4.0 scale and (2) earn a "C" or better in all major and supporting courses (other than those NFA courses in which a "B" or better is required for admission criteria).

Associate of Applied Science Degree

Associate of Applied Science (A.A.S.)
EARLY CHILDHOOD DEVELOPMENT
CIP Code: 19.0709

Program Objectives

Upon completion of a degree in Early Childhood Development, graduates will be able to: 1) assess developmental, political, social, cultural, economic and technological influences on the well-being and diversity of individuals, families and communities; 2) design and implement a range of services for individuals, children and families; 3) utilize and interpret appropriate individual, family and program evaluation measures; 4) access community resources and collaborate with community agencies/services; and 5) evaluate and monitor their professional development. Graduates are prepared to teach or assist in programs for pre-primary age children (birth through five). Programs include day care, Head Start, nursery schools, private kindergartens, and after-school programs. After completion of this degree, students may also continue in the B.S. program. To be granted a degree in Early Childhood Development students must have a "C" or better in all CDF courses.

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....18 hours
  Elements: 1A, 1B (ENG 101,102, or 105 with a grade of "A" or "B"); 1C (CMS 100); 3B or 3A/B; 5A and 5B.
- Student Success Seminar (HSO 100; waived for transfers with 30+ hrs.)…….....1 hour

Total Hours University Graduation Requirements.....19 hours

MAJOR REQUIREMENTS

To be granted a degree in Early Childhood Development students must have a "C" or better in all CDF courses.

Core Courses .....32 hours
CDF 132, 147(2), 235, 236, 246, 310, 327S, 363, 399(6), NFA 317.

Supporting Courses .....9 hours
BIO 300 or 317; CSC 104 or CIS 212; SED 104(^{G}Element 6).

Free Electives.....3 hours

TOTAL HOURS TO COMPLETE DEGREE .....64 hours

Minors

Minor in Child and Family Studies

Minor Requirements.....18 hours
CDF 132, 236; six hours selected from CDF 235, 327, 342, 441 or 501; and six hours CDF electives.

Minor in Apparel Design and Merchandising

Minor Requirements.....18 hours
ADM 119, 201, 310, 313, and 6 hours approved ADM electives.

Minor in Family and Consumer Sciences

Minor Requirements.....18 hours
ADM 102, CDF 132, 235, FCS 320, FRM 352, NFA 121 or 201 or 317.

Minor in Foodservice Administration

Minor Requirements.....18 hours
NFA 121, 201, and 12 hours selected from NFA 321, 323, 325, 326, 344, or 445.

Minor in Nutrition

Minor Requirements.....18 hours
NFA 121, 201, and 12 hours selected from NFA 301, 317, 321, 401, 402, 403, 404, 411, 505, 507, 509 or 517.

DEPARTMENT OF HEALTH PROMOTION AND ADMINISTRATION

Chair
Dr. Michael Ballard
(859) 622-1142
Begley 420

Faculty
C. Andersen, M. Ballard, M. Bhandari, P. Bryden, J. Hecht, D. Holcomb, K. Hunter, D. Jackson, L. Larkin, A. Lewis, M. McKinney, L. Mills, and J. Renfro

The Department of Health Promotion and Administration is comprised of programs in: Ancillary Health Management, Health Care Administration and Informatics, and Public Health. Admission to all programs is based on the regular admission policies of the University. Specific policies related to each discipline can be found following the program heading as listed.

PUBLIC HEALTH

Public Health offers the Bachelor of Science degree in Public Health with two program options: Community Health, School Health P-12 (Teaching). Students who complete the Community Health option are prepared to determine the health needs of the community and plan and implement effective programs to improve the health of the populations they serve. Community Health Educators may work in Public Health Departments, Volunteer Organizations, Hospitals, and Family Resource Centers. Students in the School Health Option are prepared to teach core content health topics in public school system grades P-12 and a variety of health related agencies.

A student may choose a minor in Community Health (non-teaching) or in School Health P-12 (Teaching). The Bachelor of Science program in Public Health is accredited by the Council on Education for Public Health and has met national standards for accreditation from the Society of Public Health Educators,

American Association for Health Education, National Council for the Accreditation of Teacher Education, and Kentucky Department of Education.

Students who transfer from another college or university must earn a minimum of 12 hours at EKU in the major. Students who transfer from another college or university must earn a minimum of six hours at EKU in the minor. Students who are accepted by the EKU Admissions Office and declare their major as Public Health with an option in Community Health must maintain an overall GPA of 2.25 with a grade of "C" or better in all of the required major and supporting courses found in the Public Health Curriculum. Students in the Public Health option in School Health P-12 (Teaching) must meet the graduation requirements set by the College of Education.

Professional Liability Insurance

Students enrolling in HEA 463 in the Department of Health Promotion and Administration are required to register for student Professional Liability Insurance. This fee is listed in each semester's schedule of classes. Please see the section on Student Liability Insurance for the College of Health Sciences

Baccalaureate Degree

Bachelor of Science (B.S.)
PUBLIC HEALTH
CIP Code: 51.2207

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....36 hours
- Student Success Seminar (HSO 100; waived for transfers with 30+ hrs.)…….....1 hour
- Wellness(courses may meet both wellness & major requirements)…….....3 hours
- Writing Intensive Course (Hrs. incorporated into Major/Supporting/Gen Ed/Free Electives category)
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)
- ACCT - Public Health majors studying Community Health will fulfill ACCT with HEA 463, those majors pursuing the School Health option will use EME 586 to meet ACCT. (These courses are included in the Major totals)

Total Hours University Graduation Requirements.....40 hours

MAJOR REQUIREMENTS

Core Courses.....36 hours
HEA 202, 285, 290, 315, 320, 345, 375 or 592; 350, 380, 455, 480, 490.

