. Nerney
1991 William Lalicker
1992 T. Wayne Beasley
1993 Farouk F. Umar
1994 Joseph A. Baust, Sr.
1995 Daniel M. Claiborne
1996 Winfield Rose
1997 Ginny Richerson
1998 H. Allen White
1999 Frank Julian
2000 Terry Derting
2001 George Kippht
2002 Joseph G. Chaney
2003 Barbara Malinauscas
2004 Gail Hendon
2005 Patrick Williams
2006 O.L. Robertson
2007 J. Duane Bolin
2008 David Fender
2009 Greg Gierhart
2010 Pam Matlock
2011 J. Ricky Cox

Regents Awards for Teaching Excellence

The Regents Awards for Teaching Excellence were established in 1985 to honor faculty who deserve recognition as exemplary teachers. The recipients of these awards show a strong commitment to excellence in the classroom, an enthusiasm for their discipline and a sincere interest in the growth and well being of students.

1985- M. Sue Brown
1986- John Faughn
1987- Janice Hooks
1988- Charlotte Beahan
1989- James Biggs
1990- Harold Eversmeyer
1991- Allan L. Beane
1993- Bennie L. Cooper
1994- Dieter Jedan
1995- Rose Bogal-Allbritton
1996- Raymond L. Conklin
1997- Charles H. Hulick
1998- Thomas C. Kind
1999- Louis M. Beyer
2000- Marilyn Condon
2001- Suzanne M. Keeslar
2002- Stephen B. Brown
2003- C. Dwayne Driskill
2004- Tharon M. Kirk
2005- Luis A. Bartolucci
2006- John F. Dillon
2007- Larry D. Guin
2008- John H. Adams
2009- Joseph A. Baust Sr.
2010- Steven C. Bishop
2011- Terry D. Canerdy

1985- Vernon W. Gant
1986- George H. Lovins
1987- Farouk F. Umar
1988- "Buddy" Krizan
1989- Sam H. Minner
1990- Charles G. Sneed
1991- David G. Kraemer
1992- James P. McCoy
1993- Yushin Yoo
1994- Bonnie Hoggins
1995- Joel L. Royalty
1996- William Whitaker
1997- Susan K. Dunman
1998- Hamid R. Kobarei
1999- Virginia Richerson
2000- Bonnie Hoggins
2001- William Whitaker
2002- Clifton T. Jones
2003- Richard J. Scott
2004- Richard H. Usher
2005- Kevin Binfield
2006- Bertus Ferreira
2007- Terry McCreary
2008- Linda Bartnik
2009- Traci Byrd
2010- Kelly Pearson
2011- Robert Valentine

1985- John McLaren
1986- Edward Owuso-Ansah
1987- Jo Robertson
1988- Michael B. Perlw
1989- Holly S. Rudolph
1990- Edward L. Thome
1991- V. Lynn Leasure
1992- Paul Sasso
1993- Howard Whiteman
1994- C. Jeff Frame
1995- Arlene Hall
1996- H. Allen White
1997- Ivan Pulinkala
1998- Virginia Richerson
1999- Matthew Wiggins
2000- David Durr
2001- Susan Edington
2002- Marcie Johnson
2003- Dana Manley
2004- David Eaton
2005- Claire Fulle
2006- David Gibson
2007- Eileen Mason
2008- Kevin Binfield
2009- Thomas Miller
2010- William Payne
2011- Mary Lou Yeatts

1985- Jeffrey Osborne
1986- Kelly Pearson
1987- Robert Valentine
1988- O.L. Robertson
1989- Eric Swish
1990- Lou Tillson
1991- Tracey Wortham
1992- Saisua Xia
1993- Edmund Zimmerer
All of the courses herein are offered by Murray State University for undergraduate credit. The university reserves the right to make any adjustments in the Bulletin which are deemed necessary. The subject-matter areas and course prefixes are shown below and appear in prefix order on the following pages.

NOTE: Repeated 099 (Transitions) courses (regardless of course prefixes or departmental requirements) will be treated as duplicate courses, with only one course allowed to count toward graduation requirements.

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ACCOUNTING (ACC)
ACC 200 Principles of Financial Accounting (3). An introduction to the basic concepts and techniques of financial accounting, including the accounting cycle and the communication of financial information to external users. The course focuses on the nature and measurement of assets, liabilities, equities, dividends, revenues, and expenses. Emphasis is placed on the proper preparation and understanding of the financial statements. Prerequisite: sophomore standing.

ACC 201 Principles of Managerial Accounting (3). The application of accounting to business management with emphasis on planning, control of operations, and decision-making, including study of cost behavior; the use of cost data in job order, process and standard cost systems; the application of differential analysis to decision making; the use of overhead allocation methods; the preparation and interpretation of budgets; and the study of pricing methods. The course also introduces topics such as the statement of cash flows and financial statement analysis. Prerequisite: ACC 200. Co-requisite: ACC 202 (Students enrolled in accounting programs.)

ACC 202 Accounting Applications Laboratory (1). A study of basic accounting applications with emphasis on the use of spreadsheets in analyzing and solving accounting problems and making business decisions. The course focuses on the process of building models for generating and evaluating accounting information. Specific accounting applications include depreciation schedules, revenue and expense distribution analysis, inventory management and profit maximization. Prerequisites: ACC 200 and CSC 199. Co-requisite: ACC 201.

ACC 300 Intermediate Accounting I (3). A review of the fundamental processes of accounting; the measurement of financial position and periodic revenues and expenses; and an introduction to selected, more advanced accounting issues. Some of the topics studied include standard setting processes; the accounting cycle; the income statement and balance sheet; cash and receivables; inventories; acquisition and disposition of property, plant and equipment; depreciation and depletion; intangible assets; and liabilities and contingencies. Prerequisites: junior standing; ACC 200, ACC 201 and ACC 202 with a minimum grade of B in each.

ACC 301 Intermediate Accounting II (3). Intensive study of the theory and methods of financial accounting with a focus on the impact of business transactions on financial reporting. Some of the course topics include liabilities, stockholders equity, dilutive securities, investments, revenue recognition, income tax allocation, pensions and post-retirement benefits, leases, accounting changes and error analysis, and cash flows. Prerequisites: junior standing; ACC 300 with a minimum grade of C.

ACC 302 Federal Income Tax (3). Federal income tax fundamentals under the latest amendments to the Internal Revenue Code; rates, credits; inclusions in and exclusions from gross income; recognition of and basis for gain or loss; capital gains and losses; dividends; deductions; with emphasis on individual income tax returns. Prerequisites: junior standing; ACC 200 and 201 with a minimum grade of B in each.

ACC 303 Cost Accounting (3). The study of financial and nonfinancial accounting information for strategic and operational decision making. Topics include traditional and contemporary product/service costing; planning, control; performance measurement; and nonroutine managerial decisions. Prerequisites: junior standing; ACC 200, ACC 201, and ACC 202 with a minimum grade of B in each.

ACC 308 Accounting Information Systems (3). Course emphasizes the principles of accounting systems design, development, implementation, and maintenance. Topics include: types of computerized accounting systems and transaction processes, fundamental networking and telecommunications approaches, security and internal control concepts, data modeling and normalization theory, and CAATTs (Computer Assisted Audit Tools and Techniques). Students use a database management system to create database objects for the assignments required in this class. A student may receive credit for one of the following courses: ACC 308, BPA 355 or CIS 307. Prerequisites: junior standing; ACC 200, ACC 201 and ACC 202 with a minimum grade of B in each; and CSC 199.

ACC 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

ACC 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

ACC 490 Survey of Accounting (3). Designed for students who have an inadequate background in accounting. Covers the same material covered in ACC 200 and 201 or the equivalent. Not open to students who have credit for ACC 200 and 201 or the equivalent.

ACC 500 Advanced Accounting (3). A comprehensive examination of some of the most complex accounting problems including consolidated financial statements, partnerships, foreign subsidiaries, estates and trusts, and consignment and installment sales. Prerequisite: ACC 301.

ACC 501 Accounting for Governmental and Nonprofit Entities (3). Accounting and reporting principles, standards and procedures applicable to (1) state and local governments, including counties, cities, towns and villages; (2) the federal government; and (3) other not-for-profit institutions such as universities and hospitals. Prerequisite: ACC 300.

ACC 502 Advanced Income Tax (3). Continued study of the Internal Revenue Code and Regulations with emphasis on the advanced aspects of income; deductions, exclusions and credits, especially as they are related to the tax issues of individuals, corporations, and partnerships. Prerequisite: ACC 302.

ACC 503 Cost Management in the Global Economy (3). A decision-based approach to the study of selected cost management topics that enable managers to compete globally. Topics include strategic cost management, activity-based management, the balance scorecard, quality cost management, capital investment decisions, and inventory management. A business simulation requires the application of cost management information in product costing, planning, control, performance evaluation, and decision making. Prerequisite: ACC 303.

ACC 506 Principles of Auditing and Assurance Services (3). An introduction to internal and external auditing and audit-related services. The nature and purposes of audit, attestation, assurance and compilation services are studied. Other topics include: reporting, professional ethics, sampling, auditing for fraud, audit evidence, engagement planning, materiality and risk assessment, internal control, and operational audits. Prerequisites: ACC 301 and 308.

ACC 507 Professional Issues (1). Study of contemporary issues in accounting. Topics include professional certifications, emerging practices, career preparation, and professional development. Restricted to accounting area students. Graded pass/fail. Prerequisite: ACC 301.

ACC 509 Accounting Theory (3). Designed as a critical examination of relevant AICPA literature, especially Accounting Research Bulletins, Accounting Principles Board’s Opinions and Statements, and the Financial Accounting Standards Board’s Statements. Contemporary developments are examined in the accounting literature and through reports. Prerequisite: ACC 301.

ACC 586 International Experience in Accounting (3). A short-term study abroad program highlighting selected historical and modern contributions to accounting and business from another country and culture. Course will also meet weekly during the semester. Graded pass/fail. Prerequisite: consent of instructor.

ACC 595 Special Problems (3). Research by students in fields of special interests. Includes project research studies and intensive reading programs, accompanied by conferences with professors in fields involved. Prerequisite: consent of instructor.

ADULT EDUCATION (ADE)
ADE 199 Workshop in Adult Education (1-3). This course covers workshops conducted for paraprofessionals, persons employed by local
school districts to visit home-bound adult students. Accumulated workshop credits are not allowed to exceed six credit hours.

**AGRICULTURAL EDUCATION (AED)**

AED 104 Ag Education, Leadership and Life Knowledge (3). An elective course for high school students interested in pursuing a career in agriculture education which will serve as a bridge class between high school and collegiate level teacher education courses. The course will include an exploration of the professional qualities and expectations of the teacher/educator. Roles, responsibilities, and challenges in the field of education, leadership, and Life Knowledge will be examined. Course will include a minimum of four full classroom observations for field experience. Prerequisite: consent of instructor.

AED 380 Agricultural Education, Extension and Leadership (3). Essential aspects and fundamentals of career preparation, entry, adjustment and advancement in agricultural education, extension, and youth leadership careers. Prerequisite: Six prior credit hours in agriculture or consent of instructor.

AED 421 Student Teaching in Agricultural Education (8). The student teaches in a center selected by the university agricultural education staff and approved by the Kentucky Department of Education. Graded pass/fail. (Spring)

AED 501 (580) Methods in Teaching Agricultural Education (3-6). Philosophy and objectives of teaching agricultural education in a comprehensive program. Course concepts include preparing and delivering lesson plans that involve problem-solving method, lecturing, and laboratory based modules. Additional methods include instruction in supervising occupational experience programs and coordinating FFA programs. Learning theory, multicultural education and education of the exceptional child are also included. Field and clinical experiences are also employed. May be repeated for a maximum of six hours credit. Prerequisite: AED 380.

AED 582 Supervision in Agricultural Education (3). Application of principles and techniques of supervising individuals and groups in the field of agricultural education. (With sufficient demand)

AED 593 (583) Practicum in Agricultural Education, Extension, and Public Service Leadership (3). Comprehensive course including topics of instructional and operational methods for the discipline, extension field tours and mentoring experiences, supervised visits in an educational or public service setting or agency, and completion of practicum/professional clinical hours. Prerequisite: AED 380 or six hours of discipline specific courses within agriculture.

**AGRICULTURE (AGR)**

AGR 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Course is required of all entering freshmen. Graded pass/fail. (Fall)

AGR 100 Animal Science (3). This is a basic course in animal science including the importance and place of livestock agriculture, types, market classes and grades of beef, sheep, poultry, and swine; origin and characteristics of breeds; and the judging of beef, sheep and swine.

AGR 101 Basic Horsemanship (3). Designed for students with previous experience in the handling and riding of horses. Includes instruction in grooming, saddling, bridling and mounting, and the development of basic riding skills at the walk, trot and canter. Prerequisite: AGR 109 or approval of instructor.

AGR 102 Beginning Hunt Seat Equitation (1). Designed for beginner riders in their first year and for riders that are considered safe to ride an unfamiliar horse in a group at a canter. Heavy emphasis is placed on developing a competent rider with proper hunt seat equitation skills. Weekend participation in Intercollegiate Horse Show Association shows is mandatory. Participation in weekend riding clinics is required. Prerequisites: AGR 101 and approval of instructor.

AGR 103 Intermediate Hunt Seat Equitation (1). Designed for intermediate riders in their first or second year of riding and for riders that are considered safe to ride an unfamiliar horse in a group at a canter. A higher degree of proficiency at the walk, sitting trot, posting trot, two point, and canter is required more than in AGR 102. Emphasis is placed on learning suppleness exercises for horse and rider in addition to developing a competent rider with proper hunt seat equitation skills. Weekend participation in Intercollegiate Horse Show Association shows is mandatory. Participation in weekend riding clinics is required. Prerequisites: AGR 101 and approval of instructor.

AGR 104 Advanced Hunt Seat Equitation (1). Designed for advanced riders that are considered safe to ride an unfamiliar horse in a group at a lope. A higher degree of proficiency at the walk, jog and lope is required more than in AGR 103. Emphasis is placed on the correct application of the riders natural aids, suppling of the horse, collection, and riding on the bit. In addition to developing a competent stock seat equitation rider. Prerequisites: AGR 104 and approval of instructor.

AGR 106 Beginning Stock Seat Equitation (1). Designed for beginner riders in their first or second year of riding and for riders that are considered safe to ride an unfamiliar horse in a group at a lope. Emphasis is placed on developing a competent well-rounded stock seat rider with proper stock seat equitation skills. Weekend participation in Intercollegiate Horse Show Association shows is mandatory. Participation in weekend riding clinics is expected. Prerequisite: AGR 101 and approval of instructor.

AGR 107 Intermediate Stock Seat Equitation (1). Designed for the intermediate rider in their first or second year of riding and for riders that are considered safe to ride an unfamiliar horse in a group at a canter. A higher degree of proficiency at the walk, jog or lope is required more than in AGR 106. Emphasis is placed on learning suppleness exercises for horse and rider in addition to developing a competent rider with proper stock seat equitation skills. Weekend participation in Intercollegiate Horse Show Association shows is mandatory. Participation in weekend riding clinics is required. Prerequisites: AGR 106 and approval of instructor.

AGR 108 Advanced Stock Seat Equitation (1). Designed for the advanced rider that is considered safe to ride an unfamiliar horse in a group at a lope. A higher degree of proficiency at the walk, jog, and lope is required more than in AGR 107. Emphasis is placed on the correct application of the riders natural aids, suppling of the horse, collection, and riding on the bit. In addition to developing a competent stock seat equitation rider. Prerequisites: AGR 107 and approval of instructor.

AGR 109 Beginning Horsemanship Experience (3). Designed for students with no previous riding or horse-handling experience. Prepares student for recreational horsemanship activities and for potential enrollment in Basic Horsemanship. Includes instruction in catching, haltering, grooming, saddling, and riding at the walk and trot.

AGR 130 Agricultural Economics (3). A study of fundamental principles of economics as applied to agriculture. Attention is given to resource use, economic growth, production fundamentals, economic institutions and agriculture in relation to national and world economics.

AGR 133 Field Applications for Agriculture (2). Course will teach students methods of solving many application problems that will be encountered in the field of agriculture using applied mathematical and logic skills. The emphasis will be to use practical mathematical skills already acquired from secondary education to address agricultural situations involving computations that are necessary for upper level courses in agriculture. Some knowledge of agricultural situations may be required. Possible field trips to the university farms during class time. Prerequisite: Declared area or major in agriculture or consent of instructor.
AGR 160 Horticultural Science (3). A study of the practical principles and practices used in horticulture.

AGR 170 Introduction to Agricultural Systems Technology (3). An introduction to agricultural systems including: power and machinery, electricity, precision agriculture, soil and water engineering, metallurgy and fabrication, and safety. Emphasis is placed on understanding the technology involved in operating, maintaining, and managing these systems.

AGR 180 Skill Development in Horticulture (3). Course will document that students can demonstrate the competencies and skill necessary for occupations in the landscaping industry, turf and lawn management, nursery management, and/or vegetable and flower production areas. Credit will be by challenge exam only according to university policy and will be granted upon successful completion of the state horticulture skills standards test and completion of a career major in horticulture at the secondary school level.

AGR 181 Skill Development in Agriculture Production and Agribusiness (3). Course will document that students can demonstrate the competencies and skill necessary for occupations in production agriculture and agribusiness. Emphasis will be placed on the development of scientific knowledge and skills pertaining to management of agribusinesses, farms, and cooperatives, and/or of the land and its effect on food and fiber production. Credit will be by challenge examination only according to university policy and will be granted upon successful completion of the State Agriculture Production Skills standards test and completion of a career major in horticulture, and/or successful completion of the State Agriculture Production Skills standards test and completion of a Career Pathway in that area at the secondary school level. May be repeated for a maximum of six credit hours.

AGR 190 Conversational Spanish for the Agricultural Industry (3). Introductory Spanish course with an emphasis on agricultural terminology designed for basic communication in Spanish between agricultural employers and their Spanish-speaking employees. It includes a study of Hispanic culture and the contribution of migrant workers to the U.S. agricultural industry. Students may not receive credit for both this course and SPA 105 or 106. (Same as SPA 106.)

AGR 199 Contemporary Issues in Agriculture (3). A course designed to increase the understanding, awareness, and critical analysis of contemporary agricultural issues and their effect upon the social, political, economic and cultural aspects of society. Topics will include environmental, bio-technology, animal, crop, career, economy and trade, agricultural policy, food quality/safety and international agriculture issues.

AGR 200 International Agriculture Experience (3). A course designed to enhance students’ understanding of international agriculture and how it relates to the overall impact on world food processing and production through travel/study abroad. An emphasis is placed on experiences which have the potential to impact and add value to American/Kentucky agriculture, as well as those which hold key relationships to U.S. based agricultural trade and food development. Prerequisites: AGR 130 and at least one subject specific agriculture technical course.

AGR 201 Intermediate Horsemanship (3). Designed for students with previous experience in the handling of horses. Deals with instruction in hunt seat and stock seat with emphasis placed on bareback equitation skills. Prerequisites: AGR 101 and approval of instructor.

AGR 223 Introduction to Artificial Insemination for Cattle (3). The primary objective of this course is to instruct students in artificial insemination in cattle. Topics will include reproductive system, herd health and nutrition, semen handling, and estrus detection and synchronization.

AGR 240 Crop Science (3). A study of the fundamental principles underlying the production of agricultural crops. Lecture, two hours; laboratory, two hours per week.

AGR 247 Tobacco Production (3). An agriculture course designed for students who desire to expand their knowledge of tobacco production. Students will be introduced to the practical aspects of tobacco production in the Kentucky tobacco types.

AGR 261 General Pomology (3). General principles and practices involved in handling home and commercial planting of the major fruit crops. (Spring, even years)

AGR 262 Vegetable Crop Production (3). A study of the fundamental principles underlying commercial and home garden production of vegetables. (Spring, odd years)

AGR 263 Woody Plant Materials I (2). The identification and use of woody deciduous plant materials in the landscape.

AGR 269 Introduction to Forestry (3). A general introduction to the many aspects of forestry including dendrology, silvics, silviculture, and wood utilization. Some emphasis will be placed on the management of forest lands for recreation and wildlife purposes. (Fall, odd years)

AGR 300 Principles of Animal Nutrition (3). A study of digestion, absorption and utilization of nutrients, characteristics of feedstuffs, nutritional disorders and nutrient requirements of animals. Prerequisite: AGR 100.

AGR 301 Livestock Judging and Evaluation (3). A study of types of purebred and commercial beef cattle, sheep and swine, both market and breeding classes. Special emphasis is placed on writing and giving oral reports. Prerequisite: AGR 100. (Fall)

AGR 302 Horse Science (3). Involves a study of the role of the light horse and the development of an equine vocabulary. Topics covered include the basic nutritional, housing and health requirements of the light horse. (Fall)

AGR 303 Advanced Horse Science (3). Deals with various topics of interest to the horseman including psychology, evaluation, anatomy and health care. Prerequisite: AGR 302. (Spring)

AGR 304 Advanced Stock Seat (3). This course is concerned with basic training techniques and the development of equitation skills using the western seat. Prerequisites: AGR 201 and approval of instructor. (Fall)

AGR 306 Advanced Forward Seat (3). This course presents equitation skills and techniques utilizing the forward seat. Included in the course are hunt seat, show seat, and other methods of English style equitation. Principles of schooling the jumping horses are emphasized. Prerequisites: AGR 201 and approval of instructor. (Spring)

AGR 308 Equine Practicum (3). Practical application of management principles involving health, nutrition, grooming, and training of horses. Prerequisite: AGR 302.

AGR 309 Equine Facility Management (3). A course designed for the equine student to study the economics and business related aspects of facility management. Students will be taught the value of short and long term planning and the decision making process that is involved in the operation of a commercial equine facility. Some weekend attendance will be required.

AGR 310 Applications in Animal Technology (3). The study of animal technology involving management, nutrition and health of small and large animal species. Lecture, two hours; laboratory, two hours. Prerequisite: AGR 100. (Fall)

AGR 311 Beef Science (3). A study of the history and importance of the beef cattle industry; phases of beef production, selection, breeding, feeding, and management of beef cattle. Lecture, two hours; laboratory, two hours. Prerequisites: AGR 100. (Spring)

AGR 312 Dairy Science (3). A study of dairy breeds, calf raising, herd replacements, milk production, nutrition and management of dairy herds. Prerequisite: AGR 100 and 300. (Spring)

AGR 313 Livestock Production Management Systems (3). Study of production management, nutrition, and breeding of farm animals. Will include on-the-farm training with livestock. Prerequisite: AGR 100.

AGR 314 Small Ruminant Science (3). A study of the history and importance of the goat and sheep industries, with emphasis on meat goat production; phases of production, selection, breeding, feeding, and management of goats and sheep will be covered. Prerequisite: AGR 100.

AGR 315 Alternative Equine Care (3). Deals with investigation and introduction into alternative careers within the equine industry. Overview and discussion as how they relate to the equine athlete involving massage therapy, acupressure, chiropractic, dentistry, horseshoeing, holistic
veterinary care, equine-assisted therapy, and sports medicine. Prerequisite: AGR 302 and/or permission of instructor.

AGR 316 Dairy Cattle Selection and Evaluation (3). Origin, characteristics and developments of major breeds of dairy cattle. Improvement programs. Apply the principles involved in herd improvement to the selection of breeding animals for dairy herds. Fundamental aspects of evaluation of dairy cattle. Comparative terminology, decision-making and presentation of oral reasons. Lecture, two hours; laboratory, two hours. Prerequisite: AGR 100. (Fall)

AGR 317 Managing the Unshod Hoof (3). An examination and application of the basic principles of correct equine hoof trimming and management of the unshod hoof. Designed to better prepare students for careers as horse owners (though not as farriers). Topics addressed will include tool selection and care, trimming hooves, balance and movement, and the treatment of common hoof problems. Emphasis will be placed on hands-on application of topics covered.

AGR 318 Equine Forage Management (3). A study of forage systems designed specifically for equine.

AGR 320 Livestock Behavioral Analysis (3). A study of species specific to livestock handling techniques based upon proven techniques, methods and livestock behavioral patterns. This class will include on the farm training with livestock. Prerequisite: AGR 100.

AGR 321 Poultry Science (3). An introductory study of the various phases of poultry production, diagnosis and treatment of diseases, nutrition, processing and management practices for commercial poultry operations. Prerequisite: AGR 100. (Spring)

AGR 322 Veterinary Laboratory Principles (3). An introductory course to the veterinary laboratory for the veterinary technologist. Laboratory safety, microscopy, specimen collection, diagnostic analysis, laboratory instrumention and techniques are taught for development of proficient laboratory skills. Two one-hour lectures; one two-hour laboratory. Prerequisite: AGR 310.

AGR 324 Veterinary Diagnostic Imaging (3). Students will be exposed to learning appropriate diagnostic imaging skills needed in the field of veterinary technology. Students will learn handling and restraint techniques of small and large animals, as it relates to diagnostic imaging in areas of radiology, ultrasonography, and endoscopy. Students will also learn utilization of radiographic equipment, safety measures, equipment maintenance, along with proper positioning and exposures with small and large animals. Each week there will be two 1-hour lectures and one 2-hour lab. Prerequisite: AGR 310.

AGR 325 Small Animal Science (3). A study of the history and importance of the small and exotic animal industry; breeds, selection and management are topics which will be covered. Prerequisite: AGR 310.

AGR 326 Swine Science (3). Basic principles and their application in pork production — breeding, selection, nutrition, housing, equipment and economic management. Lecture, two hours; laboratory, two hours. Prerequisite: AGR 100. (Fall)

AGR 328 (233) Statistics for Food and Agriculture (3). A course designed to enhance the quantitative skills of agriculture students. Techniques include descriptive statistics, probability, analysis of variance, and regression analysis. Discussion, examination and use of these techniques will cover and be limited to agriculturally related topics.

AGR 329 Veterinary Hematology and Microbiology (4). This course is designed to introduce the animal health technology student to basic concepts, theories and techniques of veterinary hematology and microbiology. Basic normal values of various species of animals will be covered with common microorganisms of animal diseases. Prerequisites: AGR 310 and 322. (Fall)

AGR 330 Principles of Agribusiness (3). The organization of agribusiness, its development in local communities, and the roles played by farmers, farm suppliers, processors, wholesalers, retailers, consumers and government. Analysis of the job opportunities in agribusiness. (Spring)

AGR 331 Small Animal Diseases (3). A study of the more common and important diseases of dogs and cats. The clinical signs, life cycles of pathogenic organisms, progression of symptoms and control of the diseases will be discussed. Prerequisite: AGR 310. (Fall)

AGR 332 Veterinary Nursing (3). Course designed to teach veterinary technology students the essentials of clinical animal nursing as it relates to the appropriate theories, practices, procedures, and skill development utilized in veterinary medicine. Two one-hour lectures; one two-hour laboratory. Throughout the semester, mandatory outside skill building assignments/activities will also be required, resulting in additional time required outside of class/laboratory. Prerequisites: AGR 310 and 322.

AGR 333 Agribusiness Records and Analysis (3). Fundamental principles necessary to keep farm and agribusiness firm accounts and to analyze these accounts for profitability. Budgeting, amortization, depreciation and the application of microcomputer technology to the management and financial control of the agribusiness firm. (Fall)

AGR 334 Entrepreneurship in Agribusiness (3). A study of fundamental principles of entrepreneurship as applied to agribusinesses. Attention is given to entrepreneurial creativity, business plans, marketing, accounting and finance, and management practices and strategies in small businesses. Prerequisite: AGR 130.

AGR 335 Farm Systems Management (3). This course focuses on the business aspects of production agriculture. Emphasis is on balance sheet and income statement analysis, capital and credit use, enterprise, partial and whole farm budgeting, and investment analysis. Economic principles and cost concepts as they relate to agriculture are also discussed. The student will learn to apply these tools to develop a farm management plan.

AGR 336 Agricultural Marketing and Price Analysis (3). A study of the nature of food and fiber consumption and demand, production and supply of farm products, marketing margins and price determination for specific agricultural commodities. (Fall, odd years)

AGR 337 Agricultural Sales and Merchandising (3). A course designed to enhance the students’ abilities to sell agriculturally related products. An emphasis is placed on agricultural customer and market knowledge and the skills required satisfying customer needs. Students are required to contact and spend time with agricultural sales professionals.

AGR 338 Rural Economic Development (3). An examination of the basic principles underlying the economic development of rural areas. The impact and role of agricultural and community organizations and their influence on the rural economy will be studied. Each student will make a special socioeconomic study of his/her community including a resource inventory and plan for economic development. (Summer, with sufficient demand)

AGR 339 Computer Applications for Agriculture (3). A course designed to develop an understanding and practical knowledge of the use of computers with respect to their application to problem-solving within agriculture. Students will receive hands-on experience in applying a variety of agriculture specific software to problems in agriculture and agricultural business management.

AGR 340 Veterinary Laboratory Sciences (3). This course is divided into four sections: veterinary science, toxicology, necropsy and laboratory animal science. Course is designed to acquaint the student with basic pharmacology and toxicology, submission of tissue samples to diagnostic laboratories, necropsy techniques and common practices associated with laboratory animals. Prerequisites: AGR 322, BIO 300, and five hours of chemistry.

AGR 341 Seed Production and Technology (3). Special emphasis is given to the production and processing of seed, evaluation and testing for quality, and the study of viability during storage. (Spring)

AGR 342 Seed, Crop and Grain Analysis (3). Skills related to the evaluation of crops for quality relative to certification, viability, and marketing will be taught. The subjects that will be taught include seed analysis, plant and seed identification and grain grading. Prerequisite: AGR 240.


AGR 346 Soil Science Laboratory (1). Consists of a number of lab exercises that support the course material in AGR 345. Co-requisite: AGR 345.
Courses

AGR 350 Soil Survey (3). Principles of soils origin and classification including field mapping. Lecture, two hours; laboratory, two hours. Prerequisite: AGR 345. (Spring)

AGR 353 World Food, Agriculture, and Society (3). Course will provide students with a basic understanding of various world agriculture systems that provide food. Analysis of the role of society, historical, environmental, technological, socio-economic, and political factors that affect world food will be addressed. The course will also include topics on the evolution of agriculture, technology and food trends over the world as it has been shaped by society, culture, and world population growth. Specific issues on food poverty and malnutrition in developing countries, culture and food habits, climate changes impacting agriculture productions, and other constrains to world food production will be covered.

AGR 355 Soil Judging (2). Emphasis on recognition, description and classification of soil horizons in a soil profile and then placing this soil in the U.S. Classification System. This course is designed for those interested in conservation and teaching careers. May be repeated for a maximum of four credits. (Fall)

AGR 360 Greenhouse Production and Management (3). A study of producing plants under transparency. Includes greenhouse management problems; heating, cooling, and humidity control; also cultural practices of several different crops. Lecture, two hours; laboratory, two hours. (Fall, odd years)

AGR 361 Horticulture and Greenhouse Management Practicum (3). A hands-on work study course that allows for the management and maintenance of all university greenhouse and horticultural components. Prerequisites: AGR 360 and permission of instructor.

AGR 362 Floral Design (3). Operation and management of a retail florist establishment with emphasis on floral design. (Fall, even years)

AGR 363 Woody Plant Materials II (2). The identification and use of woody evergreen plant materials in the landscape.

AGR 364 Nursery Management (3). A study of establishing and managing a nursery practice including field grown container stock, wholesale and retail nursery business practices, and employee management practices. Prerequisite: AGR 160.

AGR 365 Herbaceous Plant Materials (2). A study of characteristics, requirements, and potential uses of herbaceous ornamental plants in the landscape.

AGR 367 Residential Landscape Design (3). The application of principles of design to landscaping the home grounds. The identification, use and maintenance of ornamental plants and lawn grasses. Special attention will be given to the use of native plants for home beautification. Lecture, two hours; laboratory, two hours; field trips. Prerequisites: AGR 263 and 363. (Spring)

AGR 368 Landscape Construction (3). Understanding the process of landscape construction from initial planning stages to the actual installation of structures utilized within a landscape design. Prerequisite: AGR 160


AGR 372 Agricultural Metal Processes (3). Basic theories involving metallurgy and the metal working processes. Includes SMAW, GMAW, brazing, OA welding and cutting, and plasma arc process. Skill development emphasized. (Spring)

AGR 373 Animals in Disaster (2). This course is two fold. Module A is intended to increase awareness and preparedness among animal owners and care providers. Module B is intended to guide emergency management officials and animal owners, care providers, and industries in preparing community disaster plans. (Fall and Spring)

AGR 374 Livestock in Disaster (2). Course is designed to increase your awareness of what livestock producers, emergency managers, veterinarians, extension agents, and others can do to prevent and reduce the consequences of disasters. (Fall and Spring)

AGR 376 Agricultural Chemicals (3). This course deals with the major weeds and insects, which attack field crops and stored grain and the associated herbicides and insecticides. An understanding is developed of how and why herbicides function.

AGR 377 Agriculture Safety (3). Study of the hazards, methods of injury prevention, safety education, regulations and advancing safety and health in the agriculture industry.

AGR 378 Agricultural Environmental Management Systems (3). Study of animal waste, pesticide, and nutrient management practices in agriculture to reduce and control soil and water pollution and comply with Federal and state regulations.

AGR 379 Field Equipment Technology Management (3). Course designed to develop a solid foundation of knowledge that can be used to make efficient field equipment technology management decisions and to help keep a farm enterprise competitive.

AGR 380 Veterinary Laboratory Rotation (1). The student will observe and participate in the daily routing of each laboratory department at Breathitt Veterinary Center including histology, serology, virology, bacteriology, necropsy, toxicology and clinical pathology. Practical experience will be gained and laboratory skills will be applied in a clinical setting. Graded pass/fail.

AGR 399 Professional Development Seminar I (1). Seminar for agriculture students focusing on the job search process, employment opportunities, and related problems. Recommended for students in the sophomore or junior year. Graded course.

AGR 400 Veterinary Microbiology (5). Orientation to the veterinary diagnostic laboratory environment, including familiarization with basic techniques in veterinary bacteriology and mycology, veterinary virology, and clinical serology and immunology. Lecture two hours; laboratory, six hours. Prerequisites: AGR 332, BIO 300, and five hours of chemistry.

AGR 401 Equine Breeding and Management (3). A comprehensive study of the reproductive anatomy and physiology of the stallion and brood mare, as well as the care of the foal from birth to weaning. Special attention is given to current management concepts prevalent in the equine industry today. Prerequisite: AGR 302. (Spring)

AGR 402 Advanced Livestock Judging (3). Provides the student with guidelines for evaluation and selection procedures as applied to breeding and market swine, beef cattle and sheep. Special emphasis is placed on training students for livestock judging team. May be repeated for a maximum of six credits.

AGR 403 Equine Reproduction (3). A comprehensive study of the reproductive anatomy and physiology of the stallion and brood mare, as well as the care of the foal from birth to weaning. Special attention is given to current management concepts prevalent in the equine industry today. Prerequisite: AGR 302.

AGR 404 Selective Equine Breeding (3). Study of the hereditary traits in horses, breeding design, performance and progeny testing, marketing, and herd analysis.

AGR 405 Breaking and Training (3). Fundamental methods of breaking and training the young horse. All students are assigned a horse for application of techniques. Prerequisites: AGR 304 or 306, and approval of instructor. (Spring)

AGR 407 Equine Selection and Evaluation (3). Basic study of selection and evaluation of horses for various uses, including halter and performance. Prerequisite: AGR 302. (Fall)

AGR 410 Advanced Veterinary Hematology (4). Concepts of hemopoiesis and the effect of disease on blood cells will be covered. Cell counting, identifications of normal and abnormal blood cells, bone marrow examination, cytology, coagulation, and special hematology skills will be taught. Lecture, two hours; laboratory, four hours. Prerequisites: AGR 332, BIO 300, and five hours of chemistry.

AGR 420 Veterinary Clinical Chemistry (2). Basic concept of clinical chemistry in animals as it related to organ systems and specific diseases will be covered in lecture. The laboratory will emphasize clinical chemistry assays utilizing automated and manual techniques as well as urinalysis and use of laboratory equipment. Prerequisites: AGR 332, BIO 300, and five hours of chemistry.
AGR 430 Veterinary Parasitology (2). Basic concepts of parasitology including life cycles and mechanisms of pathogenicity will be covered during lecture. The laboratory portion will emphasize methods of identification of parasites in fecal, blood, and skin specimens. Lecture, two hours; laboratory, four hours for half a semester. Prerequisites: AGR 332, BIO 300, and five hours of chemistry.

AGR 433 Farm Management (3). A study is made of the management functions and economics of farm organization and operation, including input-output relationships, enterprise combination, and budget analysis. Assignments are given which assist the student in applying economics and management principles to an individual case farm operation.

AGR 435 Interpretation of Agricultural Research (2). Students will access, analyze, evaluate and interpret agricultural research for occupational work. The course is oriented towards all fields within the agricultural sector.

AGR 436 Undergraduate Research in Agriculture (3-6). Agricultural research projects arranged individually with faculty members who agree to direct the research. A written plan of research must be filed with the school within two weeks of the beginning of the semester. May be repeated once for a maximum of six hours.

AGR 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

AGR 438 Seminar in Agricultural Systems (2). A course designed to enhance students' understanding of and experiences in, agricultural systems. The two emphases that will be available in this seminar are managing a successful agribusiness and production operation. This class is intended for students transferring to MSU through the Transfer Bridge program from the Agricultural Technology Program at KCTCS schools. Seminars and field experience outside of class required. The course may be taken for 2 credit hours as the agribusiness emphasis or for 2 credit hours as the production operation. This class is intended for students focusing on the leadership development seminar for agriculture seniors. Prerequisite: AGR 331, 332, 340, 380, 400, 410, 420, and 430.

AGR 444 Purebred Livestock Management & Marketing (3). A study of the management techniques unique to the purebred livestock industry including, but not limited to, animal selection and development, records, measures of performance and preparation for marketing. In addition, the course will include an in-depth look at advertising and marketing techniques common to the livestock industry. Field hours required. Field trips outside of class time required. Prerequisite: AGR 100.

AGR 451 Veterinary Technology Review (1). A review course and study guide for credentialing in the area of veterinary technology. Prerequisites: AGR 331, 332, 340, 380, 400, 410, 420, and 430.

AGR 456 Plant Propagation (2). A study of the methods of propagating horticultural plants. Includes cutting, grafting, budding, layerage and seed propagation. Lecture, two hours; laboratory, two hours. (Spring, even years)

AGR 460 Professional Experience in Horticulture. Designed to provide on-the-job training in various horticultural enterprises such as golf courses, florist shops, greenhouse operations and garden centers under supervision of a horticulture professor. May be repeated once if approved by faculty advisor. (Fall, Spring or Summer)

AGR 461 Plant Propagation (3). A study of the methods of propagating horticultural plants. Includes cutting, grafting, budding, layerage and seed propagation. Lecture, two hours; laboratory, two hours. (Spring, even years)

AGR 462 Fine Turf Management (3). A detailed study of varieties of fine turf grasses and establishment and maintenance of fine turf, including soil and turf relationships, fertilizing and liming, and drainage and irrigation. Lecture two hours; laboratory, two hours. (Spring, even years)

AGR 463 Horticultural Therapy (3). Exploring the therapeutic modality that focuses on improving human health and functioning through the use of horticultural programs. The profession of horticultural therapy is based on medical model and is used both nationally and internationally. This course studies the different client populations that benefit from the therapy and how to set treatment goals based on a client's needs.

AGR 470 Soil and Water Engineering (3). Surveying, mapping, and determining areas of farm land; designing farm drainage systems; farm ponds; controlling water erosion with terraces and other mechanical structures. Lecture, one hour; laboratory, four hours. (Fall)

AGR 471 Applications in Precision Agriculture (3). Designed to understand the acquisition and analysis of geographically referenced data for the management of crop production systems, data formats, geographic information systems, grid sampling, soil fertility and physical properties, herbicide management, combine yield monitoring, variable-rate application, crop modeling and economics. Prerequisite: AGR 339.

AGR 472 Agricultural Power Units (3). A study of small power units relative to agriculture. Includes servicing, maintenance, repair, use, types and applications of electrical motors, pumps, and small internal combustion engines. (Fall, even years)

AGR 473 Agricultural Power Units (3). Designed to understand the acquisition and analysis of geographically referenced data for the management of crop production systems, data formats, geographic information systems, grid sampling, soil fertility and physical properties, herbicide management, combine yield monitoring, variable-rate application, crop modeling and economics. Prerequisite: AGR 339.

AGR 474 Agricultural Power Units (3). A study of small power units relative to agriculture. Includes servicing, maintenance, repair, use, types and applications of electrical motors, pumps, and small internal combustion engines. (Fall, even years)

AGR 475 Agricultural Power Units (3). Designed to understand the acquisition and analysis of geographically referenced data for the management of crop production systems, data formats, geographic information systems, grid sampling, soil fertility and physical properties, herbicide management, combine yield monitoring, variable-rate application, crop modeling and economics. Prerequisite: AGR 339.

AGR 476 Fine Turf Management (3). A detailed study of varieties of fine turf grasses and establishment and maintenance of fine turf, including soil and turf relationships, fertilizing and liming, and drainage and irrigation. Lecture two hours; laboratory, two hours. (Spring, even years)

AGR 477 Advanced Practicum in Equine Management (1-12). Designed to provide on-the-job training in various horticultural enterprises such as golf courses, florist shops, greenhouse operations and garden centers under supervision of a horticulture professor. May be repeated once if approved by faculty advisor. (Fall, Spring or Summer)

AGR 478 Cooperative Education/Internship (1-3). Designed to provide on-the-job training in various horticultural enterprises such as golf courses, florist shops, greenhouse operations and garden centers under supervision of a horticulture professor. May be repeated once if approved by faculty advisor. (Fall, Spring or Summer)

AGR 485 Soil Management (3). The control of erosion, organic matter maintenance, effects of fertilizer on the environment, evaluating fertility and fertilization of major crops are emphasized. (Spring)

AGR 486 Professional Experience in Horticulture (3). Designed to provide on-the-job training in various horticultural enterprises such as golf courses, florist shops, greenhouse operations and garden centers under supervision of a horticulture professor. May be repeated once if approved by faculty advisor. (Fall, Spring or Summer)

AGR 487 Agricultural Power Units (3). A study of small power units relative to agriculture. Includes servicing, maintenance, repair, use, types and applications of electrical motors, pumps, and small internal combustion engines. (Fall, even years)
A study of the reproductive processes in mammals with primary emphasis on domestic farm animals. Will include the anatomy, endocrinology, behavior and general physiology of the reproductive processes. Artificial insemination, estrous control, ova transport and other practical production practices will be covered. Lecture, two hours; laboratory, two hours. Prerequisites: AGR 100, 300, and 310.

AGR 510 Animal Anatomy and Physiology (3). Deals with the anatomy of body systems, how these systems interrelate, and the physiology of body organs. Species covered include porcine, bovine, equine, canine and feline. Three one-hour lectures per week. Prerequisite: AGR 310. (Spring)

AGR 511 Animal Anatomy and Physiology Laboratory (2). Deals with the anatomy of body systems, how these systems interrelate, and the physiology of body organs. Species covered include porcine, bovine, equine, canine and feline. Two hour laboratories twice per week. Prerequisites: AGR 310, 324, and 332. (Spring)

AGR 512 Beef Cattle Management Systems (3). A study of beef production, forage management and marketing systems. Lecture, one hour; laboratory, four hours. Prerequisites: AGR 100 and 311. (Fall)

AGR 514 Teaching Students Horsemanship (3). Designed for students interested in teaching techniques of teaching horsemanship. Course includes preparation and application of lesson plans. Prerequisite: AGR 304 or 306. (Fall)

AGR 523 Artificial Insemination Techniques for Cattle (3). Designed to train students to become competent A.I. technicians. Topics discussed will include reproductive processes, health, nutrition, facilities and management of breeding herd. Techniques concerning semen handling, heat synchronization and heat detection will be taught. Laboratories will be designed to give students actual experience in inseminating cattle. Prerequisites: AGR 100 and AGR 311 or consent of instructor. (Summer, with sufficient demand)

AGR 529 International Trade and Agriculture (3). Changing role of U.S. agriculture in a dynamic world economy; national and international policies and institutions affecting agriculture; exchange rates, tariffs, and non-tariff barriers. Prerequisites: junior or senior; AGR 130 or equivalent.

AGR 530 Advanced Agricultural Prices (3). Methods of price analysis and forecasting. Index numbers, time series data commodity flows and statistical techniques as applied to price analysis. Special emphasis will be placed upon the use of commodity futures markets in estimating cash prices and in protecting producers from cash price fluctuations. (Fall, even years)

AGR 531 Agricultural Finance (3). A study of the needs and problems of financing farm and farm service businesses, including a study of credit institutions serving American agriculture. (Fall)

AGR 532 Farm and Land Appraisal (3). A study of the methods and procedures of land and farm property valuation with attention to appraisal programs of the credit and farm service institutions. Prerequisite: AGR 130. (Fall)

AGR 533 Seminar in International Agriculture Systems (3). A course designed to enhance student’s understanding of international agriculture systems and how they relate to the overall impact on world food processing and production. An emphasis is placed on systems which have the potential to impact and add-value to American agriculture, as well as those which hold key relationships to U.S. based agricultural trade and food development.

AGR 534 Types and Systems of Farming and Agribusiness (3). Includes a general statistical analysis of U.S. agriculture with attention to major agricultural regions of the nation and types of farming areas of Kentucky. Special emphasis is given to the organization of West Kentucky and regional farms and agribusinesses. Field trips, interviews and financial analysis of successful farms. (Summer, with sufficient demand)

AGR 536 Quantitative Methods for Agribusiness (3). A study of the use and theory of mathematics as it applies to the fields of agriculture, finance and economics. Attention is given to the elementary uses of algebra, matrix algebra and the calculus as they apply to optimization problems in resource use efficiency. The same mathematics will be applied to time value of money topics. The same mathematics will be applied to time value of money topics. Prerequisites: ECO 230, 231 and MAT 140. (Spring, odd years)

AGR 537 Seminar in Agricultural Business Systems (2). Course designed to enhance student’s understanding of, and experience in, agricultural business systems. Emphasis will be placed on strategies of managing a successful agribusiness operation and /or farmer-owned cooperatives. Prerequisite: AGR 130.

AGR 538 Seminar in Production Agricultural Systems (2). Designed to enhance student’s understanding of, and experience in, production agriculture systems and how they relate to a successful farming operation. An emphasis is placed on systems, which have the potential to impact and add-value to the local, regional and national agriculture economy, through classroom as well as laboratory experiences.

AGR 539 Advanced Computer Applications for Agriculture (3). An intensive course designed to enhance the computer skills of agriculture students and to give them the skills necessary to generate useful information and solve a variety of agriculturally specific problems. Students receive instruction on advanced word processing concepts, budget generation, statistical analysis, agribusiness related software and global positioning systems in agriculture. Prerequisite: AGR 339.

AGR 540 Veterinary Surgery and Anesthesia (3). Clinical principles, practices and procedures involved in the field of veterinary medicine. For animal health technology students with senior standing. Prerequisites: AGR 310, 322, and 332.

AGR 541 (548) Crop Physiology (3). Basic principles of crop physiology; the effect of environment and management practice on physiological processes, growth and development of crops. (Spring, odd years)

AGR 542 Plant Breeding I (3). Basic principles and methods used in the improvement of important agronomic and horticultural crops. (Fall, even years)

AGR 546 Integrated Pest Management (3). Principles of plant pest control as related to developmental stages of crop plants. Evaluation of pest problems, alternative control methods and effects on the ecosystem. Emphasis on economic control of insect and disease vectors that affect agricultural crops. (Spring, even years)

AGR 547 Crop Management (3). Study of the distribution, economic importance and management of forage, grain crops and tobacco. (Fall)

AGR 549 Weeds and Their Control (3). A study of the introduction, methods of dissemination, reproduction and control of weeds by the most reliable methods and techniques. Prerequisite: AGR 160 or 240. (Fall)

AGR 550 Applied Pharmacology (3). Advanced clinical principles, practices and procedures in the field of veterinary medicine. Prerequisites: AGR 310, 332, and five hours of chemistry.

AGR 551 Selected Studies in Agriculture (1-3). An intensive study of an agriculture topic that will vary from semester to semester. May be repeated to a maximum of six hours. (As demanded)

AGR 552 (535) Agricultural Policy (3). The history, principles, setting objectives and means of policy as applied to agriculture in our society. Prerequisite: AGR 336. (Spring)

AGR 554 Soil and Plant Analysis (3). A study of the chemical and analytical procedures used on soils and plants along with instruction and theory of the use of common analytical equipment. Lecture, one hour; laboratory, four hours. Prerequisite: AGR 345. (Fall)

AGR 555 Advanced Soil Fertility (3). The chemistry of the essential elements in soils and the use and the manufacturing processes of various fertilizer materials are considered. Prerequisites: AGR 345. (Spring)

AGR 560 Advanced Veterinary Surgery & Anesthesia (3). Clinical principles, practices, and procedures involved in Veterinary Surgery and
Anesthesia. There are two 3 hour labs per week. Because of the intensity and types of laboratories offered, there will be additional time required outside of the scheduled class time, for preparation, development of skills, and complete recovery of patients. Outside time will vary depending on particular laboratory.

**AGR 563 Advanced Arboriculture (3).** Classification, identification and care of ornamental trees, shrubs and vines, including pruning, bracing, surgery, transplanting, insect and disease control, and fertilization, as related to large areas of organized plantings. Lecture, two hours; laboratory, two hours. (Spring, odd years)

**AGR 564 Advanced Public Horticulture (3).** An overview of the principles involved with public garden management, plant curatorialship, collection care, public education, facility design and long-range planning. Prerequisites: AGR 263, AGR 363, or permission from instructor.

**AGR 566 Advanced Greenhouse Practicum (3).** A study of the principles and practices used in the production of specific important greenhouse crops. Considerable emphasis will be placed on the manipulation of environmental conditions during production. (Fall, even years)

**AGR 567 Advanced Landscape Design (3).** The application of design theories, principles and elements to solve landscape design objectives and concerns for residential properties. Attention will be given to site analyses, client concerns, client relationships and contractual agreements while completing the design process. Prerequisites: Grade of C or better in AGR 263, 363, 365, 367 or permission of instructor.

**AGR 569 Plants for Interior Design (2).** A study of the basic plants used for interior design and decoration. This study includes identification, nomenclature, growing requirements, insect and disease problems and proper use of these plants in interiors.

**AGR 570 AG Systems Technology Lab Management (3).** This course is a study of theories involving agricultural mechanization and systems technology. Emphasis is placed on understanding the technology involved in operating, maintaining and managing power and machinery, electricity, precision agriculture, soil and water engineering, metalurgy and fabrication, and safety systems. Skill development emphasized. Prerequisite: AGR 170. (Fall)

**AGR 571 Advanced Precision Agriculture (3).** Designed for students who desire to apply and expand knowledge of the acquisition and analysis of geographically referenced data for the management of crop production systems, data formats, geographic information systems, grid sampling, soil fertility and physical properties, herbicide management, yield monitoring, variable-rate application, crop modeling and economics.

**AGR 572 Advanced Metal Work (3).** Application of the principles of arc, MIG, TIG and oxyacetylene welding in design. Primarily for vocational agricultural teachers. Application of the principles of electric and oxyacetylene welding in design and construction of agricultural projects. (Spring, odd years)

**AGR 573 Agricultural Processing Systems (3).** An analysis of systems and methods for harvesting, processing and storing agricultural products. Includes drying and curing principles, grinding, mixing, cleaning, sorting, material handling and structural environmental design. (Fall, even years)

**AGR 574 Agricultural Irrigation and Water Systems (3).** Includes determining water needs, water sources, pumps, fundamental pipeline hydraulics and designing a complete irrigation and/water system for the farm. (Spring, even years)

**AGR 575 Combine and Grain Handling Systems (3).** Developing a complete grain harvesting, handling, drying and storage operation. A study of combine operation and the materials flow concept, closed loop handling, psychrometrics, grain drying, drying methods, facility layout and facility management. Combine comparison, selection and utilization.

**AGR 576 Agricultural Electrification Systems (3).** Study of the basic principles of electricity, the fundamentals of wiring and selection, the operation and economics of agricultural electricity equipment. (Spring)

**AGR 577 Tractor Power Principles (3).** Study of the principles governing the selection and application of tractors and power driven machines. Emphasis is placed on operating systems of engines, including compression, ignition and carburetion. Mechanical principles of tractors and preventive maintenance included. (Fall, odd years)

**AGR 578 Research and Development of Agriculture Tractors and Equipment (3).** Tours of the major agriculture tractor and equipment industries. The tours include: research and development, engineering, foundries, and the assembly of engines, transmissions, final drives, combines, cotton pickers, and planting equipment. (Summer)

**AGR 580 Veterinary Products (3).** This course deals with old and new products currently available in the veterinary market. Market will include the ordering and purchasing of wholesale products, selling, inventory control, computer programming, marketing, and pricing of products utilized in a veterinary practice. (Summer)

**AGR 582 Veterinary Practice and Operations (3).** Course will deal with the day to day events centered around the operation of a veterinary practice. Supervisory skills, communication skills, inventory, bookkeeping, planning, and advertising are the main areas stressed in this course.

**AGR 585 Specialized Journalism/RTV (1-3).** Directed individual study. Can be a journalistic effort in areas such as science, sports, government, religion, graphics, etc., or a project in radio or television such as a major production or series, an extensive research project and paper, or other approved project. Prerequisites: consent of instructor and written approved proposal required prior to registration.

**AGR 590 Internship in Animal Technology (3-6).** Practical full-time work experience to be arranged through an animal-related facility during the fall, spring or summer session. Site to be arranged by the student and approved by the course coordinator. May be repeated for a total of six credit hours. Prerequisites: AGR 100, 300, 331, 332, 340, 351 and 400. Enrollment only by consent of instructor. (Fall, Spring or Summer)

**AGR 599 Agriculture Senior Capstone (1).** This is a senior capstone course culminating in students demonstrating general knowledge in the agriculture core curricula, demonstrating completed knowledge in the student’s chosen option within agriculture science, and a lecture series from influential agriculture leaders. Students will also have an opportunity to share insight into the direction and future of the School of Agriculture by sharing comments on educational effectiveness. Prerequisites: All agriculture science core classes and option classes must be completed with passing grades in the School of Agriculture. Refer to the Undergraduate Bulletin for a complete list of core and respective options courses within the Department of Agriculture Science.

**ANTHROPOLOGY (ANT)**

**ANT 140 Introduction to Cultural Anthropology (3).** A survey of the diverse ways human societies are organized with an analysis of how their cultures meet the common and distinctive needs of these societies, with emphasis placed upon non-literate peoples.

**ANT 145 Introduction to Museum Work (3).** Course designed to be an introduction to various facets of museum work, including museum administration, public relations work, fund raising, collection registration, exhibit production, deed of gifts, security, curation, and cataloguing and accessioning systems.

**ANT 311 Anthropology of Complex Societies (3).** An analysis of a range of societal types from sedentary tribes to chiefdoms to states. Primary emphasis will be placed on the processes that lead to the emergence of complex societies, the development of urbanism, and the comparative and cross-cultural perspective. Prerequisite: ANT 140 or consent of instructor.

**ANT 315 Special Topics in Anthropology (3).** This seminar will cover an important topic or related topics. Both student and faculty interest will determine the topic. Students will both contribute and lead discussions of the readings. Research paper is required. May be repeated.

**ANT 320 Human Ecology (3).** A cross-cultural examination of the influences that different environments have on biological and cultural adaptation. Focus will be given to environmental reconstruction, settlement patterns, land use, and
Intro

ANT 325 Biological Anthropology (3). The biological nature of man. A survey of man’s physical origin, his primate background, and his evolution. Cultural association with fossil evidence and concepts of race. (Same as BIO 325.)

ANT 329 North American Indians (3). Introduction to Native American cultures north of Mexico. This course entails a survey of the cultural traditions of the indigenous populations of North America. Emphasis will be placed on traditional lifeways and the consequences of interactions between Native Americans and Euro-American populations.

ANT 343 Minorities in the United States (3). Identity, goals and organization of minority groups; dynamics of prejudice; processes of communication, conflict and accommodation. Prerequisite: six hours of sociology or anthropology, or consent of instructor. (Same as SOC 343.)

ANT 344 The Black Experience (3). An analysis of the African American way of life utilizing anthropological and historical approaches. Major themes in black culture will include religion, family relations and political empowerment. Biographical, autobiographical and ethnographic materials will be utilized. (Same as SOC 344.)

ANT 356 The Art of Non-Western Cultures (3). Study of the arts of Asia, Oceania, Africa and the Pre-Western Americas. (Same as ART, MCG, RGS 356.)

ANT 390 Applied Anthropology (3). A study of how anthropologists use their knowledge to solve special social and technical problems. Topics to be covered include the history of applied anthropology, the ethics of significantly altering the culture of the group, and the explanation of how and why behavioral systems change. Prerequisite: six hours of anthropology or consent of instructor.

ANT 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

ANT 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

ANT 500 Directed Studies (1-3). Selected topics in anthropology as arranged by the student and a professor. May be repeated up to nine hours credit. Prerequisites: at least 12 hours of anthropology and permission of department chair.

ANT 596 The Minority Elderly (3). This course focuses on the minority elderly including racial, ethnic and lower income groups. Applicable concepts and theories in social gerontology will also be covered. Prerequisite: nine hours of anthropology, gerontology or sociology or consent of instructor. (Same as GYT 596.)

ARCHAEOLOGY (ARC)

ARC 150 Introduction to Archaeology (3). Survey of archaeology’s contribution to humankind’s knowledge of prehistoric and historic development on a worldwide basis with emphasis placed upon discoveries rather than methods of archaeology.

ARC 300 Archaeological Method and Theory (3). History theory, and methods of archaeology; introduction to problems and techniques of field and laboratory research (mapping, recording, artifact classification, reporting). Lectures and laboratory sessions. Prerequisite: ARC 150 or consent of instructor.

ARC 302 Archaeological Field Work I (1-5). Field training in the strategy and tactics of archaeological survey and excavation; intensive instruction in the recovery and documentation of cultural remains and data from archaeological sites. Six weeks continuous field work. Usually offered only during summer session. May not be repeated. Prerequisites: ARC 150 and 300, or consent of instructor.

ARC 304 Archaeological Laboratory Methods (1). Practical training in the organization and methods of archaeological laboratory procedures. Instruction in processing, cataloguing, preliminary analysis, and preparation for curation/archival storage of cultural remains and records resulting from archaeological field work. Repeatable for a maximum of three credits. Prerequisites: ARC 150 and 302 or permission of the instructor.

ARC 314 Sediments and Soils (4). An in-depth study of sediments and soils. Emphasis will be on the geologic formation, interpretation, and significance of sediments and soils in a variety of geologic, environmental, and archaeological contexts. Three hours lecture and two hours laboratory per week plus one required Saturday field trip. Prerequisite: GSC 102 or permission of the instructor. (Same as GSC 314.)

ARC 315 Special Topics in Archaeology (1-3). Seminar will cover an important topic or related topics. Both student and faculty interest will determine the topic. Students will contribute to class through discussions of assigned readings and research. The course has variable credit and may be repeated three times for a total of nine credit hours. Prerequisite: ANT 140 or ARC 150, or permission of instructor.

ARC 320 Human Ecology (3). A cross-cultural examination of the influences that different environments have on biological and cultural adaptation. Focus will be given to environmental reconstruction, settlement patterns, land use, and the effects of migration and mobility on ancient and modern human populations. Current ecological and anthropological theories will be utilized to examine social evolution from hunting/gathering, pastoral, horticultural, agricultural, and industrial societies throughout human history. Prerequisite: ANT 140 or permission of the instructor. (Same as ARC 320.)

ARC 321 Ancient Civilizations (3). An in-depth anthropological, archeological and historical examination of the origins of seven of the world’s earliest civilizations (Southwest Asia, Egypt, India, China, Mesoamerica, Andean and North American).

ARC 325 Hunter-Gatherer Ethnoarchaeology (3). Hunting and gathering constituted the way of life for all humans during the majority of human evolution. This course is an examination of variability in adaptations of modern hunter-gatherer societies on a global scale, emphasizing subsistence, mobility, and social organization. The study of modern societies serves as the basis for understanding the adaptations of prehistoric hunter-gatherers. Prerequisites: ANT 140 and ARC 150 or consent of instructor.


ARC 335 Forensic Archaeology (3). An examination of the methods used by forensic anthropologists to determine the identity, age, sex and race of an individual from skeletal remains using archaeological and anthropological field and laboratory methods.


ARC 350 Public Archaeology (3). Introduction to the philosophy and mechanics of modern Cultural Resource Management (CRM), primarily from an archaeological perspective. Emphasis will be placed on gaining a practical working knowledge of CRM legislation, regulation, and process, as well as balancing business, research, ethics, and public interest issues. Two Saturday field trips will be required. Prerequisite: ARC 150 or permission of instructor.

ARC 357 Lithic Analysis (4). This course will introduce students to the technology and principles of stone tool manufacture, the identification and classification of stone tools and debitage, and the primary methods of lithic analysis employed in archaeological research. The course will consist of three hours of lecture and two hours of laboratory per week. Prerequisite: ARC 150 or consent of instructor.
arc 360 Historical Archaeology (3). A methodological survey of the archaeology of historical societies, with geographic concentration on North America. Emphasis on research strategies and special problems in the archaeological study of literate societies. Prerequisite: ARC 150 or consent of instructor.

ARC 370 Archaeology of the Eastern Woodlands (3). An intensive examination of eastern U.S. prehistory from 12,000 B.C. through A.D. 1700, covering major cultural traditions, e.g. Paleo, Archaic, Woodland (Adena and Hopewell), and post-Woodland Indian groups (Ft. Ancient and Mississippian). Course includes the study of general Midwestern U.S. and southeastern prehistory. Prerequisite: ARC 150.

ARC 385 Archaeology of Eastern Asia (3). A survey of the archaeology of Eastern Asia, from human origins to the historic period. Emphasis is placed on the archaeological evidence from the emergence of East Asian complex societies and culture history before the advent of European contact. Prerequisite: ARC 150 or permission of instructor.

ARC 390 Geoarchaeology (3). Survey of geological methods and techniques used to answer archaeological research questions. Topics covered include sedimentary and geomorphic processes, depositional environments, site formation processes, environmental reconstruction, and radiometric dating techniques. One Saturday field trip will be required. Prerequisites: ARC 150 and GSC 101. (Same as GSC 390.)

ARC 395 Archaeology of Religion (3). A survey of the archaeological evidence for religions throughout the world, from the earliest expressions of spirituality to the modern world religions. Emphasis is placed on the archaeological evidence for recognizing religious expressions in general, and for the emergence of modern world religions. Archaeological interpretations of New World, African, and Australian religions will be considered in comparative perspective. Fieldwork to a house of worship or cemetery will be required. Prerequisite: ARC 150 or permission of instructor. (Same as RGS 395.)

ARC 402 Archeological Field Work II (1-5). Advanced field training in the methods of archeological survey and excavation; intensive instruction in the recovery and documentation of cultural remains and data from archeological sites, emphasizing individual initiative. One or more weeks of continuous field work (generally equivalent to one credit hour per every 37.5 hour week in the field.) Usually offered during summer session or during breaks. May not be repeated. Prerequisite: ARC 302, or consent of instructor.

ARC 425 Advanced Archaeological Laboratory Methods (3). Advanced training in the analysis of archaeological materials and writing of an archaeological study for professional presentation and publication. Prerequisites: ARC 300 and 304.

ARC 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of each student, for which he/she may receive both academic credit and financial remuneration. May be repeated for a maximum of six hours for any 488/489 course. Graded pass/fail. Prerequisites: permission of instructor.

ARC 489 Cooperative Education/Internship (1-3). Continuation of ARC 488. A meaningful, planned, and evaluated work experience related to the career and educational objectives of each student, for which he/she may receive both academic credit and financial remuneration. May be repeated for a maximum of six hours for any 488/489 course. Prerequisites: At least three hours of ARC 488 and permission of instructor.

ARC 498 (598) Museum Studies (3). This course will provide a broad introduction to the field of museum work. Topics included will be the history and philosophy of museums; the social, economic and political trends that shape museums; the staffing, management and financing of museums; and the multiple functions of museums — collection and care of objects, exhibition design and interpretation, educational programs, research activities and public relations. (Same as HIS 498.)

ARC 500 Directed Studies (1-3). Selected topics in archaeology as arranged by the student and a professor. May be repeated for up to nine hours. Prerequisites: At least 12 hours of archaeology and permission of department chair.

ARC 501 History of Archaeological Thought (3). A historical overview of the history and development of archeological thought from ancient times to the modern world. Prerequisite: ARC 300 or permission of the instructor.

ARC 505 Environmental Archaeology (4). The study of past human interactions with the natural world, including plants, animals, climate, and landscapes. Three hours lecture and two hours laboratory per week. Prerequisite: ARC/GSC 390, or permission of the instructor.

ARC 510 Advanced Archeological Field Work (1-5). Advanced field training in the strategy and tactics of archaeological survey and excavation. Intensive instruction in recovery and documentation of cultural remains and data from archaeological sites, the organization and logistics of archaeological field projects, and supervision of field crews. One or more weeks of continuous field work (generally equivalent to one credit hour per every 37.5 hour week in the field). Usually offered only during the summer session. May be repeated for up to five hours of credit. Prerequisite: ARC 402 or permission of instructor.

ARC 555 Archaeology of the Mid-South Region (3). An in depth study of prehistoric cultures of the Mid-South Region. Prerequisites: ARC 300, 330, 370, or permission of the instructor.

ARC 556 Remote Sensing Applications in Archaeology (3). An overview of the application of terrestrial geophysical survey techniques and aerial remote sensing techniques in archaeological research. Emphasis will be placed on terrestrial geophysical survey methods with hands on training in the use of instruments such as ground penetrating radar and magnetic gradiometer. Weekend field trip to local archaeological sites are required. Prerequisite: ARC 300 or permission of instructor. (Same as GSC 556.)

ART AND DESIGN (ART)

Note: All prerequisite courses apply to students in art programs. Students not majoring or minor ing in art may take any of the art courses listed if approved by the instructor and the Department of Art and Design.

ART 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Introductory seminar for all first-semester art majors, including transfer students. Graded pass/fail.

ART 101 Drawing I: Introduction to Drawing (3). Drawing with an emphasis on the development of visual perception. Six hours per week.

ART 105 Studio Art for Non-Majors (3). A studio course designed to introduce non-art majors to the processes of visual language and basic studio techniques that are fundamental to creating images. Six hours per week.

ART 111 Two-dimensional Design (3). Fundamental elements and concepts of design. Six hours per week.

ART 112 Three-dimensional Design (3). Fundamental elements and concepts of three-dimensional design. Six hours per week.

ART 121 Art Appreciation (3). Surveys the various aspects of the visual and functional arts and their relationship to human life and society. A variety of art forms from different cultures and historical periods will be studied. Does not count toward art history minor. A student cannot have credit for both ART 121 and HON 161.

ART 201 Drawing II: Life Drawing (3). Figure drawing in varied media. Six hours per week. Prerequisite: ART 101 or permission of instructor.

ART 211 Introduction to the History of Art I (3). A survey of the history of art from Prehistory through the Middle Ages.

ART 212 Introduction to the History of Art II (3). A survey of the history of art from the Renaissance to the present.

ART 290 Special Problems in Studio Art (1-3). An independent problems course in studio art for undergraduates majoring in art under the direction of a faculty member. The student must submit and receive approval of a detailed study plan prior to registration. Prerequisites: consent of supervising faculty member and permission of department chair. Repeatable.
ART 298 Mid-Degree Review Seminar (1). Assessment and enhancement of students’ progress through weekly readings and discussions of issues in art and design, student writings about their own work, and a critique of their art by a jury of Art and Design faculty. Undergraduate and transfer students pursuing a baccalaureate degree in art must register for ART 298 immediately following the completion of 30 credit hours in art. This is a graded course.

ART 300 Drawing III (3). A conceptual study of both figurative and abstract approaches to drawing. Six hours per week. Prerequisites: ART 101 and 201 or permission of instructor.

ART 303 Drawing IV (3). Exploration of drawing ideas with emphasis on the development of personal expression. Six hours per week. Prerequisite: ART 300 or permission of instructor.

ART 304 Drawing V (3). Continuation of ART 303. Six hours per week. Prerequisite: ART 303 or permission of instructor.

ART 309 Introduction to Metalsmithing I (3). Metals in jewelry-making, holloware, small sculpture, and object-making with an emphasis on design and craftsmanship. Six hours per week. Prerequisites: ART 101 and 112 or permission of instructor.

ART 310 Introduction to Furniture Design I (3). Three-dimensional design as it relates to ideas, tools, materials and processes. The student designs projects which integrate aesthetics and function using a variety of materials and processes. Six hours per week. Prerequisite: ART 112 or permission of instructor.

ART 311 Metalsmithing II (3). Introduction to several casting techniques as well as a continuation of skills learned in ART 309. Six hours per week. Prerequisite: ART 309 or permission of instructor.

ART 312 Metalsmithing III (3). Advanced problems in metalsmithing with an emphasis on ideation and conceptualization of content. Six hours per week. Prerequisite: ART 311 or permission of instructor.

ART 313 Furniture Design II (3). Exploration of functional design with an emphasis on development of personal direction in design. Advanced methods of construction and techniques will be taught. Six hours per week. Prerequisite: ART 310 or permission of instructor.

ART 314 Furniture Design III (3). Advanced problems in functional design. Chair and table construction will be emphasized in this class. Six hours per week. Prerequisite: ART 313 or permission of instructor.

ART 330 Introduction to Painting I (3). This course covers basics of color theory and materials and techniques of painting in oil. Problems stress the mastery of the medium first, and then using it to render from observation. Six hours per week. Required course for teacher certification. Prerequisites: ART 101, 111, and 201 or permission of instructor.

ART 331 Furniture Design III (3). Advanced problems in functional design. Chair and table construction will be emphasized in this class. Six hours per week. Prerequisite: ART 313 or permission of instructor.

ART 333 Painting II (3). Continuation of ART 330. Six hours per week. Prerequisite: ART 330 or permission of instructor.

ART 334 Painting III (3). Continuation of ART 333. Six hours per week. Prerequisite: ART 333 or permission of instructor.

ART 341 Fundamentals of Elementary School Art (3). Survey of the profession of art education at the elementary school level. Provides students with a combination of clinical and field experiences. Includes laboratory and lecture experiences in elementary school art materials and teaching methods. This course is designed for the art major pursuing teacher certification in ART P-12. Six hours per week. Prerequisite: EDU 103 or permission of the instructor.

ART 342 Fundamentals of Secondary School Art (3). Survey of the profession of art education at the junior and senior high school levels. Provides students with a combination of clinical and field experiences. A course similar to ART 341 with emphasis upon teaching of art on the junior and senior high school levels. This course is designed for the art major pursuing teacher certification in ART P-12. Six hours per week. Field hours required. Prerequisite: EDU 103 or permission of the instructor.

ART 343 Art Materials and Techniques for the Classroom Teacher (3). A studio art education course emphasizing visual learning in all curricular areas of the elementary classroom. This course provides prospective elementary classroom teachers, early childhood educators, and special education teachers with the necessary art-making skills in a variety of media and techniques. Class sessions include demonstration, experimentation, and manipulation of materials and techniques leading to reflective decision-making as well as critical assessment of finished work. Six hours per week. Prerequisite: EDU 103 or permission of the instructor.

ART 345 Introduction to Graphic Design I: Digital Art (3). Introduction to the computer as a tool for fine art and illustration. Students are taught computer techniques and approaches to creating art. Six hours per week. Prerequisites: ART 101 and 111.

ART 351 Graphic Design II: Type and Image (3). Introduction to type and image production for graphic design. Students learn traditional and computer based problem-solving techniques. Six hours per week. Prerequisite: ART 350 or permission of instructor.

ART 352 Graphic Design III: Layout and Introduction to Design Systems (3). Intermediate level study in graphic design focusing on layout for publication. Six hours per week. Prerequisite: ART 350 (ART 351 is also recommended) or permission of instructor.

ART 353 Web Design (3). This course is intended to continue and emphasize the concepts and skills of graphic communication. Emphasis will be placed on learning professional design methods and applying them to designs for the web. Projects will stress considerations in design theory and the principles of typography, particularly as they apply to user interface design, site design, and navigation. Students will work in both an individual and a collaborative manner involving writing, electronic design, advertising, and photography. Prerequisite: ART 350.

ART 356 The Art of Non-Western Cultures (3). Study of the arts of Asia, Oceania, Africa and the Pre-Western Americas. (Same as ANT, MCG, RGS 356.)

ART 360 Introduction to Sculpture I (3). A study of form, space and surface through the development of 3-D sculptural assignments. Basic sculpture techniques involving additive and subtractive methods. Studio and lecture. Six hours per week. Prerequisites: ART 111 and 112 or permission of instructor.

ART 361 Sculpture II (3). Further exploration of form, space, and surface and an introduction to more advanced techniques and permanent materials. Studio and lecture. Six hours per week. Prerequisite: ART 360 or permission of instructor.

ART 362 Sculpture III (3). A continuation of ART 361. Studio and lecture. Six hours per week. Prerequisite: ART 361 or permission of instructor.

ART 370 Introduction to Ceramics I (3). Beginning ceramics introduces students to a broad spectrum of clay working including the making of functional pottery, the vessel as metaphor, and clay as a medium for sculpture. Students learn hand building, wheel throwing, and glazing among other basic ceramic techniques. Design, craftsmanship, and critical thinking are emphasized. Six hour per week. Corequisite: ART 101 or 111 or permission of instructor.

ART 371 Ceramics II (3). Continued development of skills and concepts learned in ART 370 along with the introduction of advanced techniques including casting and kiln firing. Ideation, criticism and discussion are emphasized. Six hours per week. Prerequisite: ART 370 or permission of instructor.

ART 372 Ceramics III (3). Continued development of skills and concepts learned in ART 371 with an emphasis on individual investigation, technical finesse, concept, content, criticism and discussion. Six hours per week. Prerequisite: ART 371 or permission of instructor.