Options (*Majors must select one of the following options*):

Community Health.....19 hours
HEA 310, 316, 420(1), 460, 463(6)*; select three hours from HEA 498, 590, 591, 593, or 595.

School Health, P-12 (Teaching).....6 hours
EME 586 and three hours from HEA 310, 498, 590, 593, or 595.

Supporting Course Requirements:

All Options.....12 hours
BIO 171, 301; NFA 201(Wellness); EDF 204 or CIS 212 or CSC 104; EHS 280.

School Health, P-12 (Teaching).....1 hour
BIO 378(1).

Professional Education Requirements:

School Health Option.....34 hours
EDF 103(1), 203, 319 or 319W, 413; EMS 499(12); ESE 490, 587; SED 401 or 401S; and 3 hours of Applied Learning Field Experience: EDF 349Q(0.5), 349R(0.5); EMS 349Q(0.5), 349R(0.5); ESE 349(1).

Free Electives:

Community Health.....13 hours
(*These elective hours are restricted to course work outside of the major and the option.*)

School Health, P-12 (Teaching).....0 hours

TOTAL HOURS TO COMPLETE DEGREE.....120-129 hours

*Bachelor of Science degree students in the Community Health Option are required to document a minimum of 100 hours of health education/wellness related experiences prior to enrolling in HEA 463, Internship in Health Promotion and Administration.

Minors

Minor in Community Health Education (Non-Teaching)

Minor Requirements.....30 hours
HEA 290, 315, 316, 320, 350, 455, 460, 480, 490, and three hours from HEA 345; 375 or 592; 380, 591, 593, EHS 280.

Minor in School Health, P-12 (Teaching)

Minor Requirements.....30 hours
HEA 202, 290, 315, 320, 345, 375 or 592; NFA 201, EHS 280, EME 586, and three hours from HEA 380, 455, 480, 490, 590, 591, or 593.

HEALTH SERVICES ADMINISTRATION

The department offers a baccalaureate degree in Health Services Administration with options in Ancillary Health Management and Health Care Administration and Informatics.

Ancillary Health Management Option

This degree progression option gives individuals with a previously completed college degree the opportunity to obtain the management skills needed to become a healthcare supervisor or manager.

Health Care Administration and Informatics Option

This option gives individuals interested in the administrative aspects of healthcare an interdisciplinary curriculum designed to provide a balance between businesses, healthcare and information technology. This option is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

Pre-HSA Curriculum

All students who are accepted by the EKU Admissions Office and declare their major as Health Services Administration are initially placed into a pre-HSA curriculum. The curriculum includes: ACC 201; BIO 171, 301; CSC 104 or CIS 212; CCT 290 or CIS 230 or 300; CMS 100 or 210; HSA 100, 200; MAT 105 or

107; STA 215 or 270.

Students may apply for HSA program admission when the following requirements are met:
* Cumulative GPA of 2.50 or higher
* Completion of each course in the Pre-HSA curriculum with a grade of C or better
* Completion of general education requirements (at least 75%)
* Completion of HSA 302, 303, and 401 with a grade of C or better Health Sciences

Students who meet the minimum requirements will be accepted into the program within the enrollment limits determined by the faculty. The Program reserves the right to accept only the best qualified applicants who meet the minimum requirements.

Admission/Progression Criteria

All majors utilize the regular admission policy of the University for students taking courses offered during the first semester of the program. In order to continue in the program and to enroll in major courses, the student must meet the following criteria: (1) maintain an overall (cumulative) GPA of 2.5 on a 4.0 scale and (2) complete all major and support courses with a minimum grade of "C" after a maximum of two attempts.

A student who is not allowed to continue in the major may appeal the decision by presenting the reasons in writing to the Program's Admission and Progression Committee. The student may appeal this committee's decision to the College Admission Committee by submitting a written request to the Dean of Health Sciences. The decision of this committee shall be final.

Professional Practice Experience

An important part of the curriculum is professional practice experience in which the student is required to spend part of a semester at a hospital or other health care facility for observation and supervised practice of the skills required for entry into the profession.

Some sites may require health screening such as physical examinations and/or proof of immunizations. The student is responsible for these medical expenses and for living expenses and travel involved in relocation for these assignments.

Baccalaureate Degree

Bachelor of Science (B.S.)
HEALTH SERVICES ADMINISTRATION
CIP Code: 51.0706

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....36 hours
- Student Success Seminar (HSO 100; waived for transfers with 30+ hrs.)…….....1 hour
- Wellness(courses may meet both wellness & major requirements)…….....3 hours
- Writing Intensive Course (Hrs. incorporated into Major/Supporting/Gen Ed/Free Electives category)
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)
- ACCT - Health Services Administration majors will fulfill ACCT with HSA 413. (These courses are included in the Major totals)

Total Hours University Graduation Requirements.....40 hours

MAJOR REQUIREMENTS

Core Courses .....48 hours
HSA 100, 200, 302, 303(4), 306(4), 370(4), 372, 375, 401, 405, 406, 407, 409, 411(1), 412S (1), 413 (4).