ART 379 Introduction to Printmaking I (3). Introduction to the techniques and materials of intaglio and relief printing, including collograph, drypoint, etching and linoleum cuts. Composition, craftsmanship, and technique are emphasized. Six hours per week. Prerequisites: ART 101, 111, 201.

ART 380 Printmaking II (3). Introduction to the techniques and materials of lithography including stone, plate and photo lithography. Composition, craftsmanship, technique and individual investi-
and design are emphasized. Six hours per week. Prerequisite: ART 379 or permission of instructor.

ART 399 Professional Practices (1). A survey of the resources, methods and skills employed by artists in a range of professions.

ART 403 Drawing VI (3). Six hours per week. Prerequisite: ART 363 or permission of instructor.

ART 404 Drawing VII (3). Six hours per week. Prerequisite: ART 403 or permission of instructor.

ART 411 Metalsmithing IV (3). Advanced problems in metalsmithing. Six hours per week. Prerequisite: ART 312 or permission of instructor.

ART 412 Metalsmithing V (3). Use of metals in jewelry-making, holloware, small sculpture, and/or object-making. Six hours per week. Prerequisite: ART 411 or permission of instructor.

ART 413 Furniture Design IV (3). Advanced problems in functional design. Complex carcase and drawer construction will be emphasized. Six hours per week. Prerequisite: ART 314 or permission of instructor.

ART 414 Furniture Design V (3). Advanced problems in functional design. Students will design and build functional pieces of their choosing. Six hours per week. Prerequisite: ART 413 or permission of instructor.

ART 415 Greek and Roman Art (3). Topics in the history of the art and architecture of ancient Greece and Rome through the late Antique. Prerequisite: ART 211 or permission of instructor.

ART 416 Medieval Art (3). Topics in the history of art from the Early Christian through the Gothic period. Prerequisite: ART 211 or permission of instructor. (Same as RGS 417.)

ART 418 Renaissance Art (3). Topics in the history of the Renaissance. Prerequisite: ART 212 or permission of instructor.

ART 419 Baroque Art (3). Topics in the history of the art of the Baroque period, mainly in Europe. Prerequisite: ART 212 or permission of instructor.

ART 425 Art of Asia (3). A history of the art of India, Central and Southeast Asia, China, Korea, and Japan. Prerequisites: Both ART 211 and 212, or ART 356, or permission of instructor. (Same as RGS 425.)

ART 428 Nineteenth-Century Art (3). History of 19th Century Western art. Prerequisite: ART 212 or permission of instructor.

ART 429 Art from 1900 to 1960 (3). History of Western art from 1900 to 1960. Prerequisite: ART 212 or permission of instructor.

ART 430 Contemporary Art, 1960 to the Present (3). History of contemporary art from 1960 to the present. Prerequisite: ART 212.

ART 433 Painting IV (3). Advanced problems. Six hours per week. Prerequisite: ART 334 or permission of instructor.

ART 434 Painting V (3). Exploration of painting and ideas with emphasis on personal expression. Criticism and discussion. Six hours per week. Prerequisite: ART 433 or permission of instructor.

ART 451 Graphic Design IV: System Design (3). Advanced level design for multimedia and the Internet. Web page design and exploration of multimedia. Six hours per week. Prerequisite: ART 351, 352, or permission of instructor.

ART 452 Graphic Design V: Senior Portfolio (3). Terminal level study in graphic design involving directed research, portfolio preparation and group evaluation. Six hours per week. Prerequisite: ART 351, 352, or permission of instructor.

ART 461 Sculpture IV (3). Selected problems in the sculpture process. Opportunity for directed study and studio work in a variety of three-dimensional media or processes. Emphasis on developing a creative body of work. Studio and lecture. Six hours per week. Prerequisite: ART 362 or permission of instructor.

ART 462 Sculpture V (3). A continuation of ART 461. Six hours per week. Prerequisite: ART 461 or permission of instructor. Studio and lecture.

ART 471 Ceramics IV (3). Continued development of the skills learned in ART 372, largely through individually tailored and self-directed assignments. Students will be responsible for all aspects of the production of their work, from mixing their clay and glaze to loading and firing kilns. Technical proficiency, criticism, discussion, and investigation of historical and contemporary ceramics will be emphasized. Six hours per week. Prerequisite: ART 372 or permission of instructor.

ART 472 Ceramics V (3). Continuation of ART 471. Six hours per week. Prerequisite: ART 471 or permission of instructor.

ART 480 Printmaking IV (3). Advanced problems and further exploration of the techniques, processes, tool and equipment related to intaglio, lithography, relief and silkscreen. Individual direction, technical proficiency and personal expression are emphasized. Criticism and discussion. Six hours per week. Prerequisite: ART 381 or permission of instructor.

ART 481 Printmaking V (3). Continuation of ART 480. Six hours per week. Prerequisite: ART 480 or permission of instructor.

ART 483 Photography IV (3). Investigation of nontraditional and/or new technology related to light-sensitive image-making. Refinement of personal visual direction. Research into new techniques and/or visual trends in society and industry. Six hours per week. Prerequisite: ART 384 or permission of instructor.

ART 484 Photography V (3). Concentrated study of selected photographic processes as related to student’s professional goals. Individual explora-
ART 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

ART 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

ART 490 Special Problems in Studio Art (3). An independent problems course in studio art for advanced undergraduates majoring in art under the direction of a faculty member. The student must submit and receive approval of a detailed study plan prior to registration. May be repeated up to three times for credit. Prerequisites: consent of supervising faculty member and permission of department chair.

ART 491 Special Problems in Art History (3). An independent problems course in art history for advanced undergraduates majoring in art under the direction of the art history faculty. The student must submit and receive approval of a detailed study plan prior to registration. May be repeated once for credit. Prerequisites: consent of supervising faculty member and permission of department chair.

ART 492 Special Problems in Art Education (3). An independent problems course in art education for advanced undergraduates majoring in art under the direction of the art education faculty member. The student must submit and receive approval of a detailed study plan prior to registration. Does not count as a studio elective. May be repeated up to three times for credit. Prerequisites: consent of supervising faculty member and permission of department chair.

ART 498 B.F.A. Practicum Exhibition (3). Final project for the B.F.A. candidate taking an area in art. Documentation (slides/video) and written statement (which includes a description of the direction and influences upon the student’s work) must accompany the practicum exhibition. Graded pass/fail. Prerequisite: ART 298 or permission of instructor.

ART 499 B.A./B.S. Practicum Group Exhibition (1). Final project for the B.A./B.S. candidate taking an area in art. Written statement, including description of the direction and influences upon the student’s work, must accompany the work exhibited in the practicum exhibition. Graded pass/fail. Prerequisites: ART 298 and senior year, the final semester of the student’s program of study, or permission of instructor.

ART 501 Seminar: Special Topics in Art History (3). Changing seminar topics to be determined by the instructor and student interest. May be repeated up to nine credit hours. Prerequisites: ART 211 and 212, or permission of instructor.

ART 503 Drawing VIII (3). Concentrated exploration of drawing with emphasis on personal expression. Criticism and discussion. Six hours per week. Prerequisite: two drawing courses or permission of instructor.

ART 504 Drawing IX (3). Continuation of ART 503. Six hours per week. Prerequisite: ART 503 or permission of instructor.

ART 511 Metalsmithing VI (3). A concentrated exploration of the use of metals in jewelry-making and hollowware. Six hours per week. Prerequisites: two courses in metalsmithing or permission of instructor.

ART 512 Metalsmithing VII (3). Continuation of ART 511. Six hours per week. Prerequisite: ART 511 or permission of instructor.

ART 513 Furniture Design VI (3). Advanced problems in functional design. Students will design and build functional pieces of their choosing. Six hours per week. Prerequisites: two courses in functional design or permission of instructor.

ART 514 Furniture Design VII (3). Advanced problems in functional design. Students will design and build functional pieces of their choosing. Six hours per week. Prerequisite: ART 513 or permission of instructor.

ART 515 Greek and Roman Art (3). Topics in the history of the art and architecture of ancient Greece and Rome through the late-Antique. Prerequisite: ART 211 or permission of instructor.

ART 516 Medieval Art (3). Topics in the history of art from the Early Christian through the Gothic period. Prerequisite: ART 211 or permission of instructor.

ART 518 Renaissance Art (3). History of the art of the Renaissance. Prerequisite: ART 212 or permission of instructor.

ART 519 Baroque Art (3). History of the art of the Baroque period, mainly in Europe. Prerequisite: ART 212 or permission of instructor.

ART 528 Nineteenth-Century Art (3). History of 19th Century Western art. Prerequisite: ART 212 or permission of instructor.

ART 529 Art from 1900 to 1960 (3). History of Western art from 1900 to 1960. Prerequisite: ART 212 or permission of instructor.

ART 530 Contemporary Art, 1960 to the Present (3). History of contemporary art from 1960 to the present. Prerequisite: ART 212 or permission of instructor.

ART 533 Painting VI (3). Concentrated exploration of painting with emphasis on personal expression. Criticism and discussion. Six hours per week. Prerequisites: two painting courses or permission of instructor.

ART 534 Painting VII (3). Continuation of ART 533. Six hours per week. Prerequisite: ART 533.

ART 551 Graphic Design VI (3). Additional refinement of graphic techniques, discussion and criticism. An emphasis on individual investigation concentrating on producing a unified body of work suitable for a portfolio or professional show. The student and the instructor will design a program of study directed toward this goal. Six hours per week. Prerequisite: ART 452.

ART 552 Graphic Design VII (3). Advanced specialization; continuation of ART 551.

ART 561 Sculpture VI (3). Selected problems involved in the sculpture process. Opportunity for directed individual study and studio work in a variety of three-dimensional media or processes. Emphasis on developing a cohesive, creative body of work. Studio and lecture. Six hours per week. Prerequisite: ART 462 or permission of instructor.

ART 562 Sculpture VII (3). A continuation of ART 561. Studio and lecture. Six hours per week. Prerequisite: ART 561 or permission of instructor.

ART 571 Ceramics VI (3). Concentrated exploration of selected ceramic processes with emphasis on personal expression. Six hours per week. Prerequisites: two courses in ceramics or permission of instructor.

ART 572 Ceramics VII (3). Continuation of ART 571. Six hours per week. Prerequisite: ART 571 or permission of instructor.

ART 580 Printmaking VI (3). Advanced problems. Concentrated study of selected printmaking processes with emphasis on personal expression. Individual direction and technical proficiency are emphasized. Criticism and discussion. Six hours per week. Prerequisites: two advanced courses in printmaking or permission of instructor.

ART 581 Printmaking VII (3). Advanced problems. Continuation of ART 580. Six hours per week. Prerequisite: ART 580 or permission of instructor.

ART 583 Photography VI (3). Concentrated exploration of individual problems, culminating in a unified body of work such as a book or portfolio. Individual expression, discussion and criticism. Six hours per week. Prerequisites: two courses in photography or permission of instructor.
ASTRONOMY (AST)
AST 115 Introductory Astronomy (3). Descriptive examination of the objects of the solar system and the stellar universe. A brief historical presentation of the fundamental astronomical theories provides a basis for the examination. Multimedia presentations are used. Co-requisite: AST 116.

AST 116 Introductory Astronomy Laboratory (1). Laboratory to accompany AST 119. Two hours laboratory per week. Corequisite: AST 115.

AST 215 General Astronomy (3). A mathematical study of the relative positions, motions, and physical characteristics of celestial objects. Lectures supplemented by occasional visits to the observatory. Not open to students with credit in AST 115. Prerequisite: MAT 130 or approved equivalent.

AST 216 Stars and Galaxies (3). Brief survey of radiation and spectra, geometric and radioactive properties of stars, multiple stars, variables, star clusters and associations. Prerequisites: AST 215, MAT 250.

AST 220 Astrophotography (2). Involves technique of photographing the lunar surface, the planets, interstellar media, and constellations as well as studies of photographic materials.

AST 306 Astrometry (3). Survey of the basic measurements related to astronomical observing. Plane and spherical coordinates celestial sphere, stellar positions, proper motion and time effects. Prerequisites: AST 215, MAT 250.

AST 316 Introductory Astrophysics and Space Physics (3). Introduction to astrophysics and space physics. Space physics is concerned with understanding the environment between the sun and the earth’s upper atmosphere. Topics include coronal mass ejections, the solar wind, magnetospheric storms, and auroral precipitation. Astrophysics is the study of planetary system formation and evolution, stellar structure and evolution, galactic structure, and cosmology. Phenomena of interest include quasars, black holes, supernovas, and the cosmic microwave background radiation. Prerequisites: PHY 140 and 255. Co-requisite: PHY 370 or PHY 580; or consent of instructor. (Same as PHY 316.)

AST 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

AST 515 Special Topics (1-3). This course is designed to fulfill special needs not met by other courses. It may be a lecture or seminar course. Prerequisite: consent of instructor.

BUSINESS AND MARKETING EDUCATION (BED)
BED 510 Methods and Materials-Teaching Business/Marketing Education Subjects (3). A required course for business/marketing students emphasizing the latest methods and materials for teaching business and marketing subjects. Must be completed before doing student teaching. Field experience required. Field trips may be required. Prerequisite: CTE 503 or EDU 303.

BED 595 Special Problems (3). Prerequisite: consent of instructor.

BIOLOGY (BIO)
BIO 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Required of all entering freshmen. Graded pass/fail. (Fall only)

BIO 100 Introductory Biology Laboratory (1). Laboratory work for a non-majors general biology course. Open only to transfer students with three hours of non-majors general biology without a laboratory. Consent of biology chairperson is required.

BIO 101 Biological Concepts (4). Biological principles are examined in an active learning mode. This course relates the significance of biology to individuals and society and establishes that this body of knowledge underpins agriculture, medicine, and environmental management. Laboratory required.

BIO 103 Saving Planet Earth (3). A study of the problems faced by humans on the Earth, including human population growth, over-exploitation of natural resources, habitat destruction and extinction. The philosophical, ethical, and scientific basis of these problems and their solutions will be discussed. The course will also explore the potential for humans to live in a sustainable fashion on the planet, and emphasize the social responsibility and civic engagement required to do so.

BIO 109 Biology of Cancer (3). The exploration into the myths and facts of the biology of cancer and how various physical, genetic, environmental, and lifestyle factor influence one’s chances of developing cancer. Topics will include basic cell, tumor, and human biology, the different strategies the health care system employs to detect, attack, and defeat cancer, and risk factor assessment.

BIO 112 Field Biology (4). Consists of study and identification of plants and animals with emphasis on those common to this area. Ecological and environmental aspects of living organisms are stressed. Four hours laboratory per week plus required Saturday field trips. (Spring semester)

BIO 115 The Cellular Basis of Life (3). An introduction to the concepts and foundations of modern biology. Intended to familiarize students with the mechanisms and terminology of biology at the cellular level, the topics presented and discussed act as a framework for successful transition into higher level biology courses. Emphasis is placed on the investigative methods used by biologists leading to our current understanding of biological chemistry, cellular processes, cell interactions, genes and DNA technology.

BIO 120 Scientific Etymology (1). A systematic study of the Latin and Greek origins of selected words. One lecture per week. (Fall)

BIO 154 Dendrology (3). Principles and art of identification of trees and shrubs in both summer and winter conditions. (Fall)

BIO 216 Biological Inquiry and Analysis (4). An inquiry-based introduction to concepts in biology. Research-oriented activities will emphasize the skills and attitudes necessary for understanding and conducting scientific inquiry. Three hours of lecture and two hours of laboratory per week. Prerequisites: ENG 105 and BIO 101 or 115.

BIO 220 Clinical Terminology (1). A study of the terms, symbols, and abbreviations common to the clinically-oriented health professions. Prerequisites: BIO 120 and eight hours of biology. (Spring)

BIO 221 Zoology: Animal Form and Function (4). A study of the animal kingdom with emphasis on evolutionary and ecological relationships of animal groups, vertebrate anatomy and physiology, and evolutionary concepts. Three hours of lecture and three hours of laboratory per week.

BIO 222 Botany: Plant Form and Function (4). A study of the evolution, anatomy, morphology, physiology, classification, and life cycles of major divisions of the plant kingdom. Three hours of lecture and three hours of laboratory per week.

BIO 227 Human Anatomy Lecture (2). Basic morphology of the human body. Cannot be applied toward a biology major. Prerequisites: BIO 101 or BIO 115 and 216 (BIO 221 may be substituted). Corequisite: BIO 228.

BIO 228 Human Anatomy Laboratory (2). The basic morphology of the human body. Four hours laboratory per week. Cannot be applied toward a biology major. Prerequisites: BIO 101 or BIO 115 and 216 or BIO 221. Corequisite: BIO 227.

BIO 229 Human Physiology (3). A study of mammalian physiology with emphasis on humans. Three hours lecture per week. Concurrent enrollment in BIO 230 is suggested but not required. Course may not be counted toward the biology major. Prerequisites: BIO 227 and BIO 228 or EXS 250.

BIO 230 Human Physiology Laboratory (1). Experimental approach to the study of human systems physiology. Course may not be counted toward the biology major. Prerequisite: Concurrent enrollment or previous completion of BIO 229 with a passing grade.

BIO 290 Biomedical Research I (2). The student will be involved in biomedical research with a faculty member who agrees to direct them. The student will support the research of advanced students and their mentor and assist with experiments. In the
process the student will be introduced to research and learn basic techniques. A minimum of 4 hours per week of research is expected. Prerequisites: admission into the biomedical sciences program and permission from a research mentor.

**BIO 300 Introductory Microbiology (4).** An introductory survey in general microbiology. Special emphasis is given to the study of the prokaryote microorganisms both in laboratory and lecture. Three hours of lecture and three hours of laboratory per week. Prerequisites: Eight hours of chemistry and eight hours of biology.

**BIO 305 Introduction to Evolutionary Principles (3).** Study of the theory of organic evolution including history, evidence, patterns, mechanisms and implications for humans. Prerequisite: Introductory course in biology. (Fall, even years)

**BIO 308 Ethics in Biology (3).** A comprehensive study of current ethical issues in biology, including topics in genetics and biotechnology, reproductive technology, species conservation, use of natural resources, and medicine and human/nonhuman interests. Understanding and application of value-choices and ethics is emphasized. One three-hour lecture per week. Prerequisites: BIO 115 and 216. (Spring)

**BIO 320 Comparative Vertebrate Anatomy (5).** Dissection and study of representative chordate systems with emphasis on the anatomy and evolution of fishes, amphibians, reptiles, birds, and mammals. May require additional laboratory supplies fee. Eight hours of class per week. Prerequisites: BIO 115, 216, 221, and 222 or permission of instructor. (Spring)

**BIO 321 Cell Biology: Mechanisms (3).** A detailed consideration of biological systems, their properties and interrelationships. Cellular and molecular biology are emphasized. Three lectures per week. Prerequisites: BIO 115, 216, 221, and 222 and two semesters of chemistry or permission of instructor. (Fall)

**BIO 322 Animal Physiology (4).** Introductory study of animal physiology. The organ and systems approach is used to compare animals. Emphasis on vertebrates and certain invertebrates. Three lectures and three hours laboratory per week. Prerequisites: Two semesters biology and two semesters chemistry; BIO 321 recommended. (Fall)

**BIO 323 Cell Biology: Systems (3).** Discussion of the modern concepts of cell biology as applied to cell interactions in multi-cellular organisms. Prerequisites: BIO 115, 216, 222, and two semesters of chemistry or permission of instructor.

**BIO 325 Biological Anthropology (3).** The biological nature of man. A survey of man’s physical origin, his primate background and his evolution. Cultural association with fossil evidence and concepts of race.

**BIO 330 Principles of Ecology (4).** An introduction to the fundamental concepts of ecology as they pertain to plants and animals, including humans. Emphasis will be placed on the basic principles of evolutionary, population, community, and ecosystem ecology. Three lectures and two hours laboratory per week. Prerequisites: BIO 115, 216, 221, and 222 or permission of instructor.

**BIO 333 Genetics (4).** An introduction to molecular and classical genetics with laboratory experiments involving various organisms used extensively in genetic studies. Three hours of lecture and three hours of laboratory per week. Prerequisites: BIO 115, 216, and 221.

**BIO 350 Systematic Botany (4).** Discussion of the vascular plants with emphasis on classification and phylogeny. Laboratory and field studies of the vascular plants of West Kentucky focusing on their identification, habitats, distribution and ecological role in this region. Prerequisite: BIO 222.

**BIO 380 Wildlife Techniques (4).** A survey and application of methods and techniques used in wildlife management; examples — biotelemetry, live trapping, etc. Three hours of lecture and three hours of laboratory per week. Prerequisites: BIO 221, 222 and 330. (Fall, odd years)

**BIO 388 Biomedical Research II (3).** The student will be involved in biomedical research with faculty members who agree to direct them. The student will work on a project under the direction of the research mentor. The student will write a research proposal including background information, specific aims and methods to be turned in near the end of the semester. The project will be initiated and a progress report will be submitted at the conclusion of the semester. A minimum of 6 hours per week of research is expected. Prerequisites: admission into the biomedical sciences program, permission from a research mentor, and completion of BIO 290.

**BIO 389 Biomedical Research III (3).** The student will be involved in biomedical research with faculty members who agree to direct them. The student will work on a project under the direction of the research mentor. The student will write a research proposal including background information, specific aims and methods to be turned in near the end of the semester. The project will be initiated and a progress report will be submitted at the conclusion of the semester. A minimum of 6 hours per week of research is expected. Prerequisites: admission into the biomedical sciences program, permission from a research mentor, and completion of BIO 290 and BIO 388.

**BIO 420 Vertebrate Embryology (4).** Comparative, developmental anatomy of the vertebrates with emphasis on the embryological development of humans. Two lectures and four hours laboratory per week. Prerequisite: BIO 320. BIO 321 recommended.

**BIO 421 Vertebrate Histology (4).** A course designed for the identification and comparative study of cells, tissues, and organs of representative mammals. Two lectures and four hours laboratory per week. Prerequisites: BIO 115, 216, and 221. (Spring)

**BIO 428 Biomedical Research IV (4).** The student will be involved in biomedical research with faculty members who agree to direct them. The student will work on a project under the direction of the research mentor. The student will write a research proposal including background information, specific aims and methods to be turned in near the end of the semester. The project will be initiated and a progress report will be submitted at the conclusion of the semester. A minimum of 6 hours per week of research is expected. Research with a mentor other than the mentor used in BIO 388 is encouraged. Credit for this course will be offered in the summer to biomedical science students who are conducting off-campus research at an affiliated research site. Prerequisites: admission into the biomedical sciences program, permission from a research mentor, and completion of BIO 290 and BIO 388.

**BIO 439 Biomedical Research V (4).** The student will be involved in biomedical research with faculty members who agree to direct them. The student will work on a project under the direction of the research mentor. The student will continue the project initiated in BIO 438. The student will submit a research paper with an introduction, results and discussion, and methods, and make an oral presentation to the biomedical research group. A minimum of 6 hours per week of research is expected. Credit for this course will be offered in the summer to biomedical science students who are conducting off-campus research at an affiliated research site. Prerequisites: admission into the biomedical sciences program, permission from a research mentor, and completion of BIO 290 and BIO 438.

**BIO 450 Exercise Physiology (3).** Students will become acquainted with general concepts in exercise physiology. Some topics to be included are cardiovascular function, neural control, musculoskeletal responses, and respiratory function. Lab activities will be integrated. Students will collect data, compile results and complete laboratory reports. Each student will review and summarize at least one research article from approved refereed journals in the field. Prerequisites: BIO 227 and 228 or EXS 250, BIO 229 and 230 or consent of the instructor. (Same as EXS 450).

**BIO 460 Principles of Biomathematics (3).** The study of biological and mathematical models is united in this research-based course. A variety of quantitative biological models and their underlying mathematics are studied. Students engage in research and communicate their results. Laboratory experiences and short-distance field trips are required. Prerequisites: BIO 216 and MAT 250 or consent of instructor. (Same as MAT 460.)

**BIO 467 General Parasitology (4).** A study of the principles of parasitology, including the morphology, taxonomy, life history and ecology of parasites. Laboratory will involve identification of important parasite groups, methods for host examination, diagnosis, and microtechniques. Two hours of lecture and four hours laboratory per week. Prerequisite: BIO 221. (Fall)
BIO 483 Undergraduate Teaching Methods I (3). Designed for students interested in teaching in the life sciences, especially students working towards teaching certification. The course provides students with the opportunity to learn and apply teaching techniques in the classroom under the direct supervision of a faculty member. Teaching experiences are arranged individually with a faculty member. (A maximum of 3 credit hours total from BIO 483, 484, 491, 492, 493 and 494 may be used toward the minimum requirements for the biology major or minor.) Prerequisite: junior or senior standing as a major within the College of Science and permission of the instructor and academic advisor.

BIO 484 Undergraduate Teaching in Biology (4). Designed for students interested in teaching in the life sciences, especially students working towards teaching certification. The course provides students with the opportunity to learn and apply teaching techniques in the classroom under the direct supervision of a faculty member. Teaching experiences are arranged individually with a faculty member. (A maximum of 3 credit hours total from BIO 483, 484, 491, 492, 493 and 494 may be used toward the minimum requirements for the biology major or minor.) Prerequisite: junior or senior standing as a major within the College of Science and permission of the instructor and academic advisor.

BIO 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

BIO 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

BIO 491 Undergraduate Research I (1). Research projects arranged individually with faculty members who agree to direct the research. A written plan of research must be filed with the chair within two weeks of the beginning of the semester. Normally restricted to juniors and seniors. (A maximum of three credit hours total from BIO 483, 484, and BIO 491, 492, 493 and 494 may be used toward the minimum requirements for the biology major or minor.) (Available year round)

BIO 492 Undergraduate Research II (2).

BIO 493 Undergraduate Research III (3).

BIO 494 Undergraduate Research IV (4).

BIO 499 Senior Biology Seminar (1). The course exposes biology students to various career options through participation in the departmental seminar series, provides a review of biological concepts through directed study, and provides an assessment of the student’s academic progress with a nationally standardized test. Weekly seminar and/or discussion. Prerequisites: BIO 222, 333, biology major, and senior standing.

BIO 501 Immunology (4). A discussion of immune response, formation of antibodies, structure of antibodies, antigen-antibody reactions, hypersensitivity, and allergic response. Laboratory includes techniques and methods for production and detection of antigen-antibody reactions. Two lectures and four hours of laboratory per week. Prerequisite: BIO 300. BIO 321 recommended.

BIO 504 Medical Cell Biology (3). A discussion of cell biology as related to the field of medicine and clinical knowledge. Emphasis is placed on the most recent applications of cellular and molecular techniques used in the research, diagnosis and treatment of clinical conditions. Considerations will be given to a wide range of topics, including cancer, neural regeneration, wound healing, aging, gene therapy, congenital deformation, AIDS and other prevalent disease states. Three hours of lecture per week. Prerequisite: BIO 321.

BIO 506 Advanced Field Biology (4). For students who wish to learn the identification principles and actual identification of living organisms. Course work will include a study of the ecological aspects of the various organisms and their distribution. Techniques of teaching about nature will be emphasized. Prerequisite: junior or senior standing for science education majors. (Summer)

BIO 510 Cell Physiology (4). The study of the life processes of the individual cell as related to structure. Particular emphasis is placed on current molecular aspects of biological mechanisms, including growth, cell division and macromolecular synthesis. Two lectures and four hours of laboratory per week. Prerequisites: BIO 321 and four hours of physics.

BIO 511 Cell Metabolism (4). Cellular metabolism including photosynthesis, respiration, and the synthesis of lipids and proteins. Emphasis is placed on enzymatic mechanisms and metabolic pathways. Two lectures and four hours laboratory per week. Prerequisites: BIO 321 and CHE 530.

BIO 512 Microscopy and Microtechniques (4). Techniques in bright field, phase contrast, interference contrast, and photo microscopy are emphasized. Standard methods in fixation, embedding, microtomy, and staining of specimens are covered. Darkroom techniques for the biological sciences are also included. Prerequisites: BIO 221 and 222.

BIO 529 Teaching Science Through Inquiry (4). Students will learn and apply current inquiry based instructional methods and assessment strategies to teach science. Students will also gain the basic data management and analytical skills necessary to conduct action research. The course will follow a workshop style format modeling inquiry based methods. A significant amount of independent and group work is expected outside of class meetings. Prerequisite: admission to teacher education.

BIO 521 Cell Biology Laboratory (3). An experimental approach to modern laboratory techniques in Cell Biology. An emphasis will be placed on the mastery of common cellular and molecular techniques used in clinical, industrial and research settings. Six hours of laboratory per week. Prerequisite: BIO 321. (Spring, odd years)

BIO 522 Pathophysiology (3). Introduction to physiological abnormalities in disease. For advanced students in, or headed for, careers in health related fields. Four hours of lecture per week. Prerequisites: BIO 228 and 229, or BIO 322, or equivalent.

BIO 528 Neurobiology (3). Examines vertebrate and invertebrate nervous systems at the cellular and systems levels. Topics include: (1) cellular processes of neurons and glial cells, (2) synapses and synapse formation, (3) sensory systems, (4) motor systems, and (5) learning and memory. Three hours of lecture per week. Prerequisites: BIO 321 or 322 recommended.

BIO 531 International Experience in the Biomedical Sciences (3). A half spring semester plus short-term (10-14 days of travel) study abroad program highlighting biomedical sciences by interacting with leading medical scientists and attending medical school classes in Japan or other selected countries. In the spring semester, students discuss current topics in biomedical science and develop in-depth projects. The students integrate their new knowledge from their study abroad activities and experience into their projects. Prerequisite: consent of the instructor.

BIO 533 Molecular Genetics (3). A lecture course which involves discussions of general concepts of DNA structure, replication and translation. Current concepts in bacterial and bacteriophage genetics, such as gene transfer, recombination, gene regulation, and recombinant DNA technology will be examined. Prerequisites: BIO 300 and 333, or consent of instructor. (Spring)

BIO 534 Scanning Electron Microscopy (4). This course is designed to teach students the theory, principles and applications of scanning electron microscopy (SEM). After a predetermined number of instructional hours, the student is expected to successfully complete a test which measures the competency of the individual in SEM operation. Subsequently, the student is required to complete a short research project utilizing SEM. Prerequisites: BIO 221 and 222. (Summer, on demand)

BIO 521 Cell Biology Laboratory (3). An experimental approach to modern laboratory techniques in Cell Biology. An emphasis will be placed on the mastery of common cellular and molecular techniques used in clinical, industrial and research settings. Six hours of laboratory per week. Prerequisite: BIO 321. (Spring, odd years)

BIO 522 Pathophysiology (3). Introduction to physiological abnormalities in disease. For advanced students in, or headed for, careers in health related fields. Four hours of lecture per week. Prerequisites: BIO 228 and 229, or BIO 322, or equivalent.

BIO 528 Neurobiology (3). Examines vertebrate and invertebrate nervous systems at the cellular and systems levels. Topics include: (1) cellular processes of neurons and glial cells, (2) synapses and synapse formation, (3) sensory systems, (4) motor systems, and (5) learning and memory. Three hours of lecture per week. Prerequisites: BIO 321 or 322 recommended.

BIO 529 Teaching Science Through Inquiry (4). Students will learn and apply current inquiry based instructional methods and assessment strategies to teach science. Students will also gain the basic data management and analytical skills necessary to conduct action research. The course will follow a workshop style format modeling inquiry based methods. A significant amount of independent and group work is expected outside of class meetings. Prerequisite: admission to teacher education.

BIO 531 International Experience in the Biomedical Sciences (3). A half spring semester plus short-term (10-14 days of travel) study abroad program highlighting biomedical sciences by interacting with leading medical scientists and attending medical school classes in Japan or other selected countries. In the spring semester, students discuss current topics in biomedical science and develop in-depth projects. The students integrate their new knowledge from their study abroad activities and experience into their projects. Prerequisite: consent of the instructor.

BIO 533 Molecular Genetics (3). A lecture course which involves discussions of general concepts of DNA structure, replication and translation. Current concepts in bacterial and bacteriophage genetics, such as gene transfer, recombination, gene regulation, and recombinant DNA technology will be examined. Prerequisites: BIO 300 and 333, or consent of instructor. (Spring)

BIO 534 Scanning Electron Microscopy (4). This course is designed to teach students the theory, principles and applications of scanning electron microscopy (SEM). After a predetermined number of instructional hours, the student is expected to successfully complete a test which measures the competency of the individual in SEM operation. Subsequently, the student is required to complete a short research project utilizing SEM. Prerequisites: BIO 221 and 222. (Summer, on demand)
BIO 536 Evolution (3). A study of evolutionary concepts. Prerequisite: BIO 333.

BIO 538 Animal Behavior (3). An introduction to the principles of animal behavior. Ecological and evolutionary implications of animal behavior are emphasized. Prerequisite: BIO 330 or consent of instructor.

BIO 539 Animal Behavior Laboratory (1). An introduction to testing hypotheses in animal behavior. Ecological and evolutionary implications of animal behavior are emphasized. Three hours of laboratory per week. Prerequisites: BIO 330 or consent of the instructor; BIO 538 or concurrent enrollment.

BIO 540 Field Biometry (4). Students will learn and practice descriptive statistics, experimental design, regression, ANOVA, ANCOVA, and data management. In contrast to other statistics courses, students will spend more of their time in the field than in the classroom. Prerequisites: Any field biology course, BIO 330, or consent of instructor.

BIO 542 (535) Watershed Ecology (3). The study of the movement of water through the environment and its relationship to biotic systems. Areas emphasized include the hydrologic cycle and its influence on groundwater, lotic, and lentic systems; the effect of water on plant and animal communities; and the influence of human activity on watershed structure and function. Prerequisite: BIO 330 or consent of instructor. (Same as GSC 555.) (Spring, even years)

BIO 546 Stream Ecology (4). The interactions of stream organisms with each other and their abiotic environments will be examined. An area stream will be used as an example for physical and chemical characteristics of a stream and adaptations of organisms to their environments. One weekend field trip required. Prerequisite: BIO 330 (Summer)

BIO 547 Aquatic Vascular Plants (4). A general survey of local aquatic flora, including freshwater algae, aquatic mosses, ferns and angiosperms. Particular emphasis is placed on the morphology, taxonomy, ecology and economic importance of organisms. Field work comprises an integral part of the course. Two hours lecture and four hours laboratory per week. Prerequisite: consent of instructor.

BIO 553 Field Botany (4). A survey of the flora of West Kentucky and surrounding states. This course should be of interest to anyone interested in the plants of the region. Emphasis will be placed on field identification of common species, identification using keys, collection, and preparation of herbarium specimens, and general plant ecology of the region. Prerequisite: BIO 222. (Summer)

BIO 557 (530) Systematics and Bioinformatics (4). This course will focus particularly on systematics and phylogenetic analyses, although other bioinformatics-related topics such as genomics and geographic information systems will be included. Students will search bioinformatic data sources, retrieve and edit data, and perform computer analysis on protein, DNA, and morphological data. Underlying biological processes will also be discussed. Three hours lecture and two hours computer lab per week. Prerequisite: BIO 333.

BIO 561 Freshwater Invertebrates (4). Functional anatomy, ecology and taxonomy of the freshwater invertebrates. Emphasis will be placed on collection, preserving and identifying invertebrates of this region. Two lectures and four hours of laboratory per week. Prerequisite: BIO 221.

BIO 563 Aquatic Entomology (4). The study of the ecology, natural history, life cycles, taxonomy and systematics of lotic and lentic insects. The class will include several field trips to aquatic habitats and the preparation of a working collection. Two hours lecture and four hours laboratory per week. Prerequisite: BIO 330 or consent of instructor. (Spring, odd years)

BIO 564 (562) Field Entomology (4). The study of insect diversity in the field. Students become acquainted with about 200 Families of insects living in the terrestrial and aquatic habitats of the Midwest along with biotic and abiotic factors underlying their distribution, abundance, and dynamics. Each student conducts a small field project on some aspect of insect ecology, behavior, or natural history. Prerequisite: BIO 330.

BIO 565 Biogeochemistry (3). Survey and discussion of the scientific literature on global cycles of carbon, nitrogen, phosphorus and man-made chemicals with special emphasis on the biogeochemical and ecological processes that affect terrestrial and aquatic ecosystems. The course will focus on interdisciplinary themes that incorporate new research results from the fields of biology, chemistry, and geosciences. Prerequisite: junior or higher standing in biology, chemistry or geosciences. (Same as CHE/GSC 565.)

BIO 570 Ichthyology (4). Natural history of fishes, their systematics and some anatomical and physiological relationships with the environment. One weekend field trip required. Three lectures and one afternoon of lab per week. Prerequisite: BIO 221. (Fall, odd years)

BIO 572 Herpetology (4). A study of the taxonomy, morphology and natural history of reptiles and amphibians. Emphasis is placed on those species occurring in the central United States. Two lectures and four hours of laboratory per week. Prerequisite: BIO 330 or consent of instructor. (Spring, odd years)

BIO 573 Ornithology (4). Study of avian biology with emphasis on anatomy, physiology and classification of birds. Three lectures and two laboratory hours per week. Requires weekend field trip. Prerequisite: BIO 330. (Spring, even years)

BIO 574 Mammalogy (4). A study of the classification and biology of mammals. Identification and collection of mammals, particularly those of the central United States, will be emphasized in laboratory. Two lectures and four hours of laboratory per week. Some weekend and Saturday field trips required. Prerequisite: BIO 330. (Fall, odd years)

BIO 577 Population and Conservation Genetics (3). An advanced study of the theories of genetic change in populations. Emphasis will be placed on theoretical aspects of change in gene frequencies as well as practical applications in the field of conservation biology. Prerequisites: BIO 330 and 333. (Spring, even years)

BIO 578 Conservation Biology (4). An advanced study of the conservation of life at numerous levels of organization. Emphasis will be placed on modern empirical and theoretical studies of the maintenance, loss, and restoration of biological diversity, endangered species, and habitats. Three one-hour lectures and three hours of laboratory per week. Prerequisite: BIO 330.

BIO 580 Principles of Wildlife Management (4). Application of ecological principles of management of wild animals, wildlife agencies and their function in wildlife management; economic, social, biological and other values of wildlife. Three lectures and two hours of laboratory per week. Requires Saturday field trips. Prerequisite: BIO 380. (Fall, even years)

BIO 582 Fisheries Management (4). Ecology and management of freshwater fishes. Methods of fishery investigation will be emphasized. Three lectures and four hours of laboratory per week. Prerequisites: BIO 330. (Fall, even years)

BIO 584 Wildlife Policy and Administration (4). Emphasis is placed on the management of natural resources with particular focus on fish and wildlife. Topics will include an overview of natural resources agency structures and functions, the planning and management cycles, and ethical public relations techniques for multiple-use management in the public domain. Prerequisite: BIO 330 or consent of instructor. (Spring, odd years)

BIO 586 Limnology (4). A study of the interrelationships of the physical, chemical and biological features of lakes and streams. Prerequisite: BIO 330. (Summer)

BIO 587 Freshwater Biology (4). Study of the aquatic organisms, their biology, distributions, and ecology in natural aquatic communities and habitats in Kentucky Lake, streams, springs, and wetlands near the Hancock Biological Station. Aquatic organisms to be surveyed include bacteria, algae, aquatic plants, invertebrates, and vertebrate animals. Includes two lectures and four hours of laboratory per week. Prerequisite: BIO 330.

BIO 588 (589) Reservoir Ecology (4). An examination of the variation in chemical and biological phenomena that characterize river impoundments. Literature reading and discussion is followed by 1) learning techniques of observation to identify pattern and process in nature, and 2) designing and conducting field experiments to assess cause and effect relationships.

BIO 595 Wildlife/Fisheries Internship (1-4). A practical experience/study situation where the
student works a 40-hour week in the field under the supervision of a wildlife biologist. Bimonthly progress reports are required to be submitted to both the university staff and the wildlife biologist. Students must have junior standing to be considered. (Summer)

BIO 596 Field Studies in Ecology (4). Two weeks or more will be spent living at a field site(s) studying the ecology of a selected ecosystem(s) (e.g., tropical rainforest, coral reef, mangrove swamp, pine forest). Students will gain an understanding of the selected ecosystem’s structure and function, including the roles of human cultural and economic influences. Studies are expected to occur in geographic areas other than western Kentucky.

BIO 597 Topics in Advanced Molecular Biology (3). Taught from the current literature, this course focuses on new topics in cell and molecular biology. A combination of lecture and student seminars. Prerequisites: BIO 533 and CHE 310, or consent of instructor.

BACHELOR OF INTEGRATED STUDIES (BIS)  
Note: Credit with a BIS prefix counts only toward the Bachelor of Integrated Studies (B.I.S.) degree.

BIS 301 Integrated Studies Research I (3). Course will offer a study of basic research techniques and skills which will help the student begin formulation of an initial study project. Emphasis will be placed on narrowing the research topic, developing a research proposal, evaluating credible sources, and proper APA citations/references. Also included is the process of portfolio development for securing academic credit for college-level prior learning.

BIS 302 Integrated Studies Research II (3). Course guides the student through the steps leading to a formal proposal for the B.I.S. field of study project, including annotated bibliography, internet research techniques, review of literature, and the formal written project proposal.

BIS 399 Seminar in Integrated Studies (3). Seminar for students in the Bachelor of Integrated Studies (BIS) program. Investigation and discussion of current issues in adult and distance learning. Topics include curriculum information in BIS program, job search process, problems experienced by and subjects of interest to adult students. Prerequisites: junior standing, acceptance into BIS program, and consent of BIS advisor or instructor.

BIS 437 Senior Project (3-6). The course, usually taken along with a departmental directed independent studies course, guides the student to completion of the field of study project, which is a baccalaureate senior thesis required for completion of the Bachelor of Independent Studies degree. Prerequisites: admission to B.I.S. program, senior standing, completion of two courses (six semester hours) in research methodology or creative arts appropriate to the project undertaken.

BUSINESS AND PUBLIC AFFAIRS (BPA)  
BPA 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. A College of Business and Public Affairs student (transfer or regular) who has not enrolled in and earned a total of 12 hours prior to his/her first semester at Murray State University must take Transitions. Graded pass/fail.

BPA 140 Foundations of Business (3). An introduction to the various functions of business such as finance, management, marketing, personnel, etc. Open only to students who have not completed a business course above the 200 level.

BPA 200 Collegiate Leadership and Service (1-2). Course introduces students to basic leadership concepts and practices in business and public affairs. Student skills in the area of leadership will be enhanced through the use of class presentations, discussion, freshman orientation responsibilities, and participation in Collegiate and University activities. This course may be repeated for a total of three hours. A maximum of six hour credit may be earned or scheduled from any combination of GUI 251, 252, and 450 and BPA 200. Prerequisite: consent of instructor.

BPA 215 Business Communication (3). This course is designed to acquaint the student with the principles of business communication and give him/her practice in solving business problems through the use of written communications, research and report writing, and oral communications. Prerequisites: ENG 105 or the equivalent.

BPA 235 Records Management (3). A study of the principles and concepts of records management including creation, use, maintenance, and destruction. The course includes consideration of storage facilities, records classification, forms and report control, protection of vital records, and micro-graphic and optical disk systems. Prerequisite: CSC 199 or working knowledge of database applications software.

BPA 355 Information Systems and Decision Making (3). This course is a brief overview of information systems and the roles they play in support of decision making. Specific topics include information technology hardware and software, business intelligence, database management and data warehouses, e-commerce, decision support systems, IT infrastructures and controls, and computer crime and forensics. A significant component of this course also includes skill development in spreadsheet and database software. A student may receive credit for only one of the following courses: ACC 308, BPA 355, or CIS 307. Prerequisites: junior standing; ACC 200 and 201; CSC 199 or equivalent.

BPA 360 Principles of Office Administration (3). A basic introduction to the field of administrative management—the management of organizational information. The principles of general management as applied to this field, basic concepts, and terminology are major considerations. Prerequisite: junior standing.

BPA 396 International Business Seminar (3). Designed to give participants firsthand exposure to cultures and business practices outside the United States. The seminar includes travel, study, visits to corporate and governmental offices, and other experiential assignments in various countries. At the instructor’s discretion, the seminar may focus on a specific topic or theme. May be repeated once with advisor’s approval. Prerequisite: junior standing or consent of instructor.

BPA 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

BPA 442 Business Ethics and Environments (3). This course involves a study of modern and classical approaches to both business and personal ethics as well as the other major components of the business environment: the political, international, legal, ecological, social and cultural environments. This course also studies the principles and practices of corporate governance. Prerequisites: LST 240, MGT 350, FIN 330, MKT 360, and senior standing. (Same as PHIL 442.)

BPA 488 Cooperative Education/Internship (1-3). An meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

BPA 499 Senior Seminar in Business (1). Seminar for students of business administration programs with a primary focus on preparation of seniors for a variety of employment environments and professional development. Recommended for students enrolled in their next to last undergraduate semester, but with approval could be taken in last undergraduate semester. Prerequisite: Senior standing.

BPA 515 Communicating in an International Business Environment (3). This course is designed to acquaint students with the challenges of international business communication, provide guidelines for successful cross-cultural business communication, and give practice in solving international business problems through the use of the guidelines.

BPA 521 CPS Review I (3). This course, which is team-taught, is designed to aid the professional secretary in a comprehensive review. This review should be valuable to any professional secretary and especially helpful to those secretaries preparing for the Certified Professional Secretaries Examination. Specifically covered in this section is a review of business and public policy, economics of management, and office procedures. Graded pass/fail.
BPA 522 CPS Review II (3). This course, which is team-taught, is designed to aid the professional secretary in a comprehensive review. This review should be valuable to any professional secretary and especially helpful to those secretaries preparing for the Certified Professional Secretaries Examination. Specifically covered in this section is a review of environmental relations in business, financial analysis in mathematics of business, and communication and decision-making. Graded pass/fail.

BPA 540 Legal Obligations of Business (3). Course will provide a basic understanding of the laws that relate to business with emphasis on the law of contracts, sales, negotiable instruments, and secured transactions. Prerequisite: LST 240.

BPA 595 Special Problems (3). Prerequisite: consent of instructor.

BPA 596 International Business Seminar (3). Designed to give participants firsthand exposure to cultures and business practices outside the United States. The seminar includes travel, study, visits to corporate and governmental offices, and other experiential assignments in various countries. At the instructor’s discretion, the seminar may focus on a specific topic or theme. This course includes an individual research project approved by the instructor.

BPA 597 Commonwealth Business Seminar (3). A travel-study program that will allow university students enrolled in Kentucky universities to be exposed firsthand to the business environment and practices in Kentucky.

COMMUNICATION DISORDERS (CDI)

CDI 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail. (Same as EXS/HEA/NTN/REC 099.)

CDI 205 Introduction to Communication Disorders (3). An introduction to the areas of speech-language pathology and audiology. An integral part of the course is observation of therapy with speech, language, and hearing disorders.

CDI 215 Clinical Phonetics (3). Application of the informational and perceptual domains of phonetics in the clinical setting. Includes transcription using the International Phonetic Alphabet.

CDI 292 Communication Disorders for Special Educators (4). A survey course of speech and language acquisition, disorders and remediation. The course is specifically designed for the special educator and classroom teacher and will center on information and remedial procedures particularly applicable to a classroom situation.

CDI 310 Anatomy and Physiology (3). Lecture course dealing with the structure and functions involved in speech and the peripheral hearing mechanism. Prerequisite: CDI 205 (may be taken concurrently).

CDI 315 Speech Science (3). Study of speech sound production and perception. Prerequisite: CDI 310.

CDI 325 Pediatric Speech Disorders I (3). Designed to provide fundamental knowledge of the nature of speech disorders in children, including etiologies and characteristics as well as anatomical/physiological, linguistic and developmental correlates. Prerequisites: CDI 215, 310, 340 and admission to CDI program.


CDI 345 Pediatric Language Disorders I (3). Designed to provide fundamental knowledge of the nature of language disorders in children, including etiologies and characteristics as well as psychological, linguistic, developmental and cultural correlates. Prerequisites: CDI 340 and admission to CDI program.

CDI 405 Audiology (3). An introduction to the field of audiology. Specific emphasis on basic testing procedures and causes and types of hearing loss. Clinical observation and practice are required. Prerequisite: admission to Communication Disorders program.

CDI 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

CDI 440 Neurogenic Communication Disorders (3). Course is designed to provide the student with a solid foundation of the neurologic basis, causes, and characteristics of frequently encountered neurologic cognitive-communicative disorders of adults. The major disorders included are aphasia, apraxia of speech, dysarthria, dementia, right hemisphere syndrome and traumatic brain injury syndrome. The basic principles and practices of assessment and intervention are introduced. Prerequisite: CDI 465.

CDI 451 Aural Rehabilitation (3). Study of psychosocial, educational, vocational and communication implications of hearing impairment with emphasis upon intervention strategies. Includes clinical observation and/or practice. Prerequisites: CDI 325 or 345 and CDI 405.

CDI 452 Speaking Exact English I (3). This course serves as an introduction to Speaking Exact English, a form of manual communication used primarily by children. The course includes study of manual communication and development of basic skills in finger spelling and signing.

CDI 465 Neuroanatomy and Physiology for the Speech-Language Pathologist (3). A study of the organization of tissues and gross structural elements of the human nervous system and current knowledge of the physiology of neural transmission. The course emphasizes the significance of neural imaging technology for understanding the normal structure and function of the neural substrates for speech and language. Prerequisite: admission to Communication Disorders program.

CDI 470 Pediatric Speech Disorders II (3). A course dealing with assessment and treatment techniques appropriate to speech sound disorders. This is an applied course and consists of reading, discussion, and guided practice as well as limited lecture. Some activities will take place in the clinic. Prerequisite: CDI 325. Corequisite: CDI 474.

CDI 472 Pediatric Language Disorders II (3). A course dealing with assessment and treatment techniques appropriate to child language disorders. This is an applied course and consists of reading, discussion, and guided practice as well as limited lecture. Some activities will take place in the clinic. Prerequisite: CDI 345. Corequisite: CDI 474.

CDI 474 Elementary Clinical Skills (1-3). Observation, shadowing of graduate clinicians, or individual clinical assignment in communication disorders. May be repeated up to four hours. Co-requisite: CDI 470 or 472.

CDI 480 School Services for Communication Disorders (3). This course is an in-depth study of roles and responsibilities of the speech-language pathologist and speech-language pathology assistant practicing in the schools. Prerequisite: admission to Communication Disorders program.

CDI 482 Augmentative-Alternative Communication (3). A study of communication modalities available to meet the communication needs of persons across the life-span with severe communication disorders. The course will emphasize augmentative and alternative communication strategies, techniques, technologies, and characteristics of communication partners based on research and theory. Prerequisites: CDI 340 and 345.

CDI 598 Directed Study: Communication Disorders (1-3). Available for students who want to investigate special problems. Can be repeated up to six credit hours. Prerequisites: senior standing and consent of instructor directing the study.

CIVIL/CONSTRUCTION ENGINEERING TECHNOLOGY (CET)

CET 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Meetings with advisors, department personnel, service areas, and campus field trips
comprise the main involvement. Availability of university resources is stressed with emphasis on personal needs. Graded pass/fail. (Fall)

CET 199 Environment Science and Technology Concepts (4). Pollution assessment and control introduction intended for general public awareness. Topics include basic environmental science and ecological principles; population dynamics and resource management; sampling and analytical techniques; regulatory considerations; and water treatment, air pollution control, solid waste handling, and hazardous waste management systems. Laboratory required.

CET 280 Plane Surveying (3). Field and office procedures necessary for measuring distances, elevations, horizontal and vertical angles. Boundary and area calculations and basic construction applications of survey procedures. Care and use of survey instruments. Two hours lecture and three hours lab. Prerequisites: MAT 130 and ITD 107. (Fall and Spring)

CET 282 Construction Methods and Equipment (3). A study of the production rates and operating costs of construction equipment along with methods used in heavy and building construction. Prerequisite: MAT 130. (Fall)

CET 284 Sustainable Design and Construction (3). Introduction to principles of sustainable design and construction of residential and commercial facilities. Topics include “green” building fundamentals and certifications, landscaping, energy, materials, indoor environmental quality, and economics. (Spring)

CET 298 Strength of Materials (3). A study of internal stresses and physical deformations caused by externally applied loads to structural members. Topics include normal and shearing stresses, stress and strain relationships, simple tension and compression of axial members, composition beams, inelastic bending, transverse shear stresses in beams, deflections, and elementary design of beams and shafts. Includes a laboratory investigation of mechanical properties of materials and structural elements. Prerequisites: ENT 287 and MAT 230.

CET 302 Structural Drawing (3). A study of methods and procedures used in architectural drawing and in graphical presentations of steel and concrete structures. Emphasis is placed on structural drawing and detailing with special emphasis on detailing of structural steel and reinforced concrete members of buildings. Six contact hours. Prerequisite: ITD 107 or equivalent. (Spring)

CET 310 Anatomy of Buildings (3). Study of the function, physical makeup, and working principles of various building systems, components and materials. Emphasis on the basic design principles and interdependence of the structural, utility and climate control systems. This course is designed to enhance the student’s knowledge of the total building process. (Spring)

CET 330 Water Quality Technology I (3). Course of study includes fundamental design and operation of water treatment and reclamation systems. Topics include analyses of water and wastewater characteristics, system design conforming to regulatory requirements, and related chemical, biological, and hydraulics concepts. (Fall)

CET 331 Water Quality Technology II (3). A continuation of CET 330 and includes fundamental design and operation of water treatment and reclamation systems. Topics include analyses of water characteristics, system design, and related chemical, biological, and hydraulics concepts. Prerequisite: CET 330. (Spring)

CET 342 Air Quality Technology (3). Ecosystem air chemistry and dynamics are stressed. The impacts of natural and human-derived pollution, both indoor and outdoor, are studied. The impact of regulations upon industrial production is also addressed. (Spring)

CET 353 Solid and Hazardous Waste Management (3). Generation and remediation of solid and hazardous wastes are examined. Transportation and recycling within legislative guidelines are studied. Waste management planning, recycling technologies and risk assessment are also included. The course scope includes municipal, industrial and forest/agricultural solid waste generation. Prerequisite: ENT 286. (Spring)

CET 370 Route Surveying (3). Field and office practice in surveys needed for road construction and improvement. Computer mapping, preparation of digital terrain models, earth volume and mass diagram computation. Radial staking using electronic distance measurement and total station surveying instruments. Methods of free positioning on the construction site. Prerequisites: CET 280, MAT 230. (Spring)

CET 375 Reinforced Concrete Design (3). Emphasis is placed on the AISC specifications. Prerequisite: CET 381.

CET 380 Field Surveying (3). Focuses on impacts of land use on receiving waters, storm water management, erosion control, stream bank restoration, and reclamation of disturbed lands. Two hours lecture and three hours lab. Some weekend field trips required. Prerequisites: CET 280, ENT 286, and 382.

CET 385 Route Surveying (3). Addresses field surveys and computational procedures necessary for boundary retracement and land subdivision in both metes and bounds and public lands systems. Boundary law, subdivision ordinances, statutory requirement for boundary surveys. Two hours lecture and three hours lab. Prerequisites: CET 280 and MAT 230 or 250. (Spring)

CET 386 Construction Estimating I (3). Basic estimating procedures relating to quantity surveying, earthwork computations, and cost of labor and materials. CPM determinations of project durations and resources required for construction. (Fall)

CET 387 Construction Estimating II (3). Estimating and bidding large construction projects with an emphasis on reinforced concrete and structural steel work. Prerequisites: CET 310 and 385. (Spring)

CET 401 Transportation Systems and Design (3). Fundamentals and concepts of transportation engineering, including roadbed overview and introduction of design tools and concepts. Prerequisite: CET 280.

CET 460 Geodesy (3). Basic elements of geometric and physical geodesy. Geodetic direct and inverse. Data adjustment. Observations using the global positioning system. Two hours lecture plus three hours lab. Prerequisites: CET 381 and MAT 308 or 330. (Fall)

CET 480 Construction Planning and Management (3). Project management including planning, scheduling, supervision and emphasis on contracts and specifications. (Fall)

CET 481 Structural Steel Design (3). Elementary structural analysis and design of tension members, beams, columns and connections. Emphasis is placed on the AISc specifications. Prerequisite: CET 298. (Fall)

CET 482 Reinforced Concrete Design (3). Analysis and design of reinforced concrete beams, columns, footings and one-way slabs using the strength design method. Emphasis is placed on the ACI Building Code. Prerequisite: CET 298. (Spring)

CET 483 Construction Materials (4). Basic properties of materials used in construction concrete, asphalt, aggregates and timber. Design procedures, field control and adjustments. Three hours lecture and two hours laboratory. (Fall)

CET 484 Soil Mechanics and Foundations (4). Mechanical and physical properties of soils and their relations to engineering considerations, such as soil classification, permeability, shearing strength, consolidation, stress distribution, and bearing capacity of soils. Introduction to the analysis and design of shallow footings. Lecture and laboratory. Prerequisite: ENT 287. (Spring)

CET 485 Land Use and Watershed Protection (3). Focuses on impacts of land use on receiving waters, storm water management, erosion control, stream bank restoration, and reclamation of disturbed lands. Two hours lecture and three hours lab. Some weekend field trips required. Prerequisites: CET 280, ENT 286, and 382.

CET 486 Boundary Surveying II (3). Addresses field surveys and computational procedures necessary for land subdivision. Boundary retracement of state and municipal boundaries along with the colonial land system and Virginia/Kentucky land grant systems will also be components of the course. Two hours lecture and three hours lab. Additional field exercises are required. Prerequisite: CET 381.

CET 490 Construction Scheduling and Methods (3). Project management including planning, scheduling, and emphasis on construction methods and project delivery. Prerequisite: CET 480. (Spring)

CET 555 Environmental Regulatory Affairs (3). Laws and regulations pertinent to the management of water and wastewater, hazardous and toxic wastes, air contaminants, underground storage tanks and other timely environmental issues are studied. General legal concepts, the relationships among industries and local, state,
and federal agencies, environmental audits and community right-to-know requirements are among the topics included. Prerequisites: CET 331, 342 and 353. (Spring)

CET 585 Remediation Technology (3). Study includes process design and operations for biological and physical-chemical systems used to remove organic and inorganic contaminants from soil and groundwater. (Fall)

CET 587 Sustainable Environmental Technology (3). Course focuses on analysis and design of environmental systems that enhance sustainable development and conserve natural resources. Topics include bioremediation, land application, natural treatment systems, life cycle analysis, and environmental economics.

CET 589 Environmental Modeling (3). Computer modeling of environmental/ecosystem phenomena including predictive impact of pollution discharges and engineering hydrology will be stressed. Prerequisite: ENT 382.

CHEMISTRY (CHE)

CHE 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail.

CHE 101 Consumer Chemistry (4). A brief course in chemistry for those who plan to take no more chemistry. Designed specifically to satisfy the University Studies physical science requirement. Explores social and cultural issues associated with science and technology to provide knowledge of resource conversion in a world dominated by information explosion. Considers the impact of chemistry and technology on history, art, and business. Three lectures and two hours of laboratory per week.

CHE 105 Introductory Chemistry I (4). A beginning course in general chemistry designed for students who plan to take additional chemistry courses. Three lectures and two hours of laboratory per week. Not applicable to major or minor. Math ACT score of at least 20 or MAT 105 (or the equivalent) strongly advised.

CHE 111 Essentials of Chemistry and Biochemistry (5). A course that covers the essentials of general chemistry, organic chemistry and biochemistry. Three hours of lecture, 2 hours of recitation, and 2 hours of laboratory work per week. Not applicable to major or minor. Math ACT score of at least 20 or MAT 105 (or the equivalent) strongly advised. Credit for only one of the following can count toward graduation: CHE 106, CHE 111, or CHE 210.

CHE 120 Chemical Laboratory Safety (1). A general course in laboratory safety. It is recommended for all students seeking chemistry degrees and students in other fields involving extensive laboratory work. Two hours of lecture per week for half a semester. Corequisite: CHE 201 or consent of instructor. This course does not count for university studies credit.

CHE 201 General College Chemistry (5). A thorough course in inorganic chemistry emphasizing atomic structure, stoichiometry, thermochrometry, the gaseous state of matter, periodic classification, nuclear chemistry, and chemical bonding. Three lectures, two hours of laboratory, and two hours of recitation per week. Prerequisites: High school chemistry or CHE 105 and a math ACT score of greater than or equal to 23 or MAT 140 and MAT 145 or the equivalent.

CHE 202 General Chemistry and Qualitative Analysis (5). A continuation of CHE 201 emphasizing thermochemistry, solution chemistry, oxidation-reduction reactions, chemical kinetics, chemical equilibrium, acid-base chemistry, thermodynamics, electrochemistry, and other selected topics. Three lectures, two hours of laboratory, and two hours of recitation per week. Prerequisite: CHE 201.

CHE 210 Brief Organic Chemistry (3). An elementary course in organic chemistry for non-majors emphasizing the nomenclature, properties and reactions of important classes of organic compounds. Three lectures per week. Prerequisite: CHE 105 or 202. Credit for either CHE 106 or CHE 210, not both, can count toward graduation.

CHE 215 Organic Chemistry Laboratory (1). Two hours of laboratory per week to accompany CHE 210 which is a co-requisite.

CHE 303 Strategies of Teaching Chemistry (3). An investigation of the skills of teaching which are applicable at any grade level. Emphasis is placed on the application of teaching strategies in classroom and laboratory settings. The course will also include coverage of classroom management strategies, discipline techniques, and curriculum development as a function of instruction. Laboratory experiences required. Prerequisites: successful completion of EDU 103, chemistry major, and admission to Teacher Education.

CHE 305 Analytical Chemistry (5). Fundamental principles and techniques of volumetric and gravimetric analysis. Two lectures and two three-hour laboratory periods per week. Prerequisite: CHE 202.

CHE 312 Organic Chemistry I (5). Introduction to organic chemistry, including structure, properties, methods of preparation, and selected reactions of aliphatic and aromatic hydrocarbons and halides. Stereochemistry and basic reaction mechanisms are also included. An introduction to the theory of modern instrumental techniques (GC, IR, NMR, GC/MS) used in the identification of organic species is also taught. An introduction to the theory and practice of organic chemical laboratory procedures and manipulations which include hands-on experience with the preparation, separation, purification, and identification of typical compounds. Three hours of lecture, one hour of recitation and four hours of lab per week. Prerequisite: CHE 202.

CHE 320 Organic Chemistry II (3). A continuation of CHE 312 including similar studies of other fundamental classes of organic compounds. Three lectures per week. Prerequisite: CHE 312.

CHE 325 Organic Chemistry II Laboratory (3). A continuation of CHE 312 involving more complicated syntheses and compound identification. Four and one-half hours of laboratory per week. Prerequisite: CHE 320.

CHE 329 Molecular Visualization in Chemistry (1). Survey of the techniques and methods used to visualize biological and organic molecules. One hour of lecture per week. Corequisite: CHE 330, 530 or 540 or consent of instructor.

CHE 330 Basic Biochemistry (3). A basic course surveying the chemistry and metabolism of carbohydrates, proteins, lipids and nucleic acids, and the action of vitamins, hormones and enzymes. Three lectures per week. Credit for either CHE 330 or CHE 530, but not both, can count toward a major or minor in chemistry. Prerequisite: CHE 210 or equivalent. (Spring only.)

CHE 352 Basic Chemical Instrumentation (4). An introduction to chemical instrumentation and instrumental methods of analysis, including chromatographic, optical, and electrometric techniques. Three lectures and one three-hour laboratory period per week. Prerequisite: CHE 305. (Fall only.)

CHE 388 International Experience in Chemistry (3). A short-term (10-14 days of travel) study abroad experience highlighting selected historical and modern contributions to chemistry from another country and culture. The course includes pre- and post-travel meetings, lectures, readings, and discussions. Graded pass/fail. This course may be repeated for up to nine hours of credit. These hours will not count toward the major or minor. Prerequisites: CHE 105 or 201 or consent of the instructor.

CHE 400 Chemical Literature (1). An introduction to methods of locating and accessing chemical information, both in the library and through on-line searching of computerized chemical databases; instruction in the writing of technical papers and reports. Half-semester course; one two-hour lecture per week. Prerequisite: CHE 320.

CHE 401 Ethics for the Chemist (1). An ethics course designed primarily for chemistry majors that explores, discusses and debates ethical issues faced by scientists. Half-semester course; one 2 hour lecture/discussion per week.

CHE 403 Basic Physical Chemistry (5). Broad coverage of physical chemistry with inclusion of biological applications. Topics include gas laws, kinetic theory, states of matter, thermodynamics, solutions, chemical kinetics, and quantum theory. Designed for students in biological, medical,
CHE 503 Industrial Chemistry (3). Discussion of the application of chemistry principles to industrial processes. Three lectures per week.

CHE 504 (502) Fundamentals of Toxicology (3). This course surveys the scope and fields of toxicology, including the methods and design of toxicity studies with attention to toxic chemicals, their effects and regulatory considerations. Prerequisite: CHE 520 or consent of instructor.

CHE 509 (511) Advanced Inorganic Chemistry I (3). Practical aspects of wave mechanics and bonding theories for covalent and ionic compounds; considerations of symmetry, properties and theories associated with the solid state, acids, bases, and coordination compounds. Limited descriptive chemistry; the course focuses on organo-metallic, multi-metal, and icosahedral borane and carbaborane derivatives. PES, NMR, IR, and UV/VIS spectroscopy applications in modern inorganic chemistry. Two 75-minute lectures per week. Prerequisite: CHE 420 or its equivalent with a grade of C or better. (Fall only.)

CHE 510 (512) Inorganic Chemistry Laboratory (2). Syntheses, characterization and introduction of techniques of inorganic chemistry. Four hours of laboratory per week. Prerequisite: CHE 511.

CHE 513 Environmental Chemistry (3). Studies related to chemicals in the environment as toorigin, identification, distribution, modification and effect on biological systems. Three lectures per week. Prerequisite: CHE 320 or consent of the instructor.

CHE 517 (527) Advanced Organic Chemistry (4). Survey of modern organic chemistry with emphasis on theoretical concepts, reaction mechanisms and syntheses. Three lectures per week. Prerequisites: CHE 320 and 420 or consent of instructor. (Spring only.)

CHE 519 Instrumental Analysis (5). Theory, calculations, and use of modern analytical techniques, such as visible, ultraviolet, infrared and Raman spectrometry, flame methods, gas chromatography, electrometric methods of analysis and magnetic resonance. Two lectures and six hours of laboratory per week. Prerequisites: CHE 320 and 420 or consent of instructor. (Spring only.)

CHE 525 Biochemical Toxicology (3). A study of the basic biochemical aspects of toxicology including adverse chemico-biological interactions and chemical and biologic factors modulating these interactions, descriptions of effects of specific chemical classes, and biochemical mechanisms of toxic effects. Three lectures per week. Prerequisites: CHE 502 and 330, 530, or consent of instructor.

CHE 530 Fundamentals of Biochemistry I (3). Survey of the chemical properties and biochemical function of various organs and replication, transcription and translation of genetic information. Three lectures per week. Prerequisite: CHE 530. (Spring only.)

CHE 537 Experimental Biochemistry (3). This course will emphasize a mastery of modern biochemical laboratory techniques and the analysis of experimental data. One hour of lecture and four hours of laboratory per week. Prerequisite: CHE 530 or consent of instructor. (Same as BIO 537.)

CHE 540 Fundamentals of Biochemistry II (3). Continued study of the elements of metabolism, including their chemical reactions, energetics and regulation. Additional topics include hormones, biochemical function of various organs and replication, transcription and translation of genetic information. Three lectures per week. Prerequisite: CHE 530. (Fall only.)

CHE 545 Glassblowing (1). Laboratory demonstrations and exercises. Mastery of the different types of seals used in construction of scientific glass apparatus. Three hours of laboratory per week. Course restricted to chemistry majors. Prerequisite: Senior standing. Cannot be used as an elective for ACS-accredited area.

CHE 565 Biogeochemistry (3). Survey and discussion of the scientific literature on global cycles of carbon, nitrogen, phosphorus and man-made chemicals with special emphasis on the biogeochemical and ecological processes that affect terrestrial and aquatic ecosystems. The course will focus on interdisciplinary themes that incorporate new research results from the fields of biology, chemistry, and geosciences. Prerequisite: junior or higher standing in biology, chemistry or geosciences. (Same as BIO/GSC 565.)

CHE 569 Spectrometric Identification of Organic Compounds (2). Course dealing with the theory and applications of the following methods to the structural analysis of organic compounds: IR, NMR, UV-Vis, and MS. Two lectures per week. Prerequisites: CHE 320 and 519.

CHE 576 Polymer Materials (3). An Introduction to polymers and their applications. Topics will include synthetic approaches to polymer preparation, post-preparation processing, and analyses of major polymer properties. Three hours lecture per week. Prerequisites: CHE 320, and either CHE 403 or CHE 410.

CHE 591 Special Problems in Chemistry (1). Laboratory and/or library investigations on special topics. Minimum of three hours per week. May be repeated once for credit. Prerequisites: Senior standing and consent of instructor.

CHE 592 Special Problems in Chemistry (2). Laboratory and/or library investigations on special topics. Minimum of three hours per week. May be repeated once for credit. Prerequisites: Senior standing and consent of instructor.

CHE 593 Special Problems in Chemistry (3). Laboratory and/or library investigations on special topics. Minimum of nine hours per week. May
Courses

CHINESE


CHN 105 Contemporary Chinese Culture (3). A survey of Chinese society. Contemporary and historical perspectives, attitudes, achievements, institutions, and lifestyles of the Chinese people are explored. Conducted in English.


CHN 202 Intermediate Chinese II (3). A continuation of CHN 201. A study of the sounds and structural patterns of modern Chinese through instruction in listening, speaking, reading, and writing using the Pinyin Romanization and simplified Chinese characters. A large part of instruction will be in Chinese whenever possible. Prerequisite: CHN 201.

COMPUTER INFORMATION SYSTEMS

CIS 200 Business Application Modeling Using Spreadsheet & Database Software (3). An in-depth study of the use of spreadsheets and databases to solve business application problems. The course will include both the techniques of modeling applied to solving business related problems and the tools in the spreadsheet and database software to implement the model. This course will not satisfy requirements for the computer information systems area. Prerequisite: CSC 199 or equivalent spreadsheet and database skills or course.

CIS 243 Business Statistics I (2). Statistical techniques used in analyzing and solving problems encountered in a business environment. Techniques include organizing and presenting statistical data, descriptive statistical analysis, probability distributions for discrete and binomial random variables, normal probability distribution, and simple random sampling. Techniques are applied to practical business problems using appropriate computer resources. Prerequisites: CSC 199 and MAT 220 or MAT 250.

CIS 290 Internship (3-6). Open to sophomore associate degree candidates in computer data processing. These students, upon approval of the computer data processing faculty, are placed with cooperating firms to receive on-the-job training or advanced design and programming training of equivalent value. Work experience is supervised by faculty. Written progress reports are required.

CIS 296 International Experience on CSIS (3). A study of topics relevant to courses taught in the computer science and information systems disciplines. It is taught as part of a Study Abroad program and therefore includes material specific to the country/region of study. Topics may include: data organization and analysis, art and craft of web site development, quantitative techniques for solving business problems, etc.

CIS 299 Special Topics in Computer Applications (1-3). A special topics course designed to permit the teaching of appropriate topics as needed in a changing high-tech discipline. The course will include topics which are relevant but not necessarily appropriate for permanent, specific course status. Topics will be selected and offered on university/college need and/or interest. Does not apply to the CSC or CIS majors. May not be substituted for any course in the business core. Prerequisites vary with topics covered. May be repeated for a maximum of six hours. (Same as CSC 299.)

CIS 307 Decision Support Technologies (3). An in-depth study of techniques used in business application modeling and decision-making to solve managerial problems. Students will use contemporary spreadsheet, database, web application software packages and query languages (SQL) to implement various business decision-making scenarios. A student may receive credit for only one of the following courses: ACC 308, BPA 355, or CIS 307. Prerequisites: CSC 101 and 199.

CIS 317 Principles of Information Systems Analysis and Design (3). Topics to be covered are systems development processes, structured analysis design methods, prototyping, systems development life cycle, and communication skills. A systems design model will be developed during the course. Prerequisite: CSC 101. Corequisite: CIS 307.

CIS 325 E-Business Programming (3). An introduction to programming languages and Web server technologies used in E-business applications. This course focuses more on client-side E-business development issues such as good web page design techniques, prevalent technologies, interactive and dynamic Web applications, and programming using common scripting languages. Some server-side issues are also covered. Prerequisites: CSC 125 and 232 or consent of instructor. Corequisite: CSC 332 or consent of instructor.

CIS 343 Business Statistics II (2). Statistical techniques used in analyzing and solving problems encountered in a business environment. Techniques include point estimates, confidence intervals for a population mean, hypothesis testing for mean of one and two populations, statistical inference of proportions and simple linear regression. Techniques are applied to practical business problems using appropriate computer resources. Prerequisites: CIS 243 or MAT 133 with a minimum grade of C and MAT 220.

CIS 360 Advanced Application Program Development for Business (3). Topics include structured program design and development techniques, logical and physical file structures and corresponding processing techniques, table and array manipulation, string manipulation, internet interface for legacy systems and Job Control Language concepts. Prerequisites: junior standing; CSC 260.

CIS 361 On-Line Applications (3). Study of development of on-line computer usage with specific applications in the functional areas of business. Topical coverage includes the design and development of a complete application, use of utilities to create and support user libraries, and the implementation of the system through the use of commercial on-line software and the COBOL programming language. Prerequisites: junior standing; CSC 260 or consent of instructor.

CIS 399 Topics in Information Systems (1). Seminar for students of Computer Science and Information Systems programs to expose them to a variety of topics and their relevance to the broad discipline of information technology. Students will discover career paths and areas of focus in their upper-division courses. Graded pass/fail. Prerequisite: junior standing.