Supporting Course Requirements:

All Options.....21 hours
BIO 171, 301; CCT 290 or CIS 230 or CIS 300; CMS 100 or 210 ([G] Element 1C); CSC 104 or CIS 212; MAT 105 ([G]Element 2) or 107([G]Element 2); MGT 300 or 301, 320; STA 215 or 270.

Health Care Administration and Informatics.....6 hours
ACC 201, MKT 300 or 301.
[G] = Course also satisfies a General Education element. Hours are included within the 36 hr. General Education requirement above.

Free Electives

Ancillary Health Management.....11 hours
Health Care Administration and Informatics.....5 hours

TOTAL HOURS TO COMPLETE DEGREE .....120 hours

Minor in Health Services Administration

Minor Requirements……19 hours
HSA 100, 200, 302, 303, 401 and 3 hours of approved HSA electives.

DEPARTMENT OF OCCUPATIONAL THERAPY

Chair
Dr. Colleen Schneck
(859) 622-3300
Dizney 103

Faculty
J. Baltisberger, M. Custer, L. Emery, E. Fehringer, C. Hayden, D. Howell, K. Leigers, D. Marken, A. Marshall, C. Myers, S. O'Brien, D. Pierce, G. St. Michel, C. Privott, C. Schneck, A. Shordike, C. Skubik-Peplaski, K. Splinter-Watkins, M. Thompson, J. Westfall, and M. Wittman

The Department of Occupational Therapy provides a continuum of educational experiences that prepare a student at the undergraduate level for a career as a non-credentialed health and human service professional and at the graduate level for a career as an occupational therapist. Undergraduate students can enter the Occupational Science program, receive a Bachelor of Science degree, and apply for admission to the master's program in Occupational Therapy. Individuals with a baccalaureate degree in another field and who have completed the required prerequisite courses can apply for admission to the transition program (See Graduate Catalog). After completing the Master of Science degree in Occupational Therapy, students are eligible to take the occupational therapy national certification examination.

The Occupational Therapy program is accredited by the

Accreditation Council for Occupational Therapy Education (ACOTE), 4720 Montgomery Lane, Bethesda, MD 20824, (301) 652-2682, www.aota.org. Certification for the occupational therapy profession is provided through the National Board for Certification in Occupational Therapy (NBCOT), 800 S. Frederick Ave., Suite 200, Gaithersburg, MD 20877, www.nbcot.org.

Baccalaureate Degree in Occupational Science (BS)

Occupational science, an evolving social science, is the study of human occupation. Occupational scientists study why and how we occupy our time through activity, organize ourselves through activity patterns and habits, respond to the context in which occupations occur, and create meaning through occupations.

Students may combine the study of human occupation with other areas of interest through electives or a minor, including but not limited to, horses, humans and health, psychology, child and family studies, biology, community health, gerontology, and business. While many graduates of the Occupational Science program apply for entry into the Occupational Therapy Master's program, some may choose other graduate education options or seek employment in non-credentialed health care, education or community positions. These careers may include case manager, independent living skills coordinator, activity coordinator, medical sales representative, senior citizen program coordinator, mental health associate, and job coach for persons with developmental disabilities.

The five themes of the occupational science curriculum are occupation, reasoning, diversity, communication, and professional identity. Interwoven are the curriculum elements of concepts and knowledge, active community learning experiences, integrative seminars, and authentic assessment and portfolio development. A value inherent in the curriculum model is that learning is optimal when educators guide student immersion in personally meaningful challenges that are processed in a supportive environment.
Graduates of the Occupational Science program meet the following outcomes:

1. Apply knowledge of occupational science to address the needs of individuals and society.
2. Demonstrate the reasoning required of health and human service professionals.
3. Collaborate with diverse people, communities, agencies and disciplines.
4. Demonstrate skillful use of communication.
5. Demonstrate professionalism.

Admission and Progression Requirements

All students who are accepted by EKU's Admission office and declare their major as Occupational Science are admitted to the University as pre-Occupational Science majors; however, admission to the University does not guarantee admission to the Occupational Science program. Admission is competitive and based on a review of the applicants' academic history by the department's Admission, Progression and Retention Committee.
Students seeking consideration for admission to the Occupational Science program must meet the following requirements by May in the semester preceding the Fall semester start of the junior year:

1. Completion of 60 hours of coursework, including prerequisites courses
2. Overall GPA of 3.0 or above
3. A minimum of 3 "B"s and 1 "C" in the following prerequisite courses or their equivalents (BIO 171, BIO 301, STA 215, PSY 200)
4. No more than 1 repeat per course in the following prerequisites or their equivalents (BIO 171, BIO 301, STA 215, PSY 200)

Application to the Occupational Science Program does not guarantee acceptance in to the program.