CIS 407 Advanced Database Management Systems (3). This course is designed to cover both the theoretical and practical aspects of database design and implementation. The theory and practice of design approaches and languages for the relational model are stressed. Specific topics will include data modeling, database design using normalization theory and relational query languages; issues of concurrency control, recovery, optimization, database security, privacy and integrity; new database technology, developments, and trends. Students in the course will be expected to design and implement a practical database application using a contemporary database management software package. Prerequisite: A high level programming language and either CIS 307 or ACC 308; or consent of instructor.

CIS 417 Software Development Technologies (3). This course will examine specialized software development problems and their solutions. Topics such as advanced Internet programming, interfaces between applications and data sources, software development using open source and proprietary software environments, development of distributed applications and Web services will be studied. Prerequisites: CIS 317 and CSC 332.

CIS 420 Senior Capstone Project (3). The capstone course for students graduating with an Area...
in Computer Information Systems (CIS). Students will work in teams to design and implement a complete information system using contemporary software development tools. The workplace will be simulated to the extent possible by stressing in-depth analysis of the client’s requirements, formal modes of communication and established project management techniques. Evaluation is based on the completed project using feedback from clients. Prerequisites: CIS 317 and 407; or consent of instructor.

CIS 425 Building E-Business with Web Design (3). Course covers how to build the front-end, middleware, and back-end components that drive E-business. Emphasis is on building a functional E-business site that is capable of processing transactions and interacting with a database. Topics include common E-business technologies, Web database technology, content management, on-line payments, Web usability, client-side and server-side programming using common scripting languages and middleware technologies, and website registration, promotion, and maintenance. Prerequisites: CIS 325 and 407.

CIS 443 Business Statistics III (3). Statistical techniques used in analyzing and solving problems encountered in business organizations. Techniques include multiple regression analysis, time series analysis and forecasting, analysis of variance and nonparametric statistics. Additional topics will include conditional probability, the Poisson, exponential and uniform probability distributions, and the chi-square goodness-of-fit test. Techniques are applied to practical business problems using computer statistical software. This course provides preparation for those students considering graduate school and for those students pursuing programs requiring statistical preparation beyond CIS 434. Prerequisite: CIS 343 with a minimum grade of C.

CIS 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

CIS 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

CIS 490 Survey of Calculus and Statistics (3). A survey course in topics from Calculus and Statistics that will prepare those lacking proper foundation in quantitative subjects for the MBA program. Covers most of the material in CIS 343 and MAT 220. Prerequisite: MAT 140 or equivalent.

CIS 507 Fundamentals of Distributed Database Applications (3). This course covers the fundamental concepts of distributed database management systems. The emphasis is on the concepts, algorithms and the protocols. It includes an overview of the architecture, database design, query processing algorithms, concurrency control, recovery and replication strategies. Prerequisite: CIS 307 or equivalent.

CIS 508 Computer Simulation (3). A study of computer simulation models of systems and processes. Simulation methodology, simulation model development, simulation computer languages, and the analysis of simulation results are considered. The course makes use of simulation computer software. Prerequisites: CIS 343 and CSC 199 or equivalent, or consent of instructor.

CIS 509 (409) Data Warehousing and Business Intelligence (3). An overview of the concepts behind data warehousing and business intelligence. Emphasis will be on techniques for gathering and cleaning data, designing and using data warehouses for business intelligence purposes. Data mining tools currently in use will be reviewed. Prerequisites: junior standing; CIS 407.

CIS 525 Overview of E-Business Technologies (3). This course provides an overview of important technologies that underlie and enable E-Business. A solid understanding of the common E-Business models and their underlying enabling technologies will be examined using a practical case-based approach. Prerequisite: consent of instructor.

CIS 543 (433) Data Analysis and Modeling (3). Course topics include accessing, managing and analyzing data. Data analysis topics include basic descriptive statistics, linear models, time series forecasting, classification and clustering analysis. Other mathematical topics include decision tree analysis, association analysis, filtering algorithms, mathematical optimization, and queueing simulations. Data analysis will be done predominantly with SAS and in some cases with Microsoft Excel. Prerequisite: CIS 343.

CIS 548 (545) Enterprise Resource Planning (3). This course provides the knowledge required to appreciate the functions and benefits of Enterprise Resource Planning (ERP) systems. Students will learn the impact of an ERP system, how ERP software integrates business functions, and how to make current business functions compatible with an ERP system. The students will also develop an appreciation of live, interactive information from an ERP system and the value of its availability throughout the organization. Prerequisite: consent of instructor.

CIS 553 Quantitative Business Analysis (3). A study of quantitative methods used in business and industrial organizations. Topics covered include linear programming, inventory models, PERT and CPM, simulation and waiting-line models. Prerequisite: MGT 443.

CIS 585 (595) Special Problems (3). This course consists of independent in-depth study of some problem in computer methods and/or quantitative methods. Periodic conferences will be arranged with the supervising faculty member on an individual basis. Prerequisite: consent of instructor.

CIV 201 World Civilizations I (3). An interdisciplinary survey of the history of world civilizations from the origins of humankind to the 15th century. This will be a lecture/discussion course following a chronological outline and, within this framework, will focus on traditions, change, and diversity in the development of social hierarchies (e.g., gender or class), power systems, religion, technology, and warfare. Prerequisites: sophomore standing; ENG 101 and 102; or ENG 105 or 150.

CIV 202 World Civilizations II (3). An interdisciplinary survey of the history of world civilizations from the 15th century to the present. This will be a lecture/discussion course following a chronological outline and, within this framework, will focus on traditions, change, and diversity in the development of social hierarchies (e.g., gender or class), power systems, religion, technology, and warfare. Prerequisites: sophomore standing; ENG 101 and 102; or ENG 105 or 150.

CIV 290 Special Topics in World Civilizations (3). An in-depth look at world history through the lens of a specific theme. The thematic focus of the course will vary depending on instructor and student interest. The course will explore differences and similarities in the human experience from ancient times to the contemporary world, and encompass several different global regions. May be repeated up to six hours. Prerequisite: CIV 201 or CIV 202.

COM 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail.

COM 131 (181) Introduction to Interpersonal Communication (3). Communication in an interpersonal environment. Topics studied include interpersonal perception, verbal and nonverbal communication, conflict reduction, and language and its use. Will not satisfy requirements for organizational communication major or minor.

COM 161 Introduction to Public Speaking (3). Organization and presentation of ideas through participation in frequent speech activities. Students present speeches to inform, solve problems and persuade. Communication needs of the individual...
students are considered and guidance is given by the instructor.

COM 201 Communication Foundations and Theory (3). Theoretical constructs of the speech communication discipline. A survey from classical through contemporary perspectives of human discourse. Focus is on the development of the major content areas of the field. Corequisite: COM 161.

COM 260 Communication Ethics (3). An introduction to the ethical challenges and responsibilities of being a competent communicator in a diverse and changing world. Students will learn to apply ethical theory and reasoning to a variety of communication processes and contexts.

COM 261 (251) Debate and Advocacy (3). Review and application of debate and advocacy skills including the ability to develop, organize, present, refute, and analyze well-reasoned arguments. Appropriate for individuals seeking preparation for those professions (e.g., law, business, teaching, ministry) where advocacy of ideas is essential.

COM 331 (381) Interpersonal Communication (3). In-depth study of communication and interpersonal relations.

COM 340 (387) Intercultural Communication (3). Designed to explore communication principles from the viewpoint of different western and non-western cultures.

COM 345 Diversity, Communication, and the Workplace (3). Survey of the unique communication challenges, processes and strategies that result from diversity markers such as age, race, gender, sexual orientation, social class, physical ability, and body image in organizational settings.

COM 353 Team Communication and Leadership (3). Study of communication principles and leadership strategies for effective teamwork. Focus is on communication and leadership skills that produce team cohesion, synergy, and productivity. Communication theory is applied to analyze leadership roles in team projects, decision-making, and conflict management.

COM 361 Career Presentations (3). Study of presentation techniques within business and professional contexts. Presentations made to staff, clients, and constituents, as well as conference and keynote addresses, will be studied and practiced. Students will create and deliver presentations tailored to their individual career objectives. Prerequisite: COM 161.

COM 367 (357) Communication and Critical Thought (3). The course explores the relationship between communication and critical thought. Based on the rhetorical traditions of oral discourse, students will explore argumentation, negotiation, reason, fallacy, language, and evaluation of information as each relates to critical thinking.

COM 372 Communication in Educational Environments (3). Special communication needs of teachers of any discipline. Students develop an understanding of communication concepts applicable to the classroom as well as communication skills useful in other aspects of educational environments. Course content is developed through readings, lectures, discussions, structured activities, and classroom visitations; provides the teacher an experiential and cognitive understanding of the role of communication in the educational environment.

COM 380 (385) Organizational Communication (3). A study of concepts, theories, and processes of human communication in organized workplaces. Emphasis is given to the nature and function of human communication in different organizational structures and designs.

COM 384 Communication Skills for Professionals (3). Study of applied communication skills for professionals in for-profit and non-profit organizations. Emphasis is given to oral and written communication techniques for providing feedback, conducting interviews, managing meetings, delivering training, promoting strategy, and change, maintaining organizational identity and image, and responding to organizational crises.

COM 390 Communication Research (3). An introduction to the quantitative and qualitative research methods used to study communication. Emphasis is placed on familiarity with scholarly publications, understanding various research methodologies, and critique of basic and applied research findings. The connection between theory, research, and decision-making is highlighted.

COM 401 (499) Contemporary Issues in Communication (1-3). Studies of interest to faculty and students (e.g., effective mentoring skills, communication and the family, health communication, gender issues). A different subject is examined each time the course is offered, with the topic being announced one semester in advance. Variable credit is assigned on the basis of instruction hours (15-20 hours per unit of credit). Enrollment is open to juniors and seniors and may be repeated once for a total of six hours.

COM 422 Communication and Technology (3). Examines how technology impacts communication processes in personal and organizational contexts. This course explores theories, concepts, and research associated with computer-mediated communication, mobile devices, social networking, and virtual teams. Students will develop competencies related to effective interpersonal and organizational communication via technology.

COM 439 (481) Conflict and Communication (3). Examines conflict processes as communication phenomena. Explores theories of conflict communication and develops competencies for a range of professional and interpersonal contexts by applying theory to practice.

COM 461 Persuasive Communication (3). Course explores theories and concepts of persuasive communication strategies. Emphasis is placed on examining persuasive strategies used in attitude change. Ethical problems related to persuasion, audience analysis and dialogue, rationality, and the free marketplace of ideas are also explored. Students develop and present a persuasive campaign. Prerequisite: COM 161.

COM 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

COM 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

COM 510 (599) Internship (3-6). A course designed for students to get experience in the application of theory to practical situations. Businesses and organizations selected to participate draw from qualified students with skills in organizational communication. May be repeated for a total of six hours. Graded pass/fail. Prerequisite: senior standing or consent of instructor.

COM 530 (581) Seminar in Interpersonal Communication (3). A study of the contemporary approaches to interpersonal communication with opportunities for practical application of those approaches in diverse interpersonal situations.

COM 553 Advanced Team Communication and Leadership (3). Study of theory, research, and current practices relevant to the study of team communication and leadership. Students will examine communicative behavior of productive teams and effective leaders, and participate in team building exercises.

COM 577 Organizational Learning and Dialogue (3). Explores organizations as systems of learning based on productive alternative forms of human communication. Theories and tools of dialogue and organizational learning are applied to contemporary workplace practices. Prerequisite: COM 385.

COM 580 (585) Advanced Organizational Communication (3). Survey of theory and research relevant to the study of organizational communication. Students will examine how communication processes shape and reshape the activities of organizing within and between organizations. Prerequisites: 75 hours earned and COM 385.

COM 594 (589) Directed Individual Study in Communication Theory (3). A course designed to meet the needs of individuals and groups who wish to explore topics not covered in other organizational communication courses or to do in-depth study of an issue introduced in another course. A proposal for study must be approved by the instructor during the first week of classes. General
an exam ines the nature and causes of injustice in the criminal justice system. Key policy issues are explored. Particular attention is given to race, ethnicity and gender as they apply to crime incidents, victims, offenders, and criminal justice professionals. Prerequisite: CRJ 140 with a grade of C or better.

CRJ 447 Business and Political Crime (3). Concepts, policies and issues relating to crimes in business, industry and government. Includes discussions of the impact of white-collar and organized crime, terrorism, fraud, corruption, and other forms of official and unofficial deviance. An approved business elective. Prerequisite: CRJ 140 with a grade of C or better or consent of instructor.

CRJ 448 Topical Seminar (3). Inquiry into selected topics and problems in the field of criminal justice. May be repeated for a maximum of six hours provided topics vary. Prerequisite: CRJ 140 with a grade of C or better.

CRJ 455 Police and Community Relations (3). Individual and collective study of relationships between police officers, agencies and the public. Exploration of areas of conflict and cooperation. Prerequisites: CRJ 140 and 220 with a grade of C or better.

CRJ 365 Interviewing and Interrogation (3). An examination of the theory, nature, methods, and principles of interviewing and interrogation in criminal justice with discussion and practical exercises focusing on eliciting information from witnesses and criminal suspects and case documentation. Prerequisite: CRJ 140 with a grade of C or better.

CRJ 385 Violent Crime (3). A comprehensive examination of the nature and extent of violent crime in society, with specific consideration given to the workplace, family and other intimate relationships, and schools. Particular attention is given to the criminal justice system’s response to the offender and victim in these situations. Prerequisite: CRJ 140 with a grade of C or better.

CRJ 425 Terrorism (3). The history, philosophy, various forms and definitions of terrorism are examined. The nature and causes of domestic and international terrorism, the possible means for prevention, and criminal justice system of governmental response to terrorist acts, and current issues in terrorism are explored. Prerequisites: CRJ 140 and 220 with a grade of C or better.

CRJ 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required. Prerequisite: CRJ 140 with a grade of C or better.

CRJ 442 Probation and Parole: Community Corrections (3). Study of community alternatives to prison confinement. Examination of halfway houses, work release and other community-based approaches to corrections. Prerequisite: CRJ 240 with a grade of C or better.

CRJ 445 Race, Ethnicity and Gender in Criminal Justice (3). Examines the nature and causes of injustice in the criminal justice system. Key policy issues are explored. Particular attention is given to race, ethnicity and gender as they apply to crime incidents, victims, offenders, and criminal justice professionals. Prerequisite: CRJ 140 with a grade of C or better.

CRJ 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required. Prerequisite: CRJ 140 with a grade of C or better.

CRJ 425 Terrorism (3). The history, philosophy, various forms and definitions of terrorism are examined. The nature and causes of domestic and international terrorism, the possible means for prevention, and criminal justice system of governmental response to terrorist acts, and current issues in terrorism are explored. Prerequisites: CRJ 140 and 220 with a grade of C or better.

CRJ 442 Probation and Parole: Community Corrections (3). Study of community alternatives to prison confinement. Examination of halfway houses, work release and other community-based approaches to corrections. Prerequisite: CRJ 240 with a grade of C or better.

CRJ 445 Race, Ethnicity and Gender in Criminal Justice (3). Examines the nature and causes of injustice in the criminal justice system. Key policy issues are explored. Particular attention is given to race, ethnicity and gender as they apply to crime incidents, victims, offenders, and criminal justice professionals. Prerequisite: CRJ 140 with a grade of C or better.

CRJ 447 Business and Political Crime (3). Concepts, policies and issues relating to crimes in business, industry and government. Includes discussions of the impact of white-collar and organized crime, terrorism, fraud, corruption, and other forms of official and unofficial deviance. An approved business elective. Prerequisite: CRJ 140 with a grade of C or better or consent of instructor.

CRJ 448 Topical Seminar (3). Inquiry into selected topics and problems in the field of criminal justice. May be repeated for a maximum of six hours provided topics vary. Prerequisite: CRJ 140 with a grade of C or better.

CRJ 455 Police and Community Relations (3). Individual and collective study of relationships between police officers, agencies and the public. Exploration of areas of conflict and cooperation. Prerequisites: CRJ 140 and 220 with a grade of C or better.
CRJ 470 Institutional Corrections (3). Examination of the history, roles, structures, and functioning of institutional corrections within the United States. Emphasis is placed on understanding the philosophies, elements, structures, and programs that shape current institutional operations and their impact on offenders, staff, and the community. Prerequisites: CRJ 140 and 240.

CRJ 475 Organized Crime (3). Historical dimensions of organized crime and its control. Examination of emerging groups of ethnic and international organized crime and the statutes and techniques used to combat criminal organizations. Prerequisite: CRJ 140 with a grade of C or better.

CRJ 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisites: CRJ 140 with a grade of C or better, six hours of CRJ courses, and permission of chair.

CRJ 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisites: CRJ 140 with a grade of C or better, six hours of CRJ courses, and permission of chair.

CRJ 495 Special Problems (3). Individual study and projects designed to meet the needs of each student. Restricted to seniors majoring or minoring in criminal justice. Must have a 3.0 overall GPA and a 3.0 in CRJ courses taken for the major or minor. Prerequisite: Completion of all CRJ core courses with a grade of C or better for the major except 499 or 15 hours of CRJ courses with a grade of C or better in the minor.

CRJ 499 Senior Seminar in Criminal Justice (1). Capstone course for all criminal justice majors. The course includes an examination of career opportunities, including public and private sector employment, and graduate and professional education. Students will discuss the job search process, consider interviewing techniques, and prepare a professional portfolio. Mastery of criminal justice curriculum will be assessed. Prerequisites: senior standing and completion of CRJ 499 and CRJ 140 and at least 18 additional hours of criminal justice courses with a grade of C or better in each class. An overall GPA of 2.5 or better is required.

CRJ 505 Criminal Justice Administration (3). Principles of administration, organization, leadership, and management are examined as they apply to the various components of criminal justice. Prerequisites: CRJ 140 with a grade of C or better, 220, and 240 or permission of instructor.

CRJ 522 Issues in Policing (3). Examines police function, history, operational strategies, ethics, deviance, use of force, policy, accreditation, accountability, and other contemporary issues. Prerequisites: CRJ 140 and 220 with a grade of C or better.

CRJ 533 Juvenile Delinquency (3). Nature and extent of delinquency; competing explanatory theories; evaluation of programs for prevention and control; role of police, detention, juvenile courts and corrections. Prerequisite: CRJ 320 with a grade of C or better, or consent of instructor.

CRJ 537 Juvenile Justice Procedures (3). The organization, function and jurisdiction of juvenile agencies; police referrals, preventive techniques and youth divisions; juvenile court procedures and juvenile statutes. Prerequisites: CRJ 140 and 320 with a grade of C or better, or consent of instructor.

CRJ 544 Constitutional and Legal Issues in Criminal Justice (3). A comprehensive examination of the constitutional law that affects criminal justice professionals, citizens, suspects, and incarcerated individuals, with considerable attention given to both civil and criminal legal issues surfacing in the criminal justice field. Topics will include due process, search and seizure, self-incrimination, bail, and right to counsel and a fair trial. Prerequisite: CRJ 140 with a grade of C or better.

CRJ 555 Crime Prevention (3). This interactive seminar will deal with crime prevention strategies for law enforcement, business/industrial security and other criminal justice personnel. Issues of situational crime prevention, environmental design, physical security measures, defensible space, opportunity theories, crime displacement, rational choice theory and selected crime prevention studies will be explored. International issues and extensive case studies will be included. Prerequisite: CRJ 140 with a grade of “C” or better or consent of professor.

CRJ 573 Victimology (3). Analysis of major perspectives on victimization. Emphasis on patterns of victimization, the role of victims in the generation of crime, and the experience of the victim in the criminal justice system. Prerequisite: CRJ 140 with a grade of C or better.

CRJ 575 Comparative Criminal Justice Systems (3). An examination of non-American criminal justice systems. Specific areas of comparison will include but not be limited to, the police, judiciary, and criminal corrections of selected foreign systems. Prerequisite: CRJ 140 with a grade of C or better.

COMPUTER SCIENCE (CSC)

CSC 101 Introduction to Problem Solving Using Computers (3). This course is an introduction to problem solving using computers which spans the breadth of issues such as logical reasoning in algorithm development, procedural, object-oriented and event-driven/visual programming languages, web programming, networking concepts, security issues and other pertinent topics regarding the use of a computer to solve real-world problems. The student will be provided with an overall picture of the many areas of expertise in the computing field as they apply to other disciplines as well as an introduction to fundamental programming concepts. This course is intended as the first course for CSIS majors and a course for non-majors who want to learn how to instruct computers to solve problems. Prerequisite: Math ACT score of at least 20 or MAT 105 or higher.

CSC 125 Internet and Web Page Design (3). Introductory course covering the Internet and web page design. The student will be introduced to Internet tools including mailers, browsers, search engines, metasearch engines, FTP clients, and the physical components of computer networks. The major part of this course will cover the fundamentals of web page design using HTML. Web page development will include the use of lists, client-side image maps, tables, frames, forms, cascading style sheets, and a web editor. An introduction to XHTML, JavaScript, and freely available HTML editors will also be included.

CSC 145 Introduction to Programming I (4). An introduction to problem-solving methods and algorithm development using a high-level programming language. The course will include methods of program design, coding techniques, debugging and internal documentation. The course emphasizes structured programming and top-down design and also covers object-oriented programming. Topics include variable I/O, repetition, selection, subprograms, file handling, and object-oriented programming. Course includes three hours lecture and a two-hour laboratory experience each week. This is the recommended second course for majors in the discipline. Prerequisites: CSC 101 and MAT 150 or equivalent.

CSC 199 Introduction to Information Technology (3). Course is designed for students pursuing any program of study. A student taking this course will gain competency with file management, word processing, spreadsheet, database management, and presentation graphics software. In addition, the student will become familiar with general computer technology such as computer hardware, computer operations, networks, the Internet and the World Wide Web. Prerequisite: MAT 105 or math ACT score of at least 20.

CSC 201 (CIS 440) End User Technology Support and Management (3). This course presents the student with software, hardware and administrative issues commonly encountered in supporting end users. Topics covered: installation, configuration, upgrading, security, training, evaluation/acquisition/maintenance of software and hardware. Prerequisite: CSC 101.

CSC 232 Visual Basic Programming I (4). Introductory programming course for students with little or no programming experience who want a course that covers basic algorithm development, structured programming, and event-driven programming. Visual Basic Language will be used. Three hours lecture and two hours laboratory per week. Prerequisite: CSC 101.
CSC 235 Programming in C++ (3). A course in programming in C++ using both procedural and object-oriented methods. Topics include variables; expressions; stream and file input/output; control structures; arrays; functions; pointers; records; dynamic memory management; object-oriented programming with classes; single and multiple inheritance. The course will also include an introduction to the Linux operating system. Two hours lecture and two hours laboratory per week. Prerequisite: CSC 101 or consent of instructor.

CSC 245 Introduction to Programming II (4). A course to continue the development of discipline in program design, in style and expression. Includes methods of dynamic memory management and recursion. Introduces data structures and abstract data types (ADTs) for arrays, strings, lists, stacks, queues, trees and graphs. These ADTs are presented in both static and dynamic memory implementations. The course also covers the design and implementation of algorithms such as sorting and searching, hashing functions, priority queues, heaps, and graph algorithms. Other topics (recursion, lists, events, inheritance) in object-oriented programming will be covered as time permits. Three hours lecture and two hours laboratory per week. Prerequisite: CSC 145.

CSC 260 Application Program Development in COBOL I (3). Introduction to algorithms and programs, variable assignment, and input, decision, looping, tables, subroutines, algorithm design and testing, records, file organization, and processing. The focus of this course is on control structures and their syntax, elementary data structures, and sequential files. Two hours lecture and two hours lab. Prerequisite: CSC 145 or 232.

CSC 275 Graphical Rendering (3). Course covers the basic methods of computer-based three-dimensional layout and design, composition, and perspective. The effects of applying predefined surface textures to object models as well as the techniques for creating user-defined textures are reviewed. Course projects employ methods of abstraction provided by the software tools to permit the creation and manipulation of hierarchically defined objects. Course reviews the effects of camera modeling and importance of point of view on the appearance of computer-generated scenes. Prerequisite: consent of instructor.

CSC 299 Special Topics in Computer Applications (1-3). A special topics course designed to permit the teaching of appropriate topics as needed in a changing high-tech discipline. The course will include those topics which are relevant but not necessarily appropriate for permanent, specific course status. Topics will be selected and offered on university/community need and/or interest. Does not apply to the CSC or CIS majors. May not be substituted for any course in the business core. Prerequisites vary with topics covered. May be repeated for a maximum of six hours. (Same as CIS 299.)

CSC 301 Foundations of Computer Science I (3). Course introduces the discrete mathematical foundations of computer science, providing the appropriate theoretical background for advanced courses. Topics include: functions, relations, sets, logic, proof techniques, combinatorics, digital logic, elementary number theory and introduction to matrix theory with application to computer graphics. Prerequisites: CSC 145 and MAT 150 or equivalent.

CSC 302 Foundations of Computer Science II (3). A continuation of CSC 301. Topics include: graph theory, finite state machines, queueing theory, sequences, series, recurrence relations, context free grammars. Corequisite: MAT 250. Prerequisite: CSC 301.

CSC 310 Database Administration (3). A course in administering database management systems. Topics include data definition language, data control language, backup and recovery, security, performance tuning, network administration. Prerequisites: CIS 307 and TSM 133.

CSC 332 Visual Basic Programming II (3). An in-depth study of the latest version of the Visual Basic programming language. Emphasis is placed on advanced programming techniques and database concepts. The course covers event driven programming and object-oriented paradigms. Topics include structured programming, class creation, user interface development and database management. Prerequisite: CSC 232 with a grade of C or better or consent of instructor.

CSC 340 Programming in Java (3). A first course in programming in Java with emphasis on object oriented programming techniques. Topics include applications, applets, control structures, methods, arrays, object-based and object-oriented programming, strings, graphical user interfaces, exception handling, multithreading, and multimedia. Two hours lecture and two hours laboratory per week. Prerequisite: CSC 145 or consent of instructor.

CSC 342 Programming in C# (3). A first course in programming in C#, with emphasis on object oriented programming techniques. Topics include applications, control structures, methods, arrays, object-based and object-oriented programming, strings, graphical user interfaces, exception handling, multithreading, and multimedia. Two hours lecture and two hours laboratory per week. Prerequisite: CSC 145 or consent of instructor.

CSC 345 Data Structures (4). Data structures and abstract data types including arrays, strings, lists, stacks, queues, trees and tree balancing algorithms; hashing techniques with applications to file processing; priority queues and heaps; sorting algorithms; graph algorithms; generalized algorithm design techniques. Emphasis will be placed upon object-oriented software design techniques to facilitate software reuse. Prerequisite: CSC 145 with a grade of C or higher.

CSC 360 Scripting Languages (3). Course is a survey of several popular scripting languages. Operating system shell languages and Perl will be discussed. The emphasis will be on applications of scripting languages to network and server administration tasks. Two hours lecture and two hours laboratory per week. Prerequisites: Knowledge of a high-level programming language and a server operating system or consent of instructor.

CSC 405 Computer Architecture (4). Applications of digital logic circuits, register transfer logic and assembly language to the design and operation of the modern general-purpose computer are reviewed. Course covers the functional components of the ALU, control unit, memory unit, and I/O communications. Course includes an overview of microcontrollers and single-board computers as applied to embedded systems. A study of parallel and distributed architectures, as well as alternative processor architectures are reviewed. Three hours lecture, two hours of digital logic lab per week. Prerequisite: CSC 301.

CSC 410 Distributed Systems (3). An overview of principles of network and distributed computer systems. This course covers the concepts of the network control, asynchronous concurrent processes, multi-threaded execution, mutual exclusion, deadlock, distributed storage management, processor scheduling, parallel and distributed computing, and system and network security. Two hours lecture and two hours lab per week. This course must be taken with one of the following: CSC 411, 412, 413, or 414. Prerequisite: CSC 301 or consent of instructor.

CSC 411 Distributed Systems Project in Graphics and Visual Computing (0). Project course to accompany CSC 410. The chosen project will be related to distributed systems and graphics and visual computing. This course must be taken with CSC 410. Graded pass/fail.

CSC 412 Distributed Systems Project in Net-Centric Computing (0). A project course to accompany CSC 410. The chosen project will be related to distributed systems and net-centric computing. This course must be taken with CSC 410. Graded pass/fail.

CSC 413 Distributed Systems Project in Embedded Systems Programming (0). Project course to accompany CSC 410. The chosen project will be related to distributed systems and embedded systems programming. This course must be taken with CSC 410. Graded pass/fail.

CSC 414 Distributed Systems Project in Applications Programming (0). Project course to accompany CSC 410. The chosen project will be related to distributed systems and applications programming. This course must be taken with CSC 410. Graded pass/fail.

CSC 415 Programming Languages (3). Formal definition of programming language syntax and semantics. Global properties of imperative languages including scope of declarations, binding times, simple data types, data structures and abstract data types, control structures, subprograms, concurrency, and exception handling. Introduction to functional, logic and object-oriented programming paradigms. Prerequisites: CSC 235, 301, 345 and either CSC 340 or 342.

CSC 420 Numerical Analysis I (3). An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of non-linear equations, and numerical solution of
study of the design and analysis of algorithms.
This course covers methods of tree and graph
traversal for optimal and approximate solutions
to semi-numerical problems. It includes a study
of the basic problem-solving techniques of
greedy method, divide-and-conquer, dynamic
programming, backtracking and branch-and-bound.
Introduction to complexity and the NP
hierarchy. This course must be taken with one
of the following: CSC 446, 447, 448, or 449.
Prerequisites: CSC 302 and 345 or consent of
instructor.

CSC 446 Algorithms Project in Graphics
and Visual Computing (0). A project course to
accompany CSC 445. The chosen project will be
related to algorithms and graphics and visual
computing. This course must be taken with CSC

CSC 447 Algorithms Project in Net-Centric
Computing (0). A project course to accompany
CSC 445. The chosen project will be related to
algorithms and net-centric computing. This course
must be taken with CSC 445. Graded pass/fail.

CSC 448 Algorithms Project in Embedded
Systems Programming (0). A project course to
accompany CSC 445. The chosen project will be
related to algorithms and embedded systems
programming. This course must be taken with

CSC 449 Algorithms Project in Applications
Programming (0). A project course to accompany
CSC 445. The chosen project will be related to
algorithms and applications programming. This
course must be taken with CSC 445. Graded
pass/fail.

CSC 488 Cooperative Education/Internship
(1-3). A meaningful, planned, and evaluated work
experience related to the career and educational
objectives of the student for which he/she may
receive academic credit and possible financial
remuneration. May be repeated for a maximum
of six hours from any 488/489 courses. Graded
pass/fail. Prerequisite: consent of chair.

CSC 489 Cooperative Education/Internship
(1-3). A meaningful, planned, and evaluated work
experience related to the career and educational
objectives of the student for which he/she may
receive academic credit and possible financial
remuneration. May be repeated for a maximum
of six hours from any 488/489 courses. Prerequisite:
consent of chair.

CSC 500 Network Management and Imple-
mentation (3). An introduction to networking
and data communication including topical coverage
of transmission protocols, interconnectivity, network
implementation and server installations. Emphasis
will be placed on network design, operations,
management, and costing. May not receive credit
for both TSM 133 and CSC 510. Prerequisite:
consent of instructor.

CSC 515 Computer Graphics Programming
(3). Techniques in two-dimensional and three-
dimensional computer graphics image generation
and animation. Course includes a study of image
rendering with both radiosity and raytracing
techniques using high-level graphics tools.
Covers the mathematical foundations for
computer graphics including vector and matrix
theory for affine and projective transformations.
Prerequisites: knowledge of a high-level language
and consent of instructor.

CSC 530 Graphical User Interface Develop-
ment (3). Presents an introduction to human-
computer interaction, graphical user interface
design and implementation. The course requires
the development of significant software applica-
tion using a selected user interface development
tool. Must be taken with one of the following:
CSC 531, 532, 533 or 534. Prerequisites: CIS
407 and knowledge of a high-level language or
consent of instructor.

CSC 531 Graphical User Interface Develop-
ment Project in Graphics and Visual Comput-
ing (0). Project course to accompany CSC 530.
The chosen project will be related to graphical
user interface development and graphics and
visual computing. Must be taken with CSC 530.
Graded pass/fail.

CSC 532 Graphical User Interface Develop-
ment Project in Net-Centric Computing (0).
Project course to accompany CSC 530. The chosen
project will be related to graphical user interface
development and net-centric computing. Must be
taken with CSC 530. Graded pass/fail.

CSC 533 Graphical User Interface Develop-
ment Project in Embedded Systems Program-
ming (0). Project course to accompany CSC 530.
The chosen project will be related to graphical
user interface development and embedded systems
programming. Must be taken with CSC 530.
Graded pass/fail.

CSC 534 Graphical User Interface Develop-
ment Project in Applications Programming (0),
Project course to accompany CSC 530. The chosen
project will be related to graphical user interface
development and applications programming.
Must be taken with CSC 530. Graded pass/fail.

CSC 540 Social, Ethical and Professional
Issues in the Information Age (3). This course
emphasizes social, ethical, legal, technical and
professional issues encountered in the informa-
tion age including the historical and social
context, professional responsibilities, risks and
liabilities, and intellectual property. Prerequisite:
Senior standing.

CSC 545 Advanced Computer Architecture (3).
In-depth discussion of some topics from CSC 405,
high-speed functional units, distributed architec-
ture, multiprocessors, pipelining, parallel comput-
ers and other topics. Prerequisite: CSC 405.

CSC 565 Embedded Systems Design (3).
Architecture of various microcontrollers and their
uses in embedded systems applications are studied.
One or more of the popular microcontrollers will
be selected for practice in hardware design and
programming, including methods for interfacing
with computers, sensors and control systems.
Prerequisite: CSC 405 or consent of instructor.

CSC 575 Computer Animation and Game
Development (3). This course builds on the
computer animation techniques of CSC 515. Top-
ics covered include lighting techniques, texture
mapping, atmospheric effects, collision detection,
joystick and game pad inputs, and sound effects.
Physics modeling, real-time animation, AI be-
havior modeling and other fundamentals of fame
design are introduced. Prerequisite: CSC 515 or
consent of instructor.

CSC 585 (595) Special Problems (1-3).
Supervised independent study of specialized topics in
computer science. May be repeated one time.
Prerequisite: senior standing and/or consent of
instructor.

CAREER AND TECHNICAL
EDUCATION (CTE)

CTE 200 Introduction to Career and Technical
Education (3). This course is designed to provide
students with an introduction to the field of career
and technical education. Included are topics related
to motivation, learning theory, curriculum, school
organization, funding, laboratory management and historical,
socio-cultural, psychological and philosophical
foundations of career and technical education.

CTE 270 Basic Structures and Foundations
of CTE (3). Course includes topics related to
the basic structures and foundations of career
and technical education such as curricular
developments; course organization and content
selection; student organizations; and historical,
socio-cultural, psychological, and philosophical
foundations of career and technical education.

CSC 435 Computer Organization and
System Design (3). In-depth discussion of
some topics from CSC 405, high-speed
functional units, multiprocessors, pipelining,
parallel computers and other topics. Prerequisite:
CSC 405.

CSC 455 Computer Organization and
System Design (3). In-depth discussion of
some topics from CSC 405, high-speed
functional units, multiprocessors, pipelining,
parallel computers and other topics. Prerequisite:
CSC 405.

CSC 456 Embedded Systems Design (3).
Architecture of various microcontrollers and their
uses in embedded systems applications are studied.
One or more of the popular microcontrollers will
be selected for practice in hardware design and
programming, including methods for interfacing
with computers, sensors and control systems.
Prerequisite: CSC 405 or consent of instructor.

CSC 457 Computer Animation and Game
Development (3). This course builds on the
computer animation techniques of CSC 515. Top-
ics covered include lighting techniques, texture
mapping, atmospheric effects, collision detection,
joystick and game pad inputs, and sound effects.
Physics modeling, real-time animation, AI be-
havior modeling and other fundamentals of fame
design are introduced. Prerequisite: CSC 515 or
consent of instructor.

CSC 458 (595) Special Problems (1-3).
Supervised independent study of specialized topics in
computer science. May be repeated one time.
Prerequisite: senior standing and/or consent of
instructor.

CSC 460 Social, Ethical and Professional
Issues in the Information Age (3). This course
emphasizes social, ethical, legal, technical and
professional issues encountered in the informa-
tion age including the historical and social
context, professional responsibilities, risks and
liabilities, and intellectual property. Prerequisite:
Senior standing.

CSC 465 Advanced Computer Architecture (3).
In-depth discussion of some topics from CSC 405,
high-speed functional units, distributed architec-
ture, multiprocessors, pipelining, parallel comput-
ers and other topics. Prerequisite: CSC 405.

CSC 475 Computer Organization and
System Design (3). In-depth discussion of
some topics from CSC 405, high-speed
functional units, multiprocessors, pipelining,
parallel computers and other topics. Prerequisite:
CSC 405.

CSC 480 Social, Ethical and Professional
Issues in the Information Age (3). This course
emphasizes social, ethical, legal, technical and
professional issues encountered in the informa-
tion age including the historical and social
context, professional responsibilities, risks and
liabilities, and intellectual property. Prerequisite:
Senior standing.

CSC 485 Advanced Computer Architecture (3).
In-depth discussion of some topics from CSC 405,
high-speed functional units, distributed architec-
ture, multiprocessors, pipelining, parallel comput-
ers and other topics. Prerequisite: CSC 405.
application of instructional materials, methods, techniques and devices relevant to teaching vocational-industrial and technical education; their relationships and technical subjects.

CTE 380 Career and Technical Subjects (3-24). An assessment will be made of previous educational experiences from universities, community colleges, private and public schools, and all institutions recognized by the National Commission on Accrediting. Graded pass/fail.

CTE 381 Career and Technical Experiences (3-24). Credit may be earned by thoroughly documented experiences in an occupation where the individual meets the standards for the entry level of teaching as defined by the Kentucky Department of Education, and where one would be eligible for the one-year vocational teaching certificate. On the basis of this review by the department chair, a specific amount of credit will be determined and given. Graded pass/fail.

CTE 463 Seminar in Student Teaching, Career and Technical Subjects (4). The identification of selected teaching concepts and a study of their use as a foundation for instructional methods, student activities, and evaluation of student learning. Graded pass/fail. Prerequisite: consent of instructor.

CTE 501 Structures and Foundations of CTE (3). This course is designed to provide new and pre-service teachers with an introduction to the field of career and technical education. Included are topics related to motivation, and learning theory, curriculum, school organizations, funding, laboratory management and historical, socio-cultural, psychological and philosophical foundations of career and technical education.

CTE 502 Assessment and Curricula in Career and Technical Education (3). Course will provide an overview of assessment and curricula unique and appropriate for the career and technical education classroom and laboratory.

CTE 503 Planning and Implementing Instruction in CTE (3). This course will provide an overview of current trends and issues in planning and implementing instruction in the media rich career and technical education classroom and laboratory. Includes exploration of such varied methods as lecture, discussion, group instruction, projects and instructional modules.

CTE 566 Special Problems in Career and Technical Education (1-6). Provides an opportunity for individual study, laboratory practice and research in vocational education. The student must show a real need for such study and have the proposed problem approved before registering for the course. May be repeated for up to six hours of credit.

CTE 568 Independent Study in Career and Technical Education (3-6). Supervised readings or independent investigative projects in the various aspects of administration, supervision and coordination of vocational programs. May be repeated for up to six hours of credit. Prerequisite: consent of instructor.

ECONOMICS (ECO)

ECO 140 Contemporary Economics (3). Fundamental economic principles applied to a wide range of real world problems, with the objective of developing an understanding of the market form of economic organization. Designed specifically for two purposes: (1) to meet the needs of the students who are able to take only one economics course in their curriculum, and (2) to satisfy the University Studies social science requirement. Does not apply toward business or economics major, minor, or area requirement.

ECO 190 Consumer Economics (3). A study of consumer buying practices, family finances, protection of the consumer, and other problems of the household. Does not apply toward business or economics major, minor, or area requirements.

ECO 200 Economics and Politics (3). This course provides an introduction to the economic analysis of governments and politics. Topics covered include the role of special interest groups in American government, the growth of the government sector in the American economy, and the fundamental differences between private and public sector decision-making. The course is designed to introduce students to the role that incentives play in understanding government decision-making. Does not apply toward business or economics major, minor, or area requirement, but may be used as an elective.

ECO 230 Principles of Macroeconomics (3). An introduction to the application of the basic principles of supply and demand to issues in aggregate economics such as national income accounting, unemployment, growth, inflation, business cycles, and the role played by government through its fiscal and monetary policies. Prerequisites: MAT 117, 120, 140 or 150; or an ACT math standard score of at least 23; or consent of instructor.

ECO 231 Principles of Microeconomics (3). An introduction to the application of the basic principles of supply and demand to the behavior of individual economic agents such as consumers, households, business and nonprofit firms, industries, and resource owners. Real world examples are used to demonstrate the application of microeconomics to everyday situations, including an analysis of the effects of government policies on individual markets and income distribution. Prerequisites: MAT 117, 120, 140 or 150; or an ACT math standard score of at least 23; or consent of instructor.

ECO 305 Money and Banking (3). A survey of money and its role in the operation of the economy and the banking system. Prerequisites: junior standing; ECO 230 and 231.

ECO 310 Issues in the Global Economy (3). A review of fundamental issues in international trade, payments, investment, and economic and social systems relevant for informed international business and public policy decision making. This class may not be taken for credit in the economics major. Prerequisite: ECO 230.

ECO 311 European Economic History (3). A descriptive study of the economic development of Europe. This course focuses on historical economic thought that developed in Europe and provides a perspective of how Europe is structured today. Prerequisite: ECO 230 or 231 or consent of instructor.

ECO 312 American Economic History (3). A descriptive study of the historical development of major economic institutions in the United States. Prerequisite: ECO 231.

ECO 315 Comparative Economic Systems (3). An analysis and appraisal of the various economic structures utilized by societies to solve the economic problem of how to allocate scarce resources among unlimited wants. Prerequisites: junior standing; ECO 230 or consent of instructor.

ECO 330 Intermediate Macroeconomics (3). An analysis of the application of the principles of supply and demand to the macroeconomic problems that face society, such as inflation, unemployment, growth, deficits and recessions. This course is a continuation of ECO 230 with a greater emphasis on the development of formal models of macroeconomic activity. Prerequisites: ECO 230 and MAT 220.

ECO 331 Intermediate Microeconomics (3). An analysis of the application of the principles of supply and demand to the resource allocation decisions faced by consumers, firms and resource owners. This course is a continuation of ECO 231 with a greater emphasis on the development of formal models of individual product and resource markets. Prerequisites: ECO 231 and MAT 220.

ECO 335 Economics and Public Policy of Telecommunications Industry (3). The study of market performance and business practices of the telecommunications industry. Includes topics such as market power, merger analysis, vertical relationships, entry and regulation of price and lines of business. Prerequisite: ECO 231.

ECO 345 Environmental Economics (3). Development of a framework for investigating the meaning and causes of environmental deterioration. Special emphasis on developing and using economic analysis to evaluate the appropriateness of proposed solutions. Prerequisite: ECO 231.

ECO 410 Economic Development (3). An introduction to the economic characteristics and problems of the less developed countries and to theories and policies applicable to the developing economy.

ECO 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

ECO 440 Urban Economics (3). A study of the economic theory relevant to the urban environment with applications of this theory to current urban problems. Prerequisite: ECO 231.
ECO 441 Regional Economics (3). An analysis of factors contributing to the economic development of geographical regions of the American economy. Prerequisite: ECO 231.

ECO 450 Economic Applications to Law (3). An introduction to the analysis of legal issues and legal reasoning. Case studies include property, contracts, torts, product liability, criminal behavior and the value of life. Prerequisites: ECO 230, and 231 or consent of instructor.

ECO 460 International Trade and Finance (3). A study of the principles, practices, and institutions of international trade and finance. Prerequisite: ECO 231.

ECO 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

ECO 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

ECO 490 Survey of Economics (3). A rigorous introduction to economics including the application of the basic principles of microeconomics and macroeconomics, designed for students who have an adequate background in economics. Covers the same material as in ECO 231 and ECO 230 or the equivalent. Prerequisites: MAT 117, 120, 140 or 150; or an ACT math standard score of at least 23; or consent of instructor.

ECO 498 Research Methods in Economics (1-3). Course is the first of a two course sequence (with ECO 499) which together make up the senior seminar portion of the economics major. This course will cover research methods including: project design, research methods, writing skills and presentation skills. Those not meeting these requirements must seek the permission of the instructor. Prerequisite: senior standing.

ECO 499 Senior Seminar in Economics (1-3). This is a capstone course in economics and is required of all economics majors. This class will serve to draw together the knowledge and analytical tools developed during the economics major course of study by requiring the development and completion of an independent research project. Prerequisite: ECO 498.

EDU 103 Issues and Practices of American Education (3). Course designed to provide all students with an overview of the field of education. Included are topics related to motivation and learning theory, curriculum, school organization, and historical, socio-cultural, psychological and philosophical foundations of education. Although this is also an initial education course for students seeking teacher certification, all students will be able to apply what they have learned as parents and concerned citizens in their adult lives. Field observations required.

EDU 104 Exploration of Teaching (3). An elective course for high school students interested in pursuing a career in teacher education which will serve as a bridge class between EDU 103 and collegiate level teacher education courses. The course will include an exploration of the professional qualities and expectations of the teacher/educator. Roles, responsibilities, and challenges in the field of education will be examined. The course will include a minimum of 22 hours of field experiences.

EDU 105 Tutoring and Mentoring in Schools (3). This elective course is intended to provide a collegiate level service learning experience for high school students who wish to provide service to their school or district in the form of tutoring or mentoring student. This course will provide opportunities for high school students interested in pursuing teacher education or other human service oriented careers. The course will include training in basic techniques of tutoring in a number of academic areas. The course may also provide techniques for peer mentoring for students who would benefit from support for the academic, social, or psychological aspects of the school experience. The course will include a minimum of 22 hours of tutoring or mentoring experiences.

EDU 201 American Sign Language Level I (3). American Sign Language (ASL) Level I is designed for the student who wants to acquire ASL skills to communicate with persons who are deaf. The course will focus on basic communication functions such as introducing oneself, exchanging personal information, making requests, talking about family and occupations, giving directions, attributing qualities to others and talking about routines. The course will also introduce students to deaf culture. The course will be taught without the use of voice.

EDU 202 American Sign Language Level II (3). American Sign Language (ASL) Level II is designed for the student who wants to acquire ASL skills to communicate with persons who are deaf. The course will build upon ASL I and focus on different types of numbering systems, cross-cultural communication, identifying and describing others, how to talk about routines, family, and occupations and how to make requests. The course will further introduce students to the Deaf culture and a brief history of Deaf America. The course will be taught without the use of voice. Prerequisite: EDU 201.
EDU 303 Strategies of Teaching (3). This course is an investigation of the skills of teaching which are applicable at any grade level. Emphasis placed on the application of teaching strategies in microteaching and classroom settings. The course will also include coverage of classroom management strategies, discipline techniques, and curriculum development as a function of instruction. Laboratory experiences required. Prerequisite: Students must have earned a C or better in EDU 103 or 104.

EDU 400 Practicum in Teaching Mathematics (3). A practicum that involves field and classroom learning experiences in implementing methods and materials of teaching and assessing mathematics in a public school classroom. Prerequisites: admission to Teacher Education, MAT 115 and 215, ELE 304 or MID 371.

EDU 403 Structures and Foundations of Education (2). A course designed to provide the undergraduate teacher education student with an in-depth study of the foundations of education. The course includes a major emphasis in the social, historical, legal, and philosophical foundations of education. Prerequisite: admission to Teacher Education.

EDU 404 Teaching Environmental Education (K-12) (1). A residential experience at Land Between the Lakes that entails the study of environmental education and its interdisciplinary nature including the materials and methods. Field experiences required including participation in a 24-hour Friday overnight environmental education retreat at LBL. Graded pass/fail. Corequisites: ELE 401 and 402.

EDU 405 Evaluation and Measurement in Education (2). The selection, administration, and uses of educational evaluation and measurement approaches with emphasis on application in school classrooms. Prerequisite: admission to Teacher Education.

EDU 422 Student Teaching Seminar (3). Professional experience to be provided concurrently with student teaching to provide theory, research base and a forum to support the performance in the school assignment. Topics arising from problems encountered in the classroom as well as other current topics will be studied. Graded pass/fail. Prerequisite: Admission to Teacher Education and student teaching.

EDU 423 International Teaching Experience (1-3). A course designed to provide an international teaching experience for prospective teachers through which they will come to understand the culture and educational system of another country. Students will be placed in an international educational setting and will collaborate with teachers and administrators to assist in providing instruction to students. Prerequisite: consent of instructor.

EDU 450 Special Problems (1-12). Individual study and projects in education. Repeatable for up to 12 hours of credit. Prerequisite: Consent of instructor.

ENGINEERING (EGR)

EGR 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Introduction to the EGR major, the engineering profession, the department, and the university. Graded pass/fail. (Same as PHY 099).

EGR 101 Introduction to Engineering (3). An introduction to the field of engineering. Students learn about the engineering design process, engineering measurement, engineering economics, engineering ethics and engineering analysis tools. Career opportunities in a variety of engineering disciplines will also be presented and discussed.

EGR 140 Introduction to Computing Applications in Science and Engineering (3). A course to introduce students to computational techniques employed in scientific, engineering, mathematical and statistical applications. C++ language will be used in several related programming projects, including graphics. The course is designed to meet the needs of students in physics, engineering physics and related sciences in the use of the microcomputer as a tool for the solution of problems and in particular where graphics are required.

EGR 195 Methods of Engineering Physics (2). An introduction to the application of basic tools and methods used in the engineering physics curriculum. Primary emphasis on the use of symbolic computational software packages (such as Mathcad) for organizing, performing, and visualizing complex or tedious calculations. Introduction of fundamental statistical definitions and methods of data analysis.

EGR 240 Thermodynamics I (3). Fundamental engineering concepts of power systems, cooling systems and system efficiency. First and second law analysis. Entropy, exergy, reversible and irreversible processes. Ideal gases. Application to simple physical, chemical and engineering problems. Three lectures per week, incorporating laboratory activities for students and demonstrations as appropriate. Prerequisite: PHY 235. Corequisite: MAT 308.

EGR 259 Statics (3). Force systems: moments, couples, equivalent force systems, distributed force systems. Equilibrium equations, free body diagrams, special cases of equilibrium, static inde terminacy, trusses, friction. For engineers. Three lectures per week. Prerequisite: PHY 235.

EGR 264 Linear Circuits I (4). DC and AC steady state circuit analysis. Resistive circuits, Kirchhoff’s laws, nodal and mesh analysis, loop analysis, Thevenin’s and Norton’s theorems, superposition, capacitors, inductors, diodes, and operational amplifiers. Also includes AC steady state circuit analysis using complex number algebra, introduction to three phase circuits, and computer simulation of steady state circuits. Three lectures per week plus laboratory. Prerequisite: PHY 255.

EGR 310 Fundamentals of Biomedical Engineering (3). Survey course of the application of engineering concepts and techniques to the investigation and exploration of biomedical processes. Emphasis is placed on understanding of the physical/mathematical models that form the design basis for biomedical sensors, instrumentation, imaging, and diagnostic tools. Some on-site experiences may be included at local medical facilities. Prerequisite: EGR 264 or consent of instructor.

EGR 330 Dynamics (3). Study of motion and forces with application to engineering systems. Planar and three-dimensional kinematics and dynamics of particles and rigid bodies; equations of motion; work and energy; impulse and momentum; vibrations. Three lectures per week. Prerequisite: PHY 235.

EGR 340 Wave Analysis of Dynamic Systems (3). The analysis of vibrating and oscillating systems are introduced and developed in applications to mechanical systems, electric circuits, optics, acoustics, and quantum theory. Necessary mathematical and computational tools required for this study are also introduced as needed. The course is designed to serve as a transition between the introductory survey courses and the more rigorous advanced courses in physics and engineering. Prerequisite: PHY 255.


EGR 344 Fluid Mechanics (3). Fundamental principles and applications of hydrostatics and fluid flow for engineers. Three lectures per week, incorporating laboratory activities for students and demonstrations as appropriate. Prerequisite: EGR (PHY) 240. Corequisite: MAT 338.

EGR 346 Heat Transfer (3). Basic principles and applications of heat transfer for engineers. Problems in convection-, conduction-, and radiation-transfer. Three lectures per week, incorporating laboratory activities for students and demonstrations as appropriate. Corequisites: EGR (PHY) 240 and MAT 338.

EGR 359 Mechanics of Materials (3). A study of stress and strain in deformable solids; tension and compression of axial members; stress and strain transformations; stress-strain relations; torsion of shafts; bending of beams; buckling of
EGR 360 Electric Machines (3). Fundamentals of electromechanical energy conversion. Performance and operating characteristics of AC and DC machinery. DC motors and generators, single-phase and three-phase transformers, the three-phase induction motor, and synchronous motors and generators. Prerequisite: EGR 264.

EGR 363 Circuits, Signals and Systems (3). A course discussing analytical methods of transient phenomena in circuits and systems. Analysis of continuous-time linear systems. Methods include second-order circuits, convolution integral, Fourier series and transform, Laplace transform, and state-space methods. Topics include impulse response, transfer functions, energy spectra, filtering, and applications to networks and controls. Prerequisite: EGR 264.

EGR 365 Linear Circuits II (3). DC and AC transient circuit analysis. First and second order circuit solutions using differential equations, Fourier Series, Laplace and Fourier transforms. Also includes magnetically coupled circuits, variable frequency circuits, and transistor switching. Prerequisite: EGR (PHY) 264.

EGR 366 Analog Electronics I (3). Transistor amplifiers, feedback circuits, filters, frequency response of circuits, power supplies and switching circuits. Computer simulations of circuits will be emphasized. Prerequisites: EGR (PHY) 365 and MAT 309.

EGR 375 Materials Science (3). An introductory study of the science of materials utilization, structure of solid phases, the atomic and electrical processes in solids. Prerequisite: PHY 255.

EGR 376 Computational Analysis of Engineering Applications (3). A course for development of programming skills using modern software tools including advanced structures such as lists, 2-D arrays and graphical user interfaces. The course applies programming techniques to a variety of engineering and scientific applications. Matlab programming is introduced and applied to a variety of engineering and scientific applications. Prerequisite: EGR 140 or equivalent.

EGR 378 Logic Design I (4). Introduction to digital logic design techniques: binary arithmetic, Boolean algebra, combinational and sequential circuits, registers, counters, memory units and programmable devices. Three lectures and two hours of laboratory per week. Prerequisites: EGR (PHY) 140 or knowledge of a high-level computer language and PHY 255.

EGR 379 Logic Design II (3). Design of digital systems. Topics include CPU control and timing, machine organization, instruction set architecture, addressing modes, I/O interfaces, cache memory and virtual memory. Prerequisite: EGR (PHY) 378.

EGR 388 International Experience in Engineering (3). A short-term (10-14 day) study abroad experience highlighting selected historical and modern contributions to engineering and physics from another country and culture. Prerequisite: consent of instructor.

EGR 390 Engineering Measurements (3). General considerations of signals and utilization of instruments to measure physical properties of systems. Review and introduction of useful mathematical concepts such as statistical data analysis. Introduction to digital data acquisition and signal processing. Application to the design of instruments which measure displacement, motion, count, strain, force, pressure, level, fluid flow and temperature. Prerequisites: Junior standing or consent of instructor; Corequisite: MAT 338.

EGR 398 Principles of Design (3). The task of engineering design, which includes the formulation of the problem, creative approaches to design problem solution, analysis, material selection and economics, is considered in design decisions from conception to final product. Prerequisites: working knowledge of a high level computer language and junior standing or consent of the instructor.

EGR 459 Mechanical Design (3). Fundamentals of mechanical design, with methods of approximation. Introduction to optimum design considerations and statistical variations within the engineering design process. Synthesis and problems on the design of various mechanical elements. Prerequisite: EGR 359.

EGR 460 Electricity and Magnetism I (3). Electric fields, potential, dielectrics, steady currents, magnetic fields and electromagnetic induction. Prerequisites: PHY 255, MAT 338. (Same as PHY 460)

EGR 461 Electricity and Magnetism II (3). Magnetic materials, alternating currents, transient phenomena, electromagnetic radiation. Prerequisite: EGR (PHY) 460. (Same as PHY 461)

EGR 468 Digital Signal Processing (3). Discrete-time signals and systems; Sampling and aliasing; Discrete Fourier Transform; Z-Transforms; FIR and IIR filter design techniques; Current applications of digital signal processing. Three hours lecture per week. Prerequisite: EGR 264.

EGR 469 Digital Signal Processing Laboratory (1). Laboratory to accompany EGR 468. Prerequisite: EGR 264 (PHY 264). Corequisite: EGR 468.

EGR 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and education objectives of the student for which he/she may receive academic credit and possible financial remuneration. Student must address engineering topics that involve the creative application of math science concepts. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

EGR 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and education objectives of the student for which he/she may receive academic credit and possible financial remuneration. Student must address engineering topics that involve the creative application of math science concepts. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

EGR 498 Senior Engineering Design I (3). Students will work together in small teams to design, build, and test a project assigned by the instructor. Completion of the project will demonstrate an understanding of multiple engineering disciplines, teamwork, and application of the design process. Students will also become familiar with basic elements of engineering economics. Students will demonstrate communication skills through design reports and memora, project drawings, a written test report and a written proposal for individual work in EGR 499. Prerequisite: senior standing in engineering.

EGR 499 Senior Engineering Design II (3). Students will develop an individual design project, working with a faculty advisor to determine the scope of their design. The final product is a major report and complete specification, from which the product could be assembled. Students may, but are not required to, produce a prototype, scale model, or simulation to support their design decisions. The senior exit exam is also administered as a part of this course and in preparation for the fundamentals of engineering exam. Prerequisite: senior standing in engineering.

EGR 515 Special Topics (3). Topics of current interest in engineering. Delivery methods may include lecture, seminar, directed study, and laboratory. Course content addresses engineering topics that involve the creative application of math and science concepts. May be repeated for credit as difference topics are features. Prerequisite: consent of instructor.

EGR 520 Independent Study (1-3). Supervised reading course in specialized topics for upper-division student of high standing. Course content addresses specialized engineering topics that involve the creative application of math and science concepts. May be repeated for a maximum of three hours. Prerequisites: engineering physics, physics or applied physics and consent of instructor.

EGR 565 AC and DC Circuit Analysis (4). Kirchoff’s laws, Thévenin and Norton’s theorems, super-position and reciprocity theorems, properties of L, R, C circuits, filters and resonance.

EGR 567 Communications Systems (4). Filtering and signal bandwidth. Introduction to information theory, encoding and decoding, linear and digital electronic implementation. Two hours of laboratory per week. Prerequisite: EGR (PHY) 366.

EGR 568 Digital Memory Systems (4). Memory hierarchy. Automatic error detection and correction. Shared and multiprotocol memory systems. Interprocessor communications. Introduction to computer networking. Prerequisite: CSC 405 or EGR (PHY) 378.
EGR 569 Microprocessor Techniques (3). Architecture of various microprocessors, assembly of useful microcomputers using one or more of the popular microprocessors, technique of interfacing to microcomputers, programming microcomputers, importance of microcomputers in logic design. Prerequisite: EGR (PHY) 378.

ELEMENTARY EDUCATION (ELE)

ELE 201 Infant and Toddler Curriculum (3). This course provides an in-depth look at care and education for infants and toddlers including children with disabilities and children from diverse backgrounds. Major emphasis is placed on methods to provide quality care to meet physical, emotional, cognitive and social needs of infants and toddlers while working collaboratively with families and other community agencies and service providers. Current best practices in education of infants and toddlers will be reviewed. Clinical field experiences will be required. Prerequisites: ECS 210 and ECS 211.

ELE 301 Language and Early Literacy for Early Childhood (3). This course focuses on the child’s emerging literacy and exposure to language stimulation. Combining research, reflection and early childhood practices, the course fosters an understanding of how techniques and activities affect language and early literacy skills development in young children infancy through five years of age with and without disabilities. Prerequisite: EDU 103.

ELE 302 Music and Movement for Young Children (3). An in-depth exploration of developmentally appropriate music and movement experiences for young children infancy through five years of age. Students will develop skills to assist young children with and without disabilities in producing, recognizing and creating simple songs, playing with melody, and expressing feelings through music and movement. Prerequisite: MUS 200.


ELE 305 Children’s Literature (3). A critical study of the literature for children in grades P-5. Field experiences required. Prerequisite: EDU 303.

ELE 307 Teaching Language Arts in Elementary P-5 (3). A course designed to introduce students to content and teaching methodology in the language arts. Emphasis is on the language arts in the total elementary school program. Laboratory experiences required. Prerequisite: EDU 303.

ELE 308 Teaching Mathematics and Science in Early Childhood (3). This course is a study of mathematics and science curriculum and research-based teaching practices for early childhood. Field experience required.

ELE 311 Health, Wellness and Movement (3). This course explores how a mixture of content and pedagogy in physical education relate to the elementary classroom teacher. Emphasis is placed on teaching future teachers how to teach health, wellness, and movement concepts to children in the classroom. Prerequisite: EDP 260.

ELE 390 Introduction to Kindergarten (3). A study of the historical background, organization of physical facilities for kindergarten, developmental tasks of the young child and his relationship to learning, and parent-teacher relationships.

ELE 401 Teaching Social Studies in Elementary P-5 (3). An exploration of the content, methods, and materials for the teaching of social studies at the elementary level. Topics include the integration of subject areas, technology, thinking skills, and citizenship education. Field experiences required including participation in a 24-hour Friday overnight environmental education retreat at LBL. Prerequisite: admission to Teacher Education.

ELE 402 Teaching Science in Elementary P-5 (3). An exploration of content, materials, and methods of teaching science at the elementary level. Activities include discussions, experiments, field trips, and observation of children. Field experiences required including participation in a 24-hour Friday overnight environmental education retreat at LBL. Prerequisite: admission to Teacher Education.

ELE 410 Collaboration and Communication in IECE Environments (3). Examines collaboration processes involving early childhood professionals, families of children with and without disabilities, and other community resource personnel. Communication skills needed to function effectively in interdisciplinary early childhood education environments are a primary focus. The course also addresses topics that are critical to the practitioner’s professional development including reflective thinking, ethics, and advocacy. Prerequisites: EDU 103, ECS 210, and 211.

ELE 421 Student Teaching Elementary P-5, IECE (7-14). Student teaching in the elementary and IECE should allow the individual to participate in the work and duties of the school that are generally expected of the classroom teacher. There will be a 2, 7-week placements. Student teachers will be supervised by a public school teacher as well as a university coordinator. May be repeated for up to 14 credit hours. Graded pass/fail. Prerequisites: admission to Teacher Education and Student Teaching. Corequisite: EDU 422.

ELE 439 Early Childhood Assessment and Program Development (3). Students will develop skills in observing children birth through five years of age and in conducting developmental screenings, evaluations and assessment. Students will develop skills in creating and implementing individual education programs and individualized family service plans and in monitoring child progress. Students will be introduced to the concepts of home-based and center-based instruction. Prerequisites: EDP 260, EDU 103, and SED 300.

ELE 455 Curriculum and Methods for Infants and Toddlers (3). An in-depth look at care and education for infants and toddlers including children with disabilities and children from diverse backgrounds. Major emphasis is placed on methods to provide quality care to meet physical, emotional, cognitive and social needs of infants and toddlers while working collaboratively with families and other community agencies and service providers. Current best practices in education of infants and toddlers will be reviewed. Clinical field experiences will be required. Prerequisites: EDP 260, EDU 103, and SED 300.

ELE 474 IECE Practicum (3). This course makes provisions for students to participate in all activities generally expected of an interdisciplinary early childhood education professional. Supervision by the faculty member teaching course will be provided. Regularly scheduled seminars to promote reflective decision-making, discuss student progress and provide additional training in methods, procedures, and evaluation will coincide with the practicum experience. Prerequisites: EDP 260 and EDU 103.

ELECTROMECHANICAL ENGINEERING TECHNOLOGY (EMT)

EMT 212 Industrial Electronics (4). A study of semiconductor diodes, transistors, FETs, four-layer devices, operational amplifiers, power devices, and digital devices as they are used in industrial control and signal amplification and processing. Three hours lecture and two hours lab. Prerequisite: TSM 110.

EMT 261 Introduction to Fluid Power Systems (3). The study of the basic physical concepts behind fluid power generation, transmission and conversion. Common industrial hydraulic and pneumatic circuits are designed and analyzed using computer programming. Programmable logic controllers are introduced as a means of system control. Three hours lecture per week. Must be taken concurrently with EMT 262. Prerequisite: MAT 130. (Fall)

EMT 262 Introduction to Fluid Power Systems Laboratory (1). Laboratory course must be taken concurrently with EMT 261. Two hours laboratory per week. Prerequisite: MAT 130. (Fall)

EMT 310 Programmable Logic Controllers (4). This course will cover the techniques of utilizing the programmable logic controllers (PLCs) in the industrial environment. Hardware aspects, programming techniques, and interfacing situations will be covered. Three hours lecture and two hours lab. Prerequisites: CSC 232 and TSM 241. (Spring)

EMT 312 Industrial Instrumentation (4). A study of electrical measurement and electromechanical control and includes signal conditioning, sensors, interfacing to final outputs, controller principles and control loop characteristics. Three hours lecture and two hours lab. Prerequisites: EMT 310, TSM 210 and MAT 230 or equivalent. (Fall)

EMT 355 Electric Machinery and Controls (4). A study of electric motors and their controls including the operating characteristics and applications of various dc and ac motors, electro-
Courses

through Murray State University Community College English assessment exams.

ENG 101 Composition (3). Instruction and practice in writing expository prose.

ENG 102 Composition and Research (3). A study of advanced composition skills, with emphasis on techniques of research. Students may not receive credit for ENG 102 or 105. Prerequisite: ENG 101.

ENG 105 Critical Reading, Writing, and Inquiry (4). Instruction and practice in close reading, research, and critical thinking as applied to academic writing, with emphasis on analysis, synthesis, and argument. A student may not receive credit for ENG 105 and 150. Prerequisites: ENG 100 or English ACT of at least 18 and Reading ACT score of at least 20 or successful completion of REA 100 and 120.

ENG 107 Teacher Bridge Writing Project (3). For Teacher Bridge Program participants only, this course helps them to make the transition to a four-year university setting. Students improve their writing skills while exploring teacher education. May not be used for credit for ENG 101, 102, 104, or 105 but may count as an elective toward graduation.

ENG 109 Oral Skills Workshop for International Students (3). Course for international students entering MSU or enrolled at MSU based on required TOEFL (Test of English as a Foreign Language) scores who are weak in listening and particularly in speaking skills in English. It is also open to any other MSU student who may feel the need to improve English speaking skills. Course may be repeated up to nine hours of credit. Graded pass/fail.

ENG 110 Text Skills Workshop for International Students (3). The enhancement of English language skills in academic settings for nonnative speakers of English. This support course, intended primarily for upper division undergraduate students, provides classroom and individual instruction and practice in written academic presentations. Credit earned in this course may not be counted toward graduation requirements. Course may be repeated up to nine hours of credit. Graded pass/fail.

ENG 111 Fundamental Writing Skills I (1). This course is designed for individualized instruction in basics of grammar, punctuation, and composition. Does not count toward an English major, minor, or University Studies requirements. Corequisite: ENG 101 or consent of program director.

ENG 112 Fundamental Writing Skills II (1). This course is a continuation of ENG 111. Does not count toward an English major, minor, or University Studies requirements. Corequisite: ENG 102 or consent of program director.

ENG 150 Honors Rhetoric, Composition and Research (4). Intensive practice and study and practice of rhetorical approaches to writing and speaking. Course will focus on advanced composition and research skills but will also include practice in oral presentations. Open to students enrolled in the Honors Program. For all degrees, this course may be used in lieu of ENG 105.

ENG 201 Appreciation of Literature (3). A course designed to develop a broad literary appreciation and understanding. This course provides for the study of various genres, including fiction, poetry, and drama. ENG 201 is a University Studies humanities elective. Prerequisite: ENG 105 or 150 or equivalent.

ENG 204 Advanced Expository Writing (3). Course is designed to help students achieve proficiency in writing for specific academic contexts, particularly those of the student’s own major discipline. Prerequisite: completion of ENG 105 or 150 with at least a C average or the equivalent.

ENG 205 Writing for the Social Sciences (3). Preparation for research in the social sciences, with practices in analyzing and writing effectively about professional scholarship. Students will examine the issues, audiences, styles, and rhetorical situations important to the social sciences, developing writing and research skills for their own work in the discipline. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 213 Film and Literature (3). A study of the correlations between the film form and traditional literary forms. Prerequisites: ENG 105 or 150 or the equivalent.

ENG 214 Introduction to Creative Writing (3). An introduction to the forms of poetry and fiction, combining the careful reading of the works of established writers and original student writing. Designed for majors and non-majors. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 221 Introduction to English Studies (3). An introductory course for English majors and minors designed to familiarize students with a range of literary and writing genres, as well as the discourses, practices, and major theories of English studies. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 224 Writing in the Professions (3). This course prepares students to write documents such as proposals, reports, memos, letters, and e-mail in professional scenarios. Students will learn to assess practical writing situations and to write successful documents for specific purposes and audiences. The course will emphasize computer skills. Course activities may include peer review, collaborative writing, and intensive planning and revision workshops. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 226 Argument and Discourse (3). A study of advanced principles of argumentation and conventions of rhetoric as applied to spoken and written public discourse. Application of the foundational components may be based on an instructor-chosen theme, such as discourse in political, environmental, religious, or other domains. Prerequisite: ENG 105 or 150 or the equivalent.
ENG 228 Standard English Usage (3). The traditional or prescriptive approach to a comprehensive study of standard English grammar and the conventions of punctuation and capitalization.

ENG 243 Literary Masterpieces: Fantasy, Myth and Legend (3). A study of the literary manifestations of fantasy, myth, and legend as they appear in the works of such writers as Homer, Shakespeare, Milton, Coleridge, Yeats, and Tolkien.

ENG 245 African-American Literature (3). Beginning with a consideration of the African American experience during slavery, students enrolled in this survey course will examine the fiction and nonfiction written by African Americans. Thematic emphasis will be given to historical, cultural, and contemporary issues as viewed in seminal African American works written by such authors as Frederick Douglass, Linda Brent, W.E.B. DuBois, Toni Morrison, Zora Neale Hurston, Booker T. Washington, Langston Hughes, and Harriet Wilson. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 250 Contemporary World Literature (3). A study of selected novels, short stories, plays, and poetry from world literature of the last thirty years. Works studied will be by important new authors not native to the United States and will illustrate contemporary literary trends. Works will include representative texts from North America, South America, Asia, Europe, and Africa. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 303 British Literature to 1760 (3). A study of the development of British literature from the Old English through the Early Modern English periods, with emphasis on key texts, figures, genres, and trends, including critical approaches. Prerequisites: ENG 105 or 150 or the equivalent, and ENG 221 or permission of instructor.

ENG 304 British Literature, 1760 to the Present (3). A study of British literature form the late 18th century to the present, with emphasis on key texts, figures, genres, and trends, including critical approaches. Prerequisites: ENG 105 or 150 or the equivalent, and ENG 221 or permission of instructor.

ENG 305 Survey of World Literature, 1700-1945 (3). A survey of world literature in English or English translation from 1700 to 1945. Works studied will include novels, short stories, plays, and poems by authors from Europe, Asia, Africa, Australia, and the Americas. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 306 Contemporary Literature (3). A survey of literature written in English from 1945 to the present. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 307 World Literature to 1830 (3). A survey of world literature in English or English translation, from the ancient world to 1830, including critical approaches. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 308 World Literature, 1830 to the Present (3). Survey of world literature in English or English translation from 1830 to the present, including critical approaches. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 309 History of the English Language (3). A survey of the English language from Old to Middle to Modern English.

ENG 310 Introduction to English Linguistics (3). A survey of modern studies in the English language, with emphasis placed upon its impact on the theory and practice of several grammatical systems.

ENG 311 American Literature to 1890 (3). A study of the development of American literature from its origins through the nation’s beginnings to 1890, with emphasis on major works and writers, including critical approaches. Prerequisites: ENG 105 or 150 or the equivalent, and ENG 221 or consent of instructor.

ENG 312 American Literature 1890 to the Present (3). A study of U.S. literature and its developing ethnic and cultural traditions from 1890 to the present, including critical approaches. Prerequisites: ENG 105 or 150 or the equivalent, and ENG 221 or consent of instructor.

ENG 313 History of the Cinema (3). This course will cover the international, historical, cultural, artistic, and technical development of the cinema from the beginnings to the present, with some emphasis on American contributions.

ENG 314 Shakespeare on Film (3). A study of filmed versions of Shakespeare’s comedies, Histories, and Tragedies. Prerequisite: ENG 105 or 150.

ENG 315 Global Cinema (3). A study of national cinemas and industries outside the United States, examining significant directors and film movements. This class meets for two hours for lecture and discussion and two hours for film viewing. Prerequisite: ENG 105 or 150.

ENG 316 The Bible as Literature (3). A study of the Bible as a literary source. Prerequisite: ENG 105 or 150 or the equivalent. (Same as RGS 316.)

ENG 317 Literature and Religion (3). Course that explores the intersections between literature and religion within larger cultural contexts. Depending on individual research needs and the interest of the group, mandatory field experiences may be scheduled. Prerequisite: HUM 211. (Same as RGS 317.)

ENG 318 Women’s Literature (3). A study of literature written by women. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 319 Gay and Lesbian Literature (3). Literary works by gay and lesbian authors as well as works about the gay and lesbian experience will be read, spanning the long and varied history of this genre. Prerequisites: ENG 105 or 150 or the equivalent and either ENG 201 or 221.

ENG 320 Survey in African-American Literature (3). A thematic survey and analysis of African-American literature and appropriate theoretical concepts. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 321 Research in Literary Studies (3). An introduction to research tools and methods in literary studies. Prerequisites: ENG 105 or the equivalent and ENG 221, or permission of the instructor.

ENG 324 Technical Writing (3). Theory and practice in the writing of technical documents for industry and technology, with a focus on document design, usability, and writing for a non-technical audience. Students will apply effective rhetorical strategies to letters, instructions and procedures, proposals, and reports. Prerequisite: ENG 105 or 150, or the equivalent.

ENG 329 Teaching English in Secondary Schools (3). A practical course in the materials and methods used in teaching English in secondary schools.

ENG 330 Special Topics (3). A study of literary genres or sub-genres, or of other special topics. Content will vary from semester to semester according to student and faculty interests. May be repeated for credit.

ENG 331 Traditional Rhetoric and the Written Argument (3). A study of rhetoric from ancient Greece to the 19th century. Emphasizes the application of traditional rhetoric to written argument while giving students an opportunity to analyze and create persuasive messages pertaining to politics and the law, business, science, and the arts.

ENG 332 Contemporary Rhetoric and the Written Argument (3). A study of rhetoric from the 19th century to the present. Emphasizes the application of contemporary rhetoric to written argument while giving students an opportunity to analyze and create persuasive messages pertaining to politics and the law, business, science, and the arts.

ENG 334 Shakespeare (3). A study of selected Shakespearean histories, comedies, and tragedies. Prerequisites: ENG 105 or 150 or the equivalent, and ENG 221 or consent of instructor.

ENG 341 Introduction to Writing Fiction (3). An introduction to fiction writing, combining the careful reading of works by established writers with analysis of original student stories. Prerequisites: 214 and 221, or consent of instructor.

ENG 342 Introduction to Writing Poetry (3). An introduction to poetry writing, combining the careful reading of poems by established writers with analysis of original student poems. Prerequisites: 214 and 221, or consent of instructor.

ENG 343 Special Topics in Creative Writing (3). The study of a special area of creative writing. Content will vary from semester to semester according to student and faculty interest. The course will combine the careful reading of works by...
established writers with an analysis of original student work. Students will be required to attend readings sponsored by the Creative Writing Program and encouraged to attend other readings on campus and in the area. Course may be repeated for credit three times with the consent of the instructor and student’s advisor. Prerequisites: ENG 105 or 150 or the equivalent.

ENG 344 Introduction to Creative Non-Fiction (3). Study and practice in the literary art of creative nonfiction with particular emphasis on the personal essay. Course requirements will include attendance at readings sponsored by the Creative Writing Program. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 350 Modern Japanese Literature in Translation (3). Course surveys Japanese fiction from the Meiji Restoration (1868) to the present day. Will examine the personal voice, manifest in literary works, and explore the ways in which literature has been closely interwoven with historical movements and social changes of modern times. Prerequisite: ENG 105 or 150. (Same as JPN 350.)

ENG 351 Special Topics in Film Studies (3). The study of an advanced area in film studies, including, but not limited to studies in major filmmakers, national traditions, genres, schools of theory, or influential actors. The course may be repeated twice for credit with consent from the Chair. Prerequisite: ENG 313.

ENG 352 Film Genres (3). Examination of specific genres in the development of cinema. Genres under consideration will vary according to the instructor and semester. Prerequisite: ENG 105 or 150.

ENG 360 Literature and Philosophy (3). Interdisciplinary look at ways in which literature raises philosophical questions and also how philosophical writings articulate a relationship between philosophy and literature. Topics may include the role of imagination and emotion in reasoning, interpretation, rhetoric, and the role of literature in moral reasoning. Prerequisite: ENG 105 or 150 or the equivalent. (Same as PHI 360)

ENG 362 Ethnolinguistics in the US (3). From and ethnolinguistic perspective, this course provides an introduction to the study of varieties of English across the United States. Students will examine the history of linguistic diversity in the United States, along with perspectives on language and identity and current issues in language policies in the US. Prerequisite: ENG 105 or 150.

ENG 365 Collaborative Research (1-4). A collaborative research project with a faculty member aimed at producing a peer-reviewed publication or presentation. May be repeated for up to eight hours of credit. Graded pass/fail. Prerequisites: ENG 221 and 321.

ENG 370 Law and Literature (3). A course that explores the intersections between law and literature within larger cultural contexts. Prerequisite: HUM 211. (Same as LST 370.)

ENG 371 Literature and the Environment (3). A study of literary and other works from a variety of cultures and periods with a focus on the environment, its inhabitants, and their survival. Depending on individual research needs and the interest of the group, field experiences may be scheduled, some of which might include excursions into developed, threatened, and wilderness areas and visits to other relevant sites. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 380 Introduction to Poetry and Poetics (3). An introduction to the traditions and techniques of poetry, including the study of meter, literary devices, and form. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 400 Major Film Directors (3). One or more major film directors will be studied in depth. This course, with different content by featuring different directors, may be repeated once for credit. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 401 Film Theory and Criticism (3). Study of major aesthetic and critical theories about film and of the theory and practice of film criticism, with focus on American cinema. This class meets for two hours for lecture and discussion and two hours for film viewing. Prerequisites: ENG 105 or 150 or the equivalent and a film course.

ENG 402 Early English Literature (3). A critical and historical survey of English literature before 1500, studied partly in translation. Prerequisite: ENG 321 or consent of instructor.

ENG 403 Medieval Drama (3). European secular and religious drama in the Middle Ages, studied partly in translation. Prerequisites: ENG 303 and 321 or consent of instructor.

ENG 404 Advanced Composition (3). Intensive workshop in writing for the English major. Topics include expository writing, rhetorical and literary analysis, and research writing. Required of all English majors. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 405 British Novel to 1830 (3). A study of the background and development of the British novel to 1830. Prerequisite: ENG 321 or consent of instructor.

ENG 406 British Novel Since 1830 (3). A study of the background and development of the British novel after 1830. Prerequisite: ENG 321 or consent of instructor.

ENG 407 Short Fiction (3). A study of the origin and development of the short story, the short-short story, and/or the novella as unique literary genres. Special emphasis will be on the analysis of the form. Prerequisite: ENG 321 or consent of instructor.

ENG 408 (521) Forms of Fiction (3). A study of literary fiction from the writer’s point of view. Prerequisites: ENG 341 and one 300-level survey or consent of instructor.

ENG 409 The American Novel (3). A study of the American novel from James Fenimore Cooper to William Faulkner. Prerequisite: ENG 321 or consent of instructor.

ENG 410 Contemporary American Literature (3). An in-depth study of some of the Americas’ influential contemporary literature. Prerequisite: ENG 321 or consent of instructor.

ENG 411 Non-Shakespearean Elizabethan-Jacobean Drama (3). A study of selected plays of the period and their historical and critical contexts. Prerequisite: ENG 321 or consent of instructor.

ENG 412 Directed Studies in Film Studies (3). Supervised independent work in film studies. May be repeated for credit. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 413 American Poetry (3). A study of the development of American poetic traditions and achievement from 1620 to the present. Prerequisite: ENG 321 or consent of instructor.

ENG 415 Writer’s Workshop: Short Story (3). An intensive study of the techniques of writing the short story, with special concentration on the student’s own work. Prerequisites: ENG 408 and one 300-level literature survey or consent of the instructor.

ENG 416 Writer’s Workshop: Poetry (3). An intensive study of the techniques of writing poetry, with special concentration on the student’s own work. Prerequisites: ENG 424 and one 300-level literature survey or consent of the instructor.

ENG 417 Film in the Classroom (3). Film studies course introducing educators and future educators to methods of effectively incorporating film into classroom curricula. This class meets for two hours for lecture and discussion and two hours for film viewing. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 418 Restoration and Eighteenth-Century British Literature (3). A critical and historical survey of British literature from 1660 to the end of the eighteenth century. Prerequisite: ENG 321 or consent of instructor.

ENG 419 European Cinema (3). Survey of European (including British) film by French, English, German, and Spanish directors in the original languages with English subtitles except for the English language films. Selected films will be organized around social themes, which will then be viewed from different national perspectives. The common discussion section on one day will be conducted in English to be accessible to students of all languages; the second discussion section will be conducted in English. Students are required to attend film viewings in a separate lab section. Prerequisite: ENG 105 or 150 or the equivalent.

ENG 420 (505) British Romantic Literature (3). A critical and historical survey of British literature of the Romantic Age. Prerequisite: ENG 321 or consent of instructor.
ENG 421 Usability Design and Testing (3). This course teaches students how to create elements of successful technical documents and manage systems of technical documentation. Students will explore practical and theoretical issues in user-centered technical document creation. Prerequisites: ENG 105 or 150 or the equivalent, ENG 324.

ENG 422 Electronic Document Design (3). Students in this course examine the effect of discourse conventions in electronic documents on the distribution and consumption of technical information. Students will practice writing electronic technical documents such as web sites, e-mail, portable documents, and help files, as well as electronic document management techniques such as single-sourcing. Prerequisites: ENG 105 or 150 or the equivalent, ENG 324.

ENG 423 Paper Document Design (3). In this course students will learn the skills to write and create a variety of traditional paper technical documents, such as technical manuals. The course will teach students the desktop publishing skills technical writing requires. Prerequisites: ENG 105 or 150 or the equivalent, ENG 324.

ENG 424 (520) Forms of Poetry (3). Explores the question of poetic form from the point of view of practitioners. A course in prosody and the historical development of forms in English and American poetry, including rhymed verse forms, the meters, syllabics, free verse, and prose poetry. Material for discussion will include student poetry and outside texts. This is a capstone course for English majors with an option in creative writing. Prerequisite: ENG 342 or consent of instructor.

ENG 425 Teaching Literature, Writing and Grammar in Middle Schools (3). A practical course in the materials and methods used in teaching English/language arts in middle schools. Prerequisite: ENG 329 or EDU 303.

ENG 426 Classical Literature (3). The literature of Greece and Rome, read in translation. Prerequisite: ENG 321 or consent of instructor.

ENG 427 Medieval Literature (3). European literature from the fall of Rome to the Renaissance, read in translation. Prerequisite: ENG 321 or consent of instructor.

ENG 428 Renaissance Literature (3). European literature of the Renaissance, read in translation, with emphasis placed upon its impact on English thought and literature. Prerequisite: ENG 321 or consent of instructor.

ENG 430 British Poetry and Non-Fictional Prose, 1832 to 1900 (3). A survey of selected works of the period and their historical and critical contexts. Prerequisite: ENG 321 or consent of instructor.

ENG 431 American Literature, 1607 to 1820 (3). A survey of selected works of the period and their historical and critical contexts. Prerequisite: ENG 321 or consent of instructor.

ENG 432 Approaches to Modern English Grammar (3). A systematic study of the structure of modern English, with attention to recent descriptions of its phonemic, morphemic, and syntactical features. Prerequisite: ENG 310 or 531.

ENG 435 Teaching Literature in Secondary Schools (3). Background and readings in literature commonly taught in secondary schools; emphasis on contemporary young adult literature. May include study of the novel, short story, poetry, drama and nonfiction. Prerequisites: ENG 329 and senior status or permission.

ENG 436 (536) Seventeenth-Century British Literature (3). A survey of non-dramatic British literature from 1600-1667, with attention to historical and critical contexts. Prerequisite: ENG 321 or consent of instructor.

ENG 437 Senior Honors Thesis (3). A faculty-supervised thesis or project which allows Honors Program students with senior standing to undertake advanced research. (A thesis paper, written review of an art exhibit or a performance is required.

ENG 438 British Fiction, 1832 to 1900 (3). A survey of selected works of the period and their historical and critical contexts. Prerequisite: ENG 321 or consent of instructor.

ENG 439 Modern British Literature (3). A critical and historical survey of selected works from 1900 to the present. Prerequisite: ENG 321 or consent of instructor.

ENG 442 American Literature, 1820 to 1870 (3). A survey of selected works of the period and their historical and critical contexts. Prerequisite: ENG 321 or consent of instructor.

ENG 443 American Literature, 1870 to 1920 (3). A survey of selected works of the period and their historical and critical contexts. Prerequisite: ENG 321 or consent of instructor.

ENG 444 American Literature, 1920 to the Present (3). A survey of selected works of the period and their historical and critical contexts. Prerequisite: ENG 321 or consent of instructor.


ENG 446 Approaches to the Writing Process (3). A consideration of the writing process and its implications for teaching writing to students at all levels.

ENG 460 Comedy and Satire (3). This course will examine the historical development of comedy and/or satire as a literary genre and as a cultural manifestation (e.g., plays, novels, essays, movies, comedians, etc.). It may also focus on theories of comedy and satire. Prerequisite: ENG 321 or consent of instructor.

ENG 470 Literary Criticism (3). An historical survey of literary criticism, including some collateral reading of literature. Prerequisite: ENG 321 or consent of instructor. (Spring)

ENG 488 Cooperative Education/Editorial Internship (1-3). A meaningful, planned, and evaluated editorial experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488 courses. Graded pass/fail. Prerequisite: permission of chair.

ENG 512 Directed Study (1-4). Directed independent study program, mutually developed by student and instructor, leading to one or more papers or projects. May be repeated for credit.

ENG 560 Advanced Creative Writing: Fiction (3). Critical discussion of original student writing. Individual conferences and reading assignments in contemporary literature are included. Prerequisite: ENG 415 or consent of instructor. May be re-taken for credit.

ENG 561 Advanced Creative Writing: Poetry (3). Critical discussion of student work, from impulse to final draft. Other topics include the relationships between vision and craft; language and experience; image and idea. Reading assignments in contemporary poetry will help to establish criteria for good work. Prerequisite: ENG 416 or consent of instructor. May be re-taken for credit.

ENG 562 BFA Senior Seminar (1). Capstone course for BFA students, taken in the final semester of a student’s degree work, compromising a written portfolio review, a public presentation of creative work, and career preparation. Prerequisite or Co-requisite: ENG 560 or ENG 561.

ENG 571 Documentation Project Management and Standards (3). Techniques and practices for handling documentation projects. Students will learn to manage the work of multiple authors and reviewers, implement successful consulting practices, plan and schedule projects, design style sheets, and create version control systems. The course also covers the dynamics of managing documentation for the implementation of international standards such as ISO 9001. Prerequisite: ENG 324 or 325 or permission of the instructor.

ENG 572 Writing Training Materials (3). An overview of the pedagogy and procedures used to create training materials for business, industry, and government. Prerequisite: ENG 324 or 325, or permission of instructor.

ENG 590 Practicum in Instructional Techniques for Developmental English (3). Practical experience in tutoring individuals and small groups in a writing laboratory. Prerequisites: senior and consent of instructor.

ENGINEERING TECHNOLOGY (ENT)

ENT 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and
Courses

A technical and economic analysis of technical problems. Topics included are the study of fluid motion in the form of Euler’s Bernoulli’s impulse-momentum, and work-energy relationships. Also studied are resistance to flow, flow measurement, pumping equipment, and an introduction to compressible flow. Prerequisite: MAT 130 or 150. (Spring)

ENT 393 Engineering Economy (3). Economic evaluation and financial analysis of engineering systems alternatives to optimize the engineering decision process. Prerequisite: MAT 230. (Fall and Spring)

ENT 400 Energy Management (3). Development, distribution, use, and conservation of energy resources relative to societal applications are examined. Heat transfer within manufacturing and energy production systems and options for increasing thermodynamic and economic efficiencies are studied. Prerequisite: MAT 230.

ENT 419 Senior Project I (3). A project-oriented study of actual manufacturing problems from area industry. The student will be given valuable industrial experience before leaving school. This course requires that students be able to apply all previously acquired knowledge in obtaining a viable solution to their projects.

ENT 420 Senior Project II (3). A project-oriented study of actual manufacturing problems from area industry. The student will be given valuable industrial experience before leaving school. This course requires the students to be able to apply all previously acquired knowledge in obtaining a viable solution to their projects. This is the capstone course for the Electromechanical program and is the second part of the ENT 419 and ENT 420 series. Prerequisites: ENT 419 and senior standing.

ENT 458 Applying the National Electric Code (3). A study and application of major parts of the National Electric Code including overcurrent protection, branch and feeder circuit calculations, grounding, motor control circuits, transformers and services. Studies will focus on applications to individual and multifamily dwelling units as well as industrial and commercial buildings. Prerequisite: TSM 110. (Spring)

ENT 491 Industrial Operations (3). Quantitative analysis for planning, organizing, and controlling a production/operations system. Prerequisites: CIS 243 and ENT 393. (Fall)

ENT 499 FE Exam Review (1). A review course for the Fundamentals of Engineering registration examination. The course is intended for seniors majoring in engineering technology.

EXERCISE SCIENCE (EXS)

EXS 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail. (Same as CDI/Hea/NTN/REC 099.)

EXS 101 Concepts and Careers in Exercise Science and Athletic Training (2). An overview of health-related career options related to the fields of exercise science, athletic training, occupational therapy, physical therapy and physician assistant. The course will also explore basic concepts in exercise science that will be expanded throughout the EXS and AT curriculum. An overview of personal health issues will be included.

EXS 250 Anatomical Concepts in Wellness (3). A course designed to familiarize the student with basic anatomical and physiological principles of the human body. This course serves as a foundation for additional exercise science courses. Prerequisite: BIO 101 or equivalent.

EXS 270 Clinical Experience: Observation (1). Course designed to allow students interested in pursuing a career in athletic training to observe in the MSU athletic training rooms. Students are required to observe 30 hours during the semester and complete the assigned modules. This course is recommended but not required for admission into the Athletic Training Program. This course is graded pass/fail.

EXS 271 Clinical Experience: Introduction (2). Course designed to introduce the basic concepts of athletic training and allow time for practicing the basic clinical competencies required for athletic training certification. The student will be required to attend clinical experience in the MSU athletic training rooms or other locations as assigned by the clinical coordinator. This course is a prerequisite to further courses within the curriculum and required for those pursuing certification in athletic training. Prerequisite: Admittance to the Athletic Training Program.

EXS 295 Acute Care of the Physically Active (2). A course designed for exercise and allied health science students working with physically active persons to respond to emergency situations. Students will learn to provide first aid and perform cardiopulmonary resuscitation (CPR) at the professional rescuer level. American Red Cross CPR for the Professional Rescuer, Responding to Emergencies First Aid, and other various certifications may be earned.

EXS 296 Acute Care of the Physically Active Lab (1). A lab course designed for athletic trainers and others working with physically active persons to respond to emergency situations. Students will learn advanced techniques of pre-hospital care for acutely injured patients. Co-requisite: EXS 295.

EXS 301 Care and Prevention of Injuries (3). Course designed to discuss the most recent and relevant information on the prevention and treatment of injuries and conditions found in the physically active population. Prerequisites: BIO 227 and 228 or EXS 250. Co-requisite: EXS 271 (for those admitted to the Athletic Training Program).
EXS 302 Essential Prevention and Management of Injuries (3). Course designed to explore the prevention of and basic care for injuries commonly experienced in fitness facilities, work settings and clinical sites relevant to the wellness emphasis in EXS. Prerequisites: EXS 250 or BIO 227 and 228; and Exercise Science/Wellness Option student.

EXS 305 Bracing, Splinting and Taping (1). A lab/course designed for athletic trainers and others working with physically active persons. Students will learn how to properly fit braces, manufacture splints, and use prophylactic taping techniques on patients with musculoskeletal injuries. Co-requisite: EXS 295

EXS 310 Exercise Concepts in Special Populations (3). Course designed to provide students with information relevant to the needs of special populations in the field of exercise science. Topics of discovery will include exercise and cancer recovery, health and exercise for at-risk populations, and modifying exercise programs for individuals with special needs. Prerequisite: EXS 333 (preferred) or 350.

EXS 311 Exercise and Cancer Recovery (3). Designed to acquaint exercise science students with an understanding of wellness concepts specifically relevant to working with a cancer population. Course provides the students with information concerning cancer pathology and epidemiology, and treatment issues related to physical activity. Students will also be acquainted with exercise guidelines and recovery issues designed to enhance cancer survivors' physical and psycho-social quality of life. Certification as an Exercise and Cancer Recovery Specialist is possible through the completion of the course work and qualifying exam. Field trips may be required. Prerequisites: EXS 310, 333.

EXS 320 Evaluation of Non-Orthopedic Conditions (3). Course designed to prepare the student to use the proper terminology when communicating with other healthcare professionals, locate anatomical landmarks, and perform general evaluation techniques employed by athletic trainers and other allied health care workers. This course specifically covers evaluation and proper management of non-orthopedic conditions, including: thoracic and abdominal injuries, general medical conditions, psychosocial conditions, and dermatalogical conditions. This course is required for those pursuing certification in athletic training. Prerequisites: EXS 301 and admittance to the Athletic Training Program. A cumulative 2.50 GPA and advisor approval is required prior to enrollment in this course. Additional criteria apply for the Pre-Physician Assistant option.

EXS 325 Exercise Physiology (3). Students will become acquainted with general concepts in exercise physiology. Some topics to be included are cardiovascular function, neural control, musculo-skeletal responses and respiratory function. Laboratory activities will be integrated. Students will collect data, compile results and complete laboratory reports. Each student will review and summarize at least one research article from approved refereed journals in the field. Prerequisites: BIO 227 and 228 or EXS 250; BIO 229 and 230 or consent of instructor.

EXS 356 Health Promotion and Programming (3). A course designed to explore the area of health and wellness programming for populations varied in age and setting. The process for evaluation needs, researching, planning, and designing then implementation wellness programs will be discussed along with assessment of outcomes. Prerequisites: a cumulative GPA of 2.5 and completion of at least two EXS core classes and advisor approval.

EXS 370 (475) Kinesiology (3). A study of basic kinesiology with respect to human performance in physical activity and rehabilitation. Prerequisites: BIO 227 and 228 or EXS 250.

EXS 371 Clinical Experience: Application (3). Course designed to allow the athletic training student to apply the information learned in the didactic setting and practice the clinical competencies required for athletic training certification. The student will be required to attend clinical experience in the MSU athletic training rooms or other locations as assigned by the clinical coordinator. Course is required for those pursuing certification in athletic training. May be repeated for a maximum of nine hours, but no more than 12 hours from EXS 371 and 372 combined. Prerequisite: EXS 271 and admittance to the Athletic Training Program.

EXS 372 Clinical Experience: Integration (3). Course designed to allow the athletic training student to integrate the information learned in the didactic setting and practice the clinical competencies required for athletic training certification. The student will be required to attend clinical experience in the MSU athletic training rooms or other locations as assigned by the clinical coordinator. Course is required for those pursuing certification in athletic training. May be repeated for a maximum of nine hours, but no more than 12 hours from EXS 371 and 372 combined. Prerequisites: EXS 271 and admittance to the Athletic Training Program.

EXS 375 Biomechanics in Sport and Exercise (3). A study of basic biomechanics with respect to human performance in physical activities. Prerequisite: MAT 140 or higher.

EXS 380 Sport Medicine Pharmacology (3). Course designed to familiarize students in exercise and health science with major therapeutic pharmacological substances and their effects on physically active individuals. This course will assist students who are preparing for certification in athletic training or certification through the American College of Sport Medicine. In addition, it will provide a basic foundation for pre-physical therapy or other allied health students required to complete a pharmacology course in their respective graduate programs. Prerequisites: BIO 229, 230 and a 2.5 cumulative GPA.

EXS 385 (485) Sport and Exercise Psychology (3). This course is an introduction to the fields of sport and exercise psychology and sport sociology. The students will learn correct principles and applications of sport and exercise psychology, as well as the influential social-psychological factors of sport and their impact on performance. Prerequisite: PSY 180.

EXS 390 Therapeutic Modalities (3). Course designed to provide a comprehensive understanding of therapeutic modalities in the treatment of various illnesses, musculoskeletal conditions and injuries. The course content will teach the student to plan, implement, document, and evaluate therapeutic modalities within the rehabilitation process. This class is required for those pursuing certification in athletic training and students with a pre-physical therapy emphasis. Prerequisite: EXS 301. A 2.50 cumulative GPA and advisor approval is required prior to enrollment in this course. Additional criteria apply for Pre-Physical Therapy and Pre-Occupational Therapy emphases.

EXS 400 Research Design and Statistics for Allied Health (3). This course is designed to integrate and utilize statistical analysis techniques, including descriptive and inferential statistics. Students will understand and be able to develop research designs applicable to allied health professions. Prerequisite: MAT 140 or higher.

EXS 402 Evaluation of the Lower Extremity (3). Course designed to prepare the student to perform general orthopedic evaluation techniques. The course specifically covers evaluation techniques on the foot, ankle, lower leg, knee, upper leg, hip, pelvic girdle, low back, gait, and postural assessment. This course is required for those pursuing certification in athletic training and students with a pre-physical therapy emphasis. Prerequisites: EXS 301, cumulative 2.50 GPA, and advisor approval. Additional criteria apply for Pre-Physical Therapy and Pre-Occupational Therapy emphases.

EXS 403 Evaluation of the Upper Extremity (3). Course designed to prepare the student to perform general orthopedic evaluation techniques. The course specifically covers evaluation techniques on the head, neck, shoulder girdle, upper arm, elbow, forearm, wrist, hand, and thorax. This course is required for those pursuing certification in athletic training and students with a pre-physical therapy emphasis. Prerequisites: EXS 402, cumulative 2.50 GPA, and advisor approval. Additional criteria apply for Pre-Physical Therapy and Pre-Occupational Therapy emphases.

EXS 420 Rehabilitation Techniques (2). Course designed to provide a comprehensive understanding of rehabilitation techniques in the treatment of various illnesses, musculoskeletal conditions, and injuries. Course content will teach the student to plan, implement, document, and evaluate therapeutic exercise programs. This
An introduction to the changing structure and dynamics of families in our diverse society. Identification of changes and choices available to family members and critical issues facing families. Some topics that may be included are: changing gender role expectations, family policy, communication in families, family violence, divorce and effects on family, aging families, parent-child relationships, cultural and racial diversity, remarriage and blended families, and myths and facts about families.

FCS 121 Basic Clothing Construction (3). Principles of design applied to selection of clothing, fundamentals of clothing construction and fitting; pressing techniques; use and care of the sewing machine and equipment. Lecture, one hour; laboratory, four hours.

FCS 125 Apparel Quality Analysis (3). An analysis of apparel components as they relate to quality. A comparative analysis of low-, moderate-, and high-priced apparel.

FCS 210 Child Development I (3). In-depth study of infancy to include concepts, principles and development theories. Students will observe, record and analyze the social, emotional, physical and cognitive development of the typical and atypical infant and toddler in the social and cultural context. Lecture, two hours; laboratory, two hours.

FCS 211 Child Development II (3). Study of the characteristics of growth and development of young children ages three to eight. Guided observation in the child development center as a basis for understanding children and oneself. Lecture, two hours; laboratory, two hours. Prerequisite: FCS 210.

FCS 234 Practicum (3). Supervised work experience, dependent on program requirement, by which students expand their career opportunities and enhance their employment potential. Food service administration students may repeat for six credit hours.

FCS 241 Family Economics (3). The class is designed to introduce the student to the principles of money management. Class members will learn the basic buying skills needed when shopping for transportation, clothing, food, housing, recreation and insurance. In addition, the fundamental con-
cepts of credit, borrowing, taxes, investments and estate planning will be studied. Lecture, three hours.

FCS 310 Program Planning for Preschool Children (3). Study of programs for preschool children with a practicum in the laboratory. Lecture, two hours; laboratory, two hours.

FCS 311 Child Guidance (3). A study of guidance techniques applicable to young children, with practicum for operation group experiences for preschool children. Lecture, two hours; laboratory, two hours.

FCS 342 Consumer Decision Making (3). A decision making model is used to study consumer decision making throughout the life cycle. Goal setting, consumer redress, money management, financial planning and buying are explored. Emphasis is placed on consumer responsibility in relation to environmental and energy concerns. Global interdependence issues are also included. Lecture, three hours.

FCS 361 Programs in Vocational Family and Consumer Sciences (3). Study of scope of vocational home economics education including philosophy, legislation, occupational and consumer competency-based programs, adult programs and youth organizations. Survey of existing area and state home economics programs. Lecture, three hours.

FCS 413 Marriage and Family Relationships (3). Exploration of personal values and personal development as they relate to traditional and nontraditional marriage, and a study of family life styles in contemporary society. Lecture, three hours.

FCS 441 Family Resource Management (3). A study of the underlying family resource management practices. Provides an opportunity for students to apply their skills in managing time, energy, money and human capital in individual and family settings. Lecture, three hours.

FCS 462 Methods of Teaching Family and Consumer Sciences (3). Development of planning and organizational teaching skills, use of resource materials and simulated teaching experiences. Principles of learning, curriculum planning, styles of management. Field experiences required. A student may not receive credit for FCS 462 and FCS 461 or 561.

FCS 527 Parenting (3). Principles and theoretical perspectives on the act of parenting. Emphasis on parent-child relationships, establishing and maintaining a nurturing relationship between parents and children, and parent-child communication. Current issues affecting parenting are also studied. Lecture, three hours.

FINANCE (FIN)

FIN 230 Personal Financial Planning (3). The course prepares the student to manage his or her own personal financial affairs in a competent manner as well as providing a foundation for later study and work in the financial planning field. Designed to meet the needs of both business and non-business majors. This course does not count toward a finance major or area but can be counted as a business elective with the approval of the advisor.

FIN 330 Principles of Finance (3). A comprehensive study of the field of finance, covering institutions, financial markets, investments, financial theory and techniques relating to financial decisions in business. Prerequisites: ACC 200 and junior standing or conditional or full admission to upper-level business courses.

FIN 331 Principles of Insurance (3). Designed to give the student a basic understanding of the principles and practices of insurance. Topics included are insurance in general, life insurance, disability insurance, fire insurance, transportation insurance, legal liability and property damage insurance, insurance against dishonesty and failure of others. Prerequisite: junior standing.

FIN 332 Financial Management (3). A study of the financial management of business firms, with emphasis on the development of analytical and decision-making techniques. Major subject areas include financial planning; capital budgeting; evaluation of alternative sources of short-term, intermediate and long-term funds; and acquisitions. Prerequisites: junior standing; FIN 330.

FIN 333 Principles of Investment (3). A study of marketable securities that can be purchased and sold by investors on a daily basis. Such investments as bonds, common stocks, options and futures are included. Prerequisites: junior standing; FIN 330.

FIN 334 Banking and Financial Institutions (3). Issues concerning commercial banks and other financial institutions are studied. Topics include the history of banks, bank financial statements, regulatory agencies, laws and regulations, credit analysis, investment policies, equity reserves, mortgage markets, and capital accounts. Prerequisites: junior standing; FIN 330.

FIN 336 Employee Benefits and Retirement (3). Course introduces and explores the concepts involved in developing retirement and employee benefit plans from both the employer and employee perspectives. The legislation that impacts plan design and the tax advantages and disadvantages of various qualified and non-qualified plans including IRAs and pension and profit sharing plans will be discussed. Also addressed are federal Social Security, Medicare, and business applications. Prerequisites: FIN 330 and junior standing.

FIN 338 Estate Planning (3). This course introduces and explores the concepts involved in estate planning. It examines estate planning from a professional financial planning viewpoint. The legislation that impacts plan design and the tax advantages and disadvantages of various estate planning options will be discussed. Prerequisites: FIN 330 and junior standing.

FIN 421 Financial Models (3). Applications of financial models on the microcomputer, leading to the solution of financial problems. Emphasis is placed on building and using models developed (1) in electronic worksheets, and (2) with database software. Prerequisite: FIN 330.

FIN 434 (534) Life Insurance (3). A study of the nature and functions of life insurance, with particular attention to policy forms and provisions, reserve and investment problems, company organization, legal aspects, taxation and the application of life insurance to personal and business needs. Prerequisite: FIN 331 with a minimum grade of C.

FIN 435 (535) Property and Casualty Insurance (3). A study of the nature and functions of property and casualty insurance. Special attention is given to the services performed, contracts and benefits of fire and automobile insurance. Prerequisite: FIN 331 with a minimum grade of C.

FIN 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.


FIN 480 Senior Seminar in Finance (3). This is the finance capstone course that also serves as a designated communications course. Finance 480 uses case studies to give students an opportunity to incorporate various financial concepts and techniques in financial decision making. Students are required to work in teams to prepare and present case reports to the class. Prerequisites: FIN 332 and senior standing.

FIN 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

FIN 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

FIN 505 Internship in Finance (1-3). Open to junior and senior finance majors. These students, upon approval of the finance faculty, are placed with cooperating firms to receive on-the-job training in finance. Work experience supervised by faculty; written reports are required. Graded pass/fail. Prerequisite: permission of department chair.
FIN 520 Risk Management (3). A study of appropriate risk management techniques for the contemporary financial and nonfinancial corporation. Although a wide variety of techniques are covered, the focus is upon use of hedging strategies to reduce risk. Prerequisite: FIN 330.

FIN 522 Portfolio Management and Theory (3). An introduction to portfolio management. Emphasis on modern techniques of security selection which are directed toward risk diversification and portfolio balance. Students manage a real portfolio by basing buy/sell decisions on current market data. Computer programs are used in the portfolio selection and evaluation process. Prerequisite: FIN 330.

FIN 533 Security Analysis (3). A study of the stock and bond markets using a pragmatic approach. Evaluation methods, economic relationships and market strategies are emphasized. A “hands-on” type of class. Prerequisite: FIN 333 with a minimum grade of C.

FIN 537 Commercial Banking (3). An applied approach to studying the issues concerning today’s banks from a management perspective. Topics and activities include a bank simulation, credit analysis case studies, safety and soundness issues, competition in the banking industry, regulatory agencies, laws and regulations, and current topics in the banking industry. Prerequisite: FIN 334.

FIN 595 Special Problems (1-3). Research by students in fields of special interest. Includes project research studies and intensive reading programs, accompanied by conferences with professors in fields involved. Prerequisite: consent of instructor.

FRench (FRE)

FRE 101 Fundamental Communication in French (3). Basic French in which students learn to describe themselves to someone from another culture; to express preferences, abilities, needs, and obligations; to ask for information; to describe people, places, and things in their world; and to report their typical activities to a French speaker.

FRE 102 Social Interactions in French (3). Expanding upon skills built in FRE 101, students move toward increasing linguistic and social awareness of French-speaking cultures. Students learn to use past tenses to talk about typical activities or to tell a story; to expand their basic vocabulary and ability to communicate in simple French; and to demonstrate basic understanding of aspects of French or Francophone culture that may differ from their own. Prerequisite: FRE 101 or equivalent.

FRE 105 Introduction to French Culture (3). A survey of contemporary French character and society. Using a historical perspective, attitudes, achievements, institutions and life styles of the French people are explored. Designed to satisfy the university studies humanities requirement. Taught in English.

FRE 110 Basic Conversational French (3). A conversation-oriented introduction to pronunciation, essential structures, and vocabulary. Designed to enable students to communicate in simple French in everyday situations in French-speaking countries. Pronunciation, listening comprehension, speaking and simple reading and writing of material related to conversational situations are included. No continuation offered. Not applicable toward French major or minor. Only taught abroad.

FRE 201 Intercultural Communications in French (3). Students strengthen their basic language skills while continuing to broaden cultural awareness of French-speaking societies. Students relate experiences, produce brief reports on course topics, and express opinions concerning a variety of themes. Students learn to communicate on a more complex level in French. Taught in French. Prerequisite: FRE 102 or equivalent.

FRE 202 Practical Applications in French (3). Students advance their speaking, writing, reading, and listening language skills in this interactive course focused on the practical application of the language in contemporary French-speaking countries. Activities include role-play, projects, reports, and discussions of texts. Taught in French. Prerequisite: FRE 201 or equivalent.

FRE 203 French for the Working World (3). A continuation from FRE 201, this course is a practical application of French for the working world together with grammar review and with emphasis on communication skills on the formal level. Includes further practice in listening, conversation, reading and writing. Students may be required to attend and write a report on two approved cultural events or complete alternative cultural assignments. Taught in French. Students may receive credit for FRE 202 or 203, but not both. French 203 counts toward the minor and the major. Prerequisite: French 201 or equivalent.

FRE 210 Intermediate French Conversation (3). A course designed to develop the vocabulary and oral communication skills of the student with a background of one year of college French or equivalent. Emphasis will be placed on bringing the student into contact with French native speakers and various aspects of their culture. May count as an elective for French major or minor. Only taught abroad. Prerequisite: FRE 102 or equivalent.

FRE 211 French for the Working World (3). An exploration of social issues through the reading, discussion, and written analysis of authentic texts in French-speaking countries in Europe, Canada, Africa, and the Caribbean. While examining these issues, the student will also learn and practice the rudiments of literary interpretation. Prerequisite: FRE 202 or consent of instructor.

FRE 301 Social Issues in French Texts (3). An exploration of social issues through the reading, discussion, and written analysis of authentic texts in French-speaking countries in Europe, Canada, Africa, and the Caribbean. While examining these issues, the student will also learn and practice the rudiments of literary interpretation. Prerequisite: FRE 202 or consent of instructor.

FRE 302 Conversation and Composition (3). Additional practice in speaking and writing based on a variety of topics and materials. Prerequisite: FRE 301 or consent of the instructor.

FRE 306 Introduction to French Literature (3). An introduction to literary analysis, designed to develop skills in reading, oral expression and expository writing. A variety of genres will be presented: short story, poetry, the novel, and theater. Prerequisite: FRE 301 or 331 or consent of instructor.

FRE 310 Conversation and Composition Abroad (3). Intensive practice in speaking and writing based on the student’s interaction with native speakers and the international setting. Only taught abroad. Counts toward the major and minor approved electives. Prerequisite: Two years of college French or equivalent.

FRE 315 Global Cinema in French (3). A study of French cinema and cinema in French beyond French borders, examining significant directors and film movements. This class includes a two hour per week film screening in addition to class meetings. This course is conducted in French. Prerequisite FRE 301 or 331.

FRE 322 French Culture and Civilization (3). A survey of the contributions of France to world culture including the historical development of France from prehistoric times through the French Revolution. Classes conducted in French with extensive use of visual aids. Prerequisite: FRE 301 or 331 or consent of instructor.

FRE 324 Contemporary French Culture and Civilization (3). A survey of attitudes, achievements, and behavioral characteristics of the French people from 1800 to the present. Classes conducted in French with extensive use of audio and visual aids. Prerequisite: FRE 301 or consent of the instructor.

FRE 330 French Literary Texts in Context (3). Will be taught on summer abroad programs in French-speaking countries only. It is an introductory course in French and/or Francophone literature taught in French. Authentic texts might include poetry, short story, drama or excerpts from long works and might be from any literary period. An effort will be made to take advantage of residence in French-speaking countries through visits to sites that are related to the literature. Prerequisite: FRE 202 or 203, or consent of instructor.

FRE 331 Advanced Language Practice (3). Course will offer students the opportunity to expand their cultural and linguistic knowledge of French-speaking cultures through a central conceptual framework, such as an international conference, an apartment building, a hotel, or a business. Students will engage in extensive role-play and creative exercises to establish contexts, choose fictive identities, and improvise a series of encounters. Prerequisite: FRE 202 or consent of instructor.

FRE 332 Phonetics (3). Introduction to linguistic terminology and principles of phonology with intensive individual diagnosis and practice of the French phonological system. Includes study and practice of the International Phonetic Alphabet. Prerequisite: FRE 202 consent of the instructor.
FRE 401 Survey of French Literature I (3). Representative masterpieces of the novel, poetry and theatre from the Middle Ages to the eighteenth century. Prerequisite: FRE 301 or consent of instructor.

FRE 402 Survey of French Literature II (3). Representative masterpieces of the novel, poetry, and theatre for the nineteenth and twentieth centuries. Prerequisite: FRE 301 or 331 or consent of instructor.

FRE 419 European Cinema (3). Survey of European (including British) film by French, English, German, and Spanish directors in the original languages with English subtitles except for the English language films. Selected films will be organized around social themes, which will then be viewed from different national perspectives. The common discussion section on one day will be conducted in English to be accessible to students of all languages; the second discussion section will be conducted in French. Students are required to attend film viewings in a separate lab section. Prerequisite: FRE 301 or 331, or consent of instructor.

FRE 421 Topics in French Literature (3). Course content will vary according to the needs of the French program. May be repeated to a maximum of nine credit hours. Prerequisite: FRE 301 or 331 or consent of instructor.

FRE 430 Advanced Conversation and Composition (3). For the advanced student who has completed a 300-level conversation and composition course or who has had extensive experience with French language. Prerequisite: FRE 301 or 331 or consent of instructor.

FRE 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

FRE 441 Topics in French Cultural Studies (3). Course content will include a variety of factors that contribute to and reflect the cultural life, social themes, and national perspectives of French society. The course content will include literature and may include media and/or film. Students will write a research paper. May be repeated for a maximum of six credit hours. Prerequisite: FRE 301 or 331 or consent of instructor.

FRE 450 Literary Masterpieces in French (3). A general survey of the literary periods, major authors, and initial acquaintance with their work. May be repeated for a maximum of six credit hours. Prerequisite: FRE 301 or 331 or consent of instructor.

FRE 451 Directed Study (1-3). Independent work in the area of language, culture or literature, designed to meet the needs and interests of individual students. Prerequisite: FRE 301 or 331 or consent of instructor.

FRE 460 Studies in a Genre (3). The course will explore a particular genre, e.g., the novel, novella, drama, poetry, short story, and the theory behind the respective genre and an examination of a variety of works within that genre. May be repeated as a second course for up to six credit hours provided that the second course covers a different genre. Prerequisite: FRE 301 or 331 or consent of instructor.

FRE 501 Middle Ages Literature (3). A study of representative works of French literature dating from 1095 to 1600. Prerequisites: junior standing or above, FRE 301 or 331 or consent of instructor.

FRE 503 Seventeenth- and Eighteenth-Century Literature (3). A study of representative literary works published between 1600 and 1795. Prerequisites: junior standing or above, FRE 301 or 331 or consent of instructor.

FRE 505 Nineteenth-Century Literature (3). A study of representative literary works published between 1800 and 1899. Prerequisites: junior standing or above, FRE 301 or 331 or consent of instructor.

FRE 507 Twentieth-Century Literature (3). A study of representative literary works published since 1900. Prerequisites: junior standing or above, FRE 301 or 331 or consent of instructor.

FRE 521 Topics in French Literature (3). Course content at the discretion of the instructor. Prerequisites: junior standing or above, FRE 301 or 331 or consent of instructor.

FRE 531 Advanced Grammar (3). A comparative study of the grammatical structures of French and English. Prerequisites: junior standing or above, FRE 301 or 331 or consent of instructor.

FRE 532 Phonetics (3). Introduction to linguistic terminology and principles of phonology with intensive individual diagnosis and practice of the French phonological system. Includes study and practice of the International Phonetic Alphabet. Prerequisites: junior standing or above, FRE 301 or 331 or consent of instructor.

FRE 551 Directed Study I (1-3). Independent work in areas of language, culture or literature, designed to meet needs and interests of individual students. Prerequisites: junior standing or above, FRE 301 or 331 or consent of instructor.

FRE 552 Directed Study II (1-3). Prerequisites: junior standing or above, FRE 301 or 331 or consent of instructor.

FRE 555 Study Abroad (3-9). Approved programs of travel and study in French-speaking countries. Repeatable up to nine hours. Prerequisites: junior standing or above, FRE 301 or 331 or consent of instructor.

FRESHMAN YEAR EXPERIENCE (FYE) Courses

FYE 098 New Student Orientation (1). Course designed to assist students in the academic and social transition to college life. The development of specific success skills such as time management, note-taking, study strategies, and academic and career guidance activities will be included in the class.

FYE 100 Freshman Orientation II (1). Course designed to assist students in the academic and social transition to college life. The development of specific success skills such as time management, note-taking, study strategies, and academic and career guidance activities will be included in the class. Credit earned in this course may not be counted toward graduation requirements. Prerequisite: freshmen students on probation or by approval of instructor.

GRAPHIC COMMUNICATIONS MANAGEMENT (GCM)

GCM 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Meetings with advisors, department personnel, service areas, and campus field trips comprise the main involvement. Availability of the university resources is stressed with emphasis on personal needs such as time management. Graded pass/fail.

GCM 150 Graphic Communications (3). Surveys the development of graphic communications technology and management, past and present. Includes a study of history, design, processes, terminology, materials and the importance of graphic communications in contemporary society. Structured to deal with the digital and traditional technologies of printing reproduction.

GCM 151 Introduction to Print Media Management (3). Reviews the graphic reproduction systems of mass-communication including print manufacturing, digital imaging, computer animation, video capturing, customer service, business operations, and global media marketing. Lecture and laboratory.

GCM 152 Introduction to Digital Imaging (3). An introduction to production skills and critical awareness of digital media practices which include Internet production, video, gaming, still imaging, and 3D modeling. There is a strong emphasis on cross platform, digital communication, teamwork, and leadership skills. The course is designed to give direction to students who are computer literate, abut need information on the various opportunities available in the imaging world. Current computer programs are utilized. Lecture and laboratory.

GCM 153 Electronic Imaging (3). This course deals with the technology of electronic imaging relating to the field of graphic communications. The course covers image generation and electronic printing and publishing. Lecture and Laboratory.
GCM 250 Fundamentals of Photography (3). Camera techniques and film selection. Experience with various cameras, photographic techniques, developing and printing procedures. Lecture and laboratory. Prerequisite: consent of instructor. (Same as JMC 283.)


GCM 340 Introduction to Gravure (3). This course covers the magazine and packaging industry as they relate to high volume printing. Included in the course are: pre-flighting, customer service, press production, problem-solving techniques, and distribution systems. Lecture and laboratory. Prerequisite: GCM 151.

GCM 341 Screen Process Printing (3). This course addresses the problems of commercial screen printing on various substrates. Covers: inks, environment, State and Federal regulations, safety, and training practices used in the industry. Prerequisite: GCM 151.

GCM 342 Finishing and Distribution (3). Introduction to post-press and finishing operations and distribution practices common to the packaging and printing industries. Course covers historical as well as modern aspects of finishing, embossing, foil stamping, die-cutting, and material fulfillment. Prerequisite: GCM 151.

GCM 350 Basic Color Photography (3). A study of color photographic materials and processes including color transparencies, negative analysis, intermediates, transparency duplicates, and color prints. Lecture and laboratory. Prerequisite: GCM 250.

GCM 351 Graphic Communication Processes (3). This course is designed for non-majors who wish to understand the printing and manufacturing reproduction processes at a higher level. Lecture and laboratory. Prerequisite: GCM 151. (Same as ART 351)

GCM 352 Press Image Transfer I (3). A study of image transfer processes including flexography, letterpress and pressure related printing operations, e.g. die stamping, gold leaf and embossing, etc. Lecture and laboratory. Prerequisite: GCM 151.

GCM 353 Press Image Transfer II (3). A study of image transfer processes including lithography, silk screen and nontraditional methods of image transfer. Lecture and laboratory. Prerequisites: GCM 151 and 352.

GCM 354 Principles of Estimating (3). Analysis of printing cost procedures using regional costing data and norms. Also, determining cost of materials, equipment and human activity will be determined. Prerequisite: nine hours in graphic communications including GCM 153.

GCM 355 Estimating II (3). Further study in estimating printing costs emphasizing standard materials available to assist the estimator. Lecture. Prerequisite: GCM 354 or consent of instructor.

GCM 356 Printing Plates, Substrates, Inks and Toners (3). A study of current plate and CTP technology, paper, fabric, plastic, and ink technologies will be discussed in relation to the standard printing systems. Prerequisite: GCM 151.

GCM 357 Industrial Photography (3). A study of photography as it is utilized by industry in problem-solving, security, and scientific and technical applications. Lecture and laboratory. Prerequisite: GCM 250.

GCM 358 Commercial Photography (3). A study of the making of photographs in the studio and on location; investigation of the photographic medium as a means of communicating ideas. Lecture and laboratory. Prerequisite: GCM 250.

GCM 359 Publication Photography (3). A study of the make-up of yearbooks and various other publications requiring photography, and the problems of the photographer in preparing materials for printing. Lecture and laboratory. Prerequisite: GCM 250.

GCM 360 Portrait Photography (3). Formal and contemporary portraiture. Includes studio and informal techniques, printing and finishing instruction. Prerequisite: GCM 250.

GCM 365 Customer Service in Print Media (3). This course explores all aspects of customer service including, scheduling, human resources, manufacturing, finance, computer systems, and quality control. Prerequisite: GCM 151.

GCM 371 Workshop in Graphic Communications Sales and Marketing (3). Methods and techniques essential to sales and marketing. Includes sales and marketing processes, qualities of sales personnel, submitting proposals, assessing the competition, customer relations, developing new clients, and servicing accounts. Credit is given for professional sales seminars. Prerequisite: nine hours of GCM.

GCM 399 Professional Development Seminar I (1). Seminar for students of industry and technology programs, focusing on the job search process, employment opportunities, and related problems. Recommended for students in the sophomore or junior year. Graded pass/fail.

GCM 427 Professional Photographic Practices (3). The course introduces students to the business and marketing practices common to photography. Emphasis is placed on developing professional objectives based upon careful consideration of the financial, legal, organizational, promotional, interpersonal and ethical practices particular to photography. Prerequisite: consent of instructor.

GCM 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required. Prerequisites: GCM 151 and 153.

GCM 440 Electronic Digital Photography (3). This course deals with desktop electronic imaging and digital photography. Explored is the use of photography and production photographs with a variety of computer hardware and software programs. Lecture and laboratory.

GCM 441 Desktop Multimedia (3). Desktop digital imaging and multimedia presentations are developed with a variety of hard and software. The course is designed to allow the student to cross-platform images from diverse electronic technologies. Lecture and laboratory. Prerequisite: GCM 153.

GCM 442 Digital Interactive Technology (3). This course introduces and explores digital interactive technology as an aspect of electronic imaging. It examines the use of digital technology in the production of interactive presentations; it includes a variety of currently used computer hardware and software. Lecture and laboratory. Prerequisite: GCM 153.

GCM 452 Production Printing (3). This course includes experiences from planning to final reproduction of a printed work. All the printing processes are utilized including sheet and web fed printing equipment. Use of field trips and cooperation with the industrial sector are required. Lecture and laboratory. Prerequisites: GCM 151 and 153 or junior standing.

GCM 453 In-Plant and Small Printing Facility Management (3). This course explores the impact of the family owned printing facility and how they are: managed, purchased, sales and human resources. Regulations of federal and state taxes are explored. Lecture and laboratory. Prerequisites: GCM 151 and GCM 153.

GCM 454 Color Management and Quality Control (3). Materials and procedures of color management and quality control procedures. Included are ICC profiles, spectrophotometry, densitometry, masking, color proofing, quality control devices, and color scanning. Lecture and laboratory. Prerequisites: GCM 151 and 153.

GCM 455 Newspaper Production Management (3). A study of special needs of newspapers from the standpoint of management and production. Lecture. Prerequisite: nine hours of GCM.

GCM 456 Packaging Production Management (3). This course is concerned with the specific problems relating to the packaging industry. This course reviews the concerns of managing a packaging facility by reviewing the management, human development, environmental issues, material handling, finance, and quality control concerns. Prerequisite: nine hours of GCM.

GCM 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.
GCM 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses.

GCM 499 Professional Development Seminar II (1). Seminar for students of industry and technology programs, focusing on the transition to the world of work and related problems. Recommended for students in the senior year. Graded pass/fail.

GCM 552 Survey of Graphic Communication Management (3). Exploratory experiences in graphic communications management for those with no prior experience in the field. Lecture and laboratory. Prerequisite: senior standing.

GCM 554 Printing Production and Manufacturing Management (3). Reviews the current practice and theoretical approaches of printing manufacturing; forecasting, quality control, purchasing and finance, equipment selection, plant layout, environmental, and human relations considerations. Prerequisite: nine hours of GCM.

GCM 556 Communications Sales Management (3). Methods and techniques essential to sales and marketing. Includes sales and marketing processes, qualities of sales personnel, submitting proposals, assessing the competition, customer relations, developing new clients, and servicing accounts. Prerequisite: Nine hours of GCM.

GCM 558 Trends in Graphic Communications (3). A study of management trends, technical advances, and problems as they pertain to the future of the communications industry. The course will include report writing, verbal presentations and a field experience. Prerequisite: senior standing.

GCM 560 Plant Equipment Layout and Purchasing (3). Procedures for planning, equipment and printing plant operation are studied, as well as purchasing supplies, understanding local, state and federal codes, and environmental regulations. Prerequisite: nine hours of GCM.

GCM 571 Problems in Technology (3). Individual study and research pertaining to special problems in graphic arts technology.

GCM 578 Workshop in Technology (3). Workshops on topics pertinent to graphic arts or printing management. May be repeated for additional credit.

GENDER AND DIVERSITY STUDIES (GDS)

GDS (MCG) 201 Introduction to Multicultural, Class, and Gender Studies (3). This course will provide students with an interdisciplinary examination of the issues concerned with multiculturalism, economic and social class, and gender. Students will gain a broad historical perspective of how these factors have had an impact on the formation of America as a country and as a nation in the international context.

GDS(MCG) 201 Intercultural Communications in German (3). Students strengthen their basic language skills while continuing to broaden cultural awareness of German-speaking societies. Students relate experiences, produce brief reports on course topics, and express opinions concerning a variety of themes. Students learn to communicate on a more complex level in German. Taught in German. Prerequisite: GER 102 or equivalent.

GDS (MCG) 351 Topics in Gender and Diversity (3). Changing topics in the study of gender and diversity, to be determined by the instructor. Can be repeated twice. Prerequisite: GDS 201.

GDS (MCG) 356 The Art of Non-Western Cultures (3). Study of the arts of Asia, Oceania, Africa and the Pre-Western Americas. (Same as ART, RGS 356.)

GDS (MCG) 412 Directed Study in Multicultural, Class and Gender Studies (3). An independent study course in an area of multicultural, class and/or gender studies. Students must submit a study plan, along with the name of the faculty member with whom they have arranged to work, to the GDS committee for approval prior to registration. Can be repeated twice. Prerequisite: GDS 201.

GERMAN (GER)

GER 101 Fundamental Communication in German (3). Basic German in which students learn to describe themselves to someone from another culture; to express preferences, abilities, needs, and obligations; to ask for information; to describe people, places, and things in their world; and to report their typical activities to a German speaker.

GER 102 Social Interactions in German (3). Expanding upon skills built in GER 101, students move toward increasing linguistic and social awareness of German-speaking cultures. Students learn to use past tenses to talk about typical activities or to tell a story; to expand their basic vocabulary and ability to communicate in simple German; and to demonstrate basic understanding of aspects of German culture that may differ from their own. Prerequisite: GER 101 or equivalent.

GER 105 Introduction to German Culture (3). A survey of the contemporary culture of Germany, Austria and Switzerland with emphasis on the values, behavioral characteristics, social and political systems and achievements of the German-speaking people. Conducted in English. No prerequisite.

GER 110 Basic Conversational German (3). A conversation-oriented introduction to pronunciation, essential structures, and vocabulary. Designed to enable students to communicate in simple German in everyday situations in German-speaking countries. Pronunciation, listening comprehension, speaking and simple reading and writing of material related to conversational situations are included. No continuation offered. Not applicable toward German major or minor. Only taught abroad. No prerequisite.

GER 201 Intercultural Communications in German (3). Students strengthen their basic language skills while continuing to broaden cultural awareness of German-speaking societies. Students relate experiences, produce brief reports on course topics, and express opinions concerning a variety of themes. Students learn to communicate on a more complex level in German. Taught in German. Prerequisite: GER 102 or equivalent.

GER 203 German for the Working World (3). A continuation from German 201, this course is a practical application of German for the working world together with grammar review and with emphasis on communication skills on the formal level. Includes further practice in listening, conversation, reading and writing. Students may be required to attend and write a report on two approved cultural events or complete alternative cultural assignments. Taught in German. Students may receive credit for German 202 or 203, but not both. German 203 counts toward the minor and the major. Prerequisite: German 201 or equivalent.

GER 210 Intermediate Conversational German (3). A course designed to develop the vocabulary and oral communication skills of the student with a background of one year of college German or equivalent. Emphasis will be placed on bringing the student into contact with German native speakers and various aspects of their culture. May count as an elective for the major or minor. Only taught abroad. Prerequisite: GER 102 or equivalent.

GER 301 Social Issues in German Texts (3). Intensive practice in speaking and writing based on a variety of topics and materials. Prerequisite: GER 202 or equivalent.

GER 302 Conversation and Composition (3). An exploration of social issues through the reading, discussion, and written analysis of authentic texts in German-speaking cultures. While examining these issues, the student will also learn and practice the rudiments of literary interpretation. Prerequisite: GER 301 or consent of instructor.

GER 306 Introduction to German Literature (3). An introduction to literary analysis, designed to develop skills in reading, oral expression and expository writing. A variety of genres will be presented. Prerequisite: GER 301 or 331 or consent of instructor.

GER 310 Conversation and Composition Abroad (3). Intensive practice in speaking and writing based on the student’s interaction with native speakers and the international setting. Only taught abroad. Counts toward the major and minor approved electives. Prerequisite: Two years of college German or equivalent.

GER 314 German Cultural Heritage Abroad (3). This course taught in German and taught abroad, focuses on culture in German-Speaking countries. The course entails carefully planned excursions to a number of specific cultural sites in conjunction with readings about the sites and the intellectual history and milieu behind their conception. The student will explore the history, art, architecture, literature, politics, and music of the host country. This will only be taught.
on study-abroad programs in German-speaking countries. Prerequisite: Consent of instructor.

GER 323 German Culture and Civilization (3).
A survey of the contribution of German-speaking people to world culture in art, music, science, education, philosophy and religion. Classes conducted in German. Prerequisite: GER 301 or 331 or consent of instructor.

GER 324 Contemporary German Culture and Civilization (3).
A survey of the present-day culture of the German-speaking countries, including Austria, the Federal Republic of Germany, and Switzerland. Course includes the study of German dialects, geography, social and political systems and religious orientation. Classes conducted in German. Prerequisite: GER 301 or 331 or consent of instructor.

GER 330 German Literary Texts in Context (3).
Will be taught in study abroad programs in German-speaking countries. It is an introductory course in German literature taught in German. Authentic texts might include poetry, short story, drama or excerpts from long works and might be from any literary period. An effort will be made to take advantage of residence in German-speaking countries through visits to sites that are related to the literature. Prerequisite: GER 202 or 203, or consent of instructor.

GER 331 Advanced Language Practice (3).
Course will offer students the opportunity to expand their cultural and linguistic knowledge of German-speaking cultures through a central conceptual framework, such as an international conference, an apartment building, a hotel, or a business. Students will engage in extensive role-play and creative exercises to establish contexts, choose fictive identities, and improvise a series of encounters. Prerequisite: GER 202 or consent of instructor.

GER 332 Phonetics (3).
Contrastive study of German and English phonology with individual practice designed to improve pronunciation. Prerequisite: GER 202 or consent of instructor.

GER 401 Survey of German Literature I (3).
Historical interpretation of representative literary works from the Medieval periods to the Enlightenment. Prerequisite: GER 301 or 331 or consent of instructor.

GER 402 Survey of German Literature II (3).
Historical interpretation of representative literary works from Classicism to the present. Prerequisite: GER 301 or 331 or consent of instructor.

GER 419 European Cinema (3).
Survey of European (including British) film by French, English, German, and Spanish directors in the original languages with English subtitles except for the English language films. Selected films will be organized around social themes, which will then be viewed from different national perspectives. The common discussion section on one day will be conducted in English to be accessible to students of all languages; the second discussion section will be conducted in German. Students are required to attend film viewings in a separate lab section. Prerequisite: GER 301 or GER 331 or consent of instructor.

GER 421 Topics in German Literature (3).
Course content will vary according to the needs of the German program. May be repeated to a maximum of nine credit hours. Prerequisite: GER 301 or 331 or consent of instructor.

GER 437 Senior Honors Thesis (3).
A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

GER 441 Topics in German Cultural Studies (3).
Course content will include a variety of factors that contribute to and reflect the cultural life, social themes, and national perspectives of German society. The course content will include literature and may include media and/or film. Students will write a research paper. May be repeated for a maximum of six credit hours. Prerequisite: GER 301 or 331 or consent of instructor.

GER 450 Literary Masterpieces in German (3).
A general survey of the literary periods, major authors, and initial acquaintance with their work. May be repeated for a maximum of six credit hours. Prerequisite: GER 301 or 331 or consent of instructor.

GER 451 Directed Study (1-3).
Independent work in the area of language, culture or literature, designed to meet needs and interests of individual students. Prerequisite: consent of instructor.

GER 460 Studies in a Genre (3).
The course will explore a particular genre, e.g., the novel, novella, drama, poetry, short story, and the theory behind the respective genre and an examination of a variety of works within that genre. May be repeated as a second course for up to six credit hours provided that the second course covers a different genre. Prerequisite: GER 301 or 331 or consent of instructor.

GER 501 Literature Before 1600 (3).
A study of major works chosen to present prominent themes and important literary developments within the period. Prerequisites: junior standing or above, GER 301 or 331 or consent of instructor.

GER 503 Seventeenth- and Eighteenth-Century Literature (3).
A study of major works chosen to present prominent themes and important literary developments within the period. Representative authors such as Goethe, Schiller, Novalis and Kleist will be treated. Prerequisites: junior standing or above, GER 301 or 331 or consent of instructor.

GER 505 Nineteenth-Century German Literature (3).
A study of literary developments during the era of the industrial revolution and political reform in Germany. Works by Buchner, Heine and representative authors of Poetic Realism and Naturalism will be treated with secondary emphasis placed on the emergence of the Biedermeier tradition. Prerequisites: junior standing or above, GER 301 or 331 or consent of instructor.

GER 507 Twentieth-Century Literature (3).
A study of the literature and the policies affecting literature during the Weimar Republic, the Third Reich, Post-War Literature and the Gruppe 47, and contemporary developments. Prerequisites: junior standing or above, GER 301 or 331 or consent of instructor.

GER 521 Topics in German Literature (3).
An in-depth course treating a topic in German literature. Selected according to the needs and interests of the students. Prerequisites: junior standing or above, GER 301 or 331 or consent of instructor.

GER 531 Advanced Grammar (3).
A specialized study contrasting German and English grammatical structures and usage. Prerequisites: junior standing or above, GER 301 or 331 or consent of instructor.

GER 532 Phonetics (3).
Contrastive study of German and English phonology with individual practice designed to improve pronunciation. Prerequisites: junior standing or above, GER 301 or 331 or consent of instructor.

GER 551 Directed Study I (1-3).
Independent work in a variety of areas of language, culture or literature, designed to meet needs and interests of individual students. Prerequisites: junior standing or above, GER 301 or 331 or consent of instructor.

GER 552 Directed Study II (1-3).
Prerequisites: junior standing or above, GER 301 or 331 or consent of instructor.

GER 555 Study Abroad (3-9).
Credit given for approved projects of study in a German-speaking country. Repeatable up to nine hours. Prerequisites: junior standing or above, GER 301 or 331 or consent of instructor.

GEOSCIENCES (GSC)

GSC 099 Transitions (1).
Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transition course will count toward graduation. Graded pass/fail.

GSC 101 The Earth and the Environment (4).
An introduction to the materials of the earth and the processes that modify them to form our landscapes and create our physical environment. Includes an introduction to aerial photo and topographic map interpretation. Three hours of lecture and two hours of laboratory per week.

GSC 102 Earth Through Time (4).
An introduction to the study of how the earth’s environment has changed through time and the geological processes that are causing the changes. Topics include hypotheses regarding the earth’s origin, the evolution of the earth’s oceans and atmosphere, and the interaction between environmental factors and appearance of life on the earth. The methods that
geologists use to measure time will be identified and described. Particular emphasis will be given to the North American continent. The laboratory will focus on interpretation of earth history through the study of minerals, rocks, and fossils. Three hours of lecture and two hours of laboratory per week. Prerequisite: GSC 101 or 199.

GSC 110 World Geography (3). A course designed to introduce students to the geographic distribution of major regions of the world. Attention will be focused on the delicate interrelationships between the natural landscapes of the earth and corresponding major cultural activities.

GSC 125 Weather and Climate (4). Introduction to the dynamics of the atmosphere and how humans interact with and are influenced by atmospheric processes and climatic variations. Three hours of lecture and two hours of laboratory per week.

GSC 199 Earth Science (4). This course introduces basic earth science concepts with elaboration on the origin, structure, and the complex interactions between the major earth components of the atmosphere, hydrosphere, and lithosphere. Three hours lecture and two hours lab per week.

GSC 200 Introduction to Oceanography (3). An introduction to the study of oceans and marine processes, with emphasis on the morphology of the ocean floor, life in the ocean, oceanic circulation, sea floor spreading and shoreline management. Prerequisite: One college-level physical or biological science course or consent of the instructor.

GSC 202 Introduction to Geographic Information Science (4). This course is designed to provide an introduction to the fundamental principles and concepts of the mapping sciences. The course will focus on digital image processing and geographic information systems as techniques utilized in such areas as land cover and land capability mapping. The introduction of global positioning systems (GPS) as an auxiliary mapping tool is also included in the course. Three hours lecture and two hours lab per week.

GSC 210 Hydrology (3). Occurrence, movement, quality and behavior of water in hydrologic cycle with reference to recovery of underground water in areas of detrital and carbonate rocks. Three lectures per week. Prerequisite: GSC 101 or consent of instructor.

GSC 220 Economic Geography (3). The course will consist of an analysis of cultural and physical variables which lead to an understanding of the worldwide distribution of primary, secondary and tertiary economic activities.

GSC 250 Geography of the Developing World (3). A survey, by climatic regions, of the cultural, economic and natural setting of the developing world, including the transitional nature of the subtropics.

GSC 251 Geography of the Industrialized World (3). A survey, by climatic regions, of the cultural, economic and natural setting of the industrial world.

GSC 300 Economic Geology (3). Distribution, mode of occurrence, origin and uses of mineral deposits. Environmental problems associated with extraction and utilization of mineral resources. Prerequisite: GSC 102 or consent of instructor.

GSC 301 Understanding Scientific Communication (2). Course concentrates on the methods for preparation and presentation of scientific papers, posters, and oral communication. Students will utilize a data set to produce a publication quality manuscript, a poster suitable for a scientific meeting, and a 15-minute presentation such as would be given at a scientific meeting. Topics covered include abstracts, the nature of scientific writing, structure and organization of scientific publication, use of literature, graphics and graphic design, and methods of polishing the oral presentation. (Same as SCI 301)

GSC 303 Introduction to Water Science (3). An introduction to the study of the marine and freshwater environments of the earth. Study of the oceans as the largest component of the earth’s hydrosphere will emphasize geological forces which are shaping the ocean floor, ocean currents and tides, the origin of ocean salt, and life in the ocean. Study of freshwater components of the earth’s hydrosphere will emphasize connections with the ocean and the special role of each component in the earth’s hydrologic cycle. Prerequisite: one college-level physical or biological science course, or consent of instructor.

GSC 305 Map Analysis (3). An introduction to the analysis of a variety of maps including topographic, geologic, hydrologic and thematic maps. Emphasis will be placed upon understanding, analysis and the application of information presented in map form.

GSC 310 Rock and Mineral Resources (3). An introduction to common rock and mineral resources, including ore deposits, fossil fuels, and minerals; igneous rocks; metamorphic rocks; and sedimentary rocks. Emphasis is on geologic occurrence and origin, geographic distribution, and importance to humans. Saturday field trips will be required. Prerequisite: GSC 102 or permission of the instructor.

GSC 312 Introduction to Remote Sensing (4). The purpose of this course is to introduce students to the fundamental concepts and techniques in the processing, interpretation and utilization of remotely sensed imagery. The focus of the course is on applications in such fields as agriculture, environmental studies, minerals exploration and resources management/planning. Three hours lecture and two hours lab per week.

GSC 314 Sediments and Soils (4). An in-depth study of sediments and soils. Emphasis will be on the geologic formation, interpretation, and significance of sediments and soils in a variety of geologic, environmental, and archaeological contexts. Three hours lecture and two hours laboratory per week plus one required Saturday field trip. Prerequisite: GSC 102 or permission of the instructor. (Same as ARC 314)

GSC 320 Geography of North America (3). Regional approach to studying the dynamic interaction between the physical and cultural aspects of North America.

GSC 325 Geography of the Russia and Central Asia (3). Regional approach to studying the dynamic interaction between the physical and cultural aspects of the Russia and the republics of Central Asia.

GSC 327 Geography of the Middle East and North Africa (3). Regional approach to studying the dynamic interaction between the physical and cultural aspects of the Middle East and North Africa.

GSC 335 Landscapes of the National Parks (3). A study of the genesis and evolution of the North American landscape with special emphasis on the national parks. Three lectures per week.

GSC 336 Principles of Geomorphology (4). The origin, characteristics and development of landforms and the processes which determine their formation. Three hours lecture and two hours lab per week.

GSC 339 Field Geology (3). A course designed to acquaint the student with field and laboratory techniques used by the geologist to familiarize the student with the geology of Kentucky and adjacent areas. Lectures, laboratory and field study. Prerequisites: GSC 102 and consent of instructor.

GSC 350 Field Techniques in Geosciences (3). An introduction to the variety of field techniques utilized by geoscientists in the geologic, environmental, and archaeological fields. Emphasis is placed on the techniques of field surveying and mapping; locational assessment utilizing Global Positioning Systems; orienteering with compass and topographic map; basic descriptive field geology; soil sampling and description; remote and direct hydrologic assessment; and land cover/land use mapping. Field trips will be taken to locations of geologic or environmental significance to the region. Prerequisite: junior status or permission of the instructor.

GSC 388 International Experience in the Geosciences (3). A short-term (10-14 days of travel) study abroad experience highlighting selected historical and modern contributions to the geosciences from another country and culture. The course includes pre- and post-travel meetings, lectures, readings and discussions. Course may be taken only once for credit. Graded pass/fail. Prerequisite: consent of the instructor.

GSC 390 Geoarchaeology (3). Survey of geological methods and techniques used to answer archaeological research questions. Topics covered include sedimentary and geomorphic processes, depositional environments, site formation processes, environmental reconstruction, and radio metric dating techniques. One Saturday field trip will be required. Prerequisites: ARC 150 and GSC 101. (Same as ARC 390)
GSC 420 Geography of Agriculture (3). A real approach to the study and analysis of the regional, national and international aspects of agriculture as they relate to the production, distribution and consumption of agricultural products.

GSC 424 (524) Conservation and Environmental Geosciences (3). Course will study human population growth and associated resource requirements considering the physical makeup and history of the earth. Natural resource inventory, protection of the environment, geologic hazards and other conservation related topics will be discussed. Use of Geographic Information Systems (GIS) will be emphasized.

GSC 426 Applied Meteorology (4). A detailed study of synoptic meteorology and weather forecasting. Emphasis placed upon weather maps, their construction and interpretation. Attention given to the micro and meso aspects of meteorology/climatolgy. Prerequisite: GSC 125.

GSC 427 Population Geography (3). An in-depth look at world population distributions and dynamics including past, present, and future trends and the influence of population growth on world economic activity.

GSC 428 Landform Analysis (3). The qualitative and quantitative analysis of the various landform assemblages and their distribution. Emphasis on the processes involved in landscape evolution and the influence of man upon this portion of his environment.

GSC 430 Crystallography and Optical Mineralogy (4). Crystallography, crystal chemistry, optical theory and technique. Identification of the common rock-forming minerals by indices of refraction and other optical properties. Three lectures and two hours of laboratory per week. Prerequisite: GSC 102 or equivalent.

GSC 431 Igneous and Metamorphic Petrology (4). Detailed study of igneous and metamorphic rocks and the processes by which they form. Prerequisites: GSC 310, CHE 105 or CHE 121.

GSC 432 Stratigraphy and Sedimentary Petrology (4). A course to focus on sedimentary petrology and stratigraphy pertaining to environmental modeling, an essential component in the field of petroleum geology. Three lectures and two hours of laboratory per week. Prerequisite: GSC 102 or equivalent.

GSC 433 Structural Geology (3). An introductory course in genetic and descriptive aspects of the deformational features of the earth. Two lectures and two hours laboratory per week. Prerequisite: GSC 102 or equivalent.

GSC 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

GSC 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

GSC 500 Recreation Geography and Planning (3). Practical application of problem-solvin techniques and processes to recreational management and planning. Focus placed on site planning and development. (Same as PLN 500.)

GSC 507 Land Use Planning (3). Analyze the principles and techniques utilized in the planning process. Emphasis is placed on the practical aspects of planning: needs, problems and proposed solutions. (Same as PLN 507.)

GSC 510 Geophysics (3). Practical aspects of applied and environmental geophysics including gravity, magnetics, electricity, electromagnetic theory and practice. Prerequisite: MAT 150 or equivalent.

GSC 512 Remote Sensing (4). Emphasis will be placed upon the fundamentals of image interpretation using a wide variety of image types both airborne and spaceborne. The application of remotely sensed data and techniques in many areas. Three hours of lecture and two hours of laboratory per week. Prerequisite: GSC 202 or 312.

GSC 513 Photogeology (3). The application of remote sensing technology in the field of geology. Major area of concentration will be the manual interpretation of black and white imagery. Also included will be other imagery types, sensors and digital image processing. Prerequisite: GSC 336 or equivalent or consent of instructor.

GSC 515 Geochemistry (3). The chemistry of the geologic environment including the distribution of chemical elements in the earth and natural waters, the nature and causes of chemical processes, and the application of chemical laws, methods and data to the solution of geologic problems. Emphasis is on the low-temperature geochemistry as it pertains to sedimentation, weathering and groundwater quality.

GSC 520 Geography of Kentucky (3). A survey of the topography, soils, climate, industries, commerce and population in Kentucky with emphasis upon the interrelationships between these various phenomena.

GSC 521 Geographic Information Systems (4). Techniques course that introduces digital georeferenced information systems, including data capture, editing and encoding techniques, data storage structures, database management systems, data analysis and model development, and information display methods. Three hours of lecture and two hours of laboratory per week. (Same as PLN 521.)

GSC 522 Digital Cartography (3). The map as a communication system. Special individual projects dealing with cartographic design and the preparation of maps for publications. Practical experience with computer mapping of spatial data. Prerequisite: GSC 305 or equivalent, or consent of instructor.

GSC 523 Problems in Urban Geography and Urban Planning (3). Theories, techniques and research in urban geography and planning. Focus placed on the designs and strategies addressing present-day urban problems. (Same as PLN 523.)