Students seeking admission to the Occupational Science program and progression to the junior year must follow this process:

1. By March 15th prior to progressing to the junior year of the Occupational Science program, all students must submit an Admissions and Advising Form to the Department Chair.
2. Transfer students must be fully admitted to the University by March 15th to be considered for admission to the Occupational Science Program. Students are responsible for submitting their official transcripts to the Office of the Registrar.
3. Based on a competitive admissions review, students will be informed of admission to Occupational Science program after Spring semester grades are posted.
4. **Students admitted to the Occupational Science program will then be allowed to register for the junior year classes.**

To progress to senior year, all junior academic year required major and support courses must be completed with a grade of "C" or better.
To graduate, all senior academic year required major and support courses must be completed with a grade of "C" or better as well as completion of general education and university requirements for graduation.
For additional admission information please refer to the Selection Criteria at http://www.ot.eku.edu/
Enrollment in the Master of Science program in Occupational Therapy is limited. Completion of the undergraduate program in Occupational Science does not guarantee admission into the graduate program in Occupational Therapy. Refer to the Graduate Catalog for admission requirements and procedures regarding application to the Master of Science program in Occupational Therapy.

MS Transition Program

The Transition to Masters Program is an undergraduate program designed to prepare students who have completed a Bachelor's degree, in something other than Occupational Science, for entrance into the MS in Occupational Therapy program.

This transition program is a one year undergraduate, post-baccalaureate program consisting of the following courses: BIO 271, 371, OTS 362, 402, 422, 430, 478W, and 499.

Admission to the MS Transition Program is competitive and acceptance to EKU undergraduate admissions does NOT mean acceptance into the MS Transition Program. If accepted as a candidate for the prerequisite transition year, you must be enrolled in all Fall transition courses (as an undergraduate) by July 1st of each year. To be eligible to take transition-year courses, you must be accepted as a potential student for the MS degree. If selected as a potential student you are guaranteed a place in the MS in Occupational Therapy program if you maintain a GPA of 3.0, complete all prerequisite courses with a "C" or better and are accepted by the graduate school. For more details refer to the EKU Occupational Therapy departmental website.

Appeals

Students may petition for a waiver of any regulations. Appeals regarding waiver of a regulation should be addressed to the Admissions and Progression Committee. Appeal of grade should be addressed to the Academic Practices Committee. See the University Student Handbook for details of the appeal procedures.

Baccalaureate Degree

Bachelor of Science (B.S.)
OCCUPATIONAL SCIENCE
CIP Code: 51.2306

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....36 hours
- Student Success Seminar (HSO 100; waived for transfers with 30+ hrs.)…….....1 hour
- Wellness(courses may meet both wellness & major requirements)…….....3 hours
- Writing Intensive Course (Hrs. incorporated into Major/Supporting/Gen Ed/Free Electives category)
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)
- ACCT - Occupational Science majors will fulfill ACCT with OTS 402S. (These courses are included in the Major totals)

Total Hours University Graduation Requirements.....40 hours

MAJOR REQUIREMENTS

Core Courses .....45 hours
OTS 301(4), 302, 311, 312, 313, 335, 362, 401, 402S, 421, 422(4), 430, 432(4), 478.

Supporting Course Requirements.....18 hours
BIO 171, 301, 271, 371; PSY 200(*[G]Element 5B*); ENG 300, STA 215.
[G] = Course also satisfies a General Education element. Hours are included within the 36 hr. General Education requirement above.

Free Electives.....17 hours

TOTAL HOURS TO COMPLETE DEGREE .....120 hours

Minor

Minor in Horses, Humans and Health

This interdisciplinary minor offers students a chance to explore the horse-human-health connection through various professions and perspectives. Students interested in working in the equine industry may pair this minor with any major to develop their interests and career paths. An elective in human development offers students the ability to tailor their academic study to individual needs. A student may complete this minor by taking 18 hours (including prerequisites/corequisites) as indicated below.

Minor Requirements…….....18 hours
OTS 205, REC 210*, AGR 250, OTS 479S, ANS 497* (topic: the horse), and one elective in human development from the following: CDF 235, CDF 342, CDF 441, HEA 285, OTS-421*, PSY 280, or SED 104.

*Indicates the course may have prerequisites or corequisites.

DEPARTMENT OF RECREATION AND PARK ADMINISTRATION

Chair
Dr. Jon McChesney
(859) 622-1833
Begley 403

Faculty
M. Bradley, M. Gerken, S. Jones, J. McChesney, and R. Sharp

The Department of Recreation and Park Administration offers the Bachelor of Science degree in Recreation and Park Administration with four options: Tourism & Resort Recreation, Natural Resources & Recreation Management, Recreation Management and Programming, and Therapeutic Recreation. The department also offers a minor in Recreation and Park Administration.

Students who transfer from another college or university must earn a minimum of 12 hours at EKU in their major. Students who transfer from another college or university must earn a minimum of six hours at EKU in their minor.

Graduates of the Tourism & Resort Recreation option find career opportunities in local, state, federal and private agencies that promote tourism, travel agencies, convention services, resort supervision and management, cruise lines, amusement and theme parks, as well as other commercial recreation agencies.

Graduates of the Natural Resources & Recreation Management option offers a wide variety of career opportunities such as park ranger, interpretive naturalist, camp director, recreation forester, fish and wildlife positions, and youth and adult outdoor recreation programming positions.