GSC 533 Paleocology (3). The study of the formation of the first ecologies with the origin of life on earth, and the continuing changes in the earth’s ecologies through time. Classic paleoecological communities are examined, including Precambrian, Ordovician, Cretaceous and Pleistocene ecosystems. Specific attention paid to the interaction and co-evolution of the organic and inorganic environments. Prerequisites: GSC 101, BIO 101, or equivalent.

GSC 534 Invertebrate Paleontology (4). The classification, morphology and paleontological significance of fossil invertebrates. Three lectures and two hours of laboratory per week. Prerequisite: GSC 102 or equivalent.

GSC 542 (535) Watershed Ecology (3). The study of the movement of water through the environment and its relationship to biotic systems. Areas emphasized include the hydrologic cycle and its influence on groundwater, lotic and lentic systems; the effect of water on plant and animal communities; and the influence of human activity on watershed structure and function. Prerequisite: BIO 330 or consent of instructor. (Same as BIO 535.)

GSC 556 Remote Sensing Applications in Archaeology (3). An overview of the application of terrestrial geophysical survey techniques and aerial remote sensing techniques in archaeological research. Emphasis will be placed on terrestrial geophysical survey methods with hands on training in the use of instruments such as ground penetrating radar and magnetic gradiometer. Weekend field trip to local archaeological sites are required. Prerequisite: ARC 300 or permission of instructor. (Same as ARC 556.)

GSC 561 Precision GIS/GPS Applications (1-3). An introduction to Geographic Information Systems (GIS) and Global Positioning System (GPS) applications in natural resources, business and land management. The course is divided into three distinct parts: 1) Introduction to GIS/GPS applications, 2) Business applications, and 3) Precision land management applications. Students must take the introduction phase before continuing with the other two parts. Variable credit hours: 1 credit for Part 1, 2 credits for Part 1 and 2 or 1 and 3, or 3 credits for Parts 1, 2, and 3. Course may be repeated for a maximum of three credit hours.

GSC 562 (560) Hydrogeology (3). Knowledge and experience in the use of hydrologic and erosion models. State-of-the-art surface water, ground water and erosion models will be studied, along with hands-on training in the use of digital
computers for applying these models to real-world geological situations. Prerequisite: MAT 150 or equivalent or consent of instructor.

GSC 565 Biogeochemistry (3). Survey and discussion of the scientific literature on global cycles of carbon, nitrogen, phosphorus and man-made chemicals with special emphasis on the biogeochemical and ecological processes that affect terrestrial and aquatic ecosystems. The course will focus on interdisciplinary themes that incorporate new research results form the fields of biology, chemistry, and geosciences. Prerequisite: junior or higher standing in biology, chemistry or geosciences. (Same as BIO/CHM 565.)

GSC 570 Computer Applications in Geosciences (3). Introduction to the use of computers in geoscientific problem-solving and data processing. Students will utilize existing programs and will develop original routines. Prerequisites: GSC 521 or GSC 522 and CSE 101.

GSC 575 Field Vertebrate Paleontology (4). The study of vertebrate fossils in both field and lab, including collection, processing and identification. Field work may include trips throughout the continental United States and occasionally overseas. (Usually taught during summer.) Prerequisite: completion of two semesters of undergraduate laboratory science and upper-class. (Same as BIO 575.)

GSC 591 Special Problems (1). This course is designed for students who have an aptitude for research in the area of geosciences. Prerequisite: consent of instructor. (May be repeated one time.)

GSC 592 Special Problems (2). This course is designed for students who have an aptitude for research in the area of geosciences. Prerequisite: consent of instructor. (May be repeated one time.)

GSC 593 Special Problems (3). This course is designed for students who have an aptitude for research in the area of geosciences. Prerequisite: consent of instructor. (May be repeated one time.)

GERONTOLOGY (GTY)

GTY 207 Inclusive Recreation (3). A survey of the characteristics and recreational needs of the various types of exceptional children and adults. (Same as REC 207.)

GTY 264 Psychology of Aging (3). The study of the biological, cognitive, affective and social aspects of the aging process. The normal and pathological conditions of aging are emphasized. The interaction of the aged and society is also considered. Prerequisite: PSY 180. (Same as PSY 264.)

GTY 265 Psychology of Death (3). A study of the place of death in the process of human development. Two viewpoints will be stressed: death of self and death of others. Emphasis will be given to the cultural, social, biological and affective aspects related to the final stage of life. Customs, medical practices, financial concerns, legal matters and scientific issues will be considered. Prerequisite: PSY 180. (Same as PSY 265.)

GTY 303 Community Leisure Organizations (3). Study of administrative and leadership procedures related to leisure organizations in the community. (Same as REC 303.)

GTY 305 Services to Older Americans (3). An examination and study of the social problems experienced by older Americans and the modes of social intervention employed by society through the aging network to assist the aging and aged. Prerequisite: junior standing. (Same as SWK 305.)

GTY 340 Sociology of Medicine (3). An examination of sociological perspectives on systems of medical care. Particular emphasis will be placed upon the structure and organization of health care institutions and societal responses to problems of illness and disease. Prerequisite: six hours of sociology or consent of instructor. (Same as SOC/NUR 340.)

GTY 341 Social Gerontology (3). An introduction to the sociocultural dimensions of the problems of the process of aging and its impact on individuals and society. Prerequisite: SOC 133 or consent of instructor. (Same as SOC 341.)

GTY 342 Sociology of Retirement (3). Examination of retirement as a process, an event, and a role. Aspects of retirement as a social institution are reviewed with emphasis upon the implications for the social system. Prerequisite: GTY/SOC 341 or consent of instructor. (Same as SOC 342.)

GTY 400 Independent Studies (3). This course will allow different instructors in the gerontology minor to teach special topics not covered by classes regularly offered. Independent projects will cover a variety of issues, topics and class assignments.

GTY 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

GTY 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

GTY 520 Leisure and Aging (3). Introduction to the physiological, sexual and recreational aspects of aging in American society; exploration of the role of recreation with the aging; emphasis on planning leisure programs with the elderly. (Same as REC/HEA/PHE 520.)

GTY 521 Issues in Social Gerontology (3). A study of theory and research on aging, policies and programs related to nutrition, retirement, health and housing of elderly. Prerequisite: SOC/GTY 341 or consent of instructor. (Same as SOC 521.)

GTY 596 The Minority Elderly (3). This course focuses on the minority elderly including racial, ethnic and lower income groups. Applicable concepts and theories in social gerontology will also be covered. Prerequisite: nine hours of anthropology, gerontology or sociology, or consent of instructor. (Same as ANT 596.)

GUIDANCE (GUI)

GUI 109 Self-Realization and Career Investigation (3). A course developed especially for Student Support Services students as a prerequisite to GUI 100. The course is designed to enhance students’ abilities to examine and identify their values. Decision-making skills which are essential to value clarification, occupation, and course work choices are confirmed through role playing and class discussion. Computer software will be used for the purpose of career investigation. Prerequisite: consent of instructor. Credit earned in this course may not be counted toward graduation requirements.

GUI 100 Self-Development and Career Exploration (1-3). A study of decision-making as it relates to the student’s life experiences. In-class activities teach the concepts of decision-making, time management, career planning, assertiveness and communication skills. Credit for general elective.

GUI 188 Cooperative Education/Internship (1-3). A meaningful, planned and evaluated work experience related to career exploration and educational objectives of the student for which he/she may receive both academic credit and financial remuneration. GUI co-op courses may be repeated to a maximum of four credits and cannot count as an elective toward a major, minor or area. Graded pass/fail. Prerequisites: freshman/sophomore status with permission of instructor and approval of co-op coordinator.

GUI 251 Seminar in Leadership Development and Experiential Activities I (1-3). This course is designed to introduce the dynamics and concepts of leadership and its application. The concepts to be applied will be taught in the class and followed through in university activities. Prerequisite: consent of instructor. May be repeated once for credit. Note: A maximum of six hours of credit may be earned or scheduled from any combination of GUI 251, 252, and 450.

GUI 252 Seminar in Leadership Development and Experiential Activities II (1-3). Continuation of GUI 251. May be repeated once for credit. Note: A maximum of six hours of credit may be earned or scheduled from any combination of GUI 251, 252, and 450.

GUI 288 Cooperative Education/Internship (1-3). A meaningful, planned and evaluated work experience related to career exploration and edu-
Coursess

Coursess

Course explores issues and techniques used in successful planning. HCA 410 Health Care Planning (3). This course prepares administrators and practitioners a basic understanding of health care financial management principles and their application to the practical aspects of managerial decision-making in health care facilities.

HCA 415 Financial Aspects of Health Service Organizations (3). A course designed to provide health care administrators and practitioners a basic understanding of health care financial management principles and their application to the practical aspects of managerial decision-making in health care facilities.

HCA 525 Case Management: Theory and Practice (3). This course will address the theory and practice of effective case management and the skills necessary to assess the client situation and to optimize client functioning. This course will focus on a diverse population of vulnerable clients across various practice settings. The settings emphasized include medical/health, educational, psychiatric and services to the elderly. Policy issues will be addressed, as they relate to advocacy, service planning, and program design. Prerequisite: consent of instructor. (Same as SWK 525)

HUMAN DEVELOPMENT AND LEADERSHIP (HDL)

HDL (GUI) 592 Group Processes (3). A study of the history and characteristics of group processes and structure as well as issues in leadership style and development of a model in small group interaction. May not be used toward school counseling certification.

HEALTH (HEA)

HEA 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail. (Same as CDJ/EXS/NTN/REI 099.)

HEA 190 Personal Health Issues (2). Course designed to educate students about wellness through the acquisition of knowledge, attitudes, and behaviors. The major health-related problems in society are addressed, as well as an understanding of individual developmental patterns and health needs. Broad ranges of factors affecting wellness, including identification of risks and health promotion behaviors, are covered. Topics include, but are not limited to, substance use and abuse, nutrition, sexually transmitted diseases, health risk factors, mental and emotional health, and exercise.

HEA 191 Personal Health (3). This course is designed to educate students about wellness through the acquisition of knowledge, attitudes, and behaviors. The major health-related problems in society are addressed, as well as an understanding of individual developmental patterns and health needs. Personal fitness is assessed and activities that promote lifelong fitness are practiced. A broad range of factors affecting wellness, including identification of risk and health promotion behaviors, are covered. Topics include, but are not limited to, substance use and abuse, nutrition, sexually transmitted diseases, health risk factors, mental and emotional health, exercise.

HEA 195 First Aid and Safety (2). The purpose of this course is to give the student knowledge of the practice of first aid including the performance of cardiopulmonary resuscitation. American Red Cross CPR and First Aid certifications may be earned.

HEA 200 Community and Consumer Health (3). This course is designed to address the foundations of community health. Topics include health through the life span, promoting community health, environmental health protection and health resources and services.

HEA 320 Planning/Effective Health Education Programs (3). This course is designed to address planning for health education and health promotion programs. Topics include theoretical foundations of health, community analysis, establishing priorities, developing goals and objectives, locating resources and services, methodologies to meet identified objectives, program implementation and program evaluation. Prerequisite: permission of chair.

HEA 360 Health Education Services (3). This course is designed to prepare the health education student with the skills necessary to coordinate and provide resources for health education programming and presentation. The purpose is to assist the student in assessing the available health-related services at the local, state and national levels, determining the resources and materials available for use in health education programs, and enhancing coordination and collaboration among personnel in health services and health education programs. Prerequisite: HEA 150 or permission of chair.

HEA 415 Communication Techniques for Health Care Providers (3). Course explores various effective communication techniques for health professionals.

HEA 460 Human Sexuality (3). This course is designed to acquaint students with issues of human sexuality. Topics include gender, sexual anatomy and physiology, love, sexual arousal, response, sexual behaviors and relationships, conception, pregnancy, contraception, sexually transmitted diseases including HIV/AIDS, and sexual victimization. The purpose is to examine human sexuality from biological, psychological, behavioral, clinical and cultural perspectives.

HEA 470 Education for Drug Abuse Prevention (3). This course seeks to develop the student’s concept of drug education through in-depth exploration, research and discussion of problems related to alcohol, tobacco and other drugs. Special emphasis on the effects of abuse for the individual and on the effects of abuse for the individual and society.

HEA 499 Practicum in Health Education (3). A course designed for the student to serve with a community health organization or agency under the direction of faculty and field supervisors. A minimum of 90 service hours are required. Prerequisite: HEA 150 or permission of chair.
HEA 510 Sociology of Sport and Exercise (3). A critical study of the sociological factors affecting sport, performance, and exercise. Students will learn about the social, cultural, environmental, and racial dynamics involved in sport and exercise. This course will also study the effects sport and exercise have on the social structure of society. (Same as EXS/REC 510.)

HEA 511 Epidemiology (3). This course is designed to examine the principles and practices in the cause, prevention and control of diseases in various community settings. Topics covered include an introduction to epidemiological terminology; the measurement of morbidity, mortality and fertility; descriptive and analytic epidemiology; screening; infectious disease; and occupational epidemiology.

HEA 520 Leisure and Aging (3). Introduction to the physiological, sexual and recreational aspects of aging in American society; exploration of the role of recreation with the aging; emphasis on planning leisure programs with the elderly. (Same as GTY/PHE/REC 520.)

HEA 575 Human Sexuality II (3). This course is an advanced study of issues of sexuality including sexual exploitation, sexual victimization, sexual abuse, sexual harassment, altered body image and sexual function, family structures, the law and sexuality issues, and new research in sexual health. Prerequisite: HEA 460 or equivalent.

HISTORY (HIS)

HIS 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Introductory seminar for all first semester history majors. Graded pass/fail.

HIS 110 Special Topics in History for Study Abroad (3). Designed for students enrolled in a study abroad program, History 110 is an academic course involving both traditional classroom learning and experiential learning opportunities in an international setting. This course will cover a particular historical topic, period, personality or problem. Specific subject matter will vary according to student and faculty interest and in relation to study abroad locations and opportunities. Does not count toward History major or minor.

HIS 176 History of the United States Constitution (3). This course will analyze the historical development of the US Constitution from its inception in the late seventeenth century to the present day.

HIS 201 Modern Europe (3). A study of major political, economic, social and intellectual forces in European history, tracing their development through the past five centuries. This course is designed both to provide history majors and minors with background for work in upper-level courses and to acquaint students in other fields of study with the persons, forces and values that have created modern Western civilization.

HIS 221 American Experience to 1865 (3). A thematic approach to the history of the U.S. since 1865, designed as a University Studies social science elective. Three basic themes will be included: the development of Western civilization and the emergence of distinctive American values and institutions; the establishment of the American nation; and the stresses that culminated in the Civil War.

HIS 222 American Experience Since 1865 (3). A thematic approach to the history of the U.S. since 1865, designed as a University Studies social science elective. Students will examine three themes: the forces that transformed America from a predominantly rural, agricultural society to a predominantly urban, industrial one; the rising political consciousness of various American groups and the expanding regulatory role of the federal government; and the emergence of America as a world power.

HIS 300 Introduction to Historical Studies (3). Introduction to the methods by which historians study the past and present their conclusions to the public. Students will be expected to write a research paper in which emphasis will be placed on developing research skills, organizing the results in a coherent form, and developing an effective writing style. Required for history majors as a prerequisite for 400-level courses and recommended for anyone interested in developing research and writing skills. Prerequisites: ENG 101 and 102 or ENG 105 or 150, two of the following or transfer equivalents: CIV 202, HIS 221, or 222.

HIS 301 Ancient History to the Fall of Rome (3). A study of the Near East, Greece and Rome with particular emphasis on the influences of these civilizations on modern Western civilization. Particular attention will be paid to the development of democratic and republican forms of government.

HIS 302 Medieval Europe (3). A survey of the major events in Western history from the Fall of Rome to the Renaissance, with special emphasis on those political, economic, social and cultural-intellectual forces and institutions that helped form the modern world outlook. (Same as RGS 302.)

HIS 303 The Making of Britain (3). This course surveys primarily the political and constitutional history of England from the period of Roman Conquest to the victory of Henry VII in the War of the Roses. The development of the theme of a united government will be its main emphasis.

HIS 304 The History of Ireland (3). A systematic investigation of the history of Ireland from the first human habitation, with an emphasis on the period since 1500. The course will look at the development of, and interactions among, the various cultural/religious traditions of Ireland and the long struggle of the Irish people to attain self-government.

HIS 305 The Irish Diaspora (3). A systematic study of the dispersal of Irish people around the world, focusing on their interaction with the various host cultures they have encountered both as settlers and in other roles. Particular attention will be given to the Irish on the European continent and in Britain, the United States, Canada, Australia, South Africa, and South America, especially Argentina.

HIS 306 Europe in Renaissance and Reforma tion (3). A survey of the development of Western Europe, emphasizing the Protestant and Catholic Reformations, the Crisis of the seventeenth century, the Scientific Revolution, the English Revolutions of the seventeenth century, and France under Louis XIII and XIV. (Same as RGS 306.)

HIS 307 The Foundation of Russian Power (3). A study of Kiev Rus, the Mongol invasion of the thirteenth century and its impact on later Russian development, the Rise of Moscow, Westernization currents of the seventeenth century, Russia under Peter the Great and Catherine the Great. Emphasis will be placed upon social-intellectual developments and the problem of serfdom.

HIS 309 Survey of World Religions (3). A study of the historical development of Christianity, Islam, Buddhism, and other world religions, with special attention to their similarities and differences. (Same as RGS 309.)

HIS 310 Sociology of Sport and Exercise (3). A study of the Near East, Greece and Rome with particular emphasis on the influences of these civilizations on modern Western civilization. Particular attention will be paid to the development of democratic and republican forms of government.

HIS 312 History of Religion in the United States (3). The historical development of organized religion in America, with special attention to the relationships between religion and other features of American society. (Same as RGS 322.)

HIS 323 The Great American West (3). A survey of the westward movement from the Mississippi River to the Pacific Ocean, beginning with the Lewis and Clark expedition in 1804 and ending with the closing of the frontier in 1890. Emphasis is placed on the political and economic development of the Trans-Mississippi region; attention will also be devoted to biography, social, institutions, and folkways.

HIS 324 Science in the Modern World (3). A survey of the development of science in the Western world from Newton to the present.
HIS 325 Disease in History (3). This course investigates the impact of disease on human society from ancient times to the 20th century. We explore how societies of the past have responded to both epidemic and endemic diseases, including plague, cholera, leprosy, influenza, syphilis, smallpox, and HIV. We also examine the history of germ theory, the development of biological weapons, and future threats to human health.

HIS 327 America's Eastern Frontier to 1830 (3). A survey course that examines the European invasion during the contact era from the Atlantic Tidewater to the Mississippi River, the conquest and consolidation of the pre-colonial America to nationalism, and ends with Indian Removal in 1830. Emphasis is placed on the frontier experience, cultural, social, and ethnic issues, population movements, the expansion of American ideals and institutions, and the history of American Indians.

HIS 329 The American Indians (3). A history of the Indians of North America from the earliest times until the late nineteenth century. This course focuses on the cultures, customs and traditions of the various Indian civilizations of the United States. (Same as ANT 329.)

HIS 330 Sports in America (3). This course will offer a survey of the institutional development of American sports from the colonial period to the present. It will focus on the major spectator sports and emphasize the role of professional sports as an institution of social mobility, the development of race relations, the bureaucratization and professionalization of sports as an entertainment industry, and the struggle of athletes for collective bargaining rights.

HIS 333 Military History of the United States (3). A consideration of American military history from colonial militias through the role of the military in Vietnam. Topics covered include the causes of war, methods of recruitment, military policies, and the effect of the industrial revolution and technology on war. (Same as MIL 333.)

HIS 334 History of American Agriculture and Rural Life (3). An exploration of the historical development of rural America from colonial times to the present. Emphasis will be placed on the impact of different crops on regional economic growth, organizational and technological changes in farming, urban-rural relationships, the role of government in agriculture, and the rural community in modern America.

HIS 340 Modern East Asia (3). This course is designed to provide undergraduates with an introduction to the history of the major countries of the Far East. The development of modern China and Japan will be examined, with special attention given to their varying responses to both western intrusion and internal social problems, from the seventeenth century to the present.

HIS 350 History of Latin America (3). A survey of Latin American history from pre-colonial times to the present. Special attention will be given to the early Indian Civilizations, Spanish colonization, the struggles for independence and the problems of Latin American nations in the modern world.

HIS 352 (250) 20th Century World (3). A history of the 20th Century world from the age of High Imperialism to the end of the Cold War, the subsequent globalization (economic, political, technological, environmental) and conflicts emerging from resistance to that process.

HIS 354 Ancient Middle East (3). A survey of Middle Eastern history from prehistoric times to the end of the Classical period; included are the emergence and development of civilizations in Mesopotamia and Egypt, the origins and influence of Judaism, Zoroastrianism and Christianity, and the decline of Classical civilizations prior to the coming of Islam. (Same as RGS 354.)

HIS 355 Islamic Middle East (3). History of the Middle East from the 7th century to the 19th century. The course will examine the apostleship of Muhammad, the question of succession and the Sunni-Shi‘ah schism, the government, society, and culture of the High Caliphate, the decline of Arab power and the rise of the Turks, the Islamic perspective of the Crusades, the revival of Islamic power under the Gunpowder Empires, and the decline of Islamic civilization in the face of Western expansion. (Same as RGS 355.)

HIS 359 Early India (3). The course examines the formation of India’s traditions, cultures, and identities from c. 2500 B.C.E. to c. 1500 C.E. and analyzes the various approaches and perspectives that have contributed to our knowledge of this ancient past. An interdisciplinary approach is emphasized to better appreciate the rich diversity in art, literature, religions, and languages that accompanies the political, economical, and social changes of this period in India’s distinctive regions and locales. Prerequisite: CIV 201 or 202.

HIS 360 Modern India (3). Course surveys the historical development of the peoples, nations and cultures of the Indian subcontinent since the seventeenth century. The course begins with the Mughal period, then examines British colonial rule, independence movements and Partition, and concludes with an analysis of the problems of post-colonial nation-state building. The major themes and topics considered include representations of tradition and modernity in identity, culture and community, tensions between political and economic centralization and regionalism, and continuity and change in the organization of state, society and economy in imperial, colonial and postcolonial India. Prerequisite: CIV 201 or CIV 202.

HIS 361 Teaching History (3). A course offering practical approaches for teaching history in the public schools using a concepts-and-problems approach. The course will focus on either the history of the United States or world history, and therefore could be taken twice for credit if the focus is different the second time. Does not count toward the major in history. Consult the department chair.

HIS 370 History of Africa (3). A survey of the main trends in African history from the origins of man through the successes of African nationalism in the mid-twentieth century. Emphasis will be placed on the development of African civilizations, their interaction with Islamic and European civilizations, and the adaptations resulting from those contacts.

HIS 380 Introduction to Public History (3). An introduction to the various areas in which historians work outside academe, including museums, historic preservation programs, archives and special collections libraries, and oral history programs, among others.

HIS 390 Special Topics (3). A course designed as an elective for the general student; it will cover a particular topic, period, personality or problem of the past. Specific subject matter varies from semester to semester, according to student and faculty interest. Open to history majors and minors with approval of the instructor. Repeatable with permission.

HIS 400 Senior Seminar (3). This course is designed to accomplish three objectives: (1) presentation and evaluation of senior research projects; (2) examination of career opportunities for history majors and use of the University Placement Office; and (3) assessment of the history major through a comprehensive departmental examination. Required for all majors. Prerequisite: HIS 300 and senior standing.

HIS 401 The French Revolution (3). This course has three main areas of emphasis: eighteenth-century French society and culture, the causes of the French Revolution, and the career of Napoleon Bonaparte. The course’s main theme is that the Revolution was a watershed in history.

HIS 402 Nineteenth-Century Europe (3). A social, political and cultural history of Europe’s great age, the period from the French Revolution and Napoleon to the outbreak of the First World War.

HIS 403 Europe Since 1914 (3). A study of consequences of World War I, the emergence of bolshevism and fascism, the impact of the depression and World War II, and the transformation of Europe since 1945, together with some consideration of European thought in the twentieth century.

HIS 406 Europe Since 1945 (3). An advanced survey of the history, politics, and culture of post-WWII Europe. Particular attention will be given to the Cold War, the rise of the European welfare state, the formation of the European Union, and the challenges faced by an increasingly cosmopolitan Europe in the twenty-first century.

HIS 408 The Rise and Fall of the Soviet Union (3). This course begins with the aftermath of the Revolution of 1905. World War I and the abdication of Nicholas II receive close attention, as do the Bolshevik Revolution, the Civil War, the New Economic Policy, and the Stalin Revolution of the 1930s. We study World War II and its impact on the USSR, as well as Stalin’s last years and the unsuccessful attempts to reform his system. The course ends with the collapse of the Soviet Union in 1991 and Russia’s struggle to adapt democracy and capitalism to her needs.
Courses

HIS 409 Tudor and Stuart England (3). A study of the molding of the English monarchy and of the eclipse of its authority by the social and political groups which came to dominate Parliament by the seventeenth century.

HIS 410 Modern Britain (3). A study of Britain since the Stuarts, including its age of greatness in the nineteenth century and its decline in the twentieth century. Political and cultural history are emphasized.

HIS 411 Modern France (3). A study of political traditions which have divided French people, challenges posed to the Third Republic, and the transformation of French society since World War II.

HIS 412 Modern Germany (3). A study of the political, social and intellectual causes and consequences of German unification that attempts to answer the question, Why Hitler? Includes discussion of Germany since 1945.

HIS 414 Europe During World War I and World War II (3). An introductory survey of European history from 1914 to about 1945. It will describe and analyze the events leading to both World Wars as well as some of the consequences of those wars, delineating the major military figures and the military history of the World Wars.

HIS 415 Women in History (3). An examination of the position and contributions of women in history. Topics will vary.

HIS 416 Women in American History to 1877 (3). This course surveys the history of women in the United States from the colonial period through Reconstruction.

HIS 417 Women in American History since 1877 (3). This course will examine the position and contributions of women in American society from 1877 to the present from the perspective of the major trends in American history. It will focus on the history of women in each period, while emphasizing several particular themes and trends.

HIS 418 World War II in Asia and the Pacific (3). The course will examine the origins of the course of the war that began in Manchuria in 1931, expanded to China south of the Great Wall in July of 1937, from there to Pearl Harbor, Southeast and South Asia and the Pacific Islands by late 1941, and ended at Hiroshima and Nagasaki.

HIS 421 United States Social and Cultural History to 1865 (3). The development of American society and thought since the colonial period to the end of the Civil War. Special emphasis is placed upon the forces that have shaped the daily lives of the American people: immigration, religious traditions, the frontier, economic change, ethnic diversity, slavery and war.

HIS 422 United States Social and Cultural History Since 1865 (3). The development of American society and thought since the end of the Civil War. Emphasis is placed upon the forces that have shaped the daily lives of the American people: racial and ethnic diversity, industrialization and urbanization, immigration, mass media, religious traditions and modern transportation.

HIS 424 United States Foreign Relations Since 1898 (3). An analysis of the United States' relations with other nations since 1898. Special emphasis is placed on the role of "ideals and self-interest" in foreign relations.

HIS 425 Science and Religion (3). A survey of the relationship between science and religion in Western culture from ancient Greek times to the 20th century, with particular emphasis on how science has been influenced by both religious faith and religious institutions. (Same as RGS 415.)

HIS 430 Colonial America to 1763 (3). An explanation of the transplantation of European and African culture to the United States, the adaptation of these cultures to the New World environment, their impact upon eastern Indian cultures and the rise of distinctly American institutions and ideas. The course will emphasize the evolution of English colonial policies and the comparison of New England, Middle Atlantic and Southern colonial experiences.

HIS 431 America in Revolution (3). Spanning the revolutionary and early national periods of American history, this course focuses upon the United States' transformation from colonies to a nation. It emphasizes the American struggle for independence, economic as well as political, and the clash of values, interests and ambitions that produced the American system of government.

HIS 432 Jacksonian America and Sectional Conflict (3). Covers the period from 1815 to the presidential election of 1860 and the break-up of the union. Emphasis is on the political, social and economic conditions as they related to the sectional controversy that raged during this part of the nineteenth century. Some specific topics include the rise of the common man, the Jacksonian era, slavery and the abolitionist movement.

HIS 433 Civil War and Reconstruction (3). Covers the period from the beginning of the Civil War to the presidential election of 1877. If the course has a distinguishing emphasis, it is on political history, but the course gives due attention to military, economic and social history.

HIS 435 Transformation of America 1877-1929 (3). A study of the transformation of the United States from an agricultural to a modern industrial nation. Topics included within this broad theme are the rise of big business and labor unions, urbanization, immigration, the closing of the frontier, reform movements, the struggles of blacks and women for equal rights, national politics and cultural changes.

HIS 436 Recent America (3). A study of the Great Depression, the New Deal, World War II, and the subsequent forces that have shaped contemporary American life. Emphasis is placed on the role of the United States in international relations, the civil rights movement, and domestic economic developments.

HIS 441 History of the Old South (3). A survey of southern history from colonial times through the Civil War. Emphasis is placed on examining slavery, social life, the emergence of southern nationalism, and the South during the Civil War.

HIS 442 History of the New South (3). A survey of southern history from the end of the Civil War to the present. Emphasis is placed on the enduring characteristics of the South as well as the process of change since World War II.

HIS 445 History of Race Relations in the United States (3). An examination of the social, political and economic influences upon race relations in the United States from the colonial era to the present. Emphasis will be placed on the sources of change in race relations, the various forms of racial discrimination, and the responses to discrimination in American history.

HIS 446 History of Kentucky (3). The process of political, economic and social evolution in Kentucky is traced from early settlement to the modern era. Geographical influences upon the patterns of Kentucky development, Kentucky's changing role within an expanding union, and the Commonwealth's participation in national movements and events are stressed.

HIS 450 Modern Africa (3). A study of Africa since about 1880, including the transformation of African societies in contact with other cultures, the growth of nationalism and nationalist movements, and the questions of African unity and neocolonialism. (Same as POL 450.)

HIS 451 Slavery and Africa (3). An advanced survey of the history of slavery in Africa and the African diaspora. This course closely examines the period from 1400 to 1800, as well as slavery in Africa in the nineteenth and twentieth centuries. Particular emphasis will be given to the effects of slavery on the social and political fabric of Africa and the world beyond.

HIS 455 Middle East since 1800 (3). A study of the Middle East from 1800 to the present, with emphasis on the historical and political forces that have affected and still influence the region. (Same as POL 455.)

HIS 456 The Arab-Israeli Conflict (3). Study of the historical background to the conflict between the state of Israel and the Arab states. Examines the origins of Zionism and of Arab nationalism in the 19th century, the phases of Jewish settlement in Palestine, the consequences of the First World War for Zionist and Arab nationalist movements, the British Mandate in Palestine, the Israeli war for independence in 1948, Nasserism, the Suez War, the Six-Day War, the invasion of Lebanon, the Intifada, and the possibilities for peace.

HIS 472 Modern China (3). A study of the political, economic, social and intellectual forces in modern China from 1850 to the present. This course is designed to provide the student with an in-depth knowledge of the major civilization of East Asia.
HIS 474 China in Revolution (3). A study of the last decade and collapse of the Qing dynasty and China’s subsequent search for unity and political form, beginning with the Republic, proclaimed in 1912, and ending with the Tiananmen massacre of 1989.

HIS 475 Modern Japan (3). The cultural and political history of Japan from its unification under the Tokugawa Shogunate to the present. Major topics examined include the Japanese success in meeting the challenge of Western imperialism in the nineteenth century, Japan’s own venture into imperialism on the Asian mainland in the twentieth century, and the Japanese economic phoenix in the postwar era.

HIS 476 The World Since 1945 (3). A survey of new directions in modern history, particularly the rise of the USA and the USSR as world powers and the end of the colonial empires of Asia and Africa. This course will discuss the Cold War through international relations, the escalation of wars in Southeast Asia, Africa, Latin America, and the Middle East, as well as rival strategies for economic and cultural development in the post-war world.

HIS 477 Hollywood History (3). A critical, analytical examination of the portrayal of the past in films and how movies shape popular perceptions of history.

HIS 478 Comparative Civilizations after 1500 (3). Comparative analysis of civilizations after 1500. The course will introduce comparative methodology and analyze values and institutions across cultural boundaries. Particular attention will be given to comparative change within Asian, African, and Western civilizations during the era of Western expansion. Prerequisites: CIV 201 and 202 or equivalent world history survey.

HIS 479 (500) Comparative History Topics (3). This course is designed to provide upper-class students with specialized studies of topics (such as racism, industrialism, nationalism and revolution) that cross national, class and chronological boundaries. Topics offered will vary with interests of students and instructors. May be repeated for credit with permission of chair and instructor.

HIS 481 Revolutionary Mexico 1810 to the Present (3). An in-depth examination of Mexico’s history since 1810. Emphasis will be given to economic development and diplomacy during the Diaz regime, the role of culture and North American influence in Mexico’s development, and the coming of the 1910 revolution and the one-party state.

HIS 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience located in the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

HIS 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

HIS 490 History Study Abroad (1-3). Course will offer students a direct experience of history through a study abroad program linked to a standard, semester-long co-requisite upper or lower level history course. Course will give students opportunities to travel abroad in a structured program to historic sites and museums related to the subject matter of the co-requisite course. May be repeated for up to six hours. The instructor reserves the right to admit students who have completed the co-requisite course as well as MSU faculty/staff. Corequisite: HIS 490 must be taken with a semester-long history course designated for that purpose. Prerequisite: HIS 300 or consent of instructor.

HIS 491 Domestic Travel History (1-3). Offers students a direct experience of history through a focused travel program linked to standard on-campus history course. This is intended to supplement normal classroom learning activities by giving students opportunities to visit historic sites and museums related to the topic or time period of the course. May be repeated for up to six hours. Co-requisite: Must be taken with a semester-long history course designated for that purpose. Prerequisite: HIS 300 or consent of instructor.

HIS 492 Historic Preservation (3). This course will provide a general overview of the different aspects of historic preservation, including downtown revitalization, neighborhood organization, historic house management, preservation legislation, preservation education and historic architecture. Much of the class is taught in a laboratory atmosphere, with students making on-site visits to a variety of historic preservation projects. Emphasis is given to the study of the development of American architectural styles, so that students can recognize historic houses and places them in a wider context.

HIS 493 Archival Principles and Practices (3). An in-depth introduction to the care of historical materials, including archives, manuscripts, photographs and ephemeral items.

HIS 494 (599) Historic Interpretation Internship (3). This course will provide on-the-job training in historical interpretation for museums, public or private agencies and historic sites. Each student will be placed in an internship (generally for 12 weeks in the summer) in which he or she will work in an interpretative capacity and conduct a major research project related to the historic interpretation programs of the agency. The student will present the results of this research in a formal paper to a designated advisor in the Department of History. This course will count as a part of the major, but no student will be permitted to repeat the course for credit.

HIS 498 Museum Studies (3). This course will provide a broad introduction to the field of museum work. Topics included will be the history and philosophy of museums; the social, economic and political trends that shape museums; the staffing, management and financing of museums; and the multiple functions of museums—collection and care of objects, exhibition design and interpretation, educational programs, research activities and public relations. (Same as ARC 598.)

HIS 499 (590) Directed Studies (3). Individualized instruction for the exceptional student. May be repeated for credit. Prerequisite: permission of department chair.

HONORS COURSES (HON)
Note: Courses with an HON prefix are open only to Honors Program students.

HON 100 Interdisciplinary Humanities and Fine Arts (3). Introduction to ways of knowing, issues, and practices in selected humanities and fine arts disciplines, including philosophy, literature, history, art, music, and theater. The course is open only to students in the Commonwealth Honors Academy. The work of the various disciplines and different sections will be rotated and organized around a general theme each time the course is offered. Prerequisite: acceptance into the Commonwealth Honors Academy.

HON 101 Topics in Business and Public Affairs (3). Introductory course treating topics or issues in one or more of the following areas of study: economics, management, marketing, finance, accounting, or computer science. Prerequisite: Admission to the Commonwealth Honors Academy.

HON 102 Topics in Communication (3). Introductory course treating topics or issues in one or more of the following areas of study: organizational communication, radio-television, print journalism, advertising, or public relations. Can not count as a JMC course (minor or major) or as a liberal arts limited elective for JMC students. Prerequisite: Admission to the Commonwealth Honors Academy.

HON 106 Topics in Science, Engineering and Technology (3). Introductory course treating topics or issues in any of the following areas of study: biology, physics, chemistry, engineering technology, geosciences, geology or...
mathematics. Open only to students enrolled in the Commonwealth Honors Academy.

HON 107 Topics in Agriculture and Animal Science (3). An introductory course treating topics or issues in any of the following area of study: agriculture, animal science, or animal health. Prerequisite: Admission to the Commonwealth Honors Academy.

HON 110 Special Honors Topics (3). A special topics elective course that will introduce students to concepts, issues, and practices in one of the academic disciplines. Prerequisite: Admission to the Commonwealth Honors Academy.

HON 161 Honors Seminar in Visual Arts (3). An exploration of the importance of the visual arts in human culture through visual presentations, readings, discussion and participation. Open only to students in the Honors Program. A University Studies fine arts elective. A student cannot have credit for both this course and ART 121.

HON 162 Honors Seminar in Music (3). An exploration of the importance of music in human culture through aural presentation, reading, discussion, and participation. Open only to students in the Honors Program. A University Studies fine arts elective. A student cannot have credit for both this course and THD 104.

HON 163 Honors Seminar in Theatre (3). An exploration of the importance of theatre in human culture through reading, attendances at dramatic interpretations, discussion, and participation. Open only to students in the Honors Program. A University Studies fine arts elective. A student cannot have credit for both this course and THD 104.

HON 164 Honors Seminar in Arts and Culture Abroad (3). An interdisciplinary exploration, in study-abroad settings, of the visual arts, architecture, music, theatre, and cinema. Classes will consist of lectures, discussions, and presentations based on cultural experiences of the fine arts abroad, with related readings. Research and critical writing will be emphasized. Assignments will include class excursions, museum visits, and attendance at concerts, plays, and films. Prerequisite: Open only to students in the Honors Program as a fine arts elective.

HON 165 Honors Seminar in Communications (3). An exploration of interpersonal communication and public address skills necessary for personal and professional success. A university studies communication and basic skills elective. A student cannot have credit for this course and COM 161 or COM 181. Prerequisite: must be enrolled in the Honors Program.

HON 180 Honors Seminar in Psychology (3). A basic survey introducing the student to Psychology as a science that can be applied to practical problems and everyday issues by learning the methods, concepts, and terminology of the discipline.

HON 201 Honors Seminar in Social Science I (3). An interdisciplinary course involving readings and discussion of environmental, social, economic, and political influences and developments in the major civilizations of the world prior to 1500 A.D. Open only to students in the Honors Program. Fulfills three hours of the world civilizations University Studies requirement in place of CIV 101. A student cannot have credit for both this course and CIV 101.

HON 202 Honors Seminar in Social Science II (3). An interdisciplinary course involving readings and discussion of environmental, social, economic and political influences and developments in the major civilizations of the world since 1500 A.D. Open only to students in the Honors Program. Fulfills three hours of the world civilizations University Studies requirement in place of CIV 102. A student cannot have credit for both this course and CIV 102.

HON 232 Honors Seminar in Economics (3). An introduction to the application of the basic principles of supply and demand to issues in aggregate economics and to the behavior of individual economic agents. Open only to students in the Honors Program. A student cannot have credit for this course and both ECO 230 and 231. Prerequisites: MAT 117, 140, 150, or 220; or and ACT math standard score of at least 23; or consent of instructor.

HON 251 Honors Seminar in Literature and Philosophy I (3). An exploration of the roots of modern ethics and values through intensive study, in a lecture/precept setting, of the world’s literary and philosophical works from the ancient to the modern era. Open only to students in the Honors Program. Fulfills three hours of the humanities University Studies requirement in place of HUM 211. A student cannot have credit for both this course and HUM 211.

HON 252 Honors Seminar in Literature and Philosophy II (3). An exploration of modern ethics and values through intensive study, in a lecture/precept setting, of the world’s literary and philosophical works in the modern to post-modern eras. Open only to students in the Honors Program. Fulfills three hours of the humanities University Studies requirement in place of HUM 212. A student cannot have credit for both this course and HUM 212.

HON 255 Honors Seminar in Literature and Philosophy I (3). An exploration through readings and discussion of various topics in the history and philosophy of science. Open only to students in the Honors Program. Prerequisite: four hours of lab sciences to be approved by the Honors Program Director.

HON 262 Honors Seminar in Mathematics (3). An exploration through guided discovery activities and discussion of various topics in the history and methods of mathematics. Open only to students in the Honors Program. Prerequisites: Enrollment in the Honors Program and the completion of at least one university studies mathematics course.

HON 351 Honors Seminar in International Affairs (3). An examination of selected international issues and problems with particular reference to students’ international study experiences. Open only to students in the Honors Program.

HON 355 Honors, Independent Study Abroad (3). This course is designed for those students who elect to engage in an individualized study or project which will provide an international experience. It may take the form of an exchange, internship, and/or extended research study. Permission for enrollment and course requirements must be secured from the academic department sponsoring the study and approved by the Honors Program.

HON 364 Advanced Honors Seminar in Arts and Culture Abroad (3). An advanced interdisciplinary exploration of the visual arts, architecture, music, theatre, cinema, and folk and popular culture. Offered only in study-abroad programs sponsored by Murray State University. There will be at least 37 contact hours in a formal classroom setting, and additional “lab” requirements that will depend upon cultural offerings in the program locale and in excursion destinations. This course will be cross-listed with HON 164, but substantial additional independent research and critical writing will be required. Open only to students with junior-level standing, with at least 3 hours previous credit in the fine arts, and with at least a 3.0 cumulative GPA at the time of application to study-abroad program.

HON 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

HEALTH AND PHYSICAL EDUCATION (HPE)

HPE 175 Foundations of Health and Physical Education (3). Designed to provide an overview of health and physical education. This will examine the scope, history, philosophy, aims and objectives of health and physical education programs as well as career opportunities in the field.

HPE 409 Evaluation and Assessment in Health and Physical Education (3). Basic statistical techniques and paper/pencil testing methodologies applicable to health and physical education plus other physical and mental testing techniques commonly employed in these fields. Various physical and skill tests will be covered. Prerequisite: HPE 175.

HPE 450 Teaching Strategies in Health Education (3). This course is designed to address comprehensive school health education. Topics covered include the health status of children, adolescents and young adults; Healthy People 2000: school health services; school health education; program goals and objectives; and instructional strategies. Content covered in the school health education program: mental/emotional health; life skills; family and relationship skills; human sexuality; growth and development; nutrition; personal fitness; substance use and abuse; diseases and disorders; consumer health; safety and injury prevention; and community and environmental health. Prerequisite: HPE 175.
HPE 460 Teaching Strategies in Sex Education (3). This course is designed to address comprehensive sex education in schools, including human sexuality, sexual anatomy, and physiology; sexual arousal and response; sexually transmitted diseases including HIV/AIDS; contraception; conception; pregnancy; gender roles; sexual communication; love and intimacy; behaviors and relationships; and sexual victimization.

HPE 470 Teaching Substance Abuse Education (3). This course is designed to address comprehensive drug education programs in schools and community settings which include drugs, violence, and wellness; factual account of drugs; alcohol, tobacco, and well-being; prevention and treatment of drug abuse; and instructional strategies. Topics covered in this course will include promotion of responsible and healthful behavior; drug actions and reactions; stimulant, sedative-hypnotic, and narcotic drugs; marijuana, hallucinogens, inhalants, over-the-counter, and prescription drugs; anabolic steroids; alcohol; tobacco; prevention and treatment of drug abuse; drug education curriculum. Prerequisite: HPE 175.

HPE 480 Special Problems in Health and Physical Education (1-3). Repeatable with permission of advisor and chair. Prerequisite: HPE 175.

HUMANITIES (HUM)

HUM 205 The Humanistic Tradition Abroad (3). Study of traditional ideas and values as reflected in various international cultures; specific content will vary. Satisfies University Studies humanities elective requirement. Prerequisite: concurrent enrollment in study abroad program approved by Murray State University.

HUM 211 The Western Humanities Tradition (3). An exploration and analysis of the major ideas and questions in the humanities, as these have been expressed in works from the ancient past to the modern world. A student cannot have credit for both this course and HON 251. Prerequisite: ENG 105 or 150 or equivalent.

HUM 212 The Humanities in the Modern World: Diversity (3). An exploration of humanistic themes as reflected in literary and philosophical works of the modern period. A student cannot have credit for both this course and HON 252. Prerequisite: ENG 105 or 150 or equivalent.

HUM 215 Humanities in the Contemporary World: Border Crossings (3). A study of one or several contemporary global issues through poetry, fiction, drama, film, non-fiction, and other artistic expressions from a variety of world cultures. Prerequisite: ENG 105 or 150 or equivalent.

INTERDISCIPLINARY COURSES (IDC)

IDC 099 Transitions—Undeclared Majors (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail.

IDC 150 Issues in Sustainability Studies (1). Course helps students increase awareness of timely issues and topics regarding sustainability. Class meetings will include guest speakers from the university and local region, and topics may be local, national, and/or global relevance.

IDC 199 Residential College Seminar (1). A course to provide the student with an opportunity to explore a stimulating topic in a small group setting within a residential college. Seminar topics will vary. May be repeated for up to three hours of credit.

IDC 300 McNair GRE/Graduate School Preparation (1). Preparation for the Graduate Record Exam and exploration of graduate school application procedures and techniques, and personal career objectives, through readings, discussion, personal reflection, and class presentations. Open only to McNair Scholars.

INDUSTRIAL AND ENGINEERING TECHNOLOGY (IET)

IET 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Meetings with advisors, departmental personnel, service areas, and campus field trips comprise the main involvement. Availability of the University resources is stressed with emphasis on personal needs. Graded pass/fail.

IET 125 Analytic Methods in Engineering Technology (3). Introduction to problem-solving methods used in engineering technology. Graphing, mathematical modeling and presentation of analysis results. Includes use of spreadsheet, equation solver, and analysis software. Prerequisite: MAT 130 or MAT 150.

IET 380 Professional Internship I (1-3). Work experience or training in industry. Evaluation of experience made by department. Graded pass/fail. Prerequisite: junior standing or consent of instructor.

IET 381 Professional Internship II (3). Work experience or training in industry. Evaluation of experience made by department. Graded pass/fail. Prerequisite: junior standing or consent of instructor.

IET 397 Undergraduate Research (3). Research projects arranged individually with faculty members who agree to direct the research. A written plan of research must be filed with the instructor within two weeks of the beginning of the semester. A written summary of the research performed, data obtained, and conclusions following from the work must be submitted not later than the final week of classes. May be repeated for credit. Prerequisites: Junior standing and permission of the instructor.

IET 399 Professional Development Seminar I (1). Seminar for students of industry and technology programs. Focusing on the job search process, employment opportunities, and related problems. Recommended for students in the sophomore or junior year. Graded pass/fail.

IET 419 Senior Project (3). A course in which the student assumes the responsibility of design of a technology project utilizing the knowledge gained from previous coursework. Complete documentation of the project is required. Prerequisite: senior standing. (Fall and Spring)

IET 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

IET 481 Supervised Work/Observation (1-4). Assignments individually made, with university approval, to afford opportunities for supervised employment in industry. Agreement by both the university and participating employer as to extent and nature of the experience prerequisite to actual assignment, with credit to be determined accordingly.

IET 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: consent of instructor.

IET 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: consent of instructor.

IET 491 Technology Management and Design (3). The capstone course requires analyses and design of manufacturing, civil, environmental, electrical and computer systems. It requires analyses of management philosophies from conceptualization to implementation of engineering projects. Students are teamed based upon academic concentration and teams are coupled with industrial representatives. Each team produces a viable industrial design. Prerequisite: senior standing.

IET 499 Professional Development Seminar II (1). Seminar for students of industry and technology programs, focusing on the transition to the world of work and related problems. Recommended for students in the senior year. Graded pass/fail. Prerequisite: IET 399.

IET 551 Introduction to Electrohydraulic Motion Control (3). An introduction to the integration of the basic principles of hydraulics, electronics, controls and system dynamics as they pertain to electrohydraulic motion control.

IET 571 Problems in Industrial and Engineering Technology (3). Individual study and research pertaining to special problems in industrial and engineering technology. Prerequisite: consent of instructor.

IET 575 (578) Workshop in Industrial and Engineering Technology (1-4). Workshops on topics pertinent to industrial and engineering technology. May be repeated for additional credit.

IET 576 (596) Industrial Relations (3). Industrial relations responsibilities, procedures, and applications in job evaluation, wage surveys, union negotiations, hiring, employee counseling, and affirmative action awareness. Prerequisite: junior standing.

IET 582 (592) Production Systems and Computer Integrated Manufacturing (4). Includes a survey of various topics in production, automation and related systems such as flow-line production, numerical control, industrial robots, computer-aided manufacturing, process monitoring, flexible manufacturing systems and computer-integrated manufacturing. Three hours lecture and two hours lab. Prerequisites: EMT 261, 262 and TSM 110.

IET 584 Engineering Economic Analysis (3). Economic evaluation and financial analysis of engineering alternatives to optimize the engineering decision process.

IET 587 (597) Quality Control (3). Examines the various aspects of quality control from the viewpoint that product and service quality requires managerial, technological and statistical concepts throughout all the major functions in an organization. Prerequisite: CIS 243 or MAT 135.

IET 591 Materials Management (3). The design of an organizational and managerial system to balance the conflicting interests in the company in the considerations of quality, quantity, delivery and cost of materials with the aim of optimizing the return of the materials investment.

INTERNATIONAL STUDIES (INT).

INT 099 International Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Course to provide international students with information and experiences necessary for successful adjustment to life in the U.S. and at Murray State University. The course will include MSU facilities, American culture and educational systems, health care, culture shock, government regulations, international student organizations, and the Murray community. Similar to Transitions required of all American students. Required of all matriculating international students. Graded pass/fail.

INT 310 International Student Exchange (3-15). Individual study abroad through a Murray State sponsored program as administered by the Institute for International Studies; pre-approval within specific disciplines required; pass/fail. Prerequisite: consent of academic advisor and pre-approval by instructors prior to registration; undergraduate level.

INT 510 International Student Exchange (3-15). Individual study abroad through a Murray State sponsored program as administered by the Institute for International Studies; pre-approval within specific disciplines required; pass/fail. Prerequisites: consent of academic advisor and pre-approval by instructors prior to registration; senior level.

INDUSTRIAL TECHNOLOGY AND DESIGN (ITD).

ITD 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Course to provide international students with information and experiences necessary for successful adjustment to life in the U.S. and at Murray State University. The course will include MSU facilities, American culture and educational systems, health care, culture shock, government regulations, international student organizations, and the Murray community. Similar to Transitions required of all American students. Required of all matriculating international students. Graded pass/fail.

ITD 101 Introduction to Design and Graphic Communications (4). An introduction to the fundamental theory and practice of technical design communication, engineering sketching and CAD drafting conventions. Techniques are presented with emphasis on both theory and practical applications. The course includes an introduction to product design, the engineering design process, orthographic projection of product geometry and dimensioning/specifications. Lecture and laboratory-six contact hours.

ITD 102 CAD Applications (3). An introductory course with emphasis in multiview projection for mechanical components and the design file creation using 3D parametric modeling. Cannot be taken for credit by ITD/Engineering Graphics and Design majors/minors.

ITD 103 Technical Sketching (2). Techniques of freehand and sketching. Delineation and rendering in two and three dimensional drawings. Lecture and laboratory.

ITD 104 Computer Aided Design (4). An intermediate course in the theory and practical applications of computer aided systems for drafting/design fields. A review of two-dimensional drawing techniques is presented followed by three-dimensional drawing techniques with emphasis on wireframe, surface and solid modeling. An introduction to parametric design is included. This course includes hands-on experience on interactive graphics equipment. Lecture two hours; laboratory four hours. Prerequisite: ITD 101 or ITD 107. (For ITD students only.)

ITD 107 Introduction to Technical Drawing and Computer Aided Drafting (4). A survey course in conventional and computer aided drafting theory and practice. The application of design principles, multi-view drawing techniques and precision use of conventional drafting equipment will be complemented by an introduction to computer aided drafting software, including setting up, drawing, editing, saving and plotting drawings. Lecture and laboratory-six contact hours.

ITD 120 Processes and Materials (3). Study of manufacturing processes and materials as they apply to contemporary industrial products. May not be taken for credit by ITD majors.

ITD 130 Manufacturing Processes and Materials (3). Study of manufacturing processes and materials as they apply to contemporary industrial and consumer products. For ITD majors only or permission of chair. Lecture and laboratory-five contact hours.

ITD 202 Applied Technical Drawing (4). Drawing and problem-solving techniques, principles and conventional practices as applied to selected industrial fields: mechanical engineering product design, topographical, piping, weldment and sheet metal. This course emphasizes technical/engineering sketching and CAD. Lecture and laboratory-six contact hours. Prerequisites: ITD 101 and 104.

ITD 204 Parametric Modeling and Rendering (3). An intermediate course in the theory and practical application of computer aided design. Emphasis will be on the planning and operational techniques required producing parametric models with corresponding photo-realistic renderings. This course includes hands-on experience on interactive graphics equipment. Two hours lecture and three hours laboratory. Prerequisite: ITD 104.


ITD 221 Design Visualization (3). Application of art elements and principles of design to everyday living. Lecture, two hours; laboratory, two hours.

ITD 240 Woodworking Design and Practices (3). Fundamental instruction in woodworking materials, design, planning procedures, hand
tool use, machine tool operations, construction techniques and safety principles and practices. This is a practical course for the beginner and woodworker with intermediate knowledge and skill. Lecture and laboratory. No prerequisite.

**ITD 241 Woodturning (2).** Spindle, face plate, chucking operations and procedures involved in woodturning. Experiences in designing, turning and finishing. For beginning woodturners and those who want to improve their skill. No prerequisite. Lecture and laboratory.

**ITD 251 Equipment (3).** Selection, use, and care of materials and equipment used in the home, principles of kitchen and laundry planning. Lecture, two hours; laboratory two hours.

**ITD 252 Housing and The Family (3).** Housing alternatives, constraints, norms, needs, and selection; comparison of economic factors of various types of shelter; procedure for purchasing shelter. Lecture, three hours.

**ITD 253 Interior Design Studio I (3).** Studio problems in interior design. Programming, basic drawing skills and application of art elements and principles of design in solving interior design problems. Emphasis is on developing basic drawing skills for presenting design solutions. Laboratory, four hours. Prerequisite: ITD 221.

**ITD 254 Furniture Construction and Finishes (2).** A study of construction and finishing techniques used in the furniture industry. Lecture 2 hours.

**ITD 300 Industrial Product Design (2).** Design principles relative to industrial products. Principles of functional, structural and visual design. Lecture and laboratory. Prerequisites: ITD 101 and 130.

**ITD 301 Architectural Drawing and Residential Planning (4).** Functional planning, designing and construction detailing of residences and allied structures; drawing techniques and conventions; client-related, financial and legal aspects of building. Lecture and laboratory-six contact hours. Prerequisites: ITD 104 and ITD 101 or 107.

**ITD 304 Advanced Parametric Modeling (4).** An advanced course in the theory and application of computer aided system for parametric drafting and design manufacturing. Two hours lecture and four hours laboratory. Prerequisite: ITD 204. (Spring)

**ITD 305 Sketching and Industrial Blueprint Reading (3).** Technical sketching fundamentals as applied to the needs of industrial shop personnel and field technicians. Emphasis is placed on the readings and interpreting of selected types of industrial drawings.

**ITD 306 Engineering Graphics (4).** Orthographic projection with an emphasis on auxiliary projection and descriptive geometry. Descriptive geometry theory and techniques are used to solve applied engineering problems. Lecture and laboratory-six contact hours. Prerequisites: ITD 101, 104, and 202. (Spring)

**ITD 309 Engineering Models Design and Construction (2).** A course in the principles of design and construction of scale model representation of engineering, architectural, and related structures, including materials and processes. Prerequisites: ITD 101 and 130.

**ITD 322 Introduction to Plastics (4).** Industrial plastics and polymer sciences. Experience with plastic materials and manufacturing methods. Lecture and laboratory. Prerequisites: ITD 101 and 130.

**ITD 330 Machine Tool Processes (4).** A study in the shaping of metallic products using traditional and computer numerical control processes and equipment. Includes examination of precision measuring methods, cutting tools properties and methods required in achieving an efficient, economical, and safe material removal process. Lecture and laboratory-six contact hours. Prerequisite: ITD 130.

**ITD 333 ANSI Fundamentals for Mechanical Product Design (4).** Focuses on the intermediate technical fundamentals of ANSI standards applicable to mechanical product design and engineering graphics. Engineering sketching and 3D parametric modeling will be emphasized. Two hours lecture and four hour laboratory. Prerequisites: ITD 202, 204, and 330. (Spring)

**ITD 350 Construction Systems (4).** A study of the construction industry theory and practice. Emphasis is placed on the structural and mechanical systems in single-family detached dwellings and non-residential light commercial civil construction projects. Lecture and laboratory-six contact hours. Prerequisites: ITD 101 or 107 and 130.

**ITD 351 Materials and Textiles for Interiors (3).** Consumer-oriented study of textiles emphasizing fibers, yarns, fabric construction and finishes in relation to use, serviceability and care of apparel and household fabrics. Lecture, three hours.

**ITD 352 History of Interiors I (2).** A survey of architecture and interiors from ancient times to 1800. Emphasis is on furnishings, interior architectural details, accessories, materials, significant designers and architects of the periods, and current sources of reproductions of furniture and accessories. Lecture, two hours. Prerequisite: ITD 221.

**ITD 353 Interior Design Studio II (3).** Study of and practical experience in space planning of residential interiors. Emphasis is on functional, aesthetic and economic considerations, materials and codes; perspectives and color board preparation techniques. Graphic and oral presentations of interior design projects. Laboratory, four hours. Prerequisites: ITD 221, 251, 253 and ITD 104.

**ITD 356 Practical Problems in Interior Design (3).** Hands-on experience in implementing plans for diverse background treatments for residential and commercial interiors using a variety of materials in a laboratory setting. Design and produce accessory and display items; develop estimates; practice installation techniques. Prerequisites: ITD 221, 251, 253 and 352.

**ITD 357 (457) Interior Design Studio III (3).** Preparation of portfolio plus self-initiated, large-scale, complex interior design project. Emphasis is on synthesizing all learning to date and critiquing work. Presentation of complete project and portfolio. Lecture and tutorial. Prerequisite: ITD 353.

**ITD 368 Computer-Aided Manufacturing and Robotics (4).** A study of basics of computer-aided manufacturing; computer numerical control (CNC), computer aided design and machining (CAD/CAM) and robotics applications in manufacturing. Laboratory work in manual and automatic programming and setup of CNC machines and robots. Prerequisites: ITD 101 and 130; junior standing.

**ITD 401 Architectural Drafting and Design- Multi-Family Light Commercial (4).** Fundamental principles of designing and drafting commercial documents for multi-family residential and other light commercial construction. Architectural programming, building code analysis, site analysis, budgetary considerations, design principles, building methods, materials selection, and drawing resulting in a package of contract documents for construction. Two hours lecture and four hours laboratory. Prerequisites: ITD 101, 104, 301 and 350. (Fall)

**ITD 403 Product and Tooling Design (4).** This course utilizes parametric, feature-based, solid modeling software and techniques applied to problem solving and representation of product and tooling components and assemblies. Emphasis is placed on dimensioning, geometric dimensioning and tolerancing, 3-D modeling and design of mechanical devices, and principles of tooling design. Lecture and laboratory-six contact hours. Prerequisites: ITD 304, 330, and 333. (Fall)

**ITD 420 Equipment Maintenance and Materials Processing (4).** Maintenance and adjustment of industrial machinery and equipment such as (but not limited to) metalworking, woodworking and drafting equipment. Theory and activities in the design, materials, and equipment of durable goods manufacturing industries. Emphasis on modern production materials, robotics, CNC, and production design systems. Prerequisites: ITD 130 and 330.

**ITD 431 Advanced Numerical Control and CAD/CAM (4).** A study of programming machine tools through the application of computer aided manufacturing (CAM) software. Course will include experiences in 2D and 3D programming systems — drilling, milling and turning operations. Economic analysis of computer aided manufacturing will be reviewed. Six contact hours. Prerequisites: ITD 368 and a CAD class.

**ITD 450 Problems in Housing (3).** Analysis of family housing needs for contemporary living. Selected topics will be chosen from these major areas: home energy needs and energy conservation, housing and interiors for special needs groups, housing for low-income families, and practical problems in interior design. May be repeated for a maximum of six credits. Prerequisite: senior standing.
ITD 452 History of Interiors II (2). A study of architecture and interiors from 1800 through the present time. Emphasis is on French, English and American styles, significant designers and architects, international movements influencing designs, product quality and furnishing resources. Laboratory, four hours. Prerequisite: ITD 352.

ITD 453 Interior Design Studio IV (3). Application of elements and principles of design in planning public interiors. Business practices and professional ethics included. Prerequisite: ITD 357.

ITD 454 Studio Problems in Interior Design (3). Studio problems in interior design. Practical problems with historical and contemporary interiors. Issues include environmental concerns, economics, special needs, quality and sources of materials. Experience with renderings, cost estimates and specifications. Graphic and oral presentation of designs. Laboratory, four hours. Prerequisites: ITD 221, 251, 253, 353 and ITD 104.

ITD 455 Interior Design Studio V (3). Analysis of shelter needs for handicapped and elderly persons. Synthesis of needs into design of facilities, both residential and commercial, to meet these needs emphasis on universal design. Specifications for and cost estimates of design features. Prerequisite: ITD 453.

ITD 456 Internship (3). Placement in an appropriate position in an approved firm to provide professional development through observation and supervised performance of assigned tasks. Intention to participate must be made a semester in advance. Placement is based on selection of study by business via resume and interviews and is not guaranteed. Required for certification by the National Kitchen and Bath Association (NKBA). Repeatable for six credit hours. Minimum 300 clock hours of field experience. Prerequisites: GPA 2.5 and approval of faculty advisor.

ITD 458 Professional Support (1). Course provides the student the opportunity to interact with professionals in the interior design field by participating in dialogue with interior designers at seminars, design firms, and professional meetings. Course may be repeated for a maximum of three credit hours.

ITD 459 Professional Practice (1). A review course for the National Council for Interior Design Qualification (NCIDQ) exam to become a professional member of the American Society of Interior Designers (ASID) and the National Kitchen and Bath (NKBA) exams and for becoming a certified kitchen and/or bath designer. Taped problem solving drawing exams and objectives exams over specific sections of knowledge will be administered. This course is intended for seniors in the interior design option.

ITD 490 Computer Aided Engineering Design Graphics (4). The utilization of state-of-the-art computer applications focusing on industrial product and tooling design. Design modeling techniques will be addressed that reduce product cost by taking into account quantified design parameters defined as a result of manufacturing processes and geometric tolerancing. Theory and applications of geometric dimensioning and tolerancing for industrial product and tooling design will be applied. Discussions of design criteria and print/design file interpretation. A review of product design communications as applied by product designers, tooling designers, setup and production personnel and quality assurance/verification specialists. Prerequisites: ITD 120, ITD 303, senior standing or instructors approval.

ITD 492 Plant Layout and Material Handling (3). A study of the arrangement of physical facilities and materials handling to optimize the interrelationships among operating personnel, material flow, information flow, and the methods required in achieving enterprise objectives efficiently, economically, and safely. Prerequisite: Junior standing (Spring).

ITD 495 Industrial Supervision (3) An in-depth study of the qualities necessary in order for a frontline supervisor to be a vigorous leader, an effective leader, a source of technical know-how and deft mediator between policy-setting management and the rank-and-file worker. Prerequisite: Junior standing. (Fall)

ITD 498 Industrial Design Processes and Prototypes (4). Study of product design principles, production methods and simultaneous manufacturing techniques. Laboratory activities are centered around the design and prototyping a product. Lecture and laboratory—six contact hours. Prerequisites: ITD 130 and 304.

ITD 503 (501) Architectural Drafting and Design-Light Commercial (4). Theory and practice in instrument and computer aided drafting and design for architectural structures. Topics will include the review and evaluation of existing designs, plans and specifications for nonresidential light commercial structures. Structures in the building code classifications of: assembly, business, and mercantile will be included. Program and design architecture will be included. Lecture and laboratory. Prerequisites: ITD 301, ITD 104 and ITD 401.

ITD 504 Advanced Study in Computer Aided Drafting/Design (4). An advanced course in the theory and application of computer aided systems for the drafting and design field. Lecture and laboratory. Prerequisite: ITD 304 or consent of instructor.

ITD 522 Industrial Plastics (4). Materials and processes used in plastics manufacturing industries; includes mold design and construction. Lecture and laboratory.

ITD 531 Numerical Control/Computer NC Machining Systems (4). A study of automatic manufacturing by CNC/CNC. Technical, social and economic aspects of NC/CNC machining systems. Laboratory work in manual and computer-assisted numerical control programming. Setup and operation of machines. Six contact hours.

ITD 532 Metallurgy (2). Structure, properties, behavior and use of metals. Laboratory analysis and research. Lecture and laboratory.

ITD 533 Technology and Production Tooling (2). Machine setups, tooling and inspection procedures. Lecture and laboratory. Prerequisite: ITD 531 or 532.

ITD 541 Industrial Wood Fabrication (4). Material, equipment, processes and nomenclature of the woods manufacturing industry; emphasis on design and planning for production. A study of both traditional and innovative wood processing techniques. Prerequisite: ITD 341.

JOURNALISM AND MASS COMMUNICATIONS (JMC)

JMC 109 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail.

JMC 168 Contemporary Mass Media (3). The mass media, stressing development, nature, controls under which they operate, economic and political foundations, social implications and future roles. Open to non-majors as an elective.

JMC 194 Newswriting (3). Principles of newswriting for print and electronic media. Prerequisites: JMC 168 with a grade of C or better, ENG 101 or ENG 105 or 150 with a grade of B or better.

JMC 213 Computer Techniques for Print Media (3). Introduction to Macintosh-based techniques used by professionals in the print media. Prerequisite: JMC 168 with a grade of C or better.

JMC 270 Basic Audio/Video Production (3). Introduction to production technology including audio control room operations, audio and video recording, camera operations and editing. Prerequisites: JMC 168 with a grade of C or better, ENG 101 or 105 with a grade of B or better.

JMC 283 Principles of Photojournalism (3). An introduction to basic principles of news and magazine photography. Laboratory work in taking, developing, and printing news and feature photographs. Prerequisite: consent of instructor. (Same as GCM 250.)

JMC 294 Advanced Newswriting (3). Advanced news story construction for print and electronic media as well as basics of copy preparation for the World Wide Web. Emphasized new style, language usage, and news story construction. Prerequisites: JMC 194 with a grade of C or better; and CSC 125 and GCM 153.
Courses

JMC 295 Copyediting (3). Basics of handling newspaper copy, including headline writing, copy editing and proofreading. Prerequisite: JMC 194 with a grade of C or better.

JMC 300 Digital Media Production (3). Introduction to digital production technology and methodology emphasizing the application to the mass media. Topics to include design, graphics, audio video, and writing for the Internet and interactive CD-ROM disks. Prerequisites: JMC 168 and basic knowledge of how to operate a computer.

JMC 322 Mass Media Study Abroad (3). Study of current trends and practices in mass media in foreign nations; specific content will vary. Credit may not be earned for both JMC 322 and JMC 522. Prerequisites: consent of supervising instructor and department chair; acceptance in a study abroad program approved by Murray State University.

JMC 330 Mass Media Effects (3). A systematic approach to mass media in terms of structure, functions and effects; includes such topics as meaning, perception, selectivity, ethics persuasion, subliminal seduction, violence and erotica, political socialization, learning, agenda-setting, and uses and gratifications. Prerequisite: JMC 168 with a grade of C or better.

JMC 336 Script Writing (3). Theory and practice of writing for radio and television. Includes dramatic scripts; radio and TV copy conventions; script outlines and documentaries. Prerequisites: JMC 168 with a grade of C or better, ENG 101 or ENG 105 or 150 with a grade of B or better; CSC 125 and GCM 153.

JMC 344 Press and Politics (3). The role of newspapers, television, and radio in the American national political process. (Same as POL 344.)

JMC 358 Television Studio Production (3). Television studio production technology including camera operation, recording, audio and video control, video switching, electronic graphics, lighting, staging, and production organization, with an emphasis on broadcast-quality results. Prerequisites: JMC 168, 270, and 336 with a grade of C or better; ENG 101 or 104 or 105 with a grade of B or better.

JMC 369 Audio/Video Post Production (3). A project-based course that emphasizes the integration of nonlinear video editing with graphic production, 3-D compositing, enhanced audio and DVD authoring. Prerequisites: JMC 270 and 336 with a grade of C or better.

JMC 383 Advanced Photojournalism (3). Continuation of JMC 283 with emphasis on problem-solving and developing an aesthetic visual image for today’s publication. Prerequisite: JMC 283.

JMC 385 Directed Individual Study (1-3). Repeatable up to three hours.

JMC 390 World Wide Web as Mass Medium (3). This course is designed 1) to enhance the student’s effectiveness as a user of Internet technologies; 2) to build understanding of the social implications of, and the major issues surrounding, the popularization of the World Wide Web; and 3) to focus on the Web’s functions as a mass medium. Also considered are key technical concepts integral to Web operations that apply to the fields of journalism. Prerequisites: JMC 168 or consent of instructor; knowledge of browser software and access to the Internet.

JMC 391 Public Relations Principles (3). A study of the profession of public relations, skills, jobs, case studies, media relations, and writing. Students may not be enrolled in JMC 391 and JMC 412 simultaneously. Prerequisites: ENG 101 or 105 with a grade of B or better, JMC 168 or consent of instructor. Business program students: MKT 360.

JMC 394 Introduction to Advertising (3). A survey course on the role and function of advertising in society; emphasis on the basic structure and techniques of advertising, marketing, media roles, creative strategies and the agency system. Prerequisites: ENG 101 or 104 or 105 with a grade of B or better, JMC 168 with a grade of C or better. Business program students: MKT 360.

JMC 396 Publication Design (3). Advanced editing class emphasizing newspaper design, layout and graphics. Prerequisite: JMC 295 with a grade of C or better.

JMC 397 Reporting for Print Media (3). News gathering and reporting for print media. Provides general assignment, specialized and beat reporting experiences by emphasizing the acquisition of information through interviews, direct observation and journalistic research. Prerequisites: JMC 294 with a grade of C or better; CSC 125 and GCM 153.

JMC 398 Reporting for Broadcast and Online Media (3). News gathering and reporting for broadcast and online media. Surveys news operations and emphasizes construction of news copy, elementary news packaging techniques, and journalistic ethics. Includes 30 hours arranged lab work. Prerequisites: JMC 194 and JMC 270 with a grade of C or better.

JMC 400 International Mass Communications (3). Study of world’s communications systems and the roles they play. Analysis of international news flow. The effect of the basic philosophical differences among the media in the developed and developing worlds and the changing communication technologies will be examined. Prerequisite: junior standing or permission of instructor.

JMC 412 Writing for Public Relations (3). Emphasis placed on writing across the media, for diverse publics, to achieve organizational objectives. Basic formats include, but are not limited to, news releases, feature articles, fact sheets, newsletters, brochures, and business correspondence. Basic copy editing and design concepts will be covered. Analysis of publicity methods used in professional campaigns will also be included. Prerequisites: JMC 194 and 391 with a grade of C or better; and CSC 125 and GCM 153.

JMC 417 Advertising, Copywriting and Layout (3). A study of the theory, techniques and practical skills needed for both writing advertising copy and doing basic advertising layout. Prerequisites: JMC 394 with a grade of C or better; and CSC 125 and GCM 153.

JMC 426 Advertising Media Sales (3). Theory and practical application of media advertising sales. Advertising strategy, policy formulation and implementation. Creative and media decision-making structure and procedure. Management of media sales personnel. Students prepare and present advertising sales plan. Prerequisite: JMC 394 with a grade of C or better.

JMC 439 Advertising Media Planning (3). The study and application of media analysis, planning, and buying. Students prepare and present an advertising media campaign. Prerequisite: JMC 394 with a grade of C or better.

JMC 440 Research Methods for Public Relations (3). Use of social science research methods in public relations. Emphasis will be on survey techniques and focus groups, interpretation, application, and communication of research findings to the public. Prerequisites: JMC 168 and 330 with a grade of C or better.

JMC 445 Community Journalism (3). An examination of community news media, including organization, content, production, and distribution. Prerequisite: JMC 394 or permission of instructor. Students are encouraged to take ACC 200 and MGT 350 before enrolling in this course.

JMC 448 Television Production Operations (3). Creating a plan and proposal for a television program, including audience analysis, market appraisal, concept, treatment, script, budget, facilities, crew, cast, location, shooting schedule, and distribution across multiple digital platforms. Prerequisites: JMC 336 and 358.

JMC 451 Television Field Production (3). Single camera and multi-camera electronic field production, non-linear editing and postproduction to create a variety of television productions from spots to full-length programs, with an emphasis on broadcast-quality results. Prerequisites: ENG 101, JMC 168, 270, and 336; junior standing or permission of instructor.

JMC 455 Television Program Development (3). Capstone seminar in creating television programs. Topics include program concepts, target audiences, scripting, budgeting, pre-production planning, producing and marketing pilots. It is anticipated that for a successful outcome, students will commit a minimum of nine hours per week to this course plus an additional 30 hours during the semester working on special projects and productions. Work outside the studios may be required for some productions. Prerequisites: JMC 270, 336, 358, 451. Preference given to television production majors.

JMC 456 Advertising Campaigns (3). A seminar course designed to bring together the knowledge acquired in advertising, marketing and communications courses and apply them to a realistic
only in the summer. Preparation, writing, editing and marketing the nonfiction article. Individual critique sessions conducted by a highly published journalist. Prerequisite: permission.

JMC 505 Writing for Children (3). A Jesse Stuart workshop writing course, taught only in the summer. Analysis of the children’s literature market and preparation of fictional and nonfictional works designed for the young reader. Individual critiques by a noted editor and writer of children’s literature. Prerequisite: permission.