Graduates of the Recreation Management and Programming option find professional careers available in local, state, county and federal agencies, park management, golf course management, recreation supervision, aquatics, cultural arts programming, athletic programming, YMCA and YWCA, Boy Scouts and Girl Scouts, 4-H, and various other private and public agencies providing park, recreation and leisure services.

Graduates of the Therapeutic Recreation option find one of the fastest growing areas in the field of recreation and leisure services. Professionals in TR design programs to meet the needs of special populations, people with physical or developmental disabilities, and people with temporary or permanent psychiatric disorders. TR professionals work in children's hospitals, mental health institutions and psychiatric hospitals, rehabilitation clinics, nursing homes, medical care facilities, transitional living facilities, group homes, camps, community-based programs, and community residential agencies.

The BS degree in Recreation and Park Administration provides 15 credit hours of direct hands-on field experience. The senior practicum (12 credit hours) serves as an excellent transition from school to work, and many students are hired directly out of their practicum.

Students majoring or minoring in Recreation and Park Administration are required to attain a minimum grade of "C" in all REC courses and a 2.5 or better average in all REC courses.

All REC core and REC option courses must be completed prior to enrollment in REC 463, Senior Practicum.

Baccalaureate Degree

Bachelor of Science (B.S.)
RECREATION AND PARK ADMINISTRATION
CIP Code: 31.0301

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....36 hours
- Student Success Seminar (HSO 100; waived for transfers with 30+ hrs.)…….....1 hour
- Wellness(courses may meet both wellness & major requirements)…….....3 hours
- Writing Intensive Course (Hrs. incorporated into Major/Supporting/Gen Ed/Free Electives category)
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)
- ACCT - Recreation and Park Administration majors will fulfill ACCT with REC 463. (Credit hours may be incorporated into Major or Supporting requirements)

Total Hours University Graduation Requirements.....40 hours

MAJOR REQUIREMENTS

Core Courses.....43 hours
REC 101(1), 102, 163(1), 200, 263(2), 311, 350, 401, 406, 410, 450, 460, and 463(12):

Options: *(students must select one of the following)*

Natural Resources & Recreation Management.....19 hours
REC 190(1), 250, 290, 380, 516, 530; and 3 hours from the following: PHI 385, GEO 302, GEO 325, BIO 317.

Recreation Management and Programming.....13 hours
REC 190(1), 225, 250, 280, 530.

Therapeutic Recreation.....13 hours
REC 210, 411S, 511, 512S; EMC 105(1).

Tourism & Resort Recreation.....18 hours
REC 280, 380, 480; EHS 230; REC 225, 250.

Supporting Course Requirements (all options).....0[G] hours
CMS 210([G]Element 1C)

Additional Supporting Course Requirements:

Therapeutic Recreation Option.....12 hours
BIO 171, 301; PSY 200 or 200W([G]Element 5B), 280 or 280W, 308.

[G] = Course also satisfies a General Education element. Hours are included within the 36 hr. General Education requirement above.

Free Electives:

Natural Resources & Recreation Management.....18 hours
Recreation Management & Programming.....24 hours
Therapeutic Recreation.....12 hours
Tourism & Resort Recreation.....19 hours

TOTAL HOURS TO COMPLETE DEGREE.....120 hours

Minor

Minor in Recreation and Park Administration (Non-Teaching)

Minor Requirements.....19 hours
REC 101, 102, 200, 460, and nine additional hours from REC 190, 280, 290, 311, 350, 380, 401, 406, 409, 410, 411, 480, 490, 511, 512S, 516, or 530.

APPAREL DESIGN AND MERCHANDISING B.S.

FRESHMAN YEAR

First Semester

HSO (Student Success Seminar).....1
Gen. Ed. E-1A.....3
Gen. Ed. E-1C.....3
ADM 119.....3
Gen. Ed. E-3A or E-3A/B.....3
Elective.....3
Total.....16

Second Semester

Gen. Ed. E-1B.....3
Gen. Ed. E-2.....3
ADM 102.....3
CDF 132.....3
Elective.....3
Total.....15

SOPHOMORE YEAR

First Semester

Gen. Ed. E-3B or 3A/B.....3
PSY 200.....3
CHE 101.....3
CHE 101L.....3
ADM 201.....3
ADM 349.....2
Total.....15

Second Semester

Gen. Ed. E-5A.....3
Gen. Ed. E-4A.....3
ECO 230.....3
ADM 210.....3
Wellness.....3
Total.....15

JUNIOR YEAR

First Semester

ADM 300.....3
ADM 302.....3
ADM 319.....3
ADM 312.....3
FRM 352.....3
Total.....15

Second Semester

ADM 313.....3
ADM 339/412.....3
Gen. Ed. E-6.....3
MKT 301/THE 220.....3
Elective.....3
Total.....15

SENIOR YEAR

First Semester

ADM 413.....3
MGT 301/THE 320.....3
FCS 400W.....3
Gen. Ed. E-6.....3
Elective.....3
Total.....15

Second Semester

Electives.....8
ADM 414.....6
Total.....14

ATHLETIC TRAINING B.S.