JMC 586 Special Topics (3-6). Seminar for seniors and graduate students concerning a current topic affecting the mass media. May be repeated one time for a total of six hours of credit. Prerequisites: consent of instructor and senior standing.

JMC 590 Mass Communication Law (3). The law as it affects journalism and broadcasting. History and background of the freedom of the press and broadcast industries with emphasis on First Amendment and FCC regulations, including such areas as seditious libel, libel, obscenity, privacy, copyright, advertising and the Fairness Doctrine. Primarily a lecture and reading course. Prerequisite: JMC 330 with a grade of C or better.

JMC 593 Opinion Writing (3). A course in the writing of opinion, including editorials, personal columns, commentaries, Web logs, and reviews. Prerequisites: JMC 194 and 330 with a grade of C or better or consent of instructor.

JMC 596 Internship (3). Course for students majoring in advertising, journalism, public relations, or television production who have completed a minimum of eight weeks as an intern with the media or an advertising or public relations organization. Students will prepare and present case studies on their work experience. Prerequisite: consent of instructor.

JMC 597 Advanced Reporting (3). Capstone course in journalism. Project-based advanced techniques of specialized reporting, emphasizing community-based journalism and civic journalism for print, broadcast, and online platforms. Includes overview of issues concerning diversity, journalism ethics, and legal concerns. Prerequisites: JMC 397 and 398 with a grade of C or better.

JMC 599 American Mass Media (3). Guided independent study in the structure of the mass media in the United States and the impact of American media content on audiences. Course cannot be used for credit for any JMC degree. Completion may be required of students as a condition for admission to the JMC graduate program. Graded pass/fail.

JPN 101 Elementary Japanese I (3). An introduction to the basic skills of speaking, understanding, reading and writing Japanese. Prerequisite: JPN 101.


JPN 105 Introduction to Japanese Culture (3). A survey of contemporary Japanese character and society from a historical perspective. Attitudes, achievements, institutions and life styles of the Japanese people are explored. Conducted in English.

JPN 110 Basic Conversational Japanese (3). A conversation-oriented introduction to pronunciation and essential structures and vocabulary. Pronunciation, listening comprehension, speaking and simple reading and writing of material related to conversational situations are included. No continuation offered. Only taught abroad. No prerequisite.

JPN 201 Intermediate Japanese I (3). An intensive grammar review with emphasis on communication skills. Includes further practice in speaking. Prerequisite: JPN 102 or consent of instructor.

JPN 202 Intermediate Japanese II (3). A continuation of JPN 201. Prerequisite: JPN 201 or consent of instructor.

JPN 210 Intermediate Conversational Japanese (3). Course designed to develop the vocabulary and oral communication skills of the student with a background of one year of college Japanese or equivalent. Emphasis will be placed on bringing the student into contact with the Japanese people and various aspects of their culture. No continuation offered. Only taught abroad. Prerequisite: JPN 102 or equivalent.

JPN 301 Japanese Conversation & Composition I (3). Intensive practice in speaking and writing based on a variety of topics and materials. Prerequisite: JPN 202 or consent of instructor.

JPN 302 Japanese Conversation & Composition II (3). Additional intensive practice in speaking and writing based on a variety of topics and materials. Prerequisite: JPN 301 or consent of instructor.

JPN 306 Introduction to Japanese Literature (3). As an introduction to literary analysis, this course is designed to develop abilities in analytical reading, oral presentation, and expository writing. The course surveys a variety of literary genres, and is conducted in Japanese and in English. Prerequisite: JPN 301 or 331.

JPN 310 Conversation and Composition Abroad (3). Intensive practice in speaking and writing based on the student’s interaction with native speakers and the international setting. Only taught abroad. No continuation offered. Prerequisite: Two years of college Japanese or equivalent.

JPN 315 Global Cinema in Japanese (3). A study of Japanese cinema and film industry through the examination of significant directors and film movements. The course includes a two-hour per week film screening in addition to class meetings. The course is conducted in Japanese. Prerequisite: JPN 301.

JPN 323 Japanese Culture and Civilization (3). Survey of the contributions of Japan to world culture including the historical development
of Japan from pre-historic time up to the Meiji Restoration (1868). The course is conducted in Japanese. Prerequisite: JPN 301 or 331.

JPN 324 Contemporary Japanese Culture and Civilization (3). A survey of attitudes, achievements and behavioral characteristics of the Japanese people from the Meiji Restoration (1868) to the present. The course is conducted in Japanese. Prerequisite: JPN 301 or 331.

JPN 331 Advanced Language Practice (3). Course will offer students the opportunity to expand their cultural and linguistic knowledge of Japanese culture through series of conceptual frameworks, such as an international conference, an apartment building, a hotel, or a business. Students will engage in extensive “role play" and creative exercises to establish contexts, choose fictive identities, and improvise a series of encounters. The class is conducted in Japanese. Prerequisite: JPN 301 or 331.

JPN 401 Advanced Japanese I (3). This course is the first semester of the fourth-year Japanese curriculum, which is a continuation of JPN 302 and is designed to further develop the student’s four language skills (speaking, listening, reading, and writing) and cultural knowledge. The class is conducted in Japanese. Prerequisite: JPN 302.

JPN 402 Advanced Japanese II (3). This course is the second semester of the fourth-year Japanese curriculum, which is designed to further develop the student’s four language skills (speaking, listening, reading, and writing) and cultural knowledge through various means including the study of authentic materials and classroom activities. The class is conducted in Japanese. Prerequisite: JPN 401.

JPN 421 Topics in Japanese literature (3). Analysis and discussion of characteristics and representative authors from different historical periods and genres of Japanese literature. Course content will vary according to the needs of the Japanese Program. May be repeated to a maximum of nine credit hours. The course is conducted in Japanese. Prerequisite: JPN 301 or 331.

JPN 441 Topics in Japanese Cultural Studies (3). This course explores a variety of factors that contribute to and illustrate the cultural life, social themes, and national perspectives of Japanese society. The course topic will vary depending on the semester during which the course is offered and according to the needs of the students in the Japanese program. The course may be repeated for a maximum of six credit hours. The course is conducted in Japanese and in English. Prerequisite: JPN 301 or 331.

JPN 460 Studies in a Genre (3). The course will explore a particular genre of Japanese literature (e.g., the novel, novella, drama, poetry, short story, etc.), the theory behind the respective genre, and an examination of a variety of works within that genre. May be repeated as a second course for up to six credit hours provided that the second course covers a different genre. The course is conducted in Japanese. Prerequisite: JPN 301 or 331.

JPN 551 Directed Studies (1-3). Course work designed to meet specific needs and interests on an individual basis. Prerequisite: junior standing or above.

LIBERAL ARTS

LBA 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. An introduction to university life in general and the liberal arts major in particular. Graded pass/fail. (Same as ENG 350.)

LBA 438 Seminar in Liberal Arts (3). Capstone course limited to students who are taking a major in Liberal Arts. It is designed to help students who are completing their coursework refine writing and thinking skills and to give them an opportunity to think in an interdisciplinary and career-oriented way about the courses they have taken. Prerequisite: permission of program coordinator.

LBA 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of program coordinator.

LBA 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of program coordinator.

LOR 101 Research in the Information Age (3). A course designed to explore the phenomena, activities, and issues surrounding the development, gathering, organization, and use of information and resources in a global community. Designed to acquaint students with best practices in information-seeking behavior for various situational, civic, and scholarly purposes, with specific attention given to the ethics of using and creating information.

LEGAL STUDIES (LST)

LST 240 The Legal Environment of Business (3). This course involves a presentation of the basic principles of law as they apply to business.

LST 242 Real Estate Law (3). Comprehensive survey of the law of realty as it affects the real estate professional. A study which involves historical and recent developments in legislation and court precedent affecting real estate, with emphasis in license law, real estate commission rules and regulations and professional ethics. (Same as RES 242.)

LST 250 Mock Trial (1). A legal studies course that teaches basic trial advocacy skills through preparation for and participation with the MSU Mock Trial Team in American Mock Trial Association sanctioned competition. May be repeated for up to four hours credit. Prerequisite: Consent of instructor.

LST 300 Introduction to Legal Research (3). An introduction to primary and secondary sources of law including finding tools; federal and state court reports and citation forms; legal digests and encyclopedias; annotated law reports; legal periodicals, including periodical indexes; treatises and restatements; federal and state administrative law; federal, state, and local court rules; research aids.

LST 310 Legal Analysis and Writing (3). A course intended to teach students to think, analyze, research, and write like law-trained professionals. Since legal research is involved in solving some homework problems, LST 300 provides helpful preparation for this course.

LST 350 Legal Services for the Elderly (3). An in-depth survey of the major public benefit programs affecting the elderly including Social Security, Supplemental Security Income, Medicare and Medicaid. The course also studies the law relating to pensions, wills, protective arrangements and nursing homes and is intended to prepare paralegal students to assist the elderly having legal problems in these areas.

LST 370 Law and Literature (3). A course that explores the intersections between law and literature within larger cultural contexts. Prerequisites: CIV 101 and 102, HUM 211 and 212, or equivalent. (Same as ENG 370.)

LST 400 Litigation and Trial Practice (3). Course that explores pre-trial discovery and preparation methods, attorney client privilege, rules of evidence, rules of civil and criminal procedure, and some trial motions. The course will conclude with a moot court trial wherein students will participate as litigating attorneys and witnesses. Prerequisite: LST 300.
LST 430 Trusts and Estates (3). Course that explores the legal requirements of a valid will, living will, power of attorney, a variety of trusts and other estate documents, and the state laws that govern inheritance rights when a person dies without a will. Probate court documents required of a state administrator and probate court evidence methods will also be studied along with state and federal tax consequences. Prerequisite: LST 300.

LST 440 Commercial Transactions (3). A study of business organizations and their commercial transactions. Topics include business organizations and relationships, contracts, the Uniform Commercial Code, sales, credit, agency, and property. Prerequisite: LST 240.

LST 444 Judicial Process (3). A political science course that surveys the nature, functions and sources of law and the role of politics and the courts in the administration of justice. (Same as POL 444.)

LST 445 Constitutional Law I: Developments & Trends (3). A political science course that surveys the development of and historic trends in selected subjects of constitutional law. (Same as POL 545.)


LST 447 Constitutional Law II: Civil Liberties and Civil Rights (3). A political science course that studies the leading court decisions and their impact on the development of American Constitutional Law in the subject areas of civil liberties (Amendment I), civil rights (Amendments IV, V, VI, VIII, and IX) and the equal protection and due process clauses of the Amendment XIV. (Same as POL 546.)

LST 476 Law in Public Administration (3). An examination of the role of law in the administrative process. Topics to be covered include administrative rulemaking and adjudication, enabling statutes, open records and open meetings laws, administrative rulemaking and adjudication, enabling statutes, open records and open meetings laws, and the Model Penal Code. Prerequisite: LST 240.

LST 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. To be eligible, a student must be a LST minor with a junior or senior status and an overall GPA of 2.5. In addition, the student must have completed LST 240, 300, and 310 with a GPA of 2.8. Six hours of the LST courses must be completed at MSU. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

LST 495 Special Problems (1-3). Supervised readings or research in selected subjects designed to supplement regular course offerings. To be eligible, a student must be a LST minor with senior status and an overall GPA of 3.0. In addition, the student must have completed at least 12 hours in LST courses including LST 240, 300, and 310 with a GPA of 3.0. At least six hours of the LST courses must be completed at MSU. Prerequisites: permission of chair.

MATHEMATICS (MAT)

MAT 095 Fundamental Mathematics Skills (1). Course designed to supplement MAT 100 lecture classes with one contact hour per week. May NOT be repeated for credit. Credit earned in this course cannot be counted toward graduation requirements and cannot be used to fulfill general education requirements. Graded pass/fail. Corequisite: MAT 100.

MAT 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Required for all entering freshmen. Graded pass/fail. (Fall)

MAT 100 Developmental Mathematics (3). The basic operations as they pertain to fractions, decimals, percentages, and pre-algebra including signed numbers and solutions of linear equations. A developmental and refresher course required for students with math ACT scores of 18 or below. Advanced placement into a higher-level math course is possible through Murray State University Community College math assessment exams. Credit earned in this course cannot be counted toward graduation requirements and cannot be used to fulfill university studies requirements. Students with credit in a higher-level math course may not schedule this course without instructor permission. Letter-graded course.

MAT 105 Introductory Algebra (4). Algebraic expressions, exponents, linear and quadratic equations, graphing, systems of equations, inequalities, and mathematical modeling. Students who have received a grade of C or better in any mathematics course numbered MAT 130 or above can enroll in this course with written permission of the departmental chair. Prerequisite: MAT 100.

MAT 145 Trigonometry (3). Course is a study of plane trigonometry. Topics include angles, right triangle trigonometry, trigonometric functions and their graphs, identities, solving trigonometric equations, and applications of trigonometry. Prerequisite: MAT 105. (MAT 145 in combination with MAT 140 will substitute for MAT 150.)

MAT 150 Algebra and Trigonometry (5). Course is an intensive study of college algebra and trigonometry. A combination of MAT 140 and MAT 145, it is a faster-paced course for students with some familiarity with the subjects. MAT 150 may be used as a “refresher” course to help prepare students for MAT 250. Prerequisite: ACT math standard score of at least 23. Restrictions: A
Courses

student who receives credit for MAT 150 may not receive credit for MAT 130, 140 or 145. (Credit or the combination of MAT 140 and MAT 145 will substitute for MAT 150.)

MAT 215 Mathematics for Middle and Elementary Teachers II (3). Geometry, measurements, probability and statistics for elementary and middle school teachers. Cannot be used for university studies requirements. Prerequisite: Math ACT score of at least 20 or KYOTE score of at least 22 or a COMPASS algebra score of at least 41 or MAT 105.

MAT 220 Business Calculus (3). An introduction to calculus and its applications for students in various fields of business. Primary emphasis is on differential calculus. Prerequisite: MAT 140 or math ACT score of at least 23.

MAT 230 Technical Math II (5). Analytic geometry, differential and integral calculus with applications from technical fields. Prerequisite: MAT 130 or ACT math standard score of at least 24.

MAT 250 Calculus and Analytic Geometry I (5). First course in calculus develops main ideas of differentiation and integration of single-variable functions. Topics include limits, continuity, techniques of differentiation, graphing techniques, definite and indefinite integral, basic integration methods, and applications of the derivative and integral to natural and social sciences. Prerequisites: ACT math standard score of at least 26 or MAT 150 or MAT 140/145.

MAT 305 Intermediate Geometry (3). Selected elementary topics in Euclidean geometry. Includes studies in parallelism, similarity, congruence, areas, volumes, elementary transformation, and coordinate geometry. Intended for students seeking middle school certification. Prerequisite: MAT 115 or 215.

MAT 308 Calculus and Analytic Geometry II (5). A continuation of MAT 250, this course further develops techniques and applications of integration and is an introduction to sequences and series. Topics include integration strategies, computing areas and volumes, arc length, parametric curves, polar coordinates, sequences and series, tests for convergence of series, power series, and Taylor series. Prerequisite: MAT 250.

MAT 309 Calculus and Analytic Geometry III (4). Course develops main ideas of differentiation and integration of functions of several variables and introduces vector calculus. Topics include vectors, analytic geometry of 3-dimensional space, functions of several variables, partial derivatives, directional derivatives, integrals of functions of two and three variables, vector fields, line integrals, Green’s theorem, and the divergence theorem. Prerequisite: MAT 308.

MAT 312 Mathematical Reasoning (3). Course designed to improve the students understanding of the nature and methods of mathematical proof by means of practice and participation. The content will include mathematical logic, set theory, relations and functions, cardinality, axiomatic structures, techniques of proof, and extensive practice in proof and problem solving. Credit cannot be received for both MAT 312 and 399. The department recommends a student take this course in his/her sophomore year in the program. Prerequisite: MAT 308 or consent of instructor.


MAT 335 Matrices Theory and Linear Algebra (3). The algebra of matrices and its application to problems in Euclidean spaces and elementary linear transformations. Prerequisite: MAT 308.

MAT 338 (411) Ordinary Differential Equations (3). First-order differential equations, linear equations with constant coefficients, linear and nonlinear systems of equations. Prerequisite: MAT 308.

MAT 399 Sets, Logic and Functions (3). An investigation of mathematical reasoning including techniques of mathematical exploration, problem-solving and proof. Intended for students seeking Middle School Certification. Does not count toward a major or minor in mathematics and credit cannot be received for both MAT 312 and 399. Prerequisite: MAT 250 or consent of instructor.

MAT 421 Introductions to Algebraic Structures (3). An elementary study of the major structures in modern algebra including groups, rings, fields and integral domains. Prerequisites: MAT 308 and 312.

MAT 440 Mathematics Transforms with Applications (3). Integral and discrete transforms, such as Laplace and Fourier transforms, and the z-transform. Power series solutions and special functions. Prerequisite: MAT 338 or consent of instructor.

MAT 442 Introduction to Numerical Analysis (3). Taylor polynomial approximation, numerical root finding methods and fixed-point iteration, polynomial and spline interpolation, numerical differentiation and integration, and direct methods for the solutions of linear systems. Prerequisite: MAT 308 or consent of instructor.

MAT 450 Introduction to Engineering Statistics (3). Probability, population and sample distribution, sampling, hypothesis testing, regression on one variable, and quality control. Prerequisite: MAT 309.

MAT 460 Principles of Biomathematics (3). The study of biological and mathematical models is united in this research-based course. A variety of quantitative biological models and their underlying mathematics are studied. Students engage in research and communicate their results. Laboratory experiences and short-distance field trips are required. Prerequisites: BIO 216 and MAT 250 or consent of instructor. (Same as BIO 460.)

MAT 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

MAT 499 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

MAT 500 Internship (1). Graded pass/fail.

MAT 506 (501) Mathematical Modeling I (3). A study of mathematical models used in the social, life and management sciences and their role in explaining and predicting real world phenomena. The emphasis is on developing skills of model building. Topics include difference equations, perturbation theory and non-dimensional analysis. Prerequisite: MAT 338.

MAT 507 (502) Mathematical Modeling II (3). A continuation of topics discussed in MAT 501. A term project consisting of a model of a non-mathematical problem is required. Prerequisite: MAT 506.

MAT 508 Introduction to Combinatorics and Graph Theory (3). Selected topics and applications from combinatorics and discrete mathematics, which can include: enumeration, generating functions, recurrence relations, partially ordered sets, Boolean algebras, block designs, coding theory, and topics in graph theory, including trees, networks, optimization, and scheduling. Prerequisites: MAT 308 and either MAT 312 or MAT 335.

MAT 512 Partial Differential Equations (3). Partial differential equations of first and second order and applications. Prerequisites: MAT 309 and 338.

MAT 515 Theory of Numbers (3). Divisibility, the Euclidean algorithm, mathematical induction, prime and composite numbers, Diophantine equation, Pythagorean triplets, Fermat’s Theorem, congruencies, quadratic residues, continued fractions. Prerequisite: MAT 312.

MAT 516 Introduction to Topology (3). Set theory, topology of the real line, topological spaces, metric spaces. Prerequisites: MAT 309 and 312.

MAT 517 (510) Foundations of Geometry (3). Study of postulate systems for geometry, critical examination of Euclid’s Elements, introduction to non-Euclidean geometry. Prerequisite: MAT 309 or consent of instructor.

MAT 521 (505) Abstract Algebra I (3). An in-depth study of rings and fields. Topics will include the Isomorphism Theorems, ideals, polynomial
MAT 522 Vector Calculus (3). Operations with vectors; differentiation and integration of functions of several variables; transformation of coordinates; line and surface integrals; Green’s, Stokes’s, and the divergence theorems. Prerequisite: MAT 309.

MAT 523 (520) Introduction to Complex Variables (3). Complex numbers, analytic functions, elementary functions, integration, Cauchy theorem, Taylor and Laurent expansions, and applications. Prerequisite: MAT 309.

MAT 524 Boundary Value Problems (3). Analytic and computational techniques for linear first and second order partial differential equations, initial, and boundary value problems. Classification, Fourier series, separation of variables, finite difference and/or finite element methods. Prerequisites: MAT 309, 335 or consent of instructor, and 338.

MAT 525 Advanced Calculus I (3). A rigorous development of one variable calculus including limits, continuity, differentiation, integration and sequences of functions. Prerequisites: MAT 309 and 312.

MAT 526 Advanced Calculus II (3). A continuation of MAT 525 and functions of several variables. Prerequisite: MAT 525.

MAT 528 Introduction to Game Theory (3). In this introductory course, we investigate mathematical models of certain conflict and cooperation situations (games), paying attention to applications in biology, philosophy, political science, economics, and social psychology. We study two-person zero-sum games, two-person non-zero-sum games, and/or other multi-player games. We consider pure and mixed strategy solutions, Nash equilibria, and other aspects of such games. Prerequisite: MAT 250 or consent of instructor.

MAT 530 Special Topics in Mathematics I (1-3). Library investigations of various lengths concerning special topics in mathematics. Periodic conferences will be arranged with the supervising faculty member on an individual basis. May be repeated for credit. Prerequisites: Six hours of mathematics courses numbered 400 and above with a mathematics GPA of at least 3.0; consent of instructor.

MAT 531 Special Topics in Mathematics II (1-3). Library investigations of various lengths concerning special topics in mathematics. Periodic conferences will be arranged with the supervising faculty member on an individual basis. May be repeated for credit. Prerequisites: Six hours of mathematics courses numbered 400 and above with a mathematics GPA of at least 3.0; consent of instructor.

MAT 535 Linear Algebra (3). Linear transformations, matrices, quadratic and hermitian forms, eigenvalues and elementary spectral theory. Prerequisite: MAT 335.


MAT 542 Numerical Analysis (3). Numerical solutions of differential equations, iterative techniques for solving linear systems, discrete least-squares methods, orthogonal polynomials, and approximating eigenvalues. Prerequisites: MAT 338 and either MAT 442 or consent of instructor. Requires knowledge of a scientific programming language.

MAT 545 Boolean Algebra with Applications to Digital Computer Design (3). Boolean algebra is developed as a model to study various physical systems, including the algebra of subsets of a set, propositional logic, and switching circuits. Prerequisite: consent of instructor.

MAT 550 Teaching Mathematics (3). A study of the “whys” of mathematics with the aim of equipping future/current teachers with the ability to explain rather than merely do mathematics. Taught in the context of theories of learning and pedagogy. Involves mathematics content taught at the secondary and community college level. Credit granted toward an undergraduate major or minor in mathematics only for those students following a teacher certification program. Prerequisite: MAT 312 or consent of instructor.

MAT 551 Mathematics for Teachers (3). Explorations of mathematical topics from the viewpoint of future/current secondary and community college teachers of mathematics. Gives credit toward an undergraduate major or minor in mathematics only for those students following a teacher certification program. Can be taken without credit toward an undergraduate major or minor in mathematics only for those students following a teacher certification program. Prerequisite: MAT 550. Prerequisite: MAT 312 or consent of instructor.

MAT 554 (560) Statistical Methods (3). A survey course in statistical methods for advanced undergraduate students with no prior training in statistics. The course covers techniques commonly used for data analysis in many scientific fields. Topics included are probability distributions, sampling, variance, estimation, hypothesis testing, contingency table, regression and analysis of variance. (Does not apply toward any degree in mathematics or a minor in mathematics.) Prerequisites: MAT 565 Applied Statistics I (4). A study of applied statistical techniques including correlation, regression, analysis of variance and non-parametric methods with a view toward applications. A statistical computer package will be used when appropriate, but no computer background is required. Prerequisite: MAT 554 or consent of instructor.

MAT 566 Applied Statistics II (3). A continuation of MAT 565. Includes further topics in analysis and variance, non-parametrics and multivariate analysis. Prerequisite: MAT 565.

MAT 567 Introduction to Time Series Analysis (3). An introductory time series analysis course that introduces students to classical and modern time series models. Time series analysis comprises methods for analyzing time series data in order to extract meaningful statistics and other characteristics of the data. Time series forecasting is the use of a model to forecast future events based on known past events: to predict data points before they are measured. This course serves junior and senior mathematics majors, mathematics minors, and other interested students. A student taking this course should have a background in statistical methods. Prerequisite: MAT 565 or consent of instructor.

MAT 569 Topics in Statistics (3). Selected topics in probability and statistics. Prerequisite: consent of instructor.

MAT 570 Linear Programming (3). Theory and application of linear programming and the role it plays in operations research. Prerequisite: MAT 335.

MANAGEMENT (MGT)

MGT 250 Introduction to Management: Taking the Lead (3). Course that covers planning, organizing, staffing, directing, controlling, decision-making, motivating, communicating, and leadership. Helpful for the managerial candidate who has not had any formal training in business management. Credit is not allowed for both MGT 250 and 350. Students who declare a business major or area should consult their advisor on receiving credit for MGT 350.

MGT 350 Fundamentals of Management (3). The fundamental concepts, relationships and principles of managing organized activities are studied. Special emphasis is given to human behavior in organized systems, with attention to the diverse workforce, interpersonal relations, group processes, and the philosophy for managing human resources effectively. Prerequisite: conditional or full admission to upper-level business courses or junior standing.

MGT 354 Techniques of Oral Reporting and Management Briefings (3). Stresses basic principles of oral reporting with emphasis upon informational speeches and special techniques of management briefings. Provides practice in preparation and use of visual aids and the conduct of briefings. Prerequisites: junior standing; MGT 350.

MGT 358 Entrepreneurial Business Plan Development (3). This course is devoted to the study of the entrepreneurial process including identifying
opportunities, creating value, developing concepts and plans, attracting resources, building an organization, and managing growth. Prerequisites: junior standing; ACC 200 and MGT 350.

MGT 420 Entrepreneurial Strategic Growth (3). An in-depth study of the managing a growing business in a professional manner, while maintaining the entrepreneurial spirit. Subject matter includes measuring economic performance, obtaining management information for decision making, management control systems, short and long-term planning, capital funding, and conditions that prevail in similar business environments. Prerequisites: MGT 350 and MKT 360.

MGT 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

MGT 440 Entrepreneurial Innovation and Creativity (3). Focus is on the creative process and helps students develop creative solutions to a wide range of issues facing entrepreneurial firms. This course will encourage students to approach problems from a creative perspective and develop innovative solutions. Prerequisites: MGT 350 and MKT 360.

MGT 443 Management of Operations and Technology (3). A study of the concepts and processes of the operations function with emphasis on the application of these to the management of various types of systems. Special attention is given to the management of technology, quality and globalization. The student is introduced to models commonly used in decision-making. Prerequisites: CIS 243 and MGT 350.

MGT 445 New Product Development (3). Course explores the process of bringing a new product or service to market. The course covers the entire process from the innovation front-end to market introduction. While the primary focus will be medium-sized and larger companies, consideration will be given to small and start-up companies. Prerequisite: MGT 350 or consent of instructor.

MGT 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

MGT 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

MGT 490 Entrepreneurial Consulting (3). Students will develop the tools necessary to provide a meaningful consulting experience to an entrepreneurial business. Students in teams of three or four individuals will work with an assigned consulting client and provide value by creating a deliverable for the client. Prerequisites: MGT 350, MKT 360 and senior standing.

MGT 499 Senior Seminar (1). Seminar for students of the Management and Marketing Department’s programs with a primary focus on employment preparation and professional development. Recommended for students enrolled in their next-to-last undergraduate semester.

MGT 500 Human Resource Management (3). Familiarizes the student with fundamental tools to effectively manage and motivate a diversified workforce. Included in this course is a study and analysis of the programs in human resource management including job analysis, job evaluation, selection and placement, testing and training, personnel services, and labor relations, as well as the current issues of globalization and the changing composition of the workforce. Prerequisite: MGT 350.

MGT 511 Organizational Behavior (3). A field of study that investigates the impact that individuals, groups, and structure have on behavior within organizations, for the purpose of applying such knowledge toward improving an organization’s effectiveness. May not be taken by M.B.A. students. Prerequisite: MGT 350.

MGT 522 Management of Operations and Technology II (3). A continued study of the operations function of organizations. Topics covered include technology management, achieving zero defects, continuous improvement, total productive maintenance and world class competition. Prerequisite: MGT 443.

MGT 553 Human Resource Selection (3). A concentrated investigation of the methods appropriate to the development, implementation and administration of the staffing process (attracting, selecting and placing candidates in positions) in contemporary organizations will be conducted. This will involve analyzing organizational environments and identifying the appropriate staffing strategies and policies, including an examination of the regulatory environment, cost analysis of human resources, and the statistics of personnel validation of screening devices, i.e. personnel testing, interviewing and biographical information. Prerequisite: MGT 350.

MGT 554 Managing a Diverse Workforce (3). This course involves a study of the cultural perspective and processes reflecting individual, work group, and organizational diversity in the workplace. Specific issues this course will include are: prejudice and stereotypes; group and organizational factors affecting diversity; legal issues related to diversity; and global, cross-cultural and gender issues. Prerequisite: MGT 350.

MGT 555 Training and Development (3). This course examines the needs and characteristics of adult learners and the role of training and development as part of human resources in the business setting. The role of the trainer, the learner, needs assessment, methodologies, learning objectives, and measurement and evaluation techniques will be explored and practiced. Prerequisite: senior standing.

MGT 557 International Management (3). Course covers the process of applying management concepts and techniques in a multinational environment and adapting management practices to different economic, political, and cultural environments. Prerequisite: MGT 350.

MGT 558 Advanced Topics in Human Resources (3). This course addresses the application of effective human resource management practices to the current business realities of the organization. Topics include: strategy and human resource management, mergers and acquisitions, downsizing and rightsizing, human resource measurement, human resource information systems, and the use of social media and employee communications as human resource management tools. Prerequisite: MGT 550.

MGT 559 Compensation Management (3). A study of basic considerations for successful wage and salary administration. Areas studied include job evaluation, employee evaluation and systems and plans of compensating employees. Prerequisite: MGT 350.

MGT 570 Organization Theories (3). A study of the major contemporary theories of organization with emphasis on such modern concepts as Management by Objectives and organization design. Prerequisite: MGT 350.

MGT 572 Organizational Development (3). Studies approaches to organizational development, growth and renewal, with special emphasis on the organization’s ability to adapt to its environment. Particular attention is paid to the process of planned change, the techniques used in organizational development, and the role of ethics in organizational change. May not be taken by M.B.A. students. Prerequisite: MGT 350.

MGT 575 Labor-Management Relations (3). A study of the legal relations in the United States with emphasis on the structure and role of labor organizations, the collective bargaining functions and processes, and the philosophy and approaches essential to a successful relationship between labor and management institutions. Prerequisite: MGT 350.

MGT 577 Labor Law and Public Policy (3). Traces the development of the labor law and labor legislation as well as their administration at the national, state and local levels in the United States. Uses administrative and court decisions and policy analysis to examine issues of current significance concerning labor relations. Prerequisite: MGT 350 or consent of instructor. (Same as POL 577.)

MGT 580 Seminar in Leadership (3). Describes the nature and meaning of leadership in organizations, including the importance of effective leadership, knowledge of various leadership theories, and personal attributes associated with effective leaders. The course integrates leadership
This course focuses on teaching communication skills — listening, speaking, reading and writing within the subject matter fields — to middle school children. Laboratory experiences required. Prerequisites: EDU 303, MID 270, and admission to Teacher Education. Corequisite: EDU 404.

MIL 307 Middle School Language Arts (3). This course focuses on teaching communication skills — listening, speaking, reading and writing within the subject matter fields — to middle school students. Laboratory experiences required. Prerequisites: EDU 303, MID 270, and admission to Teacher Education.

MIL 370 Laboratory in Teaching English Communications: Middle School (2). A concentrated laboratory experience for upper division students seeking middle school certification with a teaching field in English and communication. Includes directed and supervised teaching experience with middle school students in area schools. Laboratory experiences required. Prerequisites: EDU 303, MID 270, and admission to Teacher Education.

MIL 371 Laboratory in Teaching Mathematics: Middle School (2). A concentrated laboratory experience for upper division students seeking middle school certification with a teaching field in mathematics. Includes directed and supervised teaching experience with middle school students in area schools. Prerequisites: EDU 303, MID 270, and admission to Teacher Education.

MIL 372 Laboratory in Teaching Science: Middle School (2). A concentrated laboratory experience for upper division students seeking middle school certification with a teaching field in science. Includes directed and supervised teaching experiences with middle school students in area schools. Prerequisites: EDU 303, MID 270, and admission to Teacher Education.

MIL 373 Laboratory in Teaching Social Studies: Middle School (2). A concentrated laboratory experience for upper division students seeking middle school certification with a teaching field in social studies. Includes directed and supervised teaching experiences with middle school students in area schools. Prerequisites: EDU 303, MID 270, and admission to Teacher Education.

MID 380 Middle School Practicum (1). A concentrated practicum experience for upper division students which will include planned and supervised mini-teaching experiences with middle school students. (12 hours of field placement in a middle school classroom). Prerequisite: Admission to Teacher Education. Corequisites: MID 370, or MID 371, or MID 372, or MID 373.

MID 421 Middle School Student Teaching (7-14). Student teaching in the middle school should allow the individual to participate in the work and duties of the school that are generally expected of the classroom teacher. Student teachers will be supervised by a public school teacher as well as a university coordinator. This will be a 2-7 week assignment with students having experiences in both teaching specialization fields. Graded pass/fail. (Professional Semester.) Prerequisites: Admission to Teacher Education and student teaching. Corequisite: EDU 422.

MIL 301 Military Leadership and Management (4). Challenges cadets to study, practice, and evaluate adaptive leadership skills as they are presented with challenging scenarios related to squad tactical operations. Cadets receive systematic and specific feedback on their leadership attributes and actions. Based on such feedback, as well as their own self-evaluations, cadets continue to develop their leadership and critical thinking abilities. Requires attendance at a three-day, off-campus field training exercise and weekly laboratory. Prerequisite: MIL 210 or permission of instructor.

MIL 302 Military Leadership and Advanced Tactical Skills (4). Uses increasingly intense situational leadership challenges to build cadet awareness and skills in leading tactical operations up to platoon level. Cadets review aspects of combat, stability, and support operations. They also conduct military briefings and develop proficiency in garrison operation orders. Requires attendance at a three-day, off-campus field training exercise and weekly laboratory. Prerequisites: MIL 210, 301, or permission of the instructor.
MIL 401 Professional Leadership Skills (4). Develops cadet proficiency in planning, executing, and assessing complex operations, functioning as a member of a staff, and providing performance feedback to subordinates. Cadets assess risk, make ethical decisions, and lead fellow ROTC cadets. Lessons on military justice and personnel processes prepare cadets to make the transition to Army officers. Requires attendance at a three-day, off-campus field training exercise and a weekly laboratory. Prerequisites: MIL 301, 302, or permission of instructor.

MIL 402 Role of the Army Officer (4). Explores the dynamics of leading in the complex situations of current military operations in the contemporary operating environment (COE). Cadets examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. They also explore aspects of interacting with non-government organizations, civilians on the battlefield, and host nation support. Requires attendance at a three-day, off-campus field training exercise and a weekly laboratory. Prerequisites: MIL 301, 302, 401, or permission of instructor.

MIL 410 Leader Development and Assessment (6). Course is designed to develop 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 at a military installation. Successful completion of this course is required for a U.S. Army commission and military science minor. Prior to enrollment, the student must meet the physical and academic standards established by the army. Graded pass/fail. Prerequisites: MIL 301, 302, or permission of instructor.

MIL 490 Military Leadership Seminar (1-3). Course is designed to enable the student to pursue independent study in selected areas of military science. Requires attendance at a three-day off-campus field training exercise. Course is repeatable for up to four hours credit. Prerequisite: permission of instructor.

MARKETING (MKT)

MKT 260 Introduction to Marketing (3). Course that covers marketing as it relates to contemporary living and society’s changing needs. Students learn how a marketing manager interacts with diverse areas of business as well as basic marketing principles. Helpful for the managerial candidate who has not had any formal training in marketing. Credit is not allowed for both MKT 260 and 360. Students who declare a business major or area should consult their advisor on receiving credit for MKT 360.

MKT 285 Emerging Technologies in Marketing (3). Course focuses on the new technologies that are currently shaping the world’s economy and markets. It includes practical, hands-on instruction in these technologies, readings on their potential impact, discussion of appropriate strategies for exploiting them and a project which integrates multiple technologies in a business setting.

MKT 360 Principles of Marketing (3). An integrated study of the interrelationship of marketing to the other primary functions of business through an analytical survey of problems related to product planning, pricing, promotion, channels of distribution, and legislation affecting marketing activity encountered in distributing goods and services to markets. Emphasis is on the role of the consumer. Prerequisite: conditional or full admission to upper-level business courses or junior standing.

MKT 361 Selling and Sales Management (3). A thorough study of the elements that contribute to success in the field of selling and sales management. In selling, attention will be given to researching and understanding the needs of business and retail customers, developing long-term relationships with customers, learning and applying the basic steps in the sales presentation, and negotiating with customers. Related to sales management, attention will be given to structuring and determining the appropriate size of the sales force, recruiting, selecting, motivating, compensating, training, evaluating salespeople, and supervising day-to-day sales operations. Prerequisites: MKT 360 and junior standing.

MKT 369 Retailing Management (3). A study of the fundamentals of successful retail store management and merchandising. Some of the topics discussed are store organization, location, layout, fixtures and equipment. Aspects of merchandise planning and control, buying, sales promotion and customer services are emphasized. Prerequisites: junior standing; MKT 360.

MKT 390 Entrepreneurial Marketing (3). This course examines the tools and activities entrepreneurial businesses can utilize to develop an effective marketing strategy, considering severe time, budget, and marketing information constraints. The course emphasizes understanding the important role that marketing plays in the entrepreneurial process. Prerequisites: junior standing; MKT 360.

MKT 396 International Marketing Seminar (3). Designed to give participants a high exposure to the international environment and business practices outside the U.S. The seminar includes an intensive travel-study program in various European countries. Prerequisite: junior standing.

MKT 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

MKT 460 Principles of Advertising (3). A study of advertising and its uses, media and role in sales promotion. Emphasis is placed on the business and economic aspects of advertising as it relates to the distribution of products and the management of business firms. Prerequisite: MKT 360 or consent of instructor.

MKT 461 Principles of Purchasing and Supply Management (3). This course provides in-depth exposure to the ideas and concepts of purchasing or procurement. These areas include: procurement objectives, ethical standards, strategies and policies, the basic purchasing process, organizing and staffing, supplier selection and relations, international purchasing, price/cost analysis, negotiation, legal aspects, and managing material flows. A focus on the career opportunities in procurement, materials management, and logistics management will be provided.

MKT 462 Sales Management (3). A study of the managerial aspects of marketing, with special emphasis upon problems involved in determining markets; planning sales campaigns; selection, training and management of sales and service personnel; and control of sales operations. Prerequisite: MKT 361.

MKT 463 Consumer Behavior (3). An overall view of some of the basic perspectives of consumer behavior. An interdisciplinary approach will be stressed including the fields of economics, psychology, sociology and anthropology as they relate to marketing. Emphasis will be placed on the fundamental processes of motivation, perception and learning, as well as analysis of individual predispositions and group influences in marketing. May not be taken by M.B.A. students. Prerequisite: MKT 360 or consent of instructor.

MKT 469 Retail Merchandising (3). A problemsolving course of tools used in buying, pricing, stock control, sales promotion, and expense control. Prerequisite: MKT 369.

MKT 470 Logistics Management (3). A survey of the broad field of physical distribution and business logistics. Emphasis is placed on supply chain management (SCM) theories, practice, and problems. An integrated systems approach to procurement, transportation, inventory control, materials handling/packaging, and warehousing will be stressed. Prerequisite: MKT 360 or consent of instructor.

MKT 475 Marketing Strategies for E-Commerce (3). Addresses Internet and other technology applications in marketing. Concepts and techniques important for understanding electronic marketing and virtual marketplaces are emphasized. As part of the course requirements, students will apply the concepts and skills learned by researching, designing, and building a virtual storefront. Prerequisites: BPA 355 and MKT 360.

MKT 485 Business GIS in Marketing (3). Business GIS refers to the specialized application of geographic information systems (GIS) concepts and tools to the analysis of business problems. As these tools become integrated into corporate information systems, managers in all fields must learn to apply them effectively in business decision-making. In this course, students will develop these skills by learning the basic operations of GIS software and using them to make marketing decisions. Course activities include readings and completion of modular business GIS projects. Prerequisite: MKT 360 or GSC 521 or consent of instructor.
In this course, Seminar for MKT 360. This is the undergraduate capstone marketing course. It covers the practice of marketing in a global economy. Major topics include (1) multi- national environmental scanning, (2) marketing planning and strategy in a global context, (3) tactical international marketing decisions, (4) assessment of international market opportunities, and (5) ethical considerations in global marketing. Prerequisite: MKT 360.

MKT 569 Promotion Management (3). A study of various promotional tools including social media, advertising, personal selling, sales promotion, public relations, and direct marketing. Emphasis is placed on the integrated use of these tools in the context of emerging technologies. The degree of emphasis placed on each tool is determined by the technological environment and the needs of the class. Prerequisite: MKT 360.

MKT 585 Integrated Business GIS (3). The term Integrated Business GIS refers to information technology systems which combine powerful business geographic information system (GIS) software with extensive datasets, automated analytical tools, potent visualization capabilities and robust reporting capabilities. In this course, students will learn about the role of these systems in business decision making and how to apply Integrated Business GIS tools to business decisions such as competitive analysis, site selection, customer profiling, sales management and market segmentation. Course activities include readings, online learning exercises and completion of modular Business GIS projects. Prerequisite: MKT 485 or consent of instructor.

MKT 595 Special Problems (1-3). This course consists of independent study in some area of marketing. Periodic conferences will be arranged with the supervising faculty member on an individual basis. Prerequisite: consent of instructor.

MODERN LANGUAGES

MLA 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program, university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail. Prerequisite: MKT 360 and senior standing.

MLA 101 Elementary Modern Language (3). A thorough study of the basic structure and sounds of a particular language which is not regularly offered at Murray State University. Equal emphasis will be placed on the four skills of speaking, writing, listening and reading. The languages taught under this title will vary. Prerequisite: MLA 102 Elementary Modern Language II (3). A continuation of MLA 101. Prerequisite: MLA 101 or equivalent.

MLA 104 A Cultural Introduction to Languages (3). A general introduction to the origin, development, nature, and importance of English, French, German, and Spanish. A broad study of the culture of the people and the lands where these languages are spoken.

MLA 105 Introduction to Contemporary Culture (3). A survey of the contemporary culture of a selected country or geographic region with emphasis on values, behavioral characteristics, social and political systems and achievements of that culture. Conducted in English. No prerequisite.

MLA 110 Basic Conversational Language (3). A conversation-oriented introduction to the sound system and basic structural patterns of a modern language. Pronunciation, listening comprehension, speaking, reading and writing of material related to conversational situations are included. Not applicable toward a major or minor in foreign language. No prerequisite. Only taught abroad.

MLA 201 Intermediate Modern Language I (3). A continuation of MLA 102. Prerequisite: MLA 102 or consent of instructor.

MLA 202 Intermediate Modern Language II (3). A continuation of MLA 201. Prerequisite: MLA 201 or consent of instructor.

MLA 205 Western European Culture (3). This course, taught in English, focuses on the contemporary cultural character of Europe. It will combine traditional class work with carefully planned excursions to cultural centers. To be taught only in the Kentucky Institute for International Studies.

MLA 210 Intermediate Modern Language Conversation (3). A course to develop the vocabulary and oral communication skills of the student with a background of one year’s study of the same foreign language in college or its equivalent. Prerequisites: 101 and 102 of the same language.

MLA 314 Cultural Heritage Abroad (3). This course taught in English and taught abroad, focuses on culture in a particular country or region. Course is taught in English and taught abroad, focuses on culture in a particular country or region. Not applicable toward a major or minor in foreign language. Not applicable toward a major or minor in foreign language. Only taught abroad.

MLA 400 Senior Seminar (3). In this course, students complete a comprehensive departmental portfolio; present for evaluation the senior research project, and explore professional matters relating to the language major including career opportunities. Students will also evaluate their academic and extracurricular experiences in the Department of Modern Languages and at MSU. Prerequisite: senior standing.

MLA 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.
courses

MLA 510 Applied Linguistics for Second Language Teaching (3). An overview of the basic concepts, scope, and methodology of the science of language in its historical and descriptive aspects, including topics and issues in current linguistic studies. The primary systems of language, psycholinguistics, and comparative phonology are treated in depth. Prerequisites: ENG 310, Junior standing or above. (Same as ENG/TSL 510.)

MLA 514 Methods of Teaching Foreign Languages (3). Designed to prepare students for the teaching of foreign languages in the public school. Current teaching philosophies, techniques and materials, curriculum innovation and extracurricular activities discussed. Limited observation and performance in a language classroom. Prerequisites: EDU 363. Junior standing or above.

MLA 520 Computer Assisted Language Learning (3). An introduction to computer assisted language learning (CALL), an overview of its specialized vocabulary and a review of research regarding its effectiveness. (Same as TSL 520.) Prerequisite: Junior standing or above.

MLA 523 Testing and Evaluation in Second Language Teaching (3). A review of a number of current methods for classroom/standardized language testing and evaluation. Prerequisite: Junior standing or above.

MLA 533 Language and Culture (3). A study of the relationship among language, society and the individual’s concept of reality. The course examines a variety of anthropological and ethnographic concepts and findings as they relate to language and language learning in its broadest context. The course will also examine socio- and comparative linguistics, the relationship between culture and language, and the implications for second language teaching. (Same as ENG/TSL 533.) Prerequisite: Junior standing or above.

MLA 551 Directed Study in Modern Language (1–3). Independent work in areas of language, culture or literature designed to meet the needs and interests of individual students. May be repeated up to a maximum of six credit hours. Prerequisite: Two years in college of the same foreign language or the equivalent. Junior standing or above.

MUS 106 Music in Film (3). Course will present a survey of the history of film music from the silent era to the present. Students will develop critical listening, viewing, and analytical skill in relation to music’s function in film. For the viewing of complete films, extra meetings may be held on campus. Students will be expected to view current release films in a local theater.

MUS 107 Introduction to the American Musical Theatre (3). Student will explore in-depth the development of the American musical theatre through stylistic elements found in the standard repertoire. Representative works by individual and collaborative composer and librettist will be studied with special emphasis on innovative trends, perspectives and genres.

MUS 109 Introduction to Music Theory (3). Course for the music consumer with an interest in the presentation of the fundamentals of music as they affect music performance, music listening and music understanding.

MUS 114 Percussion Instruments Level I (1–4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 115 Wind Instruments Level I (1–4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 116 Organ Level I (1–4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 117 Piano Level I (1–4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 118 Strings Level I (1–4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 119 Voice Level I (1–4). One 25-minute or one 50-minute individual instruction period per week. Participation in weekly vocal studio classes may be required. Credit will be given for as many semesters as taken.

MUS 120 Beginning Classical Guitar Class (1). Instruction for those with limited or no musical background. Note reading, strumming, and theory fundamentals are stressed. Credit will be given for as many semesters as taken.

MUS 121 Intermediate Classical Guitar Class (1). Student must be able to read music and have had previous class or private instruction. Credit will be given for as many semesters as taken.

MUS 122 Band: Community (1). Credit will be given for as many semesters as taken.

MUS 123 Introduction to Music Education (3). This course is the initial course for all students seeking a degree in music education. It is designed to provide students with an introduction to the field of music education. Included are topics related to learning theories, curriculum, historical and philosophical foundations of music education, resources for teaching, and twentieth century developments in music education.

MUS 130 Class Voice for Non-Majors (1). A class designed to help non-music major students develop effective and healthy vocal techniques through classical and musical theatre repertoire. Repeatable with permission of instructor.

MUS 131 Percussion Methods (1). This class is designed to acquaint the music education major with percussion instruments and pedagogical techniques through participation.
MUS 132 Woodwind Methods (1). This class is designed to acquaint the music education major with woodwind instruments and pedagogical techniques through participation.

MUS 133 String Methods (1). This class is designed to acquaint the music education major with string instruments and pedagogical techniques through participation.

MUS 134 Voice Methods (1). Class designed to help students develop effective and healthy vocal techniques through classical and musical theatre repertoire.

MUS 135 Brass Methods (1). This class is designed to acquaint the music education major with brass instruments and pedagogical techniques through participation.

MUS 136 Fundamentals of Keyboard Accompanying (1). Study of the basic principles of keyboard accompanying. Normally offered during the spring semester. Credit will be given for as many semesters as taken.

MUS 148 Commercial Guitar Seminar I (1). The first course of a two-semester sequence of courses. The student will be introduced to the guitar fretboard through the study and performance of intervals, scales and chords. Prerequisite: permission of instructor.

MUS 149 Commercial Guitar Seminar II (1). The second course of a two-semester sequence of courses. The student will learn performance skills and techniques required for ensemble and develop familiarity of the jazz and blues repertoire. Prerequisite: MUS 148 or permission of instructor.

MUS 150 Instrumental Ensemble (1). Small ensembles concentrating on chamber music literature. Emphasis will be placed upon developing chamber ensemble skills. Credit will be given for as many semesters as taken.

MUS 151 University Orchestra (1). The ensemble will study and perform symphonic literature from a variety of style periods. Credit will be given for as many semesters as taken. Membership by audition.

MUS 152 Marching Band (1). The marching band prepares field performances for all home football games as well as selected away games and exhibitions. Credit will be given for as many semesters as taken. Membership open.

MUS 153 Brass Choir (1). Designed to give brass and percussion players experience in the study and performance of large brass ensemble literature. Credit will be given for as many semesters as taken. Membership by audition.

MUS 154 Wind Ensemble (1). The wind ensemble develops an understanding of representative wind band literature through study and performance. Credit will be given for as many semesters as taken. Membership by audition.

MUS 155 Jazz Ensemble (1). The jazz ensemble develops an understanding of representative jazz styles and skills through study and performance. Credit will be given for as many semesters as taken. Membership by audition.

MUS 156 Jazz Combo (1). Concentration on development of improvisatory techniques through performance and listening skills. Credit will be given for as many semesters as taken.

MUS 157 Symphonic Band (1). The symphonic band develops an understanding of representative concert band literature through study and performance. Credit will be given for as many semesters as taken. Membership open.

MUS 158 Concert Band (1). The Concert Band develops an understanding of musical styles and skills through study and performance. Repeatable. Prerequisite: Concert band skills on a wind or percussion instrument.

MUS 160 University Chorale (1). University Chorale is dedicated to the study and performance of a wide variety of choral literature from all the major stylistic periods and genres. The development of basic musical skills and proper vocal function is emphasized. Credit will be given for as many semesters as taken. Membership is open.

MUS 161 Concert Choir (1). Concert Choir is dedicated to the study and performance of the masterworks of choral literature from all periods, genres and styles. Credit will be given for as many semesters as taken. Membership is by audition.

MUS 162 Chamber Singers (1). The Chamber Singers study and perform a wide variety of choral literature from all periods, genres and styles with special attention to that body of work composed specifically for small vocal ensembles. Credit will be given for as many semesters as taken. Membership is by audition.

MUS 163 Choral Union (1). Choral Union is an ensemble comprised of students and community members and is dedicated to the study and performance of extended choral works, often with orchestra. Prior vocal experience is encouraged. Credit will be given for as many semesters as taken. Membership is open.

MUS 164 Opera Workshop (1). Practical experience in a workshop situation of scenes from opera and/or musical theatre. Credit will be given for as many semesters as taken. Membership by audition.

MUS 170 Theory I (3). The fundamentals of music through part-writing and analysis. Course content includes key signatures, scales, intervals, triads, and an introduction to figured bass. Taken concurrently with MUS 171 and 172.

MUS 171 Theory II (3). A continuation of MUS 170 emphasizing inversions of triads, the dominant-seventh chord, non-harmonic tones, and elementary modulations through part-writing, composition and analysis with and without figured bass. This course should be taken concurrently with MUS 174 and 175. Prerequisite: MUS 170.

MUS 172 Functional Keyboard I (1). Class instruction in elementary level piano technique, functional keyboard skills and keyboard literature for music majors and minors. This course should be taken concurrently with MUS 170 and 171.

MUS 174 Aural Skills II (1). This course offers a practical application of the materials studied in MUS 173 and provides necessary drill in the skills of sight-singing and aural perception. This course should be taken concurrently with MUS 173 and 175. Prerequisite: MUS 170.

MUS 175 Functional Keyboard II (1). A continuation of MUS 172. This course should be taken concurrently with MSU 173 and 174. Prerequisite: MUS 172.

MUS 200 Public School Music I (2). A course designed to prepare the classroom teacher to meet the needs of the music program in the self-contained classroom. Fundamentals of music are stressed along with learning to play the song bells, autoharp, recorder and keyboard. Minimum proficiencies are required.

MUS 214 Percussion Instruments Level II (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 215 Wind Instruments Level II (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 216 Organ Level II (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 217 Piano Level II (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 218 Strings Level II (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 225 English and German Dictation for Singers (1). A course designed to give voice majors rules for pronouncing sung English and sung German.
MUS 226 French and Italian Diction for Singers (1). A course designed to give voice majors rules for pronouncing sung French and sung Italian.

MUS 230 Introduction to the Music Industry (3). A survey of the various aspects of the music industry with emphasis on professional careers in the field. Prerequisites: None

MUS 240 Introduction to Composition (3). The student will compose exercises and small-scale pieces that each focus on a particular style, instrumentation, or compositional technique. The course deals primarily with contemporary art music and the wide variety of musical languages and techniques exhibited therein. In most cases the student’s creative work will be performed by other members of the class and discussed as a group. The course is repeatable for as many semesters as taken. Prerequisites: status as a music major and successful completion (C or better) of MUS 170 and 171.

MUS 241 Composition Level I (2-3). One 50-minute individual session per week. The student will compose one or more original compositions during the semester with the eventual goal of public performance. Credit will be given for as many semesters as taken. Prerequisites: MUS 240 and permission of instructor.

MUS 270 Theory III (3). A continuation of MUS 173, emphasizing diatonic seventh chords, modulation types, secondary functions and chromaticism through composition and analysis. This course should be taken concurrently with MUS 271 and 272. Prerequisite: MUS 173.

MUS 271 Aural Skills III (1). This course offers a practical application of the materials studied in MUS 270 and provides necessary drill in the skills of sight-singing and aural perception. This course should be taken concurrently with MUS 270 and 272. Prerequisite: MUS 174.

MUS 272 Functional Keyboard III (1). Class instruction in intermediate level piano technique, functional keyboard skills and keyboard literature for music majors. This course should be taken concurrently with MSU 270 and 271. Prerequisite: MUS 175.

MUS 273 Theory IV (3). A continuation of MUS 270, emphasizing the Neapolitan and augmented-sixth chords, complex modulations and key schemes, extreme chromaticism, and an introduction to 20th century compositional practices through composition and analysis. This course should be taken concurrently with MUS 274 and 275. Prerequisite: MUS 270.

MUS 274 Aural Skills IV (1). This course offers a practical application of the materials studied in MUS 273 and provides necessary drill in the skills of sight-singing and aural perception. This course should be taken concurrently with MUS 273 and 275. Prerequisite: MUS 271.

MUS 275 Functional Keyboard IV (1). A continuation MUS 272. This course should be taken concurrently with MUS 273 and 274. Prerequisite: MUS 272.

MUS 300 Public School Music II (2). Methods and materials for teaching music in the elementary classroom with an emphasis on integrating music across the curriculum. Prerequisite: MUS 200.

MUS 301 General Music Methods (3). Fundamentals of music teaching are continued along with procedures for selecting materials, teaching musical concepts, and assessing progress in the musical growth and development of the student. Prerequisites: Junior standing, all Theory courses completed; Vocal Proficiency must be successfully completed. Prerequisite: MUS 123.

MUS 302 Choral Methods (2). Methods, materials and pedagogy related to the teaching of choral music in the elementary, junior high/middle school and senior high school choirs. Students must be of junior standing. Required for all music education majors. Prerequisites: MUS 123 and 134.

MUS 303 Instrumental Methods: Elementary and Middle School (2). Methods, materials and pedagogy related to the teaching of instrumental music in the elementary and middle schools will be studied. Students must be of junior standing and completion of instrument techniques courses is recommended. Vocal proficiency must be successfully completed. Prerequisite: MUS 123.

MUS 304 Advanced Instrumental Methods (2). Methods, materials, organization, administration and pedagogy related to the teaching of instrumental music in the secondary schools. Students must be of junior standing and completion of instrument techniques courses is recommended. Vocal Proficiency must be successfully completed. Prerequisites: MUS 123 and MUS 303.

MUS 313 Introduction to Music Synthesis (1). This course emphasizes a study of the concepts and selected applications of computer music in a digital music studio. Course content includes computer techniques, music sequencing, sound design, sound sampling, and the use of MIDI. One or more original compositions using the technology will be performed during the semester. Credit will be given for as many semesters as taken. Prerequisites: MUS 170 and 171.

MUS 314 Percussion Instruments Level III (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 315 Wind Instruments Level III (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 316 Organ Level III (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 317 Piano Level III (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 318 Strings Level III (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 319 Voice Level III (1-4). One 25-minute or one 50-minute individual instruction period per week. Participation in weekly vocal studio classes may be required. Credit will be given for as many semesters as taken.

MUS 320 Vocal Pedagogy for the Music Educator (2). This course is designed to acquaint the vocal music education major with the structure, function, and development of the vocal mechanism. Students will learn how to protect and develop the vocal instrument in group instructional settings. Topics include the physiology of the singing voice, basics of singing, characteristics of voices at various ages, teaching singing in the music classroom and in the choral rehearsal, choosing appropriate repertoire, assessing results, and developing musical artistry.

MUS 321 Choral Repertoire (2). Students will explore the evolution of choral forms through the major stylistic periods. Special emphasis will be placed on repertory appropriate for elementary, middle and high school choirs. Prerequisite: MUS 302.

MUS 322 Basic Conducting (2). Fundamentals of instrumental and choral conducting. The course will emphasize basic skills and techniques related to conducting instrumental and choral ensembles.

MUS 326 Marching Band Administration (2). Fundamentals of organization, arranging, charting of shows and aspects of public relations and program development.

MUS 327 Arranging Techniques (2). An exploration of the principles of instrumental and choral arranging through study of the instruments and voices involved, with practical application to the varied ensembles found in public schools. Prerequisites: MUS 270 and 271.

MUS 328 Choral Arranging (1). A study of the common arranging practices/principles observed in choral music. Special attention is placed on arranging for specific voice configurations commonly observed in public schools. An examination of the copyright law is included. Required for all music education majors on the comprehensive or vocal tracks. Prerequisites: MUS 273 and 274.

MUS 330 Music Business I (3). An overview of the diverse processes and resources of the Music Industry. Students will comprehend the complexity and synergy of the artistic and business aspects of the industry. Prerequisite: MUS 230.

MUS 331 Music Business II (3). A continuation of MUS 330, exploring the diverse processes and resources of the Music Industry. Students will comprehend the complexity and synergy of the artistic and business aspects of the industry. Prerequisite: MUS 330.

MUS 336 Piano as an Ensemble Instrument (1). Ensemble playing, piano duo literature, accompanying and chamber music performance. Credit will be given for as many semesters as taken. Prerequisite: MUS 136.
MUS 341 Composition Level II (3). One 50-minute session per week. The student will compose one or more original compositions during the semester with the eventual goal of public performance. Credit will be given for as many semesters as taken. Prerequisites: MUS 241 and status as a music composition major.

MUS 350 Instrumental Ensemble (1). Small ensembles concentrating on chamber music literature. Emphasis will be placed upon developing chamber ensemble skills. Credit will be given for as many semesters as taken. Membership by audition.

MUS 351 University Orchestra (1). The ensemble will study and perform symphonic literature from a variety of style periods. Credit will be given for as many semesters as taken. Membership by audition.

MUS 352 Marching Band (1). The marching band prepares field performances for all home football games as well as selected away games and exhibitions. Credit will be given for as many semesters as taken. Membership open.

MUS 353 Brass Choir (1). Designed to give brass and percussion players experience in the study and performance of large brass ensemble literature. Credit will be given for as many semesters as taken. Membership by audition.

MUS 354 Wind Ensemble (1). The wind ensemble develops an understanding of representative wind band literature through study and performance. Credit will be given for as many semesters as taken. Membership by audition.

MUS 355 Jazz Ensemble (1). The jazz ensemble develops an understanding of representative jazz styles and skills through study and performance. Credit will be given for as many semesters as taken. Membership by audition.

MUS 356 Jazz Combo (1). Concentration on development of improvisatory techniques through performance and listening skills. Credit will be given for as many semesters as taken.

MUS 357 Symphonic Band (1). The symphonic band develops an understanding of representative concert band literature through study and performance. Credit will be given for as many semesters as taken. Membership open.

MUS 358 Concert Band (1). The Concert Band develops an understanding of musical styles and skills through study and performance. Repeatable. Prerequisite: Concert band skills on a wind or percussion instrument.

MUS 360 University Chorale (1). University Chorale is dedicated to the study and performance of a wide variety of choral literature from all the major stylistic periods and genres. The development of basic musical skills and proper vocal function is emphasized. Credit will be given for as many semesters as taken. Membership is open.

MUS 361 Concert Choir (1). Concert Choir is dedicated to the study and performance of the masterworks of choral literature from all periods, genres and styles. Credit will be given for as many semesters as taken. Membership by audition.

MUS 362 Chamber Singers (1). The Chamber Singers study and perform a wide variety of choral literature from all periods, genres and styles with special attention to that body of work composed specifically for small vocal ensembles. Credit will be given for as many semesters as taken. Prerequisite: audition and concurrent enrollment in MUS 160/360 or 161/361.

MUS 363 Choral Union (1). Choral Union is an ensemble comprised of students and community members and is dedicated to the study and performance of extended choral works, often with orchestra. Prior vocal experience is encouraged. Credit will be given for as many semesters as taken. Membership is open.

MUS 364 Opera Workshop (1-2). Practical experience in a workshop situation of scenes from opera and/or musical theatre. Only major operatic leads may take MUS 364 for two credits with permission of the instructor. Credit will be given for as many semesters as taken. Membership by audition.

MUS 365 Opera Production (2). Practical experience in costuming, stage management, construction of scenery, and stage lighting for the lyric stage. Credit will be given for as many semesters as taken.

MUS 381 Music History and Literature I (3). The study of musical styles and literature from the fifth century B.C. through 1750. A survey of the musical heritage of western music and cultures including such topics as the Pre-Classic composers, Classic-Era symphonies, chamber music, keyboard and wind concerti, and opera and oratorio through Romantic-Era lied, symphonies, symphonic poems, opera, oratorio, chamber music and concerti. Prerequisites: MUS 173 and 174. For music minors and liberal arts majors: successful completion of MUS 105.

MUS 382 Music History and Literature II (3). The study of musical styles and literature from 1730 through 1900. A survey of the musical heritage of western music and cultures including such topics as the Pre-Classic composers, Classic-Era symphonies, chamber music, keyboard and wind concerti, and opera and oratorio through Romantic-Era lied, symphonies, symphonic poems, opera, oratorio, chamber music and concerti. Prerequisite: MUS 381 with a minimum grade of C.

MUS 383 Music History and Literature III (3). The study of musical styles and literature since 1900. A survey of the musical heritage of western music and cultures including modern artistic ideas and styles, music between the two world wars, and new concepts and directions in live and pre-recorded musical media. Special focus will be included on world music from a variety of non-western cultures. Prerequisite: MUS 381 with a minimum grade of C.

MUS 396 Repertoire/Pedagogy (2). A study of methods and materials available for teaching purposes as well as appropriate repertoire and pedagogical techniques available for various levels of learning.

MUS 398 Junior Recital (0). Bachelor of Music in Performance degree candidates of junior standing enroll in this course the semester of their junior recital.

MUS 414 Percussion Instruments Level IV (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 415 Wind Instruments Level IV (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 416 Organ Level IV (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 417 Piano Level IV (1-4). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken.

MUS 418 Strings Level IV (1-4). One 25-minute or one 50-minute individual instruction period per week. Participation in weekly vocal studio classes may be required. Credit will be given for as many semesters as taken.

MUS 423 Instrumental Conducting (2). An in-depth study of instrumental conducting techniques, with emphasis on practical conducting experiences using instrumental ensembles. Attention will be given to the selection, preparation and conducting of literature appropriate to various public school ensemble levels. Prerequisites: MUS 273, 274, 323.

MUS 424 Choral Conducting (2). An in-depth study of choral conducting techniques, with emphasis on practical conducting experiences using choral ensembles. Attention will be given to the selection, preparation and conducting of literature appropriate to various public school ensemble levels. Prerequisites: MUS 273, 274, 323.

MUS 427 Advanced Arranging and Orchestration (2). An in-depth exploration of all the instruments of the orchestra and band as well as the study of how to effectively write for each, alone and in combination. This course focuses on detailed score study, intense listening and evaluation, composing effective arrangements, and professional-level score preparation. The course will meet for two hours of lecture per week as well as one orchestra or band reading session (to be arranged). Prerequisites: Status as a music major and a grade of C or better in MUS 273 and MUS 327.

MUS 431 Special Topics: Study Abroad I (3). A study of selected musical topics: composers, genres, etc. The course will allow students to study topics in a concentrated, in-depth manner. Specific topics will vary. Credit will be given for as many semesters as taken.
MUS 439 Harpsichord (1). One 25-minute individual instruction period per week. Credit will be given for as many semesters as taken. Prerequisites: MUS 341 and status as a music composition major.

MUS 441 Composition Level III (3). One 50-minute individual instruction period per week. The student will compose one or more original compositions during the semester with the eventual goal of public performance. Credit will be given for as many semesters as taken. Prerequisites: MUS 341 and status as a music composition major.

MUS 459 Advanced Music History and Literature (3). The student will explore in further depth the development of music in history through stylistic elements as found in the standard repertoire. Each of these musical elements will be traced from plainchant through music of the 20th century, with special emphasis on innovative trends, perspectives, and genres. Prerequisites: MUS 381 and 382 with a minimum grade of C, or consent of instructor.

MUS 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

MUS 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

MUS 490 Senior Seminar (1). A course designed to provide an opportunity for students in all three degree programs to meet with the music faculty to explore topics of mutual concern; a culminating experience in which students examine uniquenesses and differences of their programs in consideration of trends and concepts in music, the arts and places of these in human experience; a forum for verbal and non-verbal program assessment.

MUS 496 Repertoire/Pedagogy (2). A continuation of MUS 396. Required of B.M. degree students. Prerequisite: MUS 396.

MUS 497 Final Project (0). The final project may be a research paper, a musical composition or other work acceptable to both student and advisory committee. Bachelor of Arts in Music candidates in the research track enroll in this course during the seventh or eighth semester of study.

MUS 498 Senior Recital (0). Undergraduate degree candidates enroll in this course during the semester of their senior recital.

MUS 499 Concerto Performance (0). Undergraduate degree candidates in the Bachelor of Music in Performance program enroll in this course the semester of their concerto performance.

MUS 501 Pedagogy of Theory (2). An examination of current materials and practices in the teaching of theory; discussion and research of the problems of theory teaching with particular emphasis on application to and place in the secondary school and the junior college. (On demand)

MUS 510 Analysis of Contemporary Music (3). Study of the techniques and styles employed by composers since 1900. This course provides theoretical insight into the compositional procedures and stylistic tendencies exhibited in recent music, and, in many cases, how they connect logically with the music of the past. It emphasizes learning how to listen to, appreciate, and interpret contemporary music. Prerequisites: A grade of C or better in MUS 273 and 274.

MUS 512 Counterpoint (3). Contrapuntal practices from the 16th century to the modern era. There will be particular emphasis on contrapuntal writing of the 18th century as exemplified in the works of J.S. Bach. Study of species counterpoint, analysis of representative composition, and writing of contrapuntal works. Prerequisites: A grade of C or better in MUS 273 and 274.

MUS 513 Form and Analysis (3). A study in harmonic analysis and the forms of composition throughout the history of music. Prerequisites: MUS 273 and 274 with a grade of C or better.

MUS 514 Applied Music Study—Percussion Instruments (1-3). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken. Open to junior and senior students. Prerequisites: completion of 400-level of applied study or the equivalent, and permission of instructor.

MUS 515 Applied Music Study—Wind Instruments (1-3). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken. Open to junior and senior students. Prerequisites: completion of 400-level of applied study or the equivalent, and permission of instructor.

MUS 516 Applied Music Study—Organ (1-3). One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken. Open to junior and senior students. Prerequisites: completion of 400-level of applied study or the equivalent, and permission of instructor.

MUS 517 Applied Music Study—Piano (1-3) One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken. Open to junior and senior students. Prerequisites: completion of 400-level of applied study or the equivalent, and permission of instructor.

MUS 518 Applied Music Study—String Instruments (1-3) One 25-minute or one 50-minute individual instruction period per week. Credit will be given for as many semesters as taken. Open to junior and senior students. Prerequisites: completion of 400-level of applied study or the equivalent, and permission of instructor.

MUS 519 Applied Music Study—Voice (1-3) One 25-minute or one 50-minute individual instruction period per week. Participation in weekly vocal studio classes may be required. Credit will be given for as many semesters as taken.

MUS 520 Keyboard Literature and Performance Practice (2). Keyboard literature from the pre-Baroque era through the 20th century. Stylistic considerations, performance practices, ornamentation, etc., for each period researched and discussed. Prerequisite: consent of the instructor. (On demand)

MUS 530 Special Topics (3). A study of selected musical topics: composers, genres, etc. The course will allow students to study topics in a concentrated, in-depth manner. Specific topics will vary by semester according to student and faculty advisor interests. Credit will be given for as many semesters as taken.

MUS 533 String Techniques (2). Techniques of teaching stringed instruments through participation. Special reports and discussions on the development of string programs in schools required. Open to advanced undergraduates with permission of department chair. Prerequisite: MUS 133 or equivalent. (On demand)

MUS 535 Double Reed Techniques (2). Course designed to acquaint the student with idiomatic problems related to the construction and use of bassoon, oboe and English horn reeds; study includes reed construction with observation of characteristics and relationship of the reed to tone production and quality. Prerequisite: MUS 132 or equivalent.

MUS 540 Piano Pedagogy (2). Piano teaching including the examination and evaluation of beginning and intermediate teaching methods, analysis of technical approaches, research into the history of piano pedagogy. Observations and supervised practice teaching required. Prerequisite: consent of the instructor. (On demand)

MUS 541 Vocal Pedagogy (2). Techniques, practices and materials used in the teaching of singing. Discussion of psychological and physical developmental growth principles applied to individual and group performance. (On demand)

MUS 550 Independent Study in Music (1-3). Independent study for selected students. Topics, methodology and evaluation procedures to be approved in advance by the instructor. Credit will be given for as many semesters as taken. Prerequisite: consent of department chair.

MUS 593 Workshop in Music for Teachers (1-3). A variable credit workshop with selected topics appropriate to music educators. Credit will be given for as many semesters as taken.
Objective
Course designed to enable students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail. (Same as CDI/EXS/HEA/REC 099.)

NTN 303 Research Concepts in Food and Nutrition
(1). Introduction to research, dietetics and food management including academic and professional preparation. Job shadowing outside the regular class periods may be required.

NTN 220 Food Safety and Sanitation (2). This course focuses on foodservice sanitation and safety principles in foodservice and lodging operations. Topics include issues impacting consumers and operators, application of Hazard Analysis Critical Control Point (HACCP) and preparation for the national foodservice sanitation certification examination. Characteristics of food, supplies, and equipment as related to quality, sanitation, and safety will also be addressed.

NTN 230 Nutrition (3). Principles of nutrition related to normal health include ethnic, cultural, and socioeconomic factors that determine eating patterns; nutrient components of foods and their functions; physical and chemical processes of using food nutrients. Lecture, three hours.

NTN 231 Principles of Food Science and Preparation (3). Emphasis on understanding and applying the basic physical and chemical properties of foods. Development of skills in recipe interpretation, cooking methods, storage, sanitation, and kitchen management. Lecture, two hours; laboratory, three hours.

NTN 303 Research Concepts in Food and Nutrition (3). Introduction to quantitative and qualitative research in foods and nutrition focusing on methods for collecting and analyzing data as well as critiques of research reports and the development of research proposals. Prerequisites: MAT 135 or PSY 300 or CIS 243 and CIS 343.

NTN 333 Nutrition Throughout the Life Cycle (3). Identification of the nutritional needs and problems of individuals as they relate to physiological functions of the body at various stages of the life cycle. Specific health problems that require dietary intervention will be examined. Lecture, three hours. Prerequisite: NTN 230.

NTN 371 Quantity Food Production Practicum (1-2). Field experience to help students apply basic food preparation techniques, safety and sanitation procedures, work organization, and styles of service in quantity food establishments. Three clock hours per week for 1 credit hour, six clock hours per week for 2 credit hours. Corequisite: NTN 372.


NTN 373 Management of Food Service, Personnel and Facilities (3). Functions of management applied to food service systems; cost analysis and control systems; design of physical facilities and selection of equipment; training and development of personnel. Prerequisite: NTN 372.

NTN 374 Food Service Management Practicum (3). Supervised work experience to help students apply concepts of food service management. Prerequisites: NTN 371, 372. Corequisite: NTN 373.

NTN 402 The Market Trip (1-3). Field experience at a major market for apparel, design, housing, food or retail businesses. The internship assignment would be an agreement by both department and the participating employer and credit will be determined accordingly. Prerequisite: consent of instructor.

NTN 412 Community Nutrition and Health (3). Study of problems in community nutrition and health including family and personal health issues, governmental health agencies and the development of community nutrition programs. Lecture, three hours. Prerequisites: NTN 230 and 333.

NTN 422 Meal Management (3). Production and service of nutritious meals for groups in a restaurant type environment. Students manage the meal service incorporating nutrition guidelines as well as resource management principles. Four hours of laboratory and one hour of lecture per week. Prerequisites: NTN 230, 231, 372.