FRESHMAN YEAR

First Semester

HSO (Student Success Seminar).....1
ATR 100.....1
BIO 171.....3
MAT 105 or higher.....3
ENG 101.....3
CMS 100/210.....3
Total.....14

Second Semester

PHE 212.....3
ATR 225.....3
EMC 104.....1
ENG 102.....3
PHE 180.....3
PHI 130.....3
Total.....16

SOPHOMORE YEAR

First Semester

ATR 201.....3
ATR 211.....4
BIO 301.....3
EMC 110.....6
Total.....16

Second Semester

ATR 202.....3
ATR 212.....4
ATR 221.....1
BIO 100 or 111.....3-4
PSY 200W.....3
Total.....14-15

JUNIOR YEAR

First Semester

ATR 301.....3
ATR 311.....4
PHE 320.....3
PHE 325.....3
STA 215/270.....3
Total.....16

Second Semester

ATR 302.....3
ATR 312.....4
ATR 322.....3
PHE 407.....3
ATR 398.....3
Total.....16

SENIOR YEAR

First Semester

ATR 401S.....3
ATR 411.....3
ATR 412.....3
Gen. Ed. E-6.....3
Gen. Ed. E-4B.....3
Total.....15

Second Semester

ATR 402.....3
ATR 421.....2
Gen. Ed. E-6.....3
Gen. Ed. E-5A.....3
Gen. Ed. E-3A or 3A/B.....3
Total.....14

CHILD AND FAMILY STUDIES B.S. - CHILD DEVELOPMENT OPTION

FRESHMAN YEAR

First Semester

HSO (Student Success Seminar) 1
Gen.Ed.1A.....3
CDF 147.....2
CDF 132.....3
Elective.....3
Elective.....3
Wellness.....3
Total.....18

Second Semester

Gen. Ed. E-1B.....3
Gen. Ed. E-1C.....3
Gen. Ed. E-3A or 3A/B.....3
CDF 235.....3
CDF 236.....3
Total.....15

SOPHOMORE YEAR

First Semester

Gen. Ed. E-2.....3
Gen. Ed. E-3B or 3A/B.....3
Gen. Ed. E-4A.....3
CDF 246.....3
NFA 317.....3
Total.....15

Second Semester

Gen. Ed. E-4B.....3
Gen. Ed. E-5A.....3
Gen. Ed. E-5B.....3
CDF 310.....3
CDF 327S.....3
Total.....15

JUNIOR YEAR

First Semester

Gen. Ed. E-6.....3
CDF 363.....3
CDF 437.....3
SED 518.....3
Supporting Course.....3
Total.....15

Second Semester

CDF 399.....3
CDF 405.....3
FCS 400W.....3
Supporting Course.....3
Elective.....3
Total.....15

SENIOR YEAR

First Semester

CDF 399.....3
CDF 406.....3
CDF 547.....3
Supporting Course.....3
Elective.....3
Total.....15

Second Semester

CDF 450.....9
CDF 538.....3
Supporting Course.....3
Total.....15

Health Sciences

CHILD AND FAMILY STUDIES B.S. - FAMILY STUDIES OPTION

FRESHMAN YEAR	SOPHOMORE YEAR	JUNIOR YEAR	SENIOR YEAR
First Semester	**First Semester**	**First Semester**	**First Semester**
HSO (Student Success Seminar) ……1	Gen. Ed. E-2.....3	Elective……3	Wellness.....3
Gen.Ed.1A.....3	Gen. Ed. E-3B or 3A/B.....3	Elective……3	Elective.....3
MAT course or Gen. Ed. prerequisite.....3	Gen. Ed. E-4A.....3	Elective……3	Elective.....3
CDF 132.....3	Gen. Ed. E-6.....3	FRM 352.....3	FCS 400W.....3
Elective.....2	CDF 232.....3	SWK 456.....3	CDF 538.....3
Total.....12	Total.....15	CDF 441 or CDF 342.....3	Total.....15
		Total.....15-18	
Second Semester	**Second Semester**		**Second Semester**
Gen. Ed. E-1B.....3	Gen. Ed. E-4B.....3	**Second Semester**	CDF 443.....9
Gen. Ed. E-1C.....3	Gen. Ed. E-5A.....3	Elective……3	CDF 424.....3
Gen. Ed. E-3A or 3A/B.....3	Gen. Ed. E-5B.....3	Elective……3	CDF 437.....3
CDF 235.....3	CDF 243.....3	Elective……3	Total……15
CDF 236.....3	CDF 327S.....3	NFA 317.....3	
Total.....15	Total……15	CDF 331.....3	
		CDF 342 or 441.....3	
		Total.....15-18	

CHILD AND FAMILY STUDIES B.S. - INTERDISCIPLINARY EARLY CHILDHOOD EDUCATION OPTION

Health Sciences

FRESHMAN YEAR	SOPHOMORE YEAR	JUNIOR YEAR	SENIOR YEAR
First Semester	**First Semester**	**First Semester**	**First Semester**
GSO (Student Success Seminar) ……1	Gen. Ed. E-2.....3	CDF 363.....3	CDF 399.....3
Gen.Ed.1A.....3	Gen. Ed. E-3B or 3A/B.....3	Minor……3	CDF 406.....3
CDF 147.....2	Gen. Ed. E-4A.....3	CDF 437.....3	CDF 538.....3
CDF 132.....3	CDF 246.....3	SED 518.....3	EDF 519.....3
CDF 236.....3	Minor……3	Supporting Course.....3	Minor.....3
Wellness.....3	Minor……3	Minor.....3	CDF 349.....1
EDF 103.....1	Total.....18	Total.....15-18	Total……16
Total.....16			
	Second Semester	**Second Semester**	**Second Semester**
Second Semester	Gen. Ed. E-4B.....3	CDF 327S.....3	CDF 499.....12
Gen. Ed. E-1B.....3	Gen. Ed. E-5A.....3	CDF 405.....3	Supporting.....3
Gen. Ed. E-1C.....3	Gen. Ed. E-5B.....3	FCS 400W.....3	Total……15
Gen. Ed. E-3A or 3A/B.....3	CDF 310.....3	Supporting Course.....3	
CDF 235.....3	EDF 203.....3	Minor.....3	
Gen. Ed. E-6.....3	CDF 349.....1	CDF 349.....1	
NFA 317.....3	Total……16	Total……16	
Total.....18			

ENVIRONMENTAL HEALTH SCIENCE B.S.

FRESHMAN YEAR	SOPHOMORE YEAR	JUNIOR YEAR	SENIOR YEAR
First Semester	**First Semester**	**First Semester**	**First Semester**
HSO (Student Success Seminar) ……1	EHS 335.....3	STA 215.....3	EHS 410.....3
EHS 280.....3	Gen. Ed. E-3B or 3A/B.....3	EHS 360.....4	Gen. Ed. E-3A or 3A/B.....3
Gen. Ed. E-6.....3	CHE 112.....3	EHS 425.....3	Free Elective.....6
Gen. Ed. E-1A.....3	CHE 112L.....1	EHS Elective.....3	CHE 361.....3
MAT 107.....3	Gen. Ed. E-5A.....3	Total……16	CHE 361L.....1
BIO 111.....4	BIO 301.....3		Total……16
Total.....17	Total……16	**Second Semester**	
		EHS 300.....4	**Second Semester**
Second Semester	**Second Semester**	MLT 209 and 211/BIO 320.....4-5	EHS 440.....3
Gen. Ed. E-1B.....3	EHS 340.....3	EHS 380.....3	EHS 460.....3
CHE 111.....3	EHS 330.....3	EHS 370.....3	EHS 485.....1
CHE 111L.....1	Gen. Ed. E-6.....3	Wellness.....3	EHS 463.....6
Gen. Ed. E-1C.....3	PHY 131 or PHY 101.....3-5	Total.....17-18	Total……13
Gen. Ed. E-5B.....3	Total……12-14		
EHS 285.....1			
Total……19			

FAMILY AND CONSUMER SCIENCES B.S.

FRESHMAN YEAR

First Semester

HSO (Student Success Seminar) ……1
Gen. Ed. E-1A.....3
Gen. Ed. E-5B.....3
Wellness……3
NFA 201.....3
CDF 132.....3
Total.....16

Second Semester

Gen. Ed. E-1B.....3
Gen. Ed. E-2.....3
Gen. Ed. E-4A.....3
EDF 103.....1
NFA 121.....3
ADM 102.....3
Total.....16

SOPHOMORE YEAR

First Semester

Gen. Ed. E-3A or 3A/B.....3
EDF 203.....3
EDF 349.....1/2
CDF 235.....3
FCS 320.....3
FRM 352.....3
Total.....15.5

Second Semester

Gen. Ed. E-1C.....3
Gen. Ed. E-3B or 3A/B.....3
ADM 201.....3
NFA 317.....3
EDF 319.....3
EDF 349.....1/2
Total.....15.5

JUNIOR YEAR

First Semester

Gen. Ed. E-5A.....3
ADM Elective.....3
FIN 311.....3
ESE 490.....3
ESE 574.....3
Total.....15

Second Semester

CHE 105/105L.....4
Gen. Ed. E-6.....3
CDF 232 or 236 or 331 or 342..3
FCS Elective.....3
SED 401.....3
Total.....16

SENIOR YEAR

First Semester

Gen. Ed. E-6.....3
ESE 553.....4
EDF 413.....3
CDF 232 or 236 or 331 or 342..3
FCS 400.....3
Total.....16

Second Semester

ESE 499.....12

GENERAL DIETETICS B.S.

FRESHMAN YEAR

First Semester

HSO (Student Success Seminar) ……1
Gen. Ed. E-1A.....3
Gen. Ed. E-2.....3
CHE 101.....3
CHE 101L.....1
NFA 121.....3
NFA 202.....1
Total.....15

Second Semester

Gen. Ed. E-1B.....3
Gen. Ed. E-3A or 3A/B.....3
PSY 200.....3
NFA 201 (Wellness).....3
CHE 102.....3
Total.....15

SOPHOMORE YEAR

First Semester

Gen. Ed. E-1C.....3
Gen. Ed. E-4A.....3
Gen. Ed. E-6.....3
NFA 317.....3
CIS 212 or CSC 104.....3
Total……15

Second Semester

Gen. Ed. E-5A.....3
Gen. Ed. E-6.....3
CDF 132.....3
BIO 171.....3
EMC 105.....1
NFA 349.....1
Total……14