NTN 430 (532) Advanced Nutrition (3). Advanced study of nutrition and human metabolism with emphasis on recent research. Diet pattern interrelationship in physical health; research procedures and interpretation used in an individual project. The field of dietetics, its professional roles and responsibilities. Lecture, three hours. Prerequisites: BIO 101, 227, 228, 229, 230; CHE 105; NTN 230.

NTN 432 Experimental Foods (3). Objective and sensory methods of evaluating chemical and physical qualities of food; the interpretation of related research and writing of simple technical papers. Lecture, two hours; laboratory, two hours. Prerequisites: NTN 231, some chemistry.

NTN 434 Clinical Dietetics Practicum (1). Field experience in clinical dietetics to help students apply classroom instruction in a community facility under the supervision of a Registered Dietitian. Prerequisites: consent of instructor and NTN 230, 333, and 440, or 535.

NTN 440 Medical Nutrition Therapy (1). Study of the role of nutrition in the pathophysiology and care of chronic diseases. Emphasis is placed on the nutrition care process, nutrition assessment and the design of therapeutic diets for the management of chronic diseases and conditions. Prerequisites: BIO 229, 230; CHE 105 or 201; NTN 333; admission to the Dietetics Program.

NTN 450 (535) Medical Nutrition Therapy II (3). Study of the role of nutrition in the pathophysiology and management of disease. Emphasis is placed on the design of therapeutic diets for the management of chronic diseases and conditions. Prerequisites: NTN 440 and admission to the dietetics program.

NTN 480 Special Problems in Nutrition and Foods (1-3). Course designed to enable the student to pursue independent study in selected areas of nutrition, dietetics, or food management. May be repeated for a maximum of six credits. Prerequisites: consent of the department chair and instructor supervising the project.

NTN 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

NTN 499 Senior Seminar (1). Seminar for students in dietetics, nutrition, or food management focusing on professional issues, the internship application process, employment opportunities, interview skills, resume and portfolio development, and related problems. Recommended for students in the senior year.

NTN 520 Seminar in Food and Nutrition (1). A research symposium about special topics dealing with food and nutrition presented by graduate students and faculty. Course enables students to expand their knowledge about contemporary research topics. Prerequisite: permission of instructor.

NTN 531 Food Economics (3). A study of the economical, legislative, physical and microbiological factors that affect the food supply during processing, packaging and distribution. Lecture, three hours; laboratory, arranged.

NTN 536 Methods in Medical Nutrition Therapy (3). Understanding medical nutrition therapies involving diseases of carbohydrate metabolism and protein metabolism. Comprehensive approaches to nutrition therapy via oral, enteral and parenteral methods. Prerequisites: BIO 101, 227, 228, 229, 230; CHE 105; NTN 230.

NTN 597 Trends and Issues in Nutrition and Foods (1-3). Topics may differ from semester to semester depending on program needs. Investigation of current problems, issues and topics in food, nutrition and dietetics. May be repeated when topic differs.
NUR 200 Introduction to Nursing Concepts (3). This course introduces the student to professional nursing. Focus of the course is on the concepts of nursing, person, health and environment with an emphasis on human development and health promotion.

NUR 201 Nursing Assessment (3). A course providing learning experiences needed to acquire assessment knowledge and skills for eliciting a sound data base. Activities involve interviewing, recognizing psychosocial-developmental status, performing physical examination, interpreting test findings, documenting findings and stating nursing diagnoses. Differentiation of nursing responsibilities associated with a variety of health status and developmental levels is addressed. Two hours theory and three hours laboratory weekly. Prerequisite: RNs-admission to program.

NUR 202 Mental Health Nursing (3). This course is designed to be an introduction and practice of psychosocial nursing and mental health concepts. The course will introduce skills for assessment and delivery of psycho-social support and team building. Theories of stress, anxiety, crisis, coping, and human behavior will be explored. The course will include skills for therapeutic and assertive communication with individuals, groups, and health team members, as well as self-awareness and confidence building exercises. Two hours lecture and three hours laboratory per week. Prerequisites: Admission to the Nursing Program and COM 161.

NUR 204 Nursing Practice Fundamentals (6). A course designed to offer opportunities for the student to gain knowledge and fundamental skills essential to client care and health promotion. Focus of the course is on using the nursing process to assist individuals in coping with health problems and in achieving and maintaining optimal health. Three hours theory and nine hours clinical laboratory weekly. Prerequisites: NUR 200, 201, and 205 (pre- or co-requisites).

NUR 205 Pharmacology in Nursing (3). This course is designed to present basic facts and principles upon which therapeutic pharmacology is founded. Areas discussed are major drug classifications, desired drug actions, and undesirable side and/or toxic effects of drugs. Emphasis will be placed on the nurse’s legal responsibilities in administering these drugs and specific implications which are inherent in drug therapy. Prerequisites: admission to nursing, NUR 200 and 201. (pre- or co-requisite).

NUR 206 Nursing Practice Fundamentals (5). A course designed to offer opportunities for the student to gain knowledge and fundamental skills essential to client care and health promotion. Focus of the course is to provide opportunities for building clinical reasoning, practice, and nursing and evaluation skills. Prerequisites: NUR 200, NUR 201. Co-requisite: NUR 205.

NUR 207 Foundations of Informatics and Healthcare Technology (2). An introduction to the use of information and patient care technology, including decision support systems, in order for the student to develop basic competence in gathering evidence to guide practice. The student will be exposed to a range of technologies that facilitate clinical care including patient monitoring systems, medication administration systems, and other technology to support patient care. Prerequisite: Admission to the Nursing Program.

NUR 301 (430) Pathophysiology for Nursing Practice (3). Course serves as an introduction to pathophysiology with applications for BSN practice. Prerequisites: admission to the nursing program and courses in physiology, microbiology, and medical-surgical nursing, or consent of instructor.

NUR 302 Nursing Care of the Childbearing Family (4). The impact of pregnancy upon the mother’s physical status is studied in depth. Emphasis is placed on the growth and development of the individual from conception through the first four weeks of life. Prerequisites: NUR 206, 205, 207; BIO 229/230, NTN 230, corequisite: NUR 301.

NUR 303 Nursing Care of the Childbearing Families (5). Care of the childbearing family is a course designed to provide the student with the opportunity to gain knowledge and skills necessary to give nursing care to the expanding family. The impact of pregnancy upon the mother’s physical status and the family’s emotional and developmental status is studied in depth. Emphasis is placed on the growth and development of the individual from conception throughout the first four weeks of life. Three hours lecture and six hours clinical laboratory weekly. Prerequisites: NUR 200, 201, 204, 205; BIO 229, 300; NTN 230.

NUR 304 Nursing Care of Childrearing Families (5). A study of the nursing of children from infancy through adolescence at any position on the health continuum. Emphasis is placed on health promotion through primary prevention, assessment for actual or potential health problems, teaching and counseling children and their families, and helping children to adapt to physical and psychosocial stress. Theoretical principles are applied in various clinical settings. Three hours lecture and six hours clinical laboratory weekly. Prerequisites: NUR 303.

NUR 305 Nursing Care of the Childrearing Family (4). A study of the nursing of children from infancy through adolescence. Emphasis is placed on health promotion through primary prevention, assessment for actual or potential health problems, teaching and counseling children and their families, and helping children to adapt to physical and psychological stress. Theoretical principles are applied in various clinical settings. Prerequisites: NUR 301, 302, 307.

NUR 306 (406) Introduction to Research in Nursing (3). This course is designed to assist the student to become a knowledgeable consumer of research in nursing. Methods and strategies utilized for research in nursing are examined. A major focus is on increasing the student’s ability to analyze, critique, and interpret research and its application to clinical practice. Prerequisites: Descriptive and Inferential Statistics, MAT 135 or PSY 300 or 591; admission into the BSN program; RNs-NUR 314, pre- or co-requisite.

NUR 307 Nursing Care of Adults I (3). A combined theory/practical course, (2 hour lecture plus 1 hour skills lab (45 hours) which presents physiological and psychological concepts relevant to nursing practice. Theory focuses on the nursing process, concepts and skills of medical surgical nursing. The clinical focus is on the implementation of the nursing process and developing skills in the care of stable adults and their families. Prerequisites: BIO 229, BIO 230, NUR 205, NUR 206, NUR 207, NUR 306. Co-requisite: NUR 301.

NUR 308 Nursing Care of Adults II (4). A combined theory/practical course, (2 hour lecture plus 2 hours clinical lab (90 hours) which presents physiological and psychological concepts relevant to nursing practice. Theory focuses on the nursing process during phases of common and less common major dysfunction. The clinical focus is on the implementation of the nursing process in the care of stable acute and chronically ill adults and their families. Prerequisites: NUR 301, NUR 302, NUR 307.

NUR 311 Nursing Care of Adults I (5). A combined theory/practical course which presents physiological and psychological concepts relevant to nursing practice. Theory focuses on the nursing process during phases of common major dysfunctions. The clinical focus is on the implementation of the nursing process in the care of ill adults and their families. Three hours lecture and six hours clinical laboratory weekly. Prerequisites: NUR 200, 201, 204, 205; BIO 229, 300; NTN 230.

NUR 312 Nursing Care of Adults II (5). A combined theory/practical course which presents physiological and psychological concepts relevant to nursing practice. Theory focuses on the nursing process during phases of common and less common major dysfunctions. The clinical focus is on the implementation of the nursing process in the care of ill adults and their families. Three hours lecture and six hours clinical laboratory weekly. Prerequisites: NUR 311.

NUR 314 Professional Nursing Practice (3). Designed to provide the student with concepts and theories basic to baccalaureate nursing education. Professional nursing practice is emphasized. Analysis and synthesis of knowledge from other disciplines are incorporated into the practice of nursing. Prerequisites: admission to the RN-BSN program and required semester of admission.

NUR 320 Holistic Approach to Women’s Health Issues (3). A course designed to provide the student with the opportunity to gain knowledge necessary to give nursing care to women across the...
Patient education is an elective with groups of people in providing care for groups and management concepts relevant to working in Nursing (5). Nursing (5) is designed to help nursing students apply principles and concepts related to drug therapy in practice. Prerequisite: NUR 308.

NUR 401 Psychiatric and Mental Health Nursing (5). The focus of this course is individuals and groups with actual or potential psychiatric/mental health needs. Students are provided the opportunity to utilize knowledge and promote mental health across the life span. Also included is an exploration of the mental health care delivery system and community resources available. The course offers opportunities for students to enhance personal and interpersonal awareness. Knowledge synthesized from classroom and laboratory experiences will provide the base for psychiatric/mental health nursing practice. Three hours lecture and six hours clinical laboratory weekly. Prerequisites: NUR 304 and 312; GUI 592 or COM 353 or 357 or 384 or 385.

NUR 402 Psychiatric Nursing (4). The focus of this course is care of individuals, families, and groups with actual or potential psychiatric illness. Students are provided the opportunity to utilize knowledge and promote mental health across the life span. Also included is an exploration of the mental health care delivery system and community resources available. The course offers opportunities for students to enhance personal and interpersonal awareness. Knowledge synthesized from classroom and laboratory experiences will provide the base for psychiatric/mental health nursing practice. (Credit hours reflect 3 weekly hours didactic and 1 hour clinical rotation which equates to 45 clock hours of lab.) Prerequisites: NUR 305 and 308.

NUR 403 Community Health Nursing (5). An overview of the philosophy of community health care and trends in community health services delivery. The emphasis is on prevention of illness and promotion of health of individuals, families, communities, and related sociocultural and environmental factors. A brief description of the political and financial structure at the local, state and national level is presented along with community health nursing’s relationship to it. Three hours lecture and six hours clinical laboratory weekly. Prerequisites: NUR 401, 405, and 406. RNs-NUR 314, pre or co-requisite.

NUR 404 Leadership and Management in Nursing (5). A study and review of leadership and management concepts relevant to working with groups of people in providing care for groups of clients. Opportunity for application of these concepts and integration of nursing knowledge and skills is provided through experiences in a clinical setting. The student is expected to work collaboratively and to increase his/her competence and confidence in providing nursing care. Three hours lecture and six hours clinical laboratory weekly. Prerequisites: NUR 401, 405, 406; RNs-NUR 314, pre or-co-requisite.

NUR 407 Integration Practicum (4). A combined seminar/clinical course to allow clinical integration of all study in previous nursing courses. The focus of the course is on clinical application of physiological and psychological concepts in caring for clients with complex health problems and their families in acute care settings. The seminar component is to provide direction in using the nursing process in the care of ill adults and families with complex health problems. One hour lecture and nine hours clinical laboratory weekly. Prerequisites: all courses in the nursing curriculum and NCLEX Readiness Test.

NUR 408 Nursing Care of Adults II (4). A combined theory/clinical course, (2 hour lecture plus 2 hour clinical lab-90 hours) which presents physiological and psychological concepts relevant to nursing practice. Theory focuses on the nursing process during phases of common and less common major dysfunction. The clinical focus is on the implementation of the nursing process in the care of acute and critically ill adults and their families. Prerequisites: NUR 305 and 308.

NUR 409 The Nursing Profession and Health-care Delivery (2). An identification and analysis of the current and emerging issues in nursing and the social, political and economic forces impinging upon the nursing profession and health care delivery are the focus of this course. Nursing as an independent profession and the inter-dependent and collaborative relationships with other health related professions will be explored. Prerequisites: NUR 305 and 308.

NUR 410 Community Health Nursing (4). An overview of the philosophy of community health care and trends in the community health services delivery. The emphasis is on prevention of illness and promotion of health of individual, families, communities, and related sociocultural and environmental factors. A brief description of the political and financial structure at the local, state, national, and international levels is presented along with community health nursing’s relationship to it. Prerequisites: NUR 400, 402, 408, and 409.

NUR 411 Problems in Nursing (1-3). Designed to permit special study in selected problems of nursing. Prerequisites: consent of instructor and approval of written proposal.

NUR 412 Leadership and Management in Nursing (4). A study and overview of leadership and management concepts relevant to working with groups of people in providing care for groups of clients. Opportunity for application of these concepts and integration of nursing knowledge and skills is provided through classroom activities and experiences in a clinical setting. The student is expected to work collaboratively and to increase his/her competence and confidence in providing nursing care. Prerequisites: NUR 400, 402, 408, and 409.

NUR 415 Medical Ethics (3). Study of moral issues in medical ethics such as the rights of patients (truth-telling, confidentiality), the duties of health professionals, the allocation of scarce medical resources, and euthanasia. (Same as PHI 515.)

NUR 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

NUR 440 Directed Study (1-3). Faculty directed study is available for students, individually or in groups, who want to investigate special problems extending study begun in course work in clinical nursing. Prerequisites: approval of written proposal and consent of the instructor directing the study. May be repeated for a maximum of six hours.

NUR 445 The Professional Nurse as Client Educator (3). Patient education is an elective course in nursing designed to assist the nurse to develop those skills and intellectual competencies necessary for providing comprehensive health education across the lifespan. The role of the professional nurse as client educator will be explored. Two hours lecture or seminar and three hours clinical laboratory weekly. Prerequisites: NUR 204 and 205 or R.N. status.

NUR 447 Stress Management (3). This course is designed to acquaint the student with methods of personal stress and lifestyle management. It provides a foundation in wellness and stress management concepts and practices that the student can use in both professional and personal realms throughout the lifespan.

NUR 450 Independent Study (3). Faculty supervised individual study and/or investigation of selected areas of nursing related to student’s academic and/or career goals. Prerequisites: senior standing and consent of department chair.

NUR 460 Special Topics (3). Course designed to assist students in expanding their knowledge base and developing additional skills in the field of nursing. Topics may vary depending on current issues and practices. Course may be repeated once with instructor’s approval. Prerequisite: permission of instructor.

NUR 470 Complementary Healing Modalities (3). A combined theory/clinical course which explores complementary healing modalities as therapeutic nursing interventions that can be used with traditional medical practices or when traditional medical practices offer no cure or relief. A specific complementary healing modality (therapeutic touch) will be fully examined and practiced in the field setting. Prerequisites: NUR 204 or R.N. status; both must meet clinical requirements.

NUR 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial
remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

**Courses**

**OCCUPATIONAL SAFETY AND HEALTH (OSH)**

OSH 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Meetings with advisors, department personnel, service areas, and campus field trips comprise the main involvement. Availability of university resources is stressed with emphasis on personal needs. Graded pass/fail.

OSH 101 Emergency Medical Training (7). Designed to cover the overall role and responsibilities of the emergency medical technician - basic in performing both the emergency care and operational aspects of his/her job. Also covers diagnosis and all emergency treatment procedures short of those rendered by physicians. Successful completion of all required coursework and examinations will qualify the student to apply for state and national registry certification.

OSH 192 Introduction to Occupational Safety and Health (3). Development of accident-prevention and loss-control methods, procedures, and programs in industrial establishments; application of codes and safety-engineering and management principles.

OSH 287 OSHA Standards for General Industry and Construction (3). A study of OSHA regulations for general industry and construction, comparing parallel standards in 29 CFR 1910 and 29 CFR 1926. The course will cover topics addressed in the 10-hour OSHA outreach courses. “Best practices” related to mandatory standards will also be discussed. Students will learn how to create a coherent company safety manual that combines program management topics, mandatory standards and general good safety practices in a user-friendly format.

OSH 299 Professional Development Seminar I (1). Seminar for students in occupational safety and health, focusing on the job search process, employment opportunities, interviewing techniques and related problems. Introductory-level course recommended for students preparing for their first internship, generally in the sophomore or junior year. Graded pass/fail.

OSH 301 Product Liability (3). An examination of the problems and current practices in both industry and government pertaining to the design, production, testing and economic consideration of product hazards. Attention will be given to the impact of design deficiencies on the public and the liability involved. Prerequisite: ITD 120.

OSH 310 Fire and Emergency Preparedness Preplanning (3). Analysis of the historical perspective of fire science and examination of the various fields of study that make up the fire science curriculum. Fire control through building construction, occupancy, occupancy hazard control, life-saving tactics and knowledge. Control of flammable gases, solids, liquids, dusts, chemicals and explosives. In addition, the course is designed to develop an awareness and comprehension of the disasters known to modern man, including a detailed description of their characteristics and physical destructive potential, and to develop student awareness of all agency, public and individual responsibilities prior to, during and after the occurrence of any type of disaster. Prerequisites: CHE 105 and OSH 192.

OSH 311 Hazardous Materials and Emergency Planning (3). This course is designed to develop an awareness and comprehension of disaster response programs, operations and responsibilities emphasizing the transportation, storage and handling of hazardous materials. Prerequisites: CHE 105 and OSH 192.

OSH 320 Environmental and Occupational Health Engineering Technology (3). An environmental overview course that examines scientific causes and engineering solutions to water and air pollution problems. Focus is on adverse effects, generation sources, scientific principles, and EPA engineering control strategies. Solid and hazardous waste disposal methods are also covered. Prerequisites: BIO 101, CHE 105 and OSH 192.

OSH 353 Prevention of Musculoskeletal Disorders in the Workplace (3). A course examining the occurrence and prevention of musculoskeletal disorders (MSDs) in the workplace. Emphasis is on recognizing and identifying MSD signs and symptoms, contributing risk factors, control methods, training and prevention program development and implementation, and management issues. Prerequisite: OSH 192.

OSH 370 Professional Internship I (3). Work experience or training in industry. Evaluation of work experience made by department. Graded pass/fail. Prerequisite: junior standing or consent of instructor.

OSH 371 Professional Internship II (3). Work experience or training in industry. Evaluation of experience made by department. Graded pass/fail. Prerequisite: junior standing or consent of instructor.

OSH 384 Construction Safety (3). Course will include management techniques necessary to address the unique needs of the construction workplace as contrasted to general industry, as well as a study of applicable standards and methods of recognition, avoidance and prevention of potential hazards. This course builds on OSH 287. It is assumed that student has a good grasp of the general industry standards.

OSH 420 Fundamentals of Industrial Hygiene (3). An introduction to the field of industrial hygiene, including the chemical, physical, and biological agents which affect the health and safety of employees; the application of control measures for the various agents; study of threshold limit values and occupational health toxicology. Prerequisite: CHE 105 or consent of instructor.

OSH 425 Physical Agents (3). The study of physical agents including noise, radiation (ionizing and non-ionizing forms), abnormal atmospheric pressure, and heat and cold stresses in the workplace. Emphasis is given to properties, measurements, health effects and engineering controls recommended and practiced by OSHA.

OSH 445 Fundamentals of Loss Control (3). An analysis of actual or potential exposures to hazards and their resultant losses posed by agents, energy forms, forces, and substances in the workplace; measuring the loss exposures created by those hazards; and managing the appropriate counter measures to compensate for perils presented by those losses. Field experiences required. Prerequisites: OSH 192 and 287.

OSH 450 Practical Application Lab (2). Course designed to assist students in understanding the various instruments that are utilized in occupational safety and health (industrial hygiene, ergonomics, and environmental sciences) and give them the chance to fully understand the way these instruments are calibrated and applied as well as their advantages and disadvantages. Intended for students in their junior or senior year. Field experience required. Prerequisites: OSH 320, 420, and/or instructor’s approval.

OSH 452 Systems Approach to Hazard Control (3). This course is designed to identify the broad spectrum of actual and potential hazards such as biological, mechanical, and human factors, involving product safety, system development, and the workplace and to apply a systems approach to their resolution. Includes such areas as product and preliminary hazard analysis, failure mode and effects analysis, and fault tree analysis.

OSH 453 Human Factors in Safety Engineering (3). An analysis of the man-machine relationship and the biological, physiological and psychological factors that contribute to accident causation, examination of theoretical and applied research findings.

OSH 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

OSH 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

OSH 499 Professional Development Seminar II (1). Seminar for students in occupational safety and health, focusing on the transition to the world of work and related problems. Recommended for students in the senior year. Graded pass/fail. Prerequisite: OSH 299.
OSH 511 Hazardous Waste Site Operation (3). This course will train the student to become a hazardous materials specialist. The course will explore the various aspects of the hazardous waste site (especially Superfund Sites), including rights and responsibilities, hazard recognition and monitoring.

OSH 523 Occupational Diseases (3). Survey of occupational diseases covering routes of entry and modes of action. In particular, the pathogenicity, epidemiology and diagnosis of occupational diseases will be stressed as they relate to chemical, biological and radiological hazards, dermatoses, airway diseases, plant and wood hazards, chemical carcinogens, and pesticides. Prerequisite: CET 210.

OSH 527 Air Contaminants and Industrial Ventilation (3). A course examining air contaminant problems, gas calculations, and industrial ventilation. This course covers the EPA laws and regulations, and the scientific principles and controls of classical air pollution problems. It also focuses on the engineering evaluation and design of industrial ventilation systems. Prerequisite: OSH 320 or consent of instructor. (Same as CET 527.)

OSH 536 Motor Fleet Safety (3). A basic introduction to problems and practices of motor fleet safety programming with emphasis on regulatory requirements.

OSH 546 Fundamentals of Risk Control (3). An analysis of risk control as a component of risk management. The systematic process of managing an organization’s risk exposures to achieve its business objectives in a manner consistent with public interest, human safety, environmental factors, and the law. Risk control consists of the administrative, procedural and engineering activities undertaken with the intent of preventing accidental or unplanned loss consistent with the organization’s overall risk management plan.

OSH 550 Safety and Health Program Management and Training (3). The concepts, relationships and principles of managing the occupational safety and health function and the development of training procedures and practices to integrate that function into the organization. Prerequisite: OSH 192.

OSH 571 Problems in Safety and Health (1-3). Individual study and research relating to safety and health. May be repeated for additional credit. Prerequisites: approval of problem before registering for course and junior standing.

OSH 578 Workshop in Safety and Health (1-3). Workshops on topics pertinent to industry and technology. May be repeated for additional credit.

OSH 591 Engineering and Technical Aspects of Safety (3). A study of the properties and applications of industrial materials, manufacturing processes, engineering graphics, electricity, materials testing, selected plant facilities and other aspects of the work environment. Emphasis is placed on the application of this information to safety practices, hazard mitigation and loss control. Prerequisites: OSH 192 and ITD 120.

OFFICE SYSTEMS (OSY)

OSY 101 Keyboarding (1). Development of basic touch keyboarding skills for computer or typewriter use.

OSY 120 Introduction to Information Processing (3). An introduction to the operation of information processing equipment — microcomputers. The students develop skills in using data processing and word processing hardware and software.

OSY 140 Beginning Word Processing (1). A course to provide a basic understanding of fundamental word processing concepts. The students will receive hands-on instruction in the use of microcomputer word processing applications packages and have access to a microcomputer laboratory.

OSY 141 Beginning Spreadsheets (1). A course to provide a basic understanding of fundamental spreadsheet concepts. The student will receive hands-on instruction in the use of microcomputer spreadsheet applications packages and have access to a microcomputer laboratory.

OSY 142 Beginning Database (1). A course to provide a basic understanding of fundamental database concepts. The student will receive hands-on instruction in the use of microcomputer database applications packages and have access to a microcomputer laboratory.

OSY 210 Word Processing (3). This course builds on basic keyboarding techniques. The development of occupation-level formatting/production skills is stressed. Prerequisite: keyboarding and microcomputer skill.

OSY 315 Office Systems Applications (3). A course which acquaints students with administrative support positions and concentrates on advanced office technologies — hardware, desktop publishing software, scanners and automated office operations. Prerequisites: junior standing; CSC 199 or consent of instructor.

PHYSICAL EDUCATION (PHE)

PHE 101 Physical Education for the Exceptional Student (1).

PHE 205 Lifetime Activities (3). At least four of the following sports will be taught: fitness, golf, tennis, bowling, badminton, archery and outdoor leisure activities.

PHE 206 Team Sports (3). To provide the prospective physical education teacher with information and skill related to at least four team sports.

PHE 285 Football and Basketball Officiating (2). Football and basketball rules and theories of officiating.

PHE 289 Officiating Soccer (1). This course is intended to prepare students for a role as a certified soccer official. Certification is optional. The student will learn the laws of the game of soccer through a United States Soccer Federation certified instructor. The format of the class will be lecture and class participation. Each class will last four hours for four nights, one night per week.

PHE 304 (404) Adapted Physical Education (3). Designed to develop understanding, knowledge and skills that encompass the theory and practice in physical education programs for special populations. Field experience required. Prerequisites: HPE 175, junior or senior standing, or permission of program coordinator.

PHE 306 Dance and Gymnastics (3). The course is designed to provide the prospective physical education teacher with the skills necessary to teach dance and gymnastics at the elementary and secondary school level.

PHE 310 Fundamentals of Athletic Coaching (2). This course is designed to introduce prospective athletic coaches and physical education teachers to the theory and applied practice of athletic coaching.

PHE 312 Coaching Football I (2). This course will present the technique and strategy in the various styles of offense and defense. Laboratory experience will be provided.

PHE 314 Coaching Basketball I (2). The various systems of defense and offense in basketball will be discussed and demonstrated. Laboratory experience will be provided.

PHE 316 Coaching Baseball I (2). The strategy and fundamentals of baseball will be discussed and demonstrated. Laboratory experience will be provided.

PHE 318 Coaching Track and Field I (2). The basic fundamentals of track and field will be presented and demonstrated. Laboratory experience will be provided.

PHE 319 Coaching Soccer (2). This course is designed to introduce basic soccer coaching techniques. During the class students will learn various soccer practice drills, conditioning, and ball handling techniques through actual practice and lecture material. Students will have the opportunity to compare and contrast various styles of soccer, e.g. European, South American and American styles. This class will be taught once a week for two hours.

PHE 330 Movement Concepts and Skill Themes (3). This course is designed for future physical education teachers. This course focuses primarily on “what” to teach in the elementary school and not “how” to teach. This class focuses on understanding quality physical education that is developmentally appropriate for children. Emphasis is on the skill theme curriculum focusing on movement concepts, generic levels of skill proficiency, and skill themes. Some basic motor development, applied scientific principles for movement, and fundamental health and fitness concepts are also included in the content. Field experience will be required. Prerequisite: HPE 175.
A review
This course examines major
An
Introduction to classic and
Courses
(φi)
specific area or major(s) and minor(s) within the
University. Content includes orientation to the
assist students in their transition to Murray State
PHI 099 Transitions (1).
philosophy
methods and techniques appropriate to middle
Education (3).
PHE (HPE) 459 Teaching Adolescent Physical
preparation of athletes in specialized events. PHE
PHE 316 is
recommended.

PHE 412 Coaching Football II (2), Presentations
of philosophies, strategy, and skills that the aspiring
football coach will need to develop profession-
ally in the football coaching field. This course will
include techniques of scouting; preparation
of team for games; practice preparation; offense,
defense, and kicking game strategy and skills;
personnel; pre-game and post-game evaluation.
PHE 312 is recommended.

PHE 414 Coaching Basketball II (2), An in-depth
study of basketball strategy and team play, involv-
ing such areas as the fast break, team offense, team
defense, presses, and special situations. Also, vari-
tious teaching, communication, and motivational
techniques. PHE 314 is recommended.

PHE 416 Coaching Baseball II (2), A review of
baseball fundamentals, strategies, theories of
coaching, scouting and the intricacies of offensive
defense play will be stressed. PHE 316 is
recommended.

PHE 418 Coaching Track and Field II (2), Advanced methods and philosophies of coaching
will be presented with special emphasis upon
preparation of athletes in specialized events. PHE
318 is recommended.

PHE (HPE) 459 Teaching Adolescent Physical
Education (3), Introduces a number of teaching
methods and techniques appropriate to middle
and secondary physical education. Includes 12
field hours. Prerequisite: HPE 175.

PHI
PHI 099 Transitions (1), Course is designed to
assist students in their transition to Murray State
University. Content includes orientation to the
specific area or major(s) and minor(s) within the
academic program; university procedures, poli-
cies, and resources; strategies for personal and
academic success, and extracurricular opportuni-
ties. Only one transitions course will count toward
graduation. Graded pass/fail.

PHI 103 Critical Thinking (3), Course provides
an introduction to reasoning in everyday life. It
focuses on recognizing and evaluating arguments
in advertising, news, politics, and ordinary
conversation. Students will learn how to recognize
and avoid informal fallacies and other common
erors in reasoning, including use of statistics and
misuse of data or incomplete information.

PHI 201 Introduction to Philosophy (3), An introdu-
tion to fundamental questions in philosophy about self-knowledge, moral decision-
knowledge, knowledge about the world and others,
the limits of knowing, and the perennial search for
meaning. Emphasis will be given to the evaluation
of arguments, philosophical inquiry, and reflection
on the nature of human existence.

PHI 202 Ethics (3), Introduction to classic and
contemporary problems of personal and social
morality and to the systems and methods proposed
by philosophers, past and present, in response to
questions of good and evil.

PHI 203 Symbolic Logic (3), A systematic study
of the fundamentals of logic, focusing on the
concepts and methods of contemporary logics
systems, which will include learning proofs of
reasoning using mechanical decision procedures
such as truth tables and truth trees.

PHI 304 History of Philosophy I: Ancient/
Medieval (3), This course examines the birth
of Western philosophy in Ancient Greece from
its pre-Socratic origins, through Classical and
Român thought and extenuations within Judaic,
Christian, and Islamic traditions, and ending with
neo-Platonic thought and the medieval period.
Prerequisite: any PHI course.

PHI 305 History of Philosophy II: Modern/
19th Century (3), This course examines major
figures and themes in the development of modern
thought, focusing on the Rationalist and Emp-
iricist traditions and the development of modern
science, and ends with an examination of the
emergence of Idealism and Romanticism in
the 19th Century. Prerequisite: any PHI course.

PHI 307 Epistemology (3), A study of issues in
knowledge and justification, which will include
such topics as the nature of knowledge, skepti-
cism, perception, theories of justification, and
the structure of belief. Prerequisite: any PHI
course.

PHI 308 Metaphysics (3), A study of the funda-
mental nature of reality, causation, the external
world, free will and determinism, God, the mind-
body problem, temporality, identity, substance
and theories of possible worlds. Prerequisite:
any PHI course.

PHI 310 American Philosophy (3), An examination
of the philosophical traditions shaping American culture past and present
that will include influences from the Puritan
classic, Slavery, and Native American
narratives, and intellectual movements such
as Transcendentalism, Pragmatism, and Neo-
pragmatism. Prerequisite: any PHI course.

PHI 315 Social and Political Philosophy (3), A
study of the theoretical foundations of political
and social thought that include theories of the
state, justice, and revolution. Philosophers whose
work influences our understanding of justice, gov-
ernment, gender roles, work, and other political/
cultural institutions today will be examined.

PHI 321 Philosophy of Religion (3), A study of
basic philosophical issues in the consideration
of religion, such as the basis for religious belief,
the nature of religion, the cogency of talk about God,
the meaning of evil. (Same as RGS 321.)

PHI 322 Philosophy of History (3), A study of
some of the basic philosophical theories of history
as found in the writings of such thinkers as Au-
gustine, Hegel, Marx, Spengler and Collingwood.
Prerequisite: any PHI course.

PHI 325 Philosophy of Art (3), Study of historic
and contemporary theories of art that will focus on
questions such as what constitutes art, beauty, and
artistic activity, and will also explore the role of
institutions in relation to art and criticism.

PHI 330 Medical Ethics (3), Study of ethical
questions related to availability of healthcare
and duties of healthcare workers, patients’ rights
including the right to die, and current topics.
Prerequisites: ENG 101 and 102 (or 104).

PHI 340 Special Topics (1-3), A study of a
philosophical subject chosen for its particular
topic or thematic interest. Topics will vary.
May be taken up to three times for credit with the
permission of the program director. Prerequisite:
any PHI course.

PHI 350 Philosophy of Science (3), Survey
course introducing students to descriptions of
scientific method and theory construction, which
may include topics such as the relationship
between theory confirmation, explanation, prediction, and discovery, as well as theories of
change and scientific rationality. Prerequisite:
any PHI course.

PHI 356 Continental Philosophy (3), An
introductory survey of philosophical trends in
Europe from the end of the 19th Century to the
present, which will focus on issues and thinker
within the Existentialist and Phenomenological
traditions, the new Marxism, structuralism, post-
structuralism, and deconstruction. Prerequisite:
any PHI course.

PHI 357 Feminist Philosophy (3), A survey
course covering feminist theoretical perspectives
and current themes in feminist research such as
the body and gender, ethics, epistemology, and
how gender informs social life and political/
institutional frameworks.

PHI 360 Literature and Philosophy (3), Interdisciplinary look at ways in which literature
raises philosophical questions and also how
philosophical writings articulate a relationship
between philosophy and literature. Topics may
include the role of imagination and emotion in reasoning, interpretation, rhetoric, and the role of language in moral reasoning.

PHI 372 Philosophy of Cognitive Science (3). A study of philosophical questions raised by advances in cognitive science, and psychology, including the possibility of a language of thought, mental imagery, reductive explanations of the mind and consciousness, artificial intelligence and connectionism, and the application of cognitive science to traditional philosophical questions. Prerequisite: any PHI course.

PHI 376 Environmental Ethics (3). This survey course exploring views of the relationship between human beings and the natural world will examine current questions in environmental studies regarding ethical and epistemological frameworks. Topics may include the Gaia hypothesis, ecofeminism, and deep ecology.

PHI 378 Teaching and Philosophy (3). An examination of the philosophical foundations of pedagogical approaches, this course will also consider ways philosophy might enrich elementary and secondary curriculum.

PHI 380 Philosophy of Language (3). A study of philosophical questions of meaning, truth and reference, including such topics as the nature of propositional attitudes, theories of meaning and reference, internalism and externalism, ordinary language philosophy, and theories of truth. Prerequisite: any PHI course.

PHI 382 Philosophy of Social Science (3). An examination of the structure and nature of the social sciences and their foundation in philosophy, this course will focus on the relationship between social theory/criticism and practice, in view of social theory as practical knowledge. Prerequisite: any PHI course.

PHI 383 Philosophy of Diversity (3). An introduction to diverse philosophical perspectives in contemporary culture that will focus on issues of race, gender, class, sexual orientation, and identity, drawing from African American, Native American, gender studies, and feminist perspectives.

PHI 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

PHI 442 Business Ethics and Environments (3). This course involves a study of modern and classical approaches to both business and personal ethics as well as the other major components of the business environment: the political, international, ecological, social and cultural environments. Prerequisite: LST 240, MGT 350, FIN 330, MKT 360, and senior standing. (Same as BPA 442.)

PHI 498 Major Figures (3). An intensive study of a major philosophical thinker and/or thinkers, such philosophers as Plato, Aristotle, Kant, Hegel, Marx, Nietzsche, Heidegger, Wittgenstein, among others, whose spheres of influence have engendered broader philosophical movements. May be taken up to three times for credit, at the discretion of the program director. Prerequisite: PHI 201 and any 300-level PHI course or consent of instructor.

PHI 499 Senior Research Project (3). A research/writing course designed to develop proficiency in research in philosophy and in logical argumentation, culminating in a scholarly paper that will demonstrate these skills. Required for philosophy majors.

PHI 540 Seminar (3). Selected topics or the thought of a particular philosopher. This course may be repeated for credit.

PHI 550 Directed Study (1-3). Readings or other study in advanced topics. This course may be repeated for credit.

PHYSICS AND ENGINEERING (PHY)

PHY 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail. (Same as EGR 099)

PHY 103 Physics of Sports (4). Fundamental principles involved in sports. This course considers the physical mechanisms that are involved in a variety of sports. This physics course is intended for non-physics majors with a general interest in athletics and recreation. The lab provides students with tools and principles to analyze and measure the mechanics of motion and sports. Three hours of lecture and two hours in lab per week.

PHY 105 The Science of Sound (4). Fundamental principles of acoustics and wave motion. This course considers the generation, transmission and perception of sound and vibration with an emphasis on musical acoustics. The course provides an examination of the physics of vibration and wave motion. It is intended for non-physics majors with an interest in science, music, education, speech, hearing, and acoustical or recording engineering. The lab provides student experience with the tools and principles used in the analysis, production and perception of sound. Three hours of lecture and two hours of lab per week.

PHY 125 Brief Introductory Physics (4). Topics in introductory physics including mechanics, heat, wave motion, electricity, light, modern physics. Combination conceptual and quantitative approach with emphasis on applications not requiring vector analysis. A student may not receive credit for both PHY 125 and either PHY 130 or PHY 132. Four hours lecture per week. Prerequisite: MAT 140 or equivalent. Co-requisite: PHY 126.

PHY 126 Brief Introductory Physics Lab (1). Laboratory to accompany PHY 125. Two hours laboratory per week. Prerequisite: MAT 140 or equivalent. Co-requisite: PHY 125.

PHY 130 General Physics I (3). Elementary mechanics, heat, and wave motion. Fundamental laws of nature, definitions, and physical measurements are stressed. Prerequisite: MAT 140 or equivalent. Co-requisite: PHY 131.

PHY 131 General Physics I Laboratory (1). Laboratory to accompany PHY 130. Two hours laboratory per week. Corequisite: PHY 130.

PHY 132 General Physics II (3). Elementary electricity, magnetism, light, and modern physics. Prerequisite: PHY 130 or equivalent. Co-requisite: PHY 133.

PHY 133 General Physics II Laboratory (1). Laboratory to accompany PHY 132. Two hours laboratory per week. Corequisite: PHY 132.

PHY 135 Introduction to Physics (4). The fundamental concepts of physics are developed from a demonstration, experimental approach with computer-assisted data analysis. Basic course for those who intend to concentrate in science and engineering.

PHY 150 Light and Lasers in Action (4). A laboratory course in general physics intended for non-physics majors with an interest in scientific, medical, engineering or education-related fields. This course will use the visual appeal of light and lasers as vehicles for the introduction of fundamental physical principles including energy, waves and fields. It will rely heavily on demonstrations of optical effects with student participation and interaction. Practical applications of the use of light and lasers in cultural and technical aspects of society will be demonstrated and discussed.

PHY 235 Mechanics, Heat and Wave Motion (4). Introduction to classical mechanics. Topics include kinematics, dynamics, energy, momentum, rotational motion, wave motion, and the laws of thermodynamics. Calculus and vector notation used. Must be taken concurrently with PHY 236. Three lectures and two recitation meetings per week. Corequisite: MAT 250.

PHY 236 Mechanics, Heat and Wave Motion Laboratory (1). Laboratory course must be taken concurrently with PHY 235. Two hours laboratory per week.

PHY 255 Electricity, Magnetism and Light (4). Electric and magnetic fields, circuits, electromagnetic oscillations, and optics. Calculus and vector notation used. Must be taken concurrently with PHY 256. Three lectures and two recitation meetings per week. Prerequisite: PHY 235. Corequisite: MAT 308.

PHY 256 Electricity, Magnetism and Light Laboratory (1). Laboratory course must be taken concurrently with PHY 255. Two hours laboratory per week.

PHY 299 Introduction to Research (1-3). Designed primarily for freshman and sophomore level students. The student participates in an on-going research activity or supporting function. The student will average four hours per week in the activity for each hour of credit. May be repeated for
PHY 316 Introductory Astrophysics and Space Physics (3). Introduction to astrophysics and space physics. Space physics is concerned with understanding the environment between the sun and the earth’s upper atmosphere. Topics include coronal mass ejections, the solar wind, magnetospheric storms, and auroral precipitation. Astrophysics is the study of planetary system formation and evolution, stellar structure and evolution, galactic structure, and cosmology. Phenomena of interest include quasars, black holes, supernovas, and the cosmic microwave background radiation. Prerequisites: PHY 140 and 255. Co-requisite: PHY 370 or PHY 580; or consent of instructor. (Same as AST 316.)

PHY 370 Introduction to Modern Physics (3). Concepts of atomic, nuclear, solid state, and particle physics. Philosophical, historical and cultural aspects are discussed. Prerequisite: PHY 255 or 121.

PHY 450 Laser Physics (3). Fundamental principles of laser operation. Lectures include a survey of different types of lasers and their application in various fields. Prerequisite: PHY 255. Co-requisite: PHY 370.

PHY 460 Electricity and Magnetism I (3). Electric fields, potential dielectrics, steady currents, magnetic fields and electromagnetic induction. Three lectures per week. Prerequisites: PHY 255 and MAT 338. (Same as EGR 460.)

PHY 461 Electricity and Magnetism II (3). Magnetic materials, alternating currents, transient phenomena and electromagnetic radiation. Three lectures per week. Prerequisite: PHY 460. (Same as EGR 461.)

PHY 470 Optics (3). Reflection, refraction, thin lenses, interference, diffraction, polarization and selected optical devices. Prerequisites: PHY 255 or 121 and MAT 250.

PHY 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

PHY 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

PHY 495 Advanced Laboratory I (1-2). A laboratory for advanced students in physics. The experimental program will be planned on an individual basis with experiments chosen from optics, electricity and magnetism, classical mechanics, thermodynamics, atomic, nuclear and solid state physics. Two to four hours laboratory per week. May be repeated for a maximum of three hours. Prerequisites: PHY 255 and 256.

PHY 496 Senior Seminar (3). Capstone course for students completing the undergraduate physics curriculum. Students will be involved in discussions and presentations on a variety of topics in physics. Students will also prepare and deliver written and oral presentations on technical topics. Prerequisite: Senior standing or permission from instructor.

PHY 505 Meteorology (3). Descriptive treatment of weather phenomena. Course covers weather changes, air masses and fronts; collection and use of meteorological data; study of maps and weather forecasting. Not applicable toward master of science degree.


PHY 515 Special Topics (3). Topics of current interest in physics and engineering. Delivery methods may include lecture, seminar, directed study, and laboratory. May be repeated for credit as different topics are featured. Prerequisite: consent of instructor.

PHY 520 Independent Study (1-3). Supervised reading course in specialized topics for upper-division students of high standing. May be repeated for a maximum of three hours. Prerequisites: major and consent of instructor.

PHY 530 Mechanics I (3). Dynamics of particles, coordinate transformation, and non-inertial reference systems. Celestial mechanics. Dynamics of systems of particles. Prerequisites: PHY 255 and MAT 338 (or concurrent registration).

PHY 531 Mechanics II (3). General motion of rigid bodies. Lagrangian mechanics, theory of small vibrations and special theory of relativity. Prerequisite: PHY 530.

PHY 535 Introduction to Quantum Mechanics (3). Fundamental course in non-relativistic quantum mechanics. Prerequisite: PHY 580 or concurrent registration.

PHY 540 Introduction to Modern Physics (3). Concepts of atomic, nuclear, solid state and particle physics. Philosophical, historical and cultural aspects are discussed. Prerequisite: PHY 255 or 121. Open to non-physics students only. Restriction: A student cannot receive credit for PHY 570 if the student has credit for PHY 370.

PHY 557 Solid State Physics (3). Fundamental physical properties of the solid state of matter. Prerequisite: PHY 460.

PHY 580 Modern Physics I (3). An investigation of the physical phenomena explained since 1900 by the introduction of the discreteness of nature and the wave-particle duality, leading to the development of wave mechanics. Topics include Planck radiation, photoelectric and Compton effects, pair production and annihilation, the nuclear atom and Bohr theory, the deBroglie hypothesis, the Schroedinger equation and applications to atomic physics. Prerequisite: PHY 460 or 530.

PHY 581 Modern Physics II (3). Continuation of PHY 580 including angular momentum theory, perturbation theory, L-S coupling, Zeeman effects, nuclear properties, reactions and structures, particle accelerators and elementary particle physics. Prerequisite: PHY 580.

PHY 583 Applied Optics (3). Fresnel diffraction, polarization, Maxwell’s equations, laser theory and application, holography, spatial filtering and applications. Prerequisites: PHY 350 and 460.

PHY 590 Mathematical Methods in Physics and Engineering I (3). Applications of mathematics to physical and engineering problems, curvilinear coordinates, analytic functions, transform theory, convolutions, Fourier series. Prerequisites: MAT 338, PHY 330 or 530 or consent of instructor.

PHY 591 Mathematical Methods in Physics and Engineering II (3). Solutions of partial differential equations, special functions, Green’s function. Prerequisite: PHY 590 or consent of instructor.

PHY 592 Problems in Advanced Physics and Engineering I (3). An applied course for advanced students in physics and engineering. The problems will be planned on an individual basis with topics including Monte Carlo and molecular dynamics techniques, fluidized-bed and numerical fluid dynamics, surface physics, cloud and aerosol physics, crystal growth and analog modeling of experiments. Students will be required to design, implement and test appropriate strategies for the solution of the chosen problem using their knowledge and understanding of basic physics and engineering principles. Prerequisite: CSC 420 or MAT 442 or consent of instructor.

PHY 593 Problems in Advanced Physics and Engineering II (3). A continuation of PHY 592. Prerequisite: PHY 592 or consent of instructor.

PHY 595 Advanced Laboratory II (1-2). A continuation of PHY 495. Two to four hours laboratory per week. May be repeated for a maximum of two hours. Prerequisite: consent of instructor.

PHY 596 The History of Modern Physics (3). A detailed examination of the origin of quantum theory. Consideration is given to the notable works of Planck, Lorentz, Einstein, Stark, Haas, Sommerfeld, Nernst, Bohr and others. Senior standing in physics with a 3.25 average in major. Lectures and conferences.

PHY 599 Senior Research (1-3). Introduction to research practices, periodicals and literature of physics. Problems arranged individually with staff members. Formal, scientific report of work required. Prerequisites: senior standing and permission of staff.
PLANNING, URBAN AND REGIONAL (PLN)

POL 240 State and Local Politics (3). Study of the three branches of state government coupled with an examination of the politics, organizations and functions of counties, townships and special districts.

POL 250 Introduction to International Relations (3). The nature of international society and the forces affecting the behavior of states in their relations with one another. An approved social science University Studies elective.

POL 252 Introduction to Comparative Politics (3). This course provides the student with comparative and evaluative concepts and approaches necessary to developing an intelligent understanding and appreciation of the world’s diverse political systems. An approved social science University Studies elective.

POL 261 Introduction to Political Theory (3). Introduction to the concepts, enduring questions, and significant thinkers associated with political philosophy. Specific attention will be given to differing conceptions of human nature, politics, the state, civic obligations and rights, freedom, justice, and democracy.

POL 300 International Experience (1). A course required of all majors and minors in international affairs as part of their fulfillment of the required international experience. The course must be taken in conjunction with any co-requisite course while studying abroad. The course will require a paper based on original research related to the International Affairs major to be presented during scholar’s week, international education week, or some other forum linking the experiential nature of the study to the understanding of non-American culture, government, business, or other social institutions. Graded pass/fail. Prerequisite: consent of academic advisor.

POL 341 County and Rural Governments (3). The legal basis, organization and functions of county and rural government in the United States, with special emphasis on administration and problems of non-urban cities.

POL 342 Ethnic Politics (3). An examination of the role played by ethnicity in American politics. Special emphasis will be placed on the Black American, Native American, Spanish American, and Oriental American.

POL 343 Kentucky Government and Politics (3). A meaningful examination of the political processes and governmental machinery essential to an adequate understanding of government and politics in Kentucky.

POL 344 Press and Politics (3). The roles of newspaper, television, and radio in the American national political process. (Same as JMC 344.)

POL 345 Campaigns and Elections (3). Considers the practical aspects of campaigning for public office on all levels of government including strategy, financing, organization, research, and media.

POL 360 Research Methods (3). An introduction to basic research principles and methods designed to enable students to understand the critical and scientific methodologies political science uses to discover knowledge and ascertain its validity. Prerequisite: MAT 135 or PSY 300.

POL 440 Political Parties and Pressure Groups (3). The nature, development, organization and functions of American political parties and interest groups.

POL 441 Legislative Process (3). The behavior of American legislative bodies and legislators.

POL 442 Government and Business (3). The role of government and politics in the regulation of business activities and the administration of major legislative enactments.

POL 443 Executive Process (3). An examination of the origin, development, and current status of the executive process with primary emphasis on the American Presidency.

POL 444 Judicial Process (3). A political science course that surveys the nature, functions and sources of law and the role of politics and the courts in the administration of justice. (Same as LST 444.)

POL 445 Constitutional Law I: Developments & Trends (3). A political science course that surveys the development of and historic trends in selected subjects of constitutional law. (Same as LST 545.)

POL 447 Constitutional Law II: Civil Liberties and Civil Rights (3). A political science course that studies the leading court decisions and their impact on the development of American Constitutional Law in the subject areas of civil liberties (Amendment I), civil rights (Amendments IV, V, VI, VIII, and IX), and the equal protection and due process clauses of Amendment XIV. (Same as LST 546.)

POL 448 Healthcare Policy (3). This course is an undergraduate level examination of the components of health care policy; health insurance and benefits planning, negotiation, and delivery; and health promotion within the context of public sector employment in national, state, and local governments.

POL 450 Modern Africa (3). A study of Africa since about 1880, including the transformation of African societies and their political development, with emphasis on the contact with other cultures, the growth of nationalism and nationalist movements, and the questions of African unity and neocolonialism. (Same as HIS 450.)

POL 451 Government and Politics of Europe (3). The dynamics of change in the political systems of Europe, focusing on government institutions and the development of the European Union.
POL 452 Government and Politics of the Former Soviet Union (3). The governmental institutions and political processes of the nations of the former Union of Soviet Socialist Republics with a special emphasis upon the Russian nation.

POL 453 Government and Politics of Latin America (3). The dynamics of change in the political systems of Latin America, focusing on the problems and patterns of political and economic development.

POL 454 Government and Politics of Asia (3). The governmental institutions and political processes of China, Japan, and other selected states in Asia.

POL 455 Modern Middle East (3). A study of the Middle East from 1800 to the present, with emphasis on the historical and political forces that have affected and still influence the region. (Same as HIS 455.)

POL 456 American Foreign Policy (3). The formulation and implementation of U.S. foreign policy.

POL 457 International Law and Organizations (3). The origin and development of international law and international organizations.

POL 458 European Union Politics (3). This course will consist of an examination of the economic and political factors that led to the formation and development of the European Union. Emphasis will be placed on the institutions and policies of the European Union.

POL 460 Political Behavior (3). An introduction to major concepts and systems of thought useful in explaining and understanding political behavior.

POL 461 Classical and Medieval Political Thought (3). The development of political thought from the classical Greeks to the Renaissance with emphasis on Plato, Aristotle, Augustine and Aquinas.

POL 462 Modern Political Thought (3). The development of political thought from the Renaissance to the present with emphasis on Machiavelli, Hobbes, Locke, Rousseau, Burke, Marx, and the contemporary malaise.

POL 463 American Political Thought (3). The American political tradition from its colonial origins to the present with emphasis upon the major political writers.

POL 470 Foundations of Public Administration (3). The theory and practice of the administration and management of governmental operations; politics, policy and the bureaucracy.

POL 471 Contemporary Public Policy Issues (3). Consideration of social, economic, and political influences on the formation, direction, and implementation of public policy, with special emphasis on current issues.

POL 472 Public Planning and Evaluation (3). An examination of major planning and evaluation techniques of governmental programs.

POL 473 Public Budgeting and Finance (3). This course examines budgeting as a tool of governmental economic and political policy. Specifically, the course considers the evolution and purposes of budgeting with special attention given to recent efforts to improve government resource allocation.

POL 476 Law in Public Administration (3). An examination of the role of law in the administrative process. Topics to be covered include administrative rulemaking and adjudication, enabling statutes, open records and open meetings laws, procedural due process, and civil liability and immunity for public employees and governments. (Same as LST 576.)

POL 479 Public Sector Labor Relations (3). An intensive examination of the emergence of, current Federal and State policies on, and impacts of unionization and collective bargaining in the public sector. Special emphasis is placed on the responsibilities of public employees and public administrators in their respective roles in contract bargaining and administration. The course includes multiple simulation exercises and workshops on labor-management practices.

POL 480 Topical Seminar in Political Science (3). Inquiry into selected topics and problems in the field of political science. May be repeated for a maximum of six hours provided topics vary.

POL 481 Human Resource Administration (3). An intensive examination of personnel administration in Federal, state, and local governments, including such topics as merit systems, recruitment, testing, selection, and equal employment opportunity.

POL 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. To be eligible, a student must be a POL major or minor with a junior or senior status and an overall GPA of 2.5. A student must have at least nine hours in POL courses (POL 140 and six hours from POL 240, 250, 252, and 261) with a GPA of 2.8. Six hours of the POL courses must be completed at MSU. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

POL 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. To be eligible, a student must be a POL major or minor with a junior or senior status and an overall GPA of 2.5. In addition, the student must have at least nine hours in POL courses (POL 140 and six hours from POL 240, 250, 252, and 261) with a GPA of 2.8. Six hours of the POL courses must be completed at MSU. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of chair.

POL 495 Special Problems (1-3). Supervised readings or research in selected subjects designed to supplement regular course offerings. Requires chair’s approval. Restricted to junior and senior students. May be repeated up to six hours. Only three hours may count toward major. Prerequisites: Fifteen hours of POL courses with a minimum overall GPA of 3.0 and a minimum GPA of 3.25 for POL courses taken for the major or minor, and chair’s approval.

POL 498 Senior Seminar in International Affairs (2). A capstone course for senior students majoring or minoring in international affairs. Selected international issues and problems are examined with particular reference to student’s interest and experience.

POL 499 Senior Seminar in Political Science (2) This is the capstone course for all majors in Political Science. It is a writing intensive course where a discipline-based research paper is refined and orally defined. Students also develop job and graduate education search skills as well as complete program assessment instruments. Prerequisites: senior standing and completion of POL 140, 240, 250, 252, 261, 360.

PSYCHOLOGY (PSY)

PSY 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail.

PSY 180 General Psychology (3). A basic course introducing the student to psychology as a science that can be applied to practical problems and everyday issues by learning the methods, concepts, and terminology of the discipline. Note: This course is a prerequisite to all other courses in psychology.

PSY 199 Developing Psychological Skills (1). An applied course for students interested in enhancing their psychological skills. This course is recommended for persons in performance fields (e.g., psychology, physical education, social work, nursing, performing arts, business, etc.) who wish to improve their mental skills such as emotional and attentional control. Does not count toward Psychology major, minor, or University Studies requirements. Graded pass/fail.

PSY 210 Career Planning Seminar (3). Seminar for psychology majors, focusing on career exploration, employment opportunities, the job search process, graduate school, and related issues. Recommended for students in their sophomore or junior year. Does not count toward Psychology major, minor, or University Studies requirement.
Graded pass/fail. Prerequisites: PSY 180 and sophomore standing or higher.

PSY 221 Psychology of Human Sexuality (3). A presentation of the psychological aspects of human sexuality as well as an exploration of contemporary psychological research and theory in the field. Topics are addressed from various perspectives (behavioral, social, cultural and biological) and include homosexuality, pornography, sexually transmitted disease, early sexual learning, adult sexual lifestyles and sexual dysfunction and treatment. Prerequisite: PSY 180.

PSY 222 Sport Psychology (3). This course is a survey of theory and research regarding the psychological aspects of sport and physical activity. Topics addressed include history of sport psychology, research methods and testing, learning, personality, attention, arousal, intervention, motivation, attribution, aggression, leadership, group dynamics, and audience effects as they relate to athletes, coaches and officials. Prerequisite: PSY 180.

PSY 223 Psychology of Sport Fans (2). This course will be a survey of theory and research regarding the psychological and sociological significance of sport fandom and spectating. Topics addressed will include the prevalence of sport fandom, factors affecting involvement in sport as a fan and spectator, spectator aggression, the psychological impact of spectating, and the societal impact of spectating. Prerequisite: PSY 180.

PSY 245 Law and Psychology (3). An overview of the area of forensic psychology. Topics covered include aspects of criminal behavior, the insanity defense, competency, commitment of the mentally ill, and professional issues. Prerequisite: PSY 180.

PSY 260 Lifespan Development (3). A survey course of theory and research examining the changes and consistencies associated with human development from conception to death. Infancy, childhood, adolescence, and early, middle, and late adulthood will be examined. Prerequisite: PSY 180.

PSY 261 Child Psychology (3). A study of the biological, social, affective and cognitive aspects of the development of children from conception to adolescence. The implications of this development for present and future behaviors are presented. The research, principles, concepts and theories of child psychology are emphasized. Prerequisite: PSY 180.

PSY 262 Adolescent Psychology (3). A study of the biological, social, affective and cognitive aspects of the development of adolescents from puberty to young adulthood. The relationship of these developmental aspects to the individual’s past, present and future behaviors are stressed. The research, theories, concepts and principles pertaining to adolescent psychology are presented. Prerequisite: PSY 180.

PSY 264 Psychology of Aging (3). The study of the biological, cognitive, affective and social aspects of the aging process. The normal and pathological conditions of aging are emphasized. The interaction of the aged and society is also considered. Prerequisite: PSY 180. (Same as GTY 264.)

PSY 265 Psychology of Death (3). A study of the place of death in the process of human development. Two viewpoints will be stressed: death of self and death of others. Emphasis will be given to the cultural, social, biological and affective aspects related to the final stage of life. Customs, medical practices, financial concerns, legal matters and scientific issues will be considered. Prerequisite: PSY 180. (Same as GTY 265.)

PSY 300 Principles and Methods of Statistical Analysis (3). An introduction to descriptive and inferential statistics as used in the behavioral sciences and human services. Computer-based techniques of statistical analysis are emphasized throughout the course. Prerequisites: Psychology majors: concurrent enrollment in PSY 301 and a minimum math ACT score of 20, or MAT 105; Non-Psychology majors: a minimum math ACT score of 20 or MAT 105.

PSY 301 Principles and Methods of Psychological Research (3). An introduction to research techniques and resources in the field of psychology, covering scientific foundations of psychology; empirical research methods, both experimental and non-experimental; data analysis and report writing; literature search procedures; ethical issues. Prerequisites: ENG 101 and 102; or 105 (or 104) and 205; PSY 180; concurrent enrollment in PSY 300 and the completion of nine additional hours of PSY courses.

PSY 302 Topical Seminar (3). A particular topic or combination of topics will be covered when there is sufficient student interest. Students will be expected to contribute to discussions on the basis of readings in the selected areas. May be repeated. Prerequisite: PSY 180.

PSY 303 Social Psychology (3). A survey of current research and theory regarding social behavior. Topics addressed include person perception, self-perception, attitude change, influence, prosocial behavior, transgressive behavior and group phenomena. Prerequisite: PSY 180.

PSY 304 Psychology of Learning and Memory (3). Concerned with the principles and concepts of animal and human learning, and their bases in research. The student is introduced to learning theories. Prerequisites: PSY 300 and 301 (or concurrent enrollment), or consent of instructor.

PSY 305 Physiological Psychology (3). An introduction to physiological psychology as the study of the relationships between biological events and behavior. The structure and function of the human nervous system are studied. Prerequisites: BIO 101 or 221 and PSY 300, 301 or consent of instructor.

PSY 310 Health Psychology (3). An exploration of theories, research, and interventions that emphasize interactions among biological, psychological, and social influences on physical health and health behavior. Topics include theories of health behavior, stress, coping, and psychology’s role in medicine. Prerequisite: PSY 180.

PSY 321 Perception (3). A study of theories of perception, psychophysical methods, research findings, and the physiological bases of perception with an emphasis on the visual system. Prerequisite: PSY 301 or consent of instructor.

PSY 322 Motivation and Emotion (3). Presentation of basic concepts of motivation and emotion. Prerequisite: PSY 180.

PSY 325 Introduction to Clinical Psychology (3). An introduction for undergraduate students to the field and profession of clinical psychology. Topics covered include the historical and cultural context of the field, its scientific and theoretical aspects, the nature of psychological assessment, and the various intervention approaches in current use. Prerequisite: PSY 180.

PSY 326 Psychology of Language (3). A survey of psychological research on language behavior and the role of language in social and cultural contexts. Emphasis on understanding language processes in both the adult speaker and the child acquiring language. Prerequisite: PSY 180.

PSY 327 Problem-Solving and Decision-Making (3). An introduction to behavioral decision making theory, research. Topics include the roles of memory and knowledge organization in critical thinking, logic and reasoning in problem-solving, decision-making under uncertainty, heuristics and biases, and multidisciplinary applications. Prerequisite: PSY 180.

PSY 360 Directed Individual Study (1-3). Individual programs involving readings or conducting a research project in psychology. Note: Arrangement for faculty supervision is required prior to enrolling. May be repeated to a maximum of nine hours. No more than three hours count toward the psychology major. Does not count toward psychology minor or University Studies requirements. Prerequisites: approval by a faculty sponsor and the department chair.

PSY 373 Psychology of Consumer Behavior (3). A survey of current psychological theory and research regarding behavior of consumers. Topics addressed include perception, cognition, learning and memory, emotion and motivation, intentions, buying behaviors, effects of social contexts, effects of cultural contexts, sales interactions and applications to not-for-profit settings. Prerequisite: PSY 180.

PSY 390 Animal Behavior (3). This course is a survey of categories of behavior and the variables that influence these behaviors across species. Prerequisite: PSY 301 or consent of instructor.

PSY 403 History and Systems of Psychology (3). A survey of the systems and theories of psychology with emphasis on their historical development. Modern psychology is studied in the context of its philosophical roots and the evolution of the other sciences. Prerequisites: PSY 303, 304, 305, and 581 (for psychology majors), or consent of instructor.
PSY 404 (540) Drugs, Alcohol and Behavior (3). This course provides a survey of the social, biological and psychological aspects of substance abuse, chemical dependency and addictive disorders. Prerequisite: PSY 180.

PSY 405 (584) Industrial and Organizational Psychology (3). A survey of current theory and research regarding human behavior in industrial and organizational settings. Topics addressed include selection and placement, training and development, motivation, job satisfaction and performance, leadership, work environment, human factors, engineering and safety. Prerequisite: PSY 180.

PSY 406 (589) Personality (3). The organization of the psychological characteristics which contribute to the uniqueness of the individual. Prerequisite: PSY 180.

PSY 407 (581) Abnormal Psychology (3). Introduction to the definition, classification, causes and treatment of abnormal behavior. Research methodologies and findings receive emphasis equal to that of "clinical" or "applied" considerations. Prerequisite: PSY 180.

PSY 408 (570) Applied Research Design and Analysis (4). An advanced course designed to develop a comprehensive, integrated, and applied knowledge of issues surrounding the design, implementation, analysis, and evaluation of psychological research. Topics covered include research ethics, reliability and validity, descriptive and experimental design issues, and advanced statistical techniques. Students will be expected to design, conduct, and report the results of an original research project. Prerequisites: PSY 300 and 301 or consent of instructor.

PSY 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

PSY 409 Senior Honors Thesis (3). An undergraduate research thesis for outstanding senior majors only. Prerequisite: permission of the department upon nomination by a faculty member.

READING (REA)
RE A 095 Reading Workshop (1). A college reading course designed for restricted-status freshmen. Offers enhancement of basic comprehension skills, development of critical thinking, and active reading strategies for the COM 161 text and the assigned readings for ENG 095. Credit earned in this course may not be counted toward graduation requirements. No audit allowed. Graded pass/fail.

RE A 100 Fundamental Reading Skills (1). Designed to prepare students for college level reading through individualized and group practice in reading comprehension and vocabulary strategies. The course is required for entering freshmen with ACT scores below 21, unless admission status places the student in REA 095. Advanced placement into a higher level reading course or COM 161 is possible through Murray State University Community College reading assessment exams. Credit earned in this course may not be counted toward graduation requirements. Graded pass/fail.

RE A 120 College Study Skills (1). Designed for college students who desire instruction in improving study skills. Emphasis is placed on time management, note-taking skill, test-taking skills, and content area study plans. Instructor reserve the right to limit upper-class enrollment. To be taken with or following REA 100 when the reading ACT score is below 21. Letter-graded course.

RE A 121 Advanced Reading and Study Skills Improvement (1). Designed for all college students who desire individualized help in improving reading and study skills. Emphasis is placed on course-specific comprehension and study skills. To be taken only in conjunction with a specific University Studies requirement. Letter-graded course.

RE A 306 Teaching Reading in Elementary P-5 (3). An introduction to content and teaching methodology in reading. Topics include reading process, motivating readers, literacy development, word recognition, and comprehension. Field experiences required. Prerequisite: EDU 303.

RE A 407 Middle School Reading (3). Course provides an overview of research-based literacy practices appropriate for teaching students in the middle grades. Emphasis is placed on teaching strategies designed to enhance comprehension and vocabulary development for students across the curriculum. Field experiences required. Prerequisites: EDU 303, MID 270, and admission to Teacher Education.

RE A 412 Practicum in Reading Instruction P-5 (3). A practicum providing field experiences in reading, with specific emphasis on individuals and/or groups. Prerequisites: REA 306 and admission to Teacher Education.

RE A 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

RE A 527 Teaching Reading in the Secondary School (3). Designed to help the secondary school teacher teach reading in the content areas. Topics covered are reading process, word recognition skills, comprehension, diagnostic prescriptive instruction and reading in the content areas.

RECREATION (REC)
RE C 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail. (Same as CDI/EXS/HEA/NTN 099.)

RE C 101 Introduction to Recreation and Leisure Services (3). An overview of the history, philosophy, aims, and objectives of the recreation and leisure profession.

RE C 102 Camp Leadership and Counseling (2). Introduction to the history and objectives of organized camping with emphasis on the role of the modern camp counselor.

RE C 103 Beginning Fencing (1).

RE C 105 Volleyball (1).

RE C 106 Racquetball (1).

RE C 108 Golf (1).

RE C 111 Clay Target Shooting (1). Course will provide an introduction to American trap and skeet, shooting techniques associated with those disciplines, and shotgun safety. The class will meet once per week for two hours on campus or at a local trap and skeet club. A student must provide his or her own shotgun for this course. Prerequisite: Consent of the instructor.

RE C 112 Open Water Scuba Diving I (2).

RE C 113 Yoga for Wellness (1). Introductory level class teaching the basics of Hatha Yoga and how incorporating the practice of yoga with other healthy lifestyle choices can enhance wellness. Class will meet twice weekly for one hour. Graded pass/fail.

RE C 115 Beginning Tennis (1).

RE C 116 Techniques of Tennis (1). Prerequisite: REC 115.

RE C 117 Beginning Judo (1).

REC 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail. (Same as CDI/EXS/HEA/NTN 099.)

REC 101 Introduction to Recreation and Leisure Services (3). An overview of the history, philosophy, aims, and objectives of the recreation and leisure profession.

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REC 115 Beginning Tennis (1).

REC 116 Techniques of Tennis (1). Prerequisite: REC 115.

REC 117 Beginning Judo (1).
A course designed to provide experience.

strategical ideas.

pieces, basic tactical maneuvers, and elementary skills that are involved in playing chess. Topics include the movement and relative value of the pieces, basic tactical maneuvers, and elementary strategic ideas.

A course designed to provide experience.

strategical ideas.

pieces, basic tactical maneuvers, and elementary skills that are involved in playing chess. Topics include the movement and relative value of the pieces, basic tactical maneuvers, and elementary strategic ideas.

A course designed to investigate various types of programs. Direct responsibility in working with community. (Same as GTY 303.)

Prerequisite:

This course leads to certification as an American Red Cross lifeguard. It is required prior to enrollment in REC 240. Prerequisite: REC 121 or consent of instructor.

Strong swimming skills are mandatory. Teaching sequences are an integral part of the course. Prerequisite: REC 235 or current lifeguarding certificate.

The course will cover wilderness first aid basics and help-delayed care in environments where advanced medical services may be unavailable or delayed. Students will be trained in other areas of patient care, including the performance of cardiopulmonary resuscitation for the professional rescuer (CPR-PR). Students will be required to participate in a Wilderness Care Weekend Experience.

A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing experience in the field of his/her specialization. Supervision is provided by both the instructional staff of the university and the cooperating agency.

Graded pass/fail. Prerequisite: 12 hours core REC courses. Prerequisite: REC 150.

This course will provide a thorough study of leadership in adventure education programs. Topics will include leadership styles, trip planning, risk management, and group dynamics. Prerequisite: One of the following: REC 129, 162, 163, or 164.

Designed to develop skills in canoeing, wilderness camping and outdoor survival.

An overview of the history, philosophy, objectives and services provided through the field of therapeutic recreation.

A study of methods and techniques of research and evaluation as applied to recreation and park services. Prerequisite: REC 202.

This course leads to certification in American Red Cross lifeguarding. It is required prior to enrollment in REC 240. Prerequisite: REC 121 or consent of instructor.

Strong swimming skills are mandatory. Teaching sequences are an integral part of the course. Prerequisite: REC 235 or current lifeguarding certificate.

This course will cover wilderness first aid basics and help-delayed care in environments where advanced medical services may be unavailable or delayed. Students will be trained in other areas of patient care, including the performance of cardiopulmonary resuscitation for the professional rescuer (CPR-PR). Students will be required to participate in a Wilderness Care Weekend Experience.

A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing experience in the field of his/her specialization. Supervision is provided by both the instructional staff of the university and the cooperating agency.

Graded pass/fail. Prerequisite: 12 hours core REC courses and junior standing.

This course will provide a thorough study of leadership in adventure education programs. Topics will include leadership styles, trip planning, risk management, and group dynamics. Prerequisite: One of the following: REC 129, 162, 163, or 164.

A study of the organizational and administrative practices of commercial, public and voluntary recreation agencies. Prerequisite: REC 101.

This course provides a study of theory and practice of challenge education programs. The student will have first-hand experience in facilitating challenge education activities. Students will participate in and lead cooperative games, group initiatives, trust activities, and low and high ropes challenge courses. Prerequisite: REC 150.

Direct work experience in various recreation agencies for the purpose of giving the student practical experience in the field of his/her specialization. Supervision is provided by both the instructional staff of the university and the cooperating agency.

Graded pass/fail. Prerequisite: 12 hours core REC courses and junior standing.

A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

A course designed to provide information concerning the outdoor recreation opportunities for exceptional children and adults.

This course will provide a thorough investigation of the recreational use of natural resources in youth agencies, city recreation programs, and school-sponsored recreation activities. Majors only. Prerequisite: REC 101.

A study of the organizational and administrative practices of commercial, public and voluntary recreation agencies. Prerequisite: REC 101.

This course provides a study of theory and practice of challenge education programs. The student will have first-hand experience in facilitating challenge education activities. Students will participate in and lead cooperative games, group initiatives, trust activities, and low and high ropes challenge courses. Prerequisite: REC 150.

Direct work experience in various recreation agencies for the purpose of giving the student practical experience in the field of his/her specialization. Supervision is provided by both the instructional staff of the university and the cooperating agency.

Graded pass/fail. Prerequisite: 12 hours core REC courses and junior standing.

A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

A course designed to provide information concerning the outdoor recreation opportunities for exceptional children and adults.

This course will provide a thorough investigation of the recreational use of natural resources in youth agencies, city recreation programs, and school-sponsored recreation activities. Majors only. Prerequisite: REC 101.

A study of the organizational and administrative practices of commercial, public and voluntary recreation agencies. Prerequisite: REC 101.

This course provides a study of theory and practice of challenge education programs. The student will have first-hand experience in facilitating challenge education activities. Students will participate in and lead cooperative games, group initiatives, trust activities, and low and high ropes challenge courses. Prerequisite: REC 150.
This course is designed to study techniques appropriate to historical, cultural and natural interpretation in park management. Analysis and development of a better appreciation of interpretive programs and visitors information services will be discussed. Prerequisite: REC 207.

REC 475 Therapeutic Recreation Programming (3). Focuses on the principles of organizing, planning, and evaluating various types of recreation programs for special populations. Prerequisite: REC 474.

REC 476 Natural Resources and Park Management (3). This course is a study of the theories, principles and techniques of management applied to parks and natural resource areas. General topics include natural resource management theory, management strategies for natural resources, visitor management, and service management.

REC 480 Special Problems in Recreation (1-3). Prerequisite: prior consent of instructor.

REC 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

REC 490 Outdoor Recreation and Rural Tourism Consortium (3). This course is designed to facilitate the study of outdoor recreation and rural tourism through a residential experience at a national outdoor recreation area. Students from universities throughout the country will study outdoor recreation and rural tourism management, programming and planning. Practicing professionals, faculty from participating universities, and recognized authorities and leaders in the outdoor recreation field will provide instruction. Students will complete an in-depth problem-solving assignment directed toward analyzing an existing outdoor recreation problem or need.

REC 499 Senior Seminar (3). The capstone course for the outdoor recreation major. A primary aim of this course is to complete and evaluate the electronic portfolio that is a graduation requirement. The course will include involvement in professional societies, and preparation for transition to the work force. Prerequisites: senior standing and completion of 15 hours of recreation major courses.

REC 510 (610) Sociology of Sport and Exercise (3). A critical study of the sociological factors affecting sport, performance, and exercise. Students will learn about the social, cultural, environmental, and racial dynamics involved in sport and exercise. This course will also study the effects sport and exercise have on the social structure of society. (Same as EXS/HEA 510.)

REC 515 Leisure in Therapeutic Recreation Services (3). Concepts of leisure functioning and methods of leisure assessment, attitudinal changes, and skill development that enhance successful leisure participation.

REC 520 Leisure and Aging (3). Introduction to the physiological, sexual and recreational aspects of aging in American society; exploration of the role of recreation with the aging; emphasis on planning leisure programs with the elderly. (Same as EXS/GTY 520.)

REAL ESTATE (RES)

RES 132 Real Estate Principles I (3). A study of the basic essentials involving real estate transaction, terms, law, financing, and the general operation of the numerous specialties of the real estate business. License law requirements and professional ethics are considered.

RES 134 Real Estate Marketing I (3). An introduction to real estate market analysis and marketing techniques. Emphasizes the study of basic essentials of listing, prospecting, qualifying clients, showing of real estate, advertising and the organization of time.

RES 136 Real Estate Appraising (3). Analyzes the basic principles of property use and value, and the locational factors affecting valuation. Treats the theory and practice of real estate appraisal, introduces the cost, market and income approaches, the appraisal process and the techniques of area and site analysis. Report writing and the appraisal report are covered as is the scope of real estate appraisal and the ethics of the professional appraiser. Prerequisite: RES 132.

RES 226 Real Estate Finance (3). The study of the money and capital markets and institutions as they influence real estate finance, mortgage banking, government activity in the financing of real estate, interest rate changes and their influence, and the major real estate financing instruments. Prerequisite: RES 132 or consent of instructor.

RES 242 Real Estate Law (3). Comprehensive survey of the law of realty as it affects the real estate professional. A study which involves historical and recent developments in legislation and court precedent affecting real estate, with emphasis on license law, real estate commission rules and regulations and professional ethics. Prerequisite: RES 132 or consent of instructor. (Same as RES 242.)

RES 246 Advanced Appraising (3). A continuation of RES 136, Real Estate Appraising. Prerequisite: RES 136, or consent of instructor.

RES 338 Real Estate Brokerage Management (3). Compilation of the planning, procedures and techniques needed to establish a successful real estate brokerage management system. This course is intended to meet brokers' licensing requirements pursuant to the Kentucky Real Estate Commission and Kentucky Administrative Regulations 201 KAR 11:450.

RES 342 Real Estate Law II (3). This course is a comprehensive survey of the law of realty as it affects the real estate professional. A study which involves historical and recent developments in legislation and court precedent affecting real estate, which emphasis in license law, real estate commission rules and regulations and professional ethics. Prerequisite: RES 242. (Same as LST 342)

RELIGIOUS STUDIES (RGS)

RGS 200 Introduction to Religious Studies (3). An introduction to the essential beliefs and practices of various world religions, together with an exploration of comparative themes in the study of religion.

RGS 300 Foundations of Judaism and Christianity (3). Introduction to the development of distinctive traits and traditions of Judaism and Christianity; cultures, beliefs, practices, institutions, and experience from biblical times to the present.

RGS 301 Western Religious Thought in the Modern World (3). Response of Western religious thinkers to major challenges to traditional religious faith posed by the emergence of modern intellectual, social, political norms. This course may be repeated, subject to approval of religious studies coordinator.

RGS 302 Medieval Europe (3). A survey of the major events in Western history from the Fall of Rome to the Renaissance, with special emphasis on those political, economic, social and cultural-intellectual forces and institutions that helped form the modern world outlook. (Same as HIS 302.)

RGS 306 Europe in Renaissance and Reformation (3). A survey of the development of Western Europe, emphasizing the Protestant and Catholic Reformations, the Crisis of the seventeenth century, and France under Louis XIII and XIV. (Same as HIS 306.)

RGS 309 Survey of World Religions (3). A study of the historical development of Christianity, Islam, Buddhism and other world religions, with emphasis placed upon their similarities and differences. (Same as HIS 309.)

RGS 316 The Bible as Literature (3). A study of the Bible as a literary source. Prerequisites: ENG 101 and 102. (Same as ENG 316.)

RGS 317 Literature and Religion (3). Course that explores the intersections between literature and religion within larger cultural contexts. Depending on individual research needs and the interest of the group, mandatory field experiences may be scheduled. Prerequisites: CIV 201, 202; HUM 211, 212 or equivalent. (Same as ENG 317.)

RGS 321 Philosophy of Religion (3). A study of basic philosophical issues in the consideration of religion, such as the basis of religious belief, the nature of religion, the cogency of talk about God, the meaning of evil. (Same as PHI 321.)
RGS 322 History of Religion in the United States (3). The historical development of organized religion in America, with emphasis placed upon the relationships between religion and other features of American society. (Same as HIS 322.)

RGS 350 Special Topics (3). A study of religion by examining a subject chosen for its particular topical or thematic interest. Specific topics will vary according to student and faculty interests. May be taken more than once for credit.

RGS 354 Ancient Middle East (3). A survey of Middle East history from prehistoric times to the end of the Classical period; included are the emergence and development of civilizations in Mesopotamia and Egypt, the origins and influence of Judaism, Zoroastrianism and Christianity, and the decline of Classical civilizations prior to the coming of Islam. (Same as HIS 354)

RGS 355 Islamic Middle East (3). History of the Middle East from the 7th century to the 19th century. The course will examine the apostleship of Muhammad, the question of succession and the Sunni-Shi’ah schism, the government, society, and culture of the High Caliphate, the decline of Arab power and the rise of the Turks, the Islamic perspective of the Crusades, the revival of Islamic power under the Gunpowder Empires, and the decline of Islamic civilization in the face of Western expansion. (Same as HIS 355)

RGS 356 The Art of Non-Western Cultures (3). Study of the arts of Asia, Oceania, Africa, and the Pre-Western Americas. (Same as ART, MCG 356.)

RGS 395 Archaeology of Religion (3). A survey of the archaeological evidence for religions throughout the world, from the earliest expressions of spirituality to the modern world religions. Emphasis is placed upon the archaeological evidence for recognizing religious expressions in general, and for the emergence of modern world religions. Archaeological interpretations of New World, African, and Australian religions will be considered in comparative perspective. Fieldwork to a house of worship or cemetery will be required. Prerequisite: ARC 150 or permission of instructor. (Same as ARC 395.)

RGS 410 (510) Directed Study (1-3). Course involves readings or other study in advanced topics, deconstruction of sacred texts, analyses of historical/theological issues, and comparisons and contrasts of the world’s religions. This course may be repeated for credit. Prerequisite: consent of instructor.

RGS 415 Science and Religion (3). A survey of the relationship between science and religion in Western culture from ancient Greek times to the 20th century, with particular emphasis on how science has been influenced by both religious faith and religious institutions. (Same as HIS 425)

RGS 417 Medieval Art (3). Topics in the history of art from the Early Christian through the Gothic period. Prerequisite: ART 211 or permission of instructor. (Same as ART 416.)

RGS 420 Sociology of Religion (3). A study of the interrelationships of society, culture and the institution of religion. Prerequisite: SOC 133 or consent of instructor. (Same as SOC 420.)

RGS 425 Art of Asia (3). A history of the art of India, Central and Southeast Asia, China, Korea, and Japan. Prerequisites: Both ART 211 and 212, or ART 356, or permission of instructor. (Same as ART 425.)

RGS 500 Seminar (3). Selected topics. This course may be repeated for credit. Prerequisite: advanced undergraduate standing or consent of instructor.

SCIENCE (SCI)

SCI 101 Introduction to Science I, Physical Systems (4). An inquiry-based and multidisciplinary course that introduces concepts in biology, geosciences, and physics. This course concentrates on physical systems and reflects the National Science Teacher Education Standards.

SCI 102 An Introduction to Science II, Biological Systems (4). An inquiry-based and multidisciplinary course that introduces concepts in biology, chemistry, and environmental science. This course concentrates on ecological systems and reflects the National Science Teacher Education Standards.

SCI 301 (300) Understanding Scientific Communication (2). Course concentrates on the methods for preparation and presentation of scientific papers, posters, and oral communication. Students will utilize a data set to produce a publication quality manuscript, a poster suitable for a scientific meeting; and a 15-minute presentation such as would be given at a scientific meeting. Topics covered include abstracts, nature of scientific writing, structure and organization of scientific publication, use of literature, graphics and graphic design, and methods of polishing the oral presentation. (Same as GSC 301)

SECONDARY EDUCATION (SEC)

SEC 420 Practicum in Secondary Schools (2). A concentrated practicum experience for upper division students, which will include planned and supervised mini-teaching experiences with middle school and/or senior high students as well as laboratory and field experiences in the development of teaching strategies and curriculum materials. (20 hours of field placement in a public school classroom.) Credit cannot be earned for both SEC 420 and SEC 620. Prerequisites: EDU 303 and admission to Teacher Education.

SEC 421 Student Teaching in the Secondary School (7-14). Student teaching in the secondary school should allow the individual to participate in the work and duties of the school that are generally expected of the classroom teacher. Student teachers will be supervised by a public school teacher as well as a university coordinator. (Will involve 7-14 weeks of placement in a public school classroom.) Graded pass/fail.

SEC 500 Seminar (3). Selected topics. This course may be repeated for credit. Prerequisite: advanced undergraduate standing or consent of instructor.

SEC 528 Teaching Social Studies in the Secondary School (3). A study of the processes of teaching social studies, including methods, procedures, materials and research in the field.

SEC 529 Teaching Science in the Secondary School (3). A study of teaching science in junior high and high school, including materials and procedures, organizations and operation of laboratories, research and curriculum innovations.

SPECIAL EDUCATION (SED)

SED 300 Educating Students with Disabilities (3). This course introduces students to state and federal laws impacting the education of students with disabilities, prepares them to work collaboratively with other professionals and parents, and teaches them a variety of effective instructional techniques/strategies. It also increases their awareness of the special organizations, associations and other resources that will assist them in meeting their professional needs, the needs of families, and the needs of students with disabilities. Field experience required.

SED 350 Roles and Procedures in Special Education (3). Includes an overview of the legal requirements in the process of determining eligibility and delivery of special education services including the individual education plan (IEP) component of federal and state laws. Participants will gain skill in writing individual education plans for students with mild disabilities and information regarding service delivery models. Prerequisite: SED 300.

SED 400 Characteristics of Students with Mild Disabilities (3). Includes an overview of the educational characteristics of children and youth with mild disabilities and legal requirements of the individual education plan component of federal and state laws. Participants will gain skill in writing individual education plans for students with mild disabilities and information regarding service delivery models. Prerequisite: SED 300.

SED 404 (505) Special Education Procedures and Strategies in IECE (3). Students will develop skills in writing Individual Education Programs and Individualized Family Service Plans. Students will be introduced to relevant special education legislation, laws and policies. Students will develop skills in matching intervention strategies to the strengths and needs of young children with disabilities and their families. Students will acquire skills in the development and implementation of the Individual Education Program and the Individualized Family Service Plan in a variety of settings.

SED 406 (540) Procedures for Classroom Management and Discipline (3). The content of this course provides educators with the information and skills needed to increase their knowledge of advanced methods, and techniques of classroom management procedures. Field hours are required.
SED 407 (551) Transdisciplinary Assessment of Individuals with Moderate/Severe Disabilities (3). This course involves procedures for assessment of the behavioral and educational performance of individuals with moderate to severe disabilities, task analysis, sequencing behavioral skills and designing individual instructional programs. Students will be provided experience in conducting assessments, developing individual education plans and use of program evaluation techniques related to individuals with moderate to severe disabilities.

SED 408 (552) Functional Behavior Analysis (3). The content of this course provides the student experience in understanding why individuals behave the way they do and how behavior may be taught, changed, and modified. Topics will include behavior management, training strategies, implementation, data-based programming, and field-based teacher research methods. Field hours are required.

SED 409 (553) Instructional Procedures-Students with MSD (3). This course involves preparation in the use of special methods needed to teach children and youth with physical and sensory disabilities. Adaptations, prosthetic devices and technology used in educational programming as well as communication systems and self-care techniques will be included. Prerequisite: admission to Teacher Education.

SED 421 Student Teaching in Special Education (6-14). Student teaching in the secondary school should allow the individual to participate in the work and duties of the school that are generally expected of the classroom teacher. Student teachers will be supervised by a public school teacher as well as a university coordinator. (Will involve 7 weeks of placement in a public school classroom.) Graded pass/fail. Prerequisites: Admission to Teacher Education and student teaching. Corequisite: EDU 422.

SED 425 Specialized Reading for Students with Mild Disabilities (3). This course is designed to emphasize the detection and remediation of reading difficulties that are typical for students with mild disabilities. Students will be shown how to recognize and remediate reading difficulties. This course would be appropriate for any education major.

SED 443 Curriculum and Instruction for Children and Youth with Mild Disabilities (3). Development of specific competencies in instruction and curriculum requisite for the development of a personalized educational program for children and youth with mild disabilities. Content includes behavior objectives, task analysis, precision teaching and use of technology relevant to curriculum and instruction. Prerequisite: SED 400.

SED 455 Practicum (3). Course will provide opportunities for supervised direct involvement with individual children. Students will implement strategies and procedures used in the education of students with mild disabilities. Prerequisites: SED 300, 400, and 443.

SED 526 Education of Young Children with Severe Disabilities (3). Study of young children with disabilities or who are at risk for disability in terms of their personal, family and educational needs.

SED 531 Nature and Needs of Individuals with Moderate to Severe Disabilities (3). Survey of classification, identification, diagnostic techniques and intervention procedures used in the education and training of individuals with moderate to severe disabilities.

SED 537 Diagnostic Methods (3). Instruction which leads to demonstrated competence with instruments utilized in assessment and programming. Field hours are required.

SED 554 Classroom Management of Individuals with Mod/Sev Disabilities (3). Study of the techniques and methods necessary for the organization and operation of educational programs for individuals with moderate to severe disabilities. Included are specialized teaching techniques such as precision teaching and behavior management applied to the learning environment as well as scheduling approaches, curriculum models and commercially available materials.

SOCIOLOGY (SOC)

SOC 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Graded pass/fail.

SOC 133 Introduction to Sociology (3). This course will introduce students to sociology and the sociological perspective by focusing upon contemporary societies. Through a study of key concepts such as culture, society, group behavior, population, family, stratification, community, social institutions and change, students will be given the tools by which to understand better their society and others around the world.

SOC 231 Social Problems (3). This course is intended to provide the student with a conceptual framework within which to examine social problems. The class will examine the links between technological development, population growth, environmental degradation, social change and disorganization, social inequality, deviance and crime. An approved social science University Studies elective.

SOC 250 Global Sociology (3). This course will provide students with a better appreciation of the value of the sociological perspective in understanding different societies and cultures. The course will focus upon demographic factors shaping societies, values and norms, social inequality, and agents of social changes such as globalization.

SOC 303 Introduction to Research Methods (3). This course will introduce students to sociological research methods. Emphasis will be placed upon understanding the scientific approach to knowledge, research design and analysis, qualitative and quantitative methods of research, and the many uses of social research. Prerequisite: MAT 135 or PSY 300; junior standing or permission of instructor.

SOC 305 Social Issues (3). This seminar will cover an important topic or related topics. Both student and faculty interest will determine the topic. Students will both contribute and lead discussions of the readings. Research paper is required. May be repeated.

SOC 315 Addiction: Treatment and Society (3). An overview of current theories, models and definitions of addictive disorders, with focus on both the addictive and recovery processes. The role of the social worker/helping professional in identification, intervention and treatment will be stressed. The needs of special populations, diverse populations and family and adolescent issues will be addressed. Prerequisite: junior standing (Same as CRJ 315 and SWK 315).

SOC 320 Music, Culture, and Society (3). An examination of contemporary musical expression and the ways in which music can be considered a discursive practice. Cultural determinants such as class, ethnicity, gender, ideology, and race are studied critically. The course explores the production, use, and evaluation of music as social processes that constitute social status and cultural identity.

SOC 325 Sociology of Food (3). Course will highlight the social and cultural dimensions of the human food system, from production to consumption. Topics include an examination of food production over time, analysis of food’s role in religious observances, food taboos, food and social stratification, gender roles, food and body images.

SOC 331 The Family (3). This course will examine the contemporary family system in America. To gain an understanding, an historical perspective on the family will be provided along with some cross-cultural data on other family systems. Contemporary research findings will be presented on such topics as subcultural variations, gender roles, power, romantic love and mate selection, marriage and divorce, and alternative family structures.

SOC 332 Socialization of Youth (3). A study of problems of youth during adolescence, subcultures, development tasks, and preparation for adulthood.

SOC 334 Population Problems (3). An examination of the dynamics of population change, with emphasis placed upon the factors contributing to and the problems resulting from rapid population change at the world and national levels.

SOC 335 Sociology of Formal Organization (3). Theories of formal organization, bureaucratic systems, alternative systems and organizational
SOC 336 Individual and Society (3). An examination of the sociological perspective of the relationship between the individual and social institutions. Topics for study include anomie, alienation, modernity, authoritarianism, intellectual flexibility and self esteem. Recent research findings will be emphasized.

SOC 337 Social Inequality (3). An examination of the distribution of class, status and power in society. The course will focus upon theories of stratification, contemporary class systems, class differences in values and life styles, social mobility, consequences of stratification, and evolution of modern stratification.

SOC 338 Criminology (3). An exploration of the body of knowledge regarding crime as a social phenomenon. Special focus is given to the study of crime patterns, theories of crime causation, and differences in crime types. The connections between crime, other social processes, the law, and policies of corrections are also explored.

SOC 339 Rural Sociology (3). Deals with the principles underlying the organization, structure and processes of rural life. Demographic and institutional aspects of rural communities will be given particular emphasis.

SOC 340 Sociology of Medicine (3). An examination of sociological perspectives on systems of medical care; particular emphasis will be placed upon the structure and organization of health care institutions and societal responses to problems of illness and disease. (Same as GTY/NUR 340.)

SOC 341 Social Gerontology (3). An introduction to the sociocultural dimensions of the problems of the process of aging and its impact on individuals and society. (Same as GTY 341)

SOC 342 Sociology of Retirement (3). Examination of retirement as a process, an event and a role. Aspects of retirement as a special institution are reviewed with emphasis upon the implications for the social system. (Same as GTY 342)

SOC 343 Minorities in the United States (3). Identity, goals, and organization of minority groups; dynamics of prejudice; processes of communication, conflict, and accommodation. (Same as ANT 343.)

SOC 344 The Black Experience (3). An analysis of the African American way of life utilizing anthropological and historical approaches. Major themes in black culture will include religion, family relations and political empowerment. Biographical, autobiographical and ethnographic materials will be utilized. (Same as ANT 344.)

SOC 345 Human Societies and Social Organization (3). An examination of how humankind has used the various aspects of the social structure to adapt to the physical environment. Current ecological theories will be utilized to examine social evolution from hunting and gathering to industrial societies. (Same as ANT 345.)

SOC 346 Urban Culture (3). A study of the origin, growth and structure of the urban community. Particular attention will be paid to the nature of and possible solutions to problems which come in the wake of rapid urbanization. (Same as ANT 346.)

SOC 355 Perspectives on Women (3). Introduction to the study of women’s issues in contemporary society. The course will include an overview of the history of the feminist movement and its role in human liberation. The socialization of women and their status in relationship to economic, social and political institutions will be emphasized. Particular attention will be given to these issues as they relate to women of color, older women and lesbian women. (Same as SWK 355.)

SOC 380 Society and Technology (3). This course will examine how technology, ranging from simple to complex, both shaped by society and culture. Controversies that stem from various technologies will be examined, such as bioethical issues, privacy, and the environment.

SOC 400 Senior Seminar (2). This course is a capstone course for all graduating majors in sociology. It is a writing-intensive course in which a discipline-based research paper is refined and orally defended. The writing emphasis is based on knowledge students gain from ENG 205, SOC 303, and 434. Students also develop skills for job searches, acquire information about graduate school, and complete the program assessment instrument.

SOC 420 Sociology of Religion (3). A study of the interrelationships of society, culture and the institution of religion. (Same as RGS 420.)

SOC 421 Issues in Social Gerontology (3). A study of theory and research on aging and polices and programs related to nutrition, retirement, health and housing of the elderly. Prerequisite: consent of instructor. (Same as GTY 521.)

SOC 430 American Culture (3). This course analyzes the culture of American society focusing upon American values, cultural symbols, production and distribution of culture, cultural conflicts within American society, and culture and change.

SOC 432 Crowds, Cults and Social Movements (3). The sociological analysis of non-routine behavior such as riots, panics, crazes, cults, rumors, protests, and social movements.

SOC 434 Social Theory (3). A study of the great classical tradition in sociological theory and the expression of this tradition in contemporary theory. The course will include (but not be limited to) such theorists as Weber, Marx, Durkheim, and Spencer.

SOC 435 Sociology of Work (3). This course will examine the nature of work in contemporary societies by focusing upon the impact of specialization and bureaucratization; it will examine the different types of work; workers’ response to the workplace; impact of work on family, health, role of age, gender, race in the workplace; and finally, the future of work. Prerequisite: six hours of sociology.

SOC 436 Sociology of Sport (3). Theories, methods and substantive issues in a sociological approach to sports. Prerequisite: six hours of sociology.

SOC 438 Sociology of Deviant Behavior (3). Sociological frame of reference for studying deviant behavior, with emphasis placed upon problems of definition, social processing and evaluation of significant theory and research in deviant behavior. Prerequisite: six hours of sociology.

SOC 440 Sociology of Corporate and Political Deviance (3). Discusses and analyzes on both national and global levels the social, economic, political, structural and cultural causes and consequences of corporate and political deviance. Examples include consumer fraud, environmental crime, corruption of the mass media, fraudulent banking practices, identity theft, and computer crime.

SOC 441 Sociology of Youth Violence (3). Discusses and analyzes the social, economic, and cultural causes social consequences of youth violence. Examples include the emergence of international youth gangs, interpersonal youth violence, with attention to how they variously inform the socio-legal concept of “justice.”

SOC 442 Law and Society (3). An analysis of legal institutions from a sociocultural perspective, with emphasis placed on the interrelationships among social change, social problems, social policy and law.

SOC 445 Environmental Sociology (3). Course will focus upon key theoretical approaches and research in the field of environmental sociology as well as the effects of population and economic growth along with technology, upon the environment. Environmental issues and disasters will be studied focusing upon the role of social organization, culture, values, and social inequality.

SOC 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of chair.

SOC 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: consent of chair.

SOC 490 Directed Studies (1-3). Selected topics in sociology as arranged by the students and a professor. Prerequisite: consent of chair.
SOC 499 Senior Honors Thesis (3). An undergraduate research thesis for outstanding senior majors only. Prerequisite: permission of the department upon nomination of a faculty member.

SPANISH (SPA)

SPA 101 Fundamental Communication in Spanish (3). Basic Spanish in which students learn to describe themselves to someone from another culture; to express preferences, abilities, needs, and obligations; to ask for information; to describe people, places, and things in their world; and to report their typical activities to a Spanish speaker.

SPA 102 Social Interactions in Spanish (3). Expanding upon skills built in SPA 101, students move toward increasing linguistic and social awareness of Spanish-speaking cultures. Students learn to use past tenses to talk about typical activities or to tell a story; to expand their basic vocabulary and ability to communicate in simple Spanish; and to demonstrate basic understanding of aspects of Spanish- and Latin-American cultures that may differ from their own. Prerequisite: Spanish 101 or equivalent.

SPA 103 Elementary Spanish Conversation I (1). Designed to provide additional structured practice in the language for students enrolled in SPA 101. Emphasis is on the development of the speaking skill. Cannot be used for major, minor, or B.A.

SPA 104 Elementary Spanish Conversation II (1). A continuation of SPA 103. For students enrolled in SPA 102.

SPA 105 Introduction to Hispanic Culture (3). A survey of the contemporary culture of Spain and Spanish America with emphasis on values, behavioral characteristics, social and political structures and achievements. Conducted in English.

SPA 106 Basic Spanish and Culture for Agriculture (3). An introductory course with an emphasis on agricultural terminology designed for basic communication in Spanish between agricultural employers and their Spanish-speaking employees. It includes a study of Hispanic culture and the contribution of migrant workers to the U.S. agricultural industry. Students may not receive credit for both SPA 106/AGR 109 and SPA 105. (Same as AGR 109.)

SPA 110 Basic Conversational Spanish (3). A conversation-oriented introduction to pronunciation, essential structures, and vocabulary. Designed to enable students to communicate in simple Spanish in everyday situations in Spanish-speaking countries. Pronunciation, listening comprehension, speaking and simple reading and writing of material related to conversational situations are included. No continuation offered. Not applicable toward Spanish major or minor. Only taught abroad.

SPA 201 Intercultural Communications in Spanish (3). Students strengthen their basic language skills while continuing to broaden cultural awareness of Spanish-speaking societies. Students relate experiences, produce brief reports on course topics, and express opinions concerning a variety of themes. Students learn to communicate on a more complex level in Spanish. Taught in Spanish. Prerequisite: SPA 102 or equivalent.

SPA 202 Practical Applications in Spanish (3). Students advance their speaking, writing, reading, and listening language skills in this interactive course focused on the practical application of the language in contemporary Spanish-speaking countries. Activities include role-play, projects, reports, and discussions of texts. Taught in Spanish. Prerequisite: SPA 201 or equivalent.

SPA 203 Spanish for the Working World (3). A continuation from Spanish 201, this course is a practical application of Spanish for the working world together with grammar review and with emphasis on communication skills on the formal level. Includes further practice in listening, conversation, reading and writing. Students may be required to attend and write a report on two approved cultural events or complete alternative cultural assignments. Taught in Spanish. Students may receive credit for Spanish 202 or 203, but not both. Spanish 203 counts toward the minor and the major. Prerequisite: Spanish 201 or equivalent.

SPA 210 Intermediate Spanish Conversation (3). A course designed to develop the vocabulary and oral communication skills of the student with a background of one year of college Spanish or equivalent. Emphasis will be placed on bringing the student into contact with Spanish native speakers and various aspects of their culture. Either SPA 210 or 211 may count as an elective for the major or minor. Only taught abroad. Prerequisite: SPA 102 or equivalent.

SPA 211 Introduction to Spanish Culture (3). Focuses on the contemporary cultural character of Spain. Combines traditional class work with carefully planned excursions to cultural centers. Also designed to increase linguistic proficiency and is conducted in basic Spanish.

SPA 220 Spanish for Law Enforcement Professionals (3). Course is designed to develop the specific vocabulary and oral communication skills essential for a student who is intending to pursue a career in law enforcement and has a background of one year college Spanish or equivalent. SPA 220 will be taught only in study abroad programs in Mexico. Prerequisite: SPA 102 or equivalent.

SPA 230 Spanish for Medical Professionals (3). Course is 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, and who has a background of one year of college Spanish or the equivalent. SPA 220 will be taught only in study abroad programs in Mexico. Prerequisite: SPA 102 or equivalent.

SPA 301 Conversation and Composition I (3). Intensive practice in speaking and writing based on a variety of topics and materials. Prerequisite: SPA 202 or equivalent.

SPA 302 Conversation and Composition II (3). Additional practice in speaking and writing based on a variety of topics and materials. Prerequisite: SPA 301 or consent of instructor.

SPA 306 Introduction to Literature in Spanish (3). A course designed to develop skills in reading, writing and oral expression which will prepare students to study authentic literature in Spanish. In addition, the rudiments of literary analysis and/or theory will be introduced through a variety of texts which might include short story, poetry, theater and film. Prerequisite: SPA 202 or consent of instructor.

SPA 310 Conversation and Composition Abroad (3). Intensive practice in speaking and writing based on the student’s interaction with native speakers and the international setting. Only taught abroad. Counts toward the major and minor approved electives. Prerequisite: Two years of college Spanish or equivalent.

SPA 311 Business Spanish (3). Designed for students with interest in international business who have had at least two years of college Spanish or equivalent. The course integrates oral and written business communications, with an emphasis on the vocabulary of business in the Spanish-speaking world. Prerequisite: SPA 202 or equivalent.

SPA 315 Global Cinema in Spanish (3). A study of Spanish-language cinema, examining significant directors and film movements. This class includes a two-hour per week film screening in addition to class meeting. The course is conducted in Spanish. Prerequisite: SPA 301 or 331.

SPA 323 Spanish Culture and Civilization (3). A cultural survey of Spanish history with emphasis on twentieth-century Spain. Classes conducted in Spanish with extensive use of visual aids. Prerequisite: SPA 301 or consent of instructor.

SPA 324 Mexican Culture History (3). Introduces Mexican culture from a contemporary and a historical perspective taught in Spanish. Focus will be on the area’s geography, history, social and political institutions, and the cultural achievements of its people. It will also explore the values and behavioral characteristics of Mexican people in order for students to better adjust to residence abroad. Course will be taught in Mexico. Prerequisite: SPA 301 or equivalent.

SPA 325 Spanish-American Culture (3). A cultural survey of Spanish-American history with emphasis on twentieth-century Spanish America. Taught in Spanish with extensive use of visual aids. Prerequisite: SPA 301 or consent of instructor.

SPA 329 Mexican Literary Texts in Context (3). Will be taught on summer abroad programs in Mexico only. It is an introductory course on Mexican literature taught in Spanish. Authentic texts might include poetry, short story, drama or excerpts from long works and might be from any literary period. An effort will be made to take advantage of residence in Mexico through visits to sites that are related to the literature. Prerequisite: SPA 202, 203 or consent of instructor.
SPA330 Spanish Literary Texts in Context (3). Will be taught on summer abroad programs in Spain only. It is an introductory course in Spanish literature taught in Spanish. Authentic texts might include poetry, short story, drama or excerpts from long works and might be from any literary period. An effort will be made to take advantage of residence in Spain through visits to sites that are related to the literature. Prerequisite: SPA 202, 203 or consent of instructor.

SPA 331 Advanced Language Practice (3). Course will offer students the opportunity to expand their cultural and linguistic knowledge of Spanish-speaking cultures through a central conceptual framework, such as an international conference, an apartment building, a hotel, or a business. Students will engage in extensive role-play and creative exercises to establish contexts, choose fictive identities, and improvise a series of encounters. Prerequisite: SPA 202 or consent of instructor.

SPA 332 Phonetics (3). A study of the vocal apparatus, phonetic transcription, and analysis of the contrast between Spanish and English phonology with individual work designed to improve pronunciation. Prepares prospective teachers to teach correct pronunciation effectively. Prerequisite: SPA 202 or consent of instructor.

SPA 401 Survey of Spanish Literature (3). A panoramic study of the literature of Spain from the Middle Ages to the present. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 403 Survey of Spanish-American Literature (3). A panoramic study of the literature of Spanish America from pre-Columbian times to the present. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 419 European Cinema (3). Survey of European (including British) film by French, English, German, and Spanish directors in the original languages with English subtitles except for the English language films. Selected films will be organized around social themes, which will then be viewed from different national perspectives. The common discussion section on one day will be conducted in English to be accessible to students of all languages; the second discussion section will be conducted in English. Students are required to attend film viewings in a separate lab section. Prerequisite: SPA 302 or consent of instructor.

SPA 421 Topics in Spanish Literature (3). Course content will vary according to the needs of the Spanish program. May be repeated to a maximum of six credit hours. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 422 Topics in Spanish American Literature (3). Course content will vary according to the needs of the Spanish program. May be repeated to a maximum of six credit hours. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 430 Advanced Conversation and Composition (3). Designed for students with at least two years of college Spanish or equivalent. The main purpose is to develop greater fluency and better pronunciation. Oral and written reports will be required. Emphasis will be placed on idiomatic structures and vocabulary building. Prerequisite: SPA 301 or consent of instructor.

SPA 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required. Prerequisite: consent of instructor.

SPA 441 Topics in Spanish Cultural Studies (3). Course content will include a variety of factors that contribute to and reflect the cultural life, social themes, and national perspectives of Spanish society. The course content will include literature and may include media and/or film. Students will write a research paper. May be repeated for a maximum of six credit hours. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 445 Survey of Spanish Poetry (3). The course will explore Spanish poetry through a variety of authors and works within the genre. Prerequisites: Spanish 302 or consent of instructor.

SPA 450 Literary Masterpieces in Spanish (3). A general survey of the literary periods, major authors, and initial acquaintance with their work. May be repeated for a maximum of six credit hours. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 451 Directed Study (1-3). Independent work in the area of language, culture or literature, designed to meet the needs and interest of individual students. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 460 Studies in a Genre (3). The course will explore a particular genre, e.g., the novel, novella, drama, poetry, short story, and the theory behind the respective genre and an examination of a variety of works within that genre. May be repeated as a second course for up to six credit hours provided that the second course covers a different genre. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 503 Golden Age Literature (3). Spanish literature of the sixteenth and seventeenth centuries. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 504 Don Quixote (3). Prerequisites: SPA 302 and SPA 301 or 306.

SPA 505 Nineteenth-Century Spanish Literature (3). Romanticism through Naturalism. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 507 Twentieth-Century Spanish Literature (3). A survey of representative authors. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 511 Spanish-American Short Story (3). The origin and development of the short story in Spanish America, with emphasis placed upon the twentieth century. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 512 Spanish-American Novel (3). Representative works from the major literary movements and most regional types will be studied. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 521 Topics in Spanish Literature (3). Topics will vary according to the needs and interests of students. May be repeated to a maximum of six credit hours. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 522 Topics in Spanish-American Literature (3). Topics will vary. May be repeated to a maximum of six credit hours. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 531 Advanced Grammar (3). A specialized study contrasting Spanish and English grammatical structures and usage. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 532 Phonetics (3). A study of the vocal apparatus, phonetic transcription and analysis of the contrast between Spanish and English phonology with individual work designed to improve pronunciation. Prepares prospective teachers to teach correct pronunciation effectively. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 551 Directed Study I (1-3). Course work designed to meet specific needs and interests on an individual basis. Prerequisites: SPA 302 and SPA 301 or 306.

SPA 552 Directed Study II (1-3). Prerequisites: SPA 302 and SPA 301 or 306.

SPA 555 Study Abroad (3-9). Credit given to students for approved travel and study in Spain and Spanish America. Repeatable up to nine hours. Prerequisite: junior standing or above.

SOCIAL WORK (SWK)

SWK 100 Introduction to Health Sciences and Human Services (1). A survey course of the areas included in the College of Health Sciences and Human Services. Course content will help students understand the similarities and differences between the various areas of study, understand the skills and aptitudes needed to become a successful professional in each area, and become aware of the types of jobs available. Graded pass/fail.

SWK 101 Introduction to Social Work (3). A course designed to provide an overview of the field of social work and the various methods and
areas of social work practice. Current response to human needs as well as trends and issues affecting the profession of social work will be explored. Prerequisite: ENG 105; SOC 133 as pre- or corequisite.

SWK 120 Partnering for Safety and Permanency (2). Course designed to give students an understanding of the skills necessary for a successful experience in the area of foster care and adoption services. The course includes content on Kentucky’s standards of practice as well as federal legislation with regard to the safety, well-being and permanency of children in and out of home care; strengths and needs; grieving; the cycle of need; and, partnership efforts necessary between birth parents, foster parents, adoptive parents, social workers, therapists and others involved in the support and care of a child. Graded pass/fail.

SWK 121 Child Sexual Abuse Issues for Foster and Adoptive Parents (2). Course designed to give students an understanding of the specialized insights and skills necessary for working with children and birth families where there has been sexual abuse. Graded pass/fail. Prerequisite: SWK 120.

SWK 201 Social Work and Social Welfare (3). An introduction to the institution of social welfare and the profession of social work; includes the historical development of conflicting social philosophies and modern social welfare programs, as well as the historical development of the profession of social work. Prerequisites: ENG 105; POL 140, SOC 133 and SWK 101 as pre- or corequisites.

SWK 225 Human Diversity (3). This course is designed to give students an understanding of the concept of human diversity. It includes content on race, ethnicity, culture, class, gender, sexual orientation, religion, physical and mental ability, age and national origin. Prerequisite: ANT 140 or SOC 133 as pre- or corequisites.

SWK 301 Human Behavior and the Social Environment I (3). Focus on developmental processes (biological, psychological, and social) throughout the life span of individuals (pre-birth to old age) while emphasizing the interdependence between people and the environment in which they live. In addition, students learn to critically analyze theories related to human development and human behavior. Builds on general education courses including psychology, sociology, anthropology, and biology. Prerequisites: BIO 101, PSY 180, SOC 133, SWK 101, and 225 as pre- or corequisites.

SWK 302 Human Behavior and the Social Environment II (3). Primary focus is on models, theories, and knowledge related to larger systems such as families and other small groups, organizations, communities, and political systems. Prerequisites: BIO 101, PSY 180, SOC 133, SWK 101, and 225 as pre- or corequisites.

SWK 303 Principles and Methods of Research (3). An introduction to quantitative and qualitative methods of research designed to enable students to understand the critical and scientific methodologies their discipline uses to discover knowledge and ascertain its validity. Ethical issues and program evaluation will also be discussed. Enrollment will be limited to social work and criminal justice majors and minors or by permission of instructor. Prerequisite: MAT or approved statistics course. (Same as CRJ 303.)

SWK 304 Quantitative Analysis (3). Basic concepts of statistics are covered including descriptive and inferential statistics, up to and including linear regression. Students also learn to use a statistical package to enter data and calculate statistics. Prerequisite: ACT math standard score of at least 20 or MAT 105.

SWK 305 Services to Older Americans (3). An examination and study of the social problems experienced by older Americans and the modes of social intervention employed by society, through the Aging Network, to assist the aging and the aged. Prerequisite: junior standing. (Same as GTY 305.)

SWK 310 Social Work Practice I (3). This is the first course in the social work practice sequence and presents the generalist model with emphasis on work with individuals and families. Social Work Practice I is designed to introduce the student to the skills and processes of social work. Content will include the theoretical and philosophical bases of the generalist model, intervention processes, and the legal and ethical parameters of practice. Fundamental principles of interviewing and record-keeping will be presented. The focus of the course is on the ethical application of practice theory. Participation in experiential activity and demonstration of basic helping skills are expected. Prerequisites: admission to the social work program; SWK 101, 201, 225, and 301 or 302.

SWK 311 Social Work Practice Skills (3). Presents a laboratory-like interaction, which builds on the theoretical information presented in SWK 310. Fundamental principles of interviewing and record-keeping will be presented. The focus of the course is on the ethical application of practice theory. Participation in experiential activity and demonstration of basic helping skills are expected. Prerequisites: SWK 101, 201, 225, and 301. Corequisite: 310.

SWK 312 Social Work Practice II (3). This is the second course in the social work practice sequence and continues the study of social work practice with an emphasis on social work with families and groups. It is designed as an intermediate level investigation and study of practical application of the generalist model within an organization and community framework. Content will include conceptual framework and techniques of group work. This course may not be taken concurrently with SWK 313. Prerequisites: admission to the social work program; SWK 302 and 310.

SWK 313 Social Work Practice III (3). This is the third course in the social work practice sequence and continues the study of social work practice with an emphasis on social work with organizations and communities. It is designed as an intermediate level investigation and study of practical application of the generalist model within an organization and community framework. Content will include conceptual framework and techniques of social work in organizations and communities, models of organizational and community practice, and evaluation of practice. This course may not be taken concurrently with SWK 312. Prerequisites: admission to the social work program; SWK 302 and 310.

SWK 315 Addiction: Treatment and Society (3). An overview of current theories, models and definitions of addictive disorders, with focus on both the addictive and recovery processes. The role of the social worker/helping professional in identification, intervention and treatment will be stressed. The needs of special populations, diverse populations and family and adolescent issues will be addressed. Prerequisite: junior standing. (Same as CRJ 315 and SOC 315.)

SWK 336 Family Violence (3). A comprehensive examination of the effects of violence on the American family, and the ways in which social service agencies and practitioners respond to the unique needs created by this social problem. Prerequisite: junior standing. (Same as CRJ 336.)

SWK 345 School Social Work (3). A historical and contemporary perspective on school social work; emphasis is placed on the development of skills for effective service to children, families, personnel of the local education agency, and the community. Prerequisite: junior standing.

SWK 346 International Social Work (3). This course provides an examination of global interdependence and professional action in the context of social work history, values, policy, practice, and education in a global perspective. International aspects of domestic practice and policy, professional exchange, international development practice, and policy formulation and advocacy at the global level are also covered.

SWK 347 Social Work Practice in Rural Areas (3). This course explores the particular challenges associated with rural social work. Many of the social issues and problems associated with urban populations are also found in contemporary rural America. This course describes and analyzes current trends in rural social work practice and considers the most effective ways to serve rural communities.

SWK 348 Technology in Human Services (3). This course explores the integration of technology and human services. This course describes and analyzes current trends in the use of technology in human services and considers the most effective ways to utilize technology to serve underserved communities and populations.

SWK 350 Social Welfare Policies and Services (3). This course examines historical and contemporary legislative and political responses to the social and economic problems that confront society. A major focus is on the preparation of students, as generalist social workers, to systematically analyze social welfare policies and effectively impact the development of social policy. Prerequisites: ECO 140, POL 140 and SWK 201.
SWK 355 Perspectives on Women (3). Introduction to the study of women’s issues in contemporary society. The course will include an overview of the history of the feminist movement and its role in human liberation. The socialization of women and their status in relationship to economic, social, and political institutions will be emphasized. Particular attention will be given to these issues as they relate to women of color, older women and lesbian women. Prerequisite: junior standing or consent of instructor. (Same as SOC 355.)

SWK 365 Crisis Intervention (3). This course will focus on the techniques and management skills employed by social workers in dealing with emergency and crisis situations. Short-term, limited goal interventions will be emphasized. Prerequisite: SWK 310 or consent of instructor.

SWK 370 Gerontological Social Work Theory (3). Course will examine the broader context of the social/cultural meaning of aging in contemporary American society and what social work professionals must know in order to provide social services to those classified as elderly. The emphasis in this course will be on social gerontological theories relevant to work with older people.

SWK 375 Social Work in Health Care Settings (3). A study of the role and scope of social services in health care settings. Focus will be placed on the multidisciplinary team approach to service delivery. Prerequisite: SWK 310 or consent of instructor.

SWK 385 Social Work in Mental Health Settings (3). A study of the role and scope of social services in behavioral health settings. Focus will be placed on the interdisciplinary team approach to service delivery. Prerequisite: SWK 310 or consent of instructor.

SWK 395 Substance Abuse Prevention (3). This course is designed to provide an overview of substance or drug abuse and the various strategies used in preventive efforts. The role of prevention in the continuum of care will be examined from a historical perspective. A variety of problems associated with substance abuse, including legal, health, and impairment problems, will be explored. Prerequisite: junior standing.

SWK 405 Child Abuse and Neglect (3). This course is designed to provide a comprehensive introduction to child abuse and neglect from a social work perspective. The course will focus on the extent of the problem, its effects on social work perspective. The course will focus on the introduction to child abuse and neglect from a social work perspective. The course will focus on the development of specific practice skills in collecting data and assessing situations with a variety of client types. This course is the second of two specific course requirements for the Public Child Welfare Certification Program available through Murray State University’s Social Work Program and the Kentucky Cabinet for Families and Children. Prerequisites: SWK 405 and consent of instructor.

SWK 424 Case Management: Theory and Practice (3). This course will address the theory and practice of case management and the skills necessary to assess the client situation and to optimize client functioning. This course will focus on a diverse population of vulnerable clients across various practice settings. The settings emphasized include medical/health, educational, psychiatric and services to the elderly. Policy issues will be addressed, as they relate to advocacy, service planning, and program design. Prerequisite: SWK 310.

SWK 425 HIV Disease: The Individual and Society (3). This course is an overview of HIV disease and its impact on individuals and society. This course will focus on the history of the illness, as well as, current medical and epidemiological information. Current treatment, legal and ethical issues, social responses, and personal and societal values will be explored. Prerequisite: junior standing.

SWK 426 Spirituality and Social Work Practice (3). Course is designed to assist students in understanding the role of spirituality in a person’s life and how to engage in spiritually sensitive practice. Time will be spent exploring how the social worker’s spirituality influences their practice and the importance of including information regarding client spirituality when completing an assessment.

SWK 427 Professional Practice in Drug Court (3). Course will provide students with an understanding of the ethics in practice with drug court clients, and will deal with other professional issues including worker client boundaries, the role of worker self awareness in providing treatment, and dealing with community values related to drug court clients. Students may be asked to attend local drug court functions.

SWK 428 History and Philosophy of Drug Court (3). Course will provide students with an understanding of the role of drug court in Kentucky, national trends related to the establishment of drug courts, the history of drug court in the state, and an understanding of the philosophy of drug court. Students may be asked to attend local drug court functions.

SWK 429 Behavioral Issues in Drug Court (3). Course will provide students with an understanding of the behavioral issues present by drug court clients, including those issues caused by the effects of alcohol and other pharmacological substances. Students may be asked to attend local drug court functions.

SWK 431 Adult Protection (3). Course will provide students with an understanding of adult protective services, an institutional response to caring for vulnerable adults in society. The content of the class will be based on Kentucky laws, policies and procedures.

SWK 432 Foster Care and Adoption (3). Course will provide students with an understanding of the role of foster care in society, the role of protective services in monitoring foster care, and policies and procedures governing adoption.

SWK 437 Senior Honors Thesis (3). A faculty-supervised thesis and/or project which allows Honors Program students with a senior standing to undertake advanced research. A thesis paper and/or written review of the exhibit or performance is required.

SWK 441 Drugs in Global Society (3). Course will provide students with a history of drug use origins and trade and an overview of the current state of drug availability and trends in consumption in this country and throughout the world. Contemporary issues associated with licit and illicit drug dealing and trafficking, regulation strategies at the national and international levels will be examined in the light of global initiatives towards drug control, prevention and health promotion.

SWK 442 Immigration and Social Work: A Global Perspective (3). Course will provide students with an understanding of the process of transnational migration and its impact, the varied life contexts that necessitate migration and the consequences to individuals, families, sending and receiving countries. The implications for social work at micro, mezzo and macro levels and current global concerns with immigration will be addressed.

SWK 460 Topical Seminar (3). Seminar dealing with various social work topics. Topics may differ from semester to semester depending on program curricular needs and demonstrated interest of students. May be repeated for credit under different topical course titles. Prerequisite: junior standing.

SWK 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Graded pass/fail. Prerequisite: permission of social work program director.

SWK 489 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational
objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours from any 488/489 courses. Prerequisite: permission of social work program director.

SWK 498 Senior Seminar (3). The final social work practice course designed to prepare students for beginning professional entry-level generalist practice. This course will explore issues related to agency-based work environments, service delivery in a generalist framework, current issues in the field, and focus on the professional use of self as well as professional writing in the field of social work. This course is taken in the final semester before SWK 499. Prerequisites: formal admission to the social work program, SWK 310, SWK 311, and either SWK 312 or SWK 313 (which may be taken concurrently).

SWK 499 Field Practicum (12). Internship in a community social service agency. Field practicum is designed to give students an educational work experience in which they apply generalist social work practice theory and skills. Concurrent field seminar class meets regularly on campus to explore current issues related to service delivery to individuals, families, groups, organizations and communities. Field practicum requires a full semester (500 clock hours) of full-time agency-based work. No student is guaranteed an internship since the agencies make the final decision about suitability. All academic coursework must be completed prior to enrollment in this class. Students must have professional liability insurance before beginning this class. Prerequisites: formal admission to the social work program, consent of field education review committee and SWK 498.

SWK 500 Independent Study (3). Faculty supervised independent study and investigation of selected topics related to the student’s academic and/or career goals. This course cannot be used as a social work elective. Course may be repeated for a maximum of nine hours of credit if topics/investigations vary. Prerequisites: social work major with advanced standing, social welfare minor, and others with consent of instructor; permission of program director.

THEATRE (THD)

THD 098 Theatre Attendance and Assembly (0). All theatre majors must enroll for this course each semester. Theatre minors must enroll each spring semester. Successful completion of the course requires certified attendance at all theatre productions offered by the department during the semester enrolled, completed audits for each production during the semester enrolled, and completed crew assignments during the semester enrolled. Graded pass/fail. Prerequisite: theatre major or minor.

THD 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Introduction to policies and guidelines for the department. Transfer students to the theatre program are encouraged to participate. Graded pass/fail.

THD 101 Dance Appreciation (3). Orientation to dance as an art form: historical and aesthetic perspectives, basic dance elements, and the relationship to other arts and to the culture. Lectures, films, demonstrations and practical dance experience.

THD 103 Theatre Foundations (1). Preparation in audition techniques, resume, and portfolio presentation. One hour of lecture.

THD 104 The Theatrical Experience (3). Critical analysis of the theatre as an art form. Emphasis is on the play in production, not the play as literature. A student cannot have credit for both this course and HON 163.

THD 110 Movement for the Actor (3). Introduction to basic physical skills needed for acting: relaxation, flexibility, manipulation of the body at rest and in motion.

THD 111 Acting I (3). Course designed for theatre majors/minors and vocal music performance majors/minors who plan to teach theatre or any other profession in the field. Basic stage terminology and orientation, location and utilization of proper audition materials and audition techniques, formal script analysis and scoring techniques, proper stage etiquette and professionalism will be explored.

THD 120 Play Analysis (3). Study and application of the basic concepts and skills needed to successfully comprehend and approach a play in production.

THD 210 Voice for Performance (3). Emphasis on vocal production, vocal projection, and the International Phonetic Alphabet as it relates to the stage. Prerequisite: THD 120.

THD 220 Creative Dramatics (3). Theatre games, group expression, improvisation, and storytelling will be examined. Using drama to educate children will be the emphasis for the class.

THD 221 Performance Theory (3). A study of acting, directing, and design theorists from ancient times to the contemporary era. This is a lecture/discussion course that is team-taught by faculty in the disciplines of acting, directing, and design. Students will be required to attend all productions offered by the department during the semester the course is taught. Prerequisite: THD 120.

THD 225 Children’s Theatre Touring Company (3). Audition-based touring organization. Performances will take place at K-12 institutions each semester. May be repeated once for credit towards the theatre major. Prerequisite: audition entry to the company.

THD 230 Stage Management (3). Examination of theoretical and practical aspects of working as a stage manager.

THD 240 Theatre Production (4). Introduction to the basic workings of the crews and tools of the scene and costume shops. Fundamental techniques of construction will be covered. Practical work on productions is required outside of lecture.

THD 241 Theatrical Makeup (3). The basic principles of stage makeup are explored through lecture demonstration and application.

THD 250 Basic Theatre Design (3). Fundamental techniques and theories of design for the stage in the areas of set design, costume design, and lighting design will be introduced. This course is a lecture/discussion based course. It will be team-taught by faculty in the theatre discipline of design. Students will be expected to attend all productions offered by the department each semester the course is taught and will respond to the productions in writing. Prerequisite: THD 120.

THD 260 Music Theatre Dance I (3). Exploration of choreographers and their styles as they relate to musical theatre genres. Practical dance experience is utilized in the course.

THD 262 Jazz Dance I (3). Study of the theory, technique, and history of jazz dance. Practical dance experience is utilized in the course.

THD 310 Acting II (3). Acting theories (Stanislavski, etc.) are introduced and utilized along with formal script analysis and scoring techniques as they relate to the actor-audience relationship. Prerequisites: THD 111 and 221.

THD 312 Advanced Movement for Actors (3). A study of period movement techniques, stage combat and other advanced physical acting techniques. Students will be expected to participate in each class period with the instructor leading exercises and various other techniques. Students will be expected to attend all productions offered by the department each semester the course is taught and respond to the productions in writing. Prerequisite: THD 110.

THD 320 Playwriting (3). A study of the principles and practices of dramatic construction of play scripts. Prerequisite: THD 120.

THD 322 International Studies in Theatre (3). Study of current theatrical productions in a foreign country. A residency outside of the United States is required for this course. Prerequisite: consent of instructor.

THD 330 Theatre Management and Arts Leadership (3). A study of theatre management techniques engaging with arts leadership skills and theories. Each student must engage in theatre management work at a local theatre for no less than 15 hours during the course of the semester.

THD 341 Advanced Theatrical Makeup (4). A practical study of advanced makeup for the stage. Prerequisite: THD 241.
THD 346 Acting Shakespeare (3). Advanced study of Shakespeare’s work as it relates to acting. Scripts analysis, interpretation, and Shakespeare’s scripts in performance will be emphasized. Prerequisite: THD 120, 310.

THD 350 Scene Design (3). Aesthetics of set design as it relates to the stage. Emphasis is placed on principles and theories of design. Practical work on university theatre productions is required. Prerequisite: THD 240.

THD 351 Lighting Design (3). Aesthetics of lighting design as it relates to the stage. Emphasis is placed on principles and theories of design. Practical work on university theatre productions is required. Prerequisite: THD 240.

THD 352 Costume Design (3). Aesthetics of costume design as it relates to the stage. Emphasis is placed on principles and theories of design. Practical work on university theatre productions is required. Prerequisite: THD 240.

THD 358 Sound Design (3). An introduction to the theoretical and practical processes of sound design for the theatre. Recording techniques, design techniques, sound reinforcement and other aspects of sound design for the stage will be discussed. This course is a lecture course. Students will be expected to attend all productions offered by the department each semester the course is taught and will respond to the productions in writing. Prerequisites: THD 240 and 250.

THD 360 Music Theatre Dance II (3). Continued study of music theatre dance as it relates to THD 260. Prerequisite: THD 260.

THD 362 Jazz Dance II (3). Continued study of jazz dance as it relates to THD 262. Prerequisite: THD 262.

THD 392 Professional Theatre Engagement (1). Practical engagement course for theatre majors and minors. Each student will work 25 hours on an approved project utilizing skills related to Theatre studies. Graded pass/fail. May be repeated for a total of two credits towards graduation. Prerequisites: junior or senior standing and permission of instructor.

THD 400 Special Topics (3). Studies in theatre arts or dance topic not offered in the curriculum on a regular rotation. This course may be repeated for credit. Up to six hours may be counted towards the degree in theatre. Prerequisite: consent of instructor.

THD 401 Special Topics in Performance (3). Courses in performance areas that support acting, directing, children’s theatre and other areas of theatre study not offered in regular rotation by the department. Most courses offered under THD 401 will be lecture/discussion courses. Some experiences will be practical. Students will be expected to attend all productions offered by the department each semester the course is taught and will respond to the productions in writing. Up to three hours may be counted towards a minor in theatre and up to six hours may be counted toward a major in theatre. Prerequisites: consent of instructor.

THD 402 Special Topics in Technical Theatre (3). Courses in production areas that support costume, scenery, lighting and sound areas in theatre not offered in regular rotation by the department. Most courses offered will be lecture/discussion courses. Some will be practical with hands-on experience required. Students will be expected to attend the productions offered by the department each semester the course is taught and will respond to the productions in writing. Up to three hours may be counted towards a minor in theatre and up to six hours may be counted toward a major in theatre. Prerequisites: consent of instructor.

THD 410 Acting III (3). A study of acting styles for period literature. Prerequisites: THD 111 and 221.

THD 420 Theatre History and Literature I (3). A study of Western theatre history and literature from its beginnings to the English Restoration.

THD 421 Theatre History and Literature II (3). Continued study of Western theatre history and literature from the English Restoration to the modern era.

THD 422 Contemporary Theatre (3). A study of contemporary theatre trends, practitioners and literature from 1970 to the present.

THD 430 Directing I (3). Principles and methods of stage direction, script analysis, and the directing concept as they relate to play production. Prerequisite: THD 120.

THD 465 Directing II (4). Practical application of principles learned in THD 430. Prerequisite: THD 430.

THD 466 Theatre Literature (3). Examination of theatre literature from the ancient times through the contemporary era. Emphasis will be placed on major historical periods of theatre arts from the ancient Egyptians to Contemporary Western Theatre literature. This course will be a lecture/discussion format. Students will be expected to attend the productions offered by the department each semester the course is taught and will respond to the productions in writing. Prerequisite: THD 120.

THD 590 Directed Independent Study in Theatre Arts (3). Individual projects of special interest under the direct supervision of a theatre or dance faculty member. Prerequisites: senior standing and consent of the chair of the department.

TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES (TSL)

TSL 331 ESL Methods Grades P-S (3). This course provides an in-depth exposure to methodologies, activities, and materials appropriate for ELL (English language learning) students in preschool and elementary school contexts. This course covers a range of instructional and classroom management techniques appropriate for stand-alone or pull-out ESL instruction. Field experience required. Prerequisite: ENG 228 or equivalent.

TSL 332 ESL Methods Grades 5-12 (3). This course provides an in-depth exposure to methodology, activities, and materials appropriate for ELL (English language learning) students in middle school and secondary school contexts. This course covers a range of instructional and classroom management techniques appropriate for stand-alone or pull-out ESL instruction. Field experience required. Prerequisite: ENG 228 or equivalent.

TSL 409 Language Acquisition in Children and Adolescents (3). This course examines theories and perspectives on the language acquisition process in children and adolescents. Special emphasis includes a review of language acquisition research in school contexts and an examination of the relationship between various theories of acquisition and instruction. Two field trips to two public schools will be part of the instructional activity. Prerequisite: ENG 310.

TSL 410 ESL Assessment, Placement, and Advocacy (3). Students will understand and practice various types of assessment particular to English language learners in the public school context, including administration and interpretation of standardized language proficiency and placement tests, tracking student language progress with respect to curricular standards, and creation of traditional and alternative language assessment instruments. Emphasis is also placed on developing skills to communicate student and family needs and progress to communities both inside and outside the school context. Prerequisite: TSL 331 or 352.

TELECOMMUNICATIONS SYSTEMS MANAGEMENT (TSM)

TSM 099 Transitions (1). Course is designed to assist students in their transition to Murray State University. Content includes orientation to the specific area or major(s) and minor(s) within the academic program; university procedures, policies, and resources; strategies for personal and academic success, and extracurricular opportunities. Only one transitions course will count toward graduation. Introduction to the Profession. A student (transfer or regular) who has not enrolled in and earned 12 hours prior to his/her first semester at Murray State University must take Transitions. Graded pass/fail.

TSM 110 Electrical Systems I (4). A study of the utilization of electricity as a source of energy and a method of information transmission. Basic DC and AC circuits, with introduction to the application of electro-magnetic fields. Lecture and laboratory provide learning experiences with basic test instruments, circuits and components. Three hours lecture and two hours lab. Prerequisite: MAT 130 or 150.

TSM 118 Telecommunications Electronics I (3). A theoretical overview of the electronic building blocks involved in the field of telecommunications. Prerequisite: ACT standard score of at least 20 or MAT 105.
TSM 120 Introduction to Telecommunications (3). An overview of the telecommunications industry including history, fundamentals, regulations, the marketplace, educational requirements, and job/career opportunities. The class will focus on telecommunications terminology, overviews of specific technologies and their business application.

TSM 121 Telecommunications Electronic Principles (3). An overview of the processes and theory utilized in the field of telecommunications. Prerequisite: Mat 140.

TSM 132 Network Technical Support (3). Primarily lab-based course, studying microcomputer concepts, with emphasis on network technician practices. Students learn to operate, install, configure, troubleshoot, upgrade, and maintain microcomputers and gain an introductory understanding of computer networks. Two hours lecture and two hours lab.

TSM 133 Introduction to Telecommunication Systems Management Technology and Methods (3). An overview of the technology and managerial considerations of the telecommunications systems management field, including history, job market, educational requirements, microcomputer concepts and basic networking concepts. Two hours of lecture and two hours of lab per week.

TSM 210 Electrical Systems II (4). A continuation of TSM 110 through the study of semiconductor devices and their applications, and particularly how electronic technology is applied to the field of data transfer and communications. Three hours lecture and two hours lab. Prerequisite: TSM 110. (Fall)

TSM 218 Telecommunications Electronics II (3). A continued theoretical overview of the electronic building blocks involved in the field of telecommunications. Prerequisite: TSM 118.

TSM 219 Electronic Skills Lab (3). Electrical, electronic and related mechanical drafting; printed circuit board layout and masking techniques; introduction to CAD techniques; industrial documentation procedures. Four contact hours. (Fall)

TSM 232 Operating Systems (3). A study of operating systems and network administrative functions necessary to implement and maintain modern Local Area Networks (LAN). Topics include operating system installation and configuration, optimization, and administrative tasks. Two hours of lecture and two hours of lab per week. Prerequisite: TSM 133.

TSM 233 Network Services (3). A lecture/lab class providing the student in-depth analysis and evaluation, name resolution, directory services, IP management, email and web services and service availability. Two hours of lecture and two hours of lab per week. Prerequisite: TSM 232.

TSM 241 Networking Fundamentals (3). A study of fundamentals of networking including the topics of switches; routers; Ethernet; VLANs; sub-netting; routing and routed protocols; access-control lists; and device operating systems and management. Students will be able to design and implement simple wired networks and inter-networks upon completion of this course. Two hours of lecture and two hours of lab per week. Prerequisite: TSM 133 or 232.

TSM 320 Introduction to Wireless Technology (3). An introduction to the rapidly changing field of wireless technology, including the topics of wireless access technologies and fundamentals, network mobility management and handoff, cellular, WLAN, broadband WiMax, and mobile satellite services and applications. Prerequisite: TSM 121.

TSM 321 Wireless Communications I (3). Introduction to wireless cellular communications fundamentals including coverage and traffic analysis, as well as an overview of mobile communication networks components. Prerequisite: TSM 320.

TSM 322 Wireless Communications II (3). Course provides a comprehensive technical foundation in IS136, GSM, CDMA, EDGE, CDMA2000 and higher generations of wireless technologies and applications. Prerequisite: TSM 321.

TSM 323 Wireless Mobile Internet (3). Course will develop a comprehensive understanding of the wireless internet describing the standard activities and the current status of wireless IP (Internet Protocol), and detailing network models and specific associated techniques. Prerequisite: TSM 322.

TSM 331 Digital Electronics (4). A study of Boolean algebra, binary number systems, and small- and medium-scale digital integrated circuits. Emphasis is placed upon the TTL and CMOS logic families. Three hours lecture and two hours lab. Prerequisite: TSM 210.

TSM 332 Microprocessors (4). A study of advanced digital systems and their relationships to microprocessor-based systems, general microprocessor architecture, and an in-depth study of a Motorola 6800-family microprocessor. Three hours lecture and two hours lab. Prerequisite: TSM 331. (Fall)

TSM 340 Information Security Management (3). An overview of the problems, techniques, and practices associated with establishing and maintaining information security. Prerequisite: TSM 241.

TSM 341 Communications Electronics I (4). An introduction to communications electronics including AM transmission and reception, single-sided-band communications, and FM transmission and reception. Three hours lecture and two hours lab. Prerequisites: MAT 150 and TSM 210.

TSM 342 Communications Electronics II (4). A continuation of TSM 341 including pulse and digital communications, television, telephone systems, microwave communications, fiber optic systems, transmission lines, wave propagation, and antennas. Lecture and laboratory. Prerequisite: TSM 341. (Spring)

TSM 343 Protocol Analysis (3). A lecture-lab course analyzing the operation and behavior of Internet and network protocols with emphasis on the TCP/IP suite of protocols. Two hours of lecture and two hours of lab per week. Prerequisite: TSM 232 and 241.

TSM 351 Principles of Information Security (3). An introduction to information assurance and the study of principles and mechanisms of network security. The topics include security architecture and services, symmetric and asymmetric cryptosystems, and authentication and public-key infrastructure. Prerequisite: CSC 101. Co-requisite: TSM 343.

TSM 352 Systems Security (3). A study of security issues associated with network operating systems. Two hours of lecture and two hours of lab per week. Prerequisite: TSM 351.

TSM 353 Network Security (3). A study of the techniques for securing data networks. Two hours lecture and two hours lab per week. Prerequisite: TSM 351.

TSM 380 Internship (3). These students, upon approval of the TSM faculty, are placed with cooperating firms to receive on-the-job training in telecommunications systems management. Work experience supervised by faculty; written reports are required. Graded pass/fail. Prerequisite: Permission of program director.

TSM 388 International Experience in Telecommunications (3). A study abroad experience, which includes a short-term trip, highlighting selective historic and modern contributions to telecommunications from another country and culture. Graded pass/fail. Prerequisite: consent of instructor.

TSM 397 Undergraduate Research in TSM (3). Research projects arranged individually with faculty members who agree to direct the research. A written plan of research must be filed with the instructor not later than the final week of classes. May be repeated for credit. Prerequisites: Junior standing and permission of the instructor.

TSM 411 Network Design, Operations and Management (3). Advanced study of network design, operations, and management from a technical point of view. As the capstone to the undergraduate TSM program, the course examines the technologies, tools, and procedures available to network managers as well as the principles of project justification and management. Students will learn to do requirements analysis, estimate cost, and calculate return on investment. Issues of efficiency, performance, reliability, risk management, disaster recovery, and security will be addressed. The course includes a major network design project. Prerequisites: CIS 317, TSM 241, and senior standing.
TSM 421 Mobile Satellite Communications (3). Course will examine elements of the architecture of mobile satellite service networks. Air interface, systems for processing and completing telephone and data calls, and the regulatory issues that hamper the creation of a viable business will be integral components of the course. Prerequisite: TSM 322.

TSM 440 Information Policy and Security Auditing (3). Advanced study of information assurance policy and management, and security auditing. The end-to-end process of information assurance policy development, implementation, management, and audit is examined including the impact of national policy and regulation, with the objective of establishing and maintaining the confidentiality, integrity, and availability of digital information. Prerequisite: TSM 352.

TSM 441 Advanced Information Security (3). Advanced topics in information assurance including computer and network forensics, malicious software (malware), and cryptography systems. Course provides the students with an advanced understanding of the vulnerabilities, threats, defenses, and incident response procedures involved in the safeguarding of modern information, networks, and computer systems. Prerequisite: TSM 352.

TSM 443 Telephone Technology (3). A study of telephone systems including PSTN architecture, private exchanges and transmission and switching technologies. Emphasis is placed on the design and support of telephony and WAN systems in the enterprise, but regulatory and market issues are also considered. Two hours lecture and two hours lab per week. Prerequisite: TSM 324.

TSM 444 Wide Areas Network (3). Advanced topics in the theory, design, and performance of computer networks. The topics include quality of service support, high-speed network architectures, traffic management, transmission systems, queuing analysis, and emerging network technologies. Prerequisites: TSM 343 and 443.

TSM 450 Telecommunications Policy and Strategies (3). Course will cover social, ethical, legal, strategy, technical, and professional issues encountered in a business environment in the information age. The student will discuss telecommunications policy and regulations in the United States and other nations, and how these regulations impact the telecommunications industry. Prerequisite: senior standing or permission of the instructor.

TSM 488 Cooperative Education/Internship (1-3). A meaningful, planned, and evaluated work experience related to the career and educational objectives of the student for which he/she may receive academic credit and possible financial remuneration. May be repeated for a maximum of six hours. This is a graded class. Prerequisite: Approval by academic advisor.

TSM 517 (530) Systems Planning (3). The primary focus of the course is to understand the development of a systematic planning cycle for implementing and maintaining an organization’s Information Technology (IT)/Information Systems (IS). Specifically to understand the complex but direct relationship between “business planning” commonly called the “Corporate Strategic Plan (CSP)” and “systems planning” also called “Information System Plan (ISP)”. Students will explore the theory and practice of IS planning through case study analysis. Students will understand how IT/IS projects and the planning involved in the projects implement the ISP. Prerequisite: CIS 317.

TSM 571 Problems in TSM (3). Individual study and research pertaining to special problems in telecommunications system management. Prerequisite: consent of instructor.

TECHNOLOGY TEACHER EDUCATION (TTE)

TTE 451 Manufacturing Systems (4). A study of the practices used in the manufacturing industry. Emphasis is placed on the theory and processes used to convert the needs and wants of consumers into distributed products. Technical aspects of materials, processes, equipment, products and occupations relating to the manufacturing industry will be explored. Problem-solving, research and experimentation will be used to establish an enterprise to select, design, test, mass produce, market and service products. Recycling and the impacts on and relationship to societal institutions, the environment and the individual are introduced and explored. Lecture and laboratory. Prerequisites: ITD 101 and 120, upper division standing or instructor approval.

TTE 452 Communications Systems (3). Introduction to the systems and techniques used to transfer and/or process ideas, knowledge and information. Problem-solving, research and experimentation will be used to experience encoding, transmitting, decoding, storing, retrieving and using information. Students will develop technical expertise in the design, construction, analysis and evaluation of the components, devices and subsystems of communication systems. The impacts on and relationship to societal institutions, the environment and the individual are introduced and explored. Lecture and laboratory. Prerequisites: ITD 101 and upper division standing or instructor approval.

TTE 453 Transportation Systems (3). A study of systems used to move goods and transport people. Students will research, experiment and solve problems related to the design, development, evaluation and operation of subsystems and components of terrestrial, marine, atmospheric and space transportation as well as the transformation and transportation/transmission of energy to support those transportation systems. Students will select, design, construct, analyze and evaluate solutions to transportation problems. The impacts on and relationship to societal institutions, the environment and the individual are introduced and explored. Prerequisite: upper division standing or advisor approval.

TTE 455 Exploring Diverse Technological Systems (3). This course provides an overview of diverse technological systems. It explores technological aspects of how technology is designed, and used to meet the wants and needs of individuals and society. The problem-solving and design processes are examined in the context of production, communication and transportation systems. Emphasis is placed on teaching technical content and using the systems approach to develop technical understanding, rudimentary technical skills and problem solving expertise in the technology education classroom/laboratory setting.

TTE 472 Facility Planning, Operation and Maintenance (2). A study of the methods and procedures used in planning, utilizing, equipping, operating, maintaining and evaluating technology education classroom and laboratory facilities. Exploration of the laboratory management skills and techniques (including safety, inventory, record-keeping, requisitioning equipment and materials, maintenance and budgeting) necessary to develop, maintain and improve an educational environment which accommodates the instructional process in the technology education classroom. Lecture and laboratory.

TTE 554 Teaching in the Modular and Systems Environment (3). This course is designed to be the capstone course for pre-service technology education teachers. Emphasis is placed on teaching technical content using both the systems and modular approaches to develop technical understanding, rudimentary technical skills and problem solving expertise in the technology education classroom/laboratory setting.

YOUTH AND NONPROFIT LEADERSHIP (YNL)

YNL 099 Transitions (1). Course designed to assist students in their transition to Murray State University. Content includes orientation to the specific areas, majors, and minors within academic programs. Other topics may include university procedures, policies, resources, strategies for success and extracurricular activities. Only one transition course will count toward graduation. Graded pass/fail. (Same as CDU/EXS/HEA/REC/NTN 099)

YNL 290 Trends and Issues in Youth and Human Services (3). A study of the effect of current, educational, social, economic and environmental issues on youth and human service organizations. Includes student involvement in a community service organization.

YNL 350 Program Administration in Youth and Human Service Organizations (3). An analysis of the historical background, development, organization and purpose of youth agencies.
An emphasis on the structure, program, policies, and future problems which confront major youth and nonprofit organizations. Includes a service learning project.

**YNL 351 Leadership and Support Systems in Youth and Human Service Organizations (3).** An analysis of the leadership components involved in directing youth and human service programs. An emphasis on the development of support systems including staff, volunteers, and other resources. Includes a service learning project.

**YNL 400 Youth and Human Service Agency Administration Internship (3).** Students seeking a major or minor and/or certification in YNL must complete six credit hours of an internship in a quality nonprofit organization approved by the program director. Internships are set at a minimum of 300 hours at the intern site. Prerequisite: Six hours of YNL coursework, including YNL 350 and YNL 400 (pre- or corequisite).

**YNL 401 Youth & Human Service Internship (3).** YNL majors and minors must complete six credit hours of an internship in a quality nonprofit organization approved by the YNL Campus Director. The six credits may be taken separately as YNL 400 first then YNL 401, or concurrently. Internships are set at a minimum of 300 contact hours of actual work experience. Prerequisites: YNL 350 and 3 hours of additional YNL coursework. YNL 400 is prerequisite or corequisite.

**YNL 450 Senior Seminar (1).** Youth and Non-Profit Leadership majors or minors must participate in the Nonprofit Leadership Alliance Conference. This senior seminar is usually offered in early January between semesters and includes workshops, seminars, and a job fair conducted by leaders in the youth and human service field. The seminar is held in major cities across the country and fund raising activities provide opportunities to pay for the cost of the trip.

**YNL 475 Social Entrepreneurship (3).** This course is about utilizing entrepreneurial skills to craft innovative responses to social problems. Entrepreneurs are particularly good at recognizing opportunities, exploring innovative approaches, mobilizing resources, managing risks, and building viable enterprises. Social entrepreneurship applies to both profit and non-profit organizations that have programs designed to create social value. Prerequisite: junior standing or consent of instructor.

**YNL 485 Seminar on Leadership Development (3).** Course addresses various competencies and concepts relevant to leadership including the importance of leading with character. Students will engage in a service learning project using the knowledge and skills they will be developing.

**YNL 501 Seminar on Youth and Human Service Organizations (3).** An introductory survey course on the youth and human service organizations. Program development, leadership, personnel and volunteer management, communication, decision making, and problem solving are discussed using discussion board and a service learning project approach. This class is a part of the Service Learning Scholars program.

**YNL 502 Workshop in Financial Resource Development (3).** Overview of successful methods of financial budgeting, accounting and development are discussed using a case study and service learning approach. An overview of financial development is presented including aspects of membership and program fees, special events, grant writing and United Way allocations. Students participate in a fund raising project for a local youth or human service organization. This class is a part of the Service Learning Scholars program.

**YNL 580 Special Problems in Youth and Human Service Organizations (1-3).** Involves developing a project to address issues and needs in a local youth or human service organization. Must demonstrate ability to plan, implement, and evaluate a project using program planning knowledge and skills developed from YNL 350 or YNL 501. This class is a part of the Service Learning Scholars program. Prerequisite: prior consent of instructor.
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