JUNIOR YEAR

First Semester

FCS 303.....3
EHS 380.....3
BIO 301.....3
NFA 325.....3
NFA 326.....3
Total.....15

Second Semester

NFA 301.....3
ACC 201.....3
NFA 344.....3
FRM 352.....3
Gen. Ed. E-3B or E-3A/B.....3
Total.....15

SENIOR YEAR

First Semester

NFA 323.....3
FCS 400W.....3
NFA 401.....3
NFA 402.....3
NFA 412.....3
Total.....15

Second Semester

NFA 411.....3
NFA 403.....3
NFA 404.....3
NFA 445.....3
Elective.....3
Total.....15

HEALTH SERVICES ADMINISTRATION B.S. ANCILLARY HEALTH MANAGEMENT OPTION

FRESHMAN YEAR

First Semester

HSO (Student Success Seminar) ……1
Gen. Ed. E-1A.....3
MAT 105.....3
CMS 100 or 210.....3
Gen. Ed. E-4A.....3
Gen. Ed. E-3A or E-3A/B.....3
Total.....16

Second Semester

Gen. Ed. E-1B.....3
Gen. Ed. E-5A.....3
Gen. Ed. E-3B or 3A/B.....3
Gen. Ed. E-4B.....3
Gen. Ed. E-6.....3
Total.....15

SOPHOMORE YEAR

First Semester

Gen. Ed. E-5B.....3
BIO 171.....3
HSA 100.....3
CSC 104 or CIS 212.....3
Elective.....3
Total……15

Second Semester

Elective.....3
BIO 301.....3
HSA 200.....3
STA 215 or 270.....3
CCT 290 or CIS 230 or CIS 300.....3
Total……15

JUNIOR YEAR

First Semester

HSA 303.....4
HSA 302.....3
HSA 401.....3
MGT 300 or 301.....3
Wellness.....3
Elective……2
Total.....18

Second Semester

HSA 370.....4
HSA 306.....4
HSA 411.....1
MGT 320.....3
Gen. Ed. E-6.....3
Total.....15

SENIOR YEAR

First Semester

HSA 375.....3
HSA 406.....3
HSA 409.....3
HSA 412S.....1
Elective.....3
Total.....13

Second Semester

HSA 372.....3
HSA 405.....3
HSA 407.....3
HSA 413.....4
Total……13

HEALTH SERVICES ADMINISTRATION B.S. HEALTH CARE ADMINISTRATION AND INFORMATICS OPTION

FRESHMAN YEAR

First Semester

HSO (Student Success Seminar) ……1
Gen. Ed. E-1A.....3
MAT 105.....3
CMS 100 or 210.....3
Gen. Ed. E-4A.....3
Gen. Ed. E-3A or E-3A/B.....3
Total.....16

Second Semester

Gen. Ed. E-1B.....3
Gen. Ed. E-5A.....3
Gen. Ed. E-3B or 3A/B.....3
Gen. Ed. E-4B.....3
Gen. Ed. E-6.....3
Total.....15

SOPHOMORE YEAR

First Semester

BIO 171.....3
HSA 100.....3
CSC 104 or CIS 212.....3
Gen. Ed. E-5B.....3
ACC 201.....3
Total……15

Second Semester

Elective.....3
BIO 301.....3
HSA 200.....3
STA 215 or 270.....3
CCT 290 or CIS 230 or CIS 300.....3
Total……15

JUNIOR YEAR

First Semester

HSA 303.....4
HSA 302.....3
HSA 401.....3
MGT 300 or 301.....3
Wellness.....3
Elective……2
Total.....18

Second Semester

HSA 370.....4
HSA 306.....4
HSA 411.....1
MGT 320.....3
Gen. Ed. E-6.....3
Total.....15

SENIOR YEAR

First Semester

HSA 375.....3
HSA 406.....3
HSA 409.....3
HSA 412S.....1
MKT 300 or 301.....3
Total.....13

Second Semester

HSA 372.....3
HSA 405.....3
HSA 407.....3
HSA 413.....4
Total……13

MEDICAL LABORATORY SCIENCE B.S.

FRESHMAN YEAR

First Semester

HSO (Student Success Seminar) ……1
Gen. Ed. E-1A.....3
MAT course or Gen. Ed. prerequisite.....3
CHE 111.....3
CHE 111L.....1
Gen. Ed. 3A or B, or 3A/B, 4A or B, 5A or B or 6.....6
Total.....17

Second Semester

Gen. Ed. E-1B.....3
Gen. Ed. 3A or B, or 3A/B, 4A or B, 5A or B or 6.....6
CHE 112.....3
CHE 112L.....1
MLS 201.....3
Elective……2
Total.....18

SOPHOMORE YEAR

First Semester

Gen. Ed. E-1C.....3
Gen. Ed. 3A or B, or 3A/B, 4A or B, 5A or B or 6.....3
BIO 411.....4
Total……10

Second Semester

Gen. Ed. 3A or B, or 3A/B, 4A or B, 5A or B or 6.....3
BIO 348 or BIO 301/378.....3
CIS 212 or CSC 104.....3
HSA 200.....3
Elective……2
Total……15

Summer Semester

MLS 290.....3

JUNIOR YEAR

First Semester

MLS 300.....2
MLS 308.....2
MLS 309.....1
MLS 310.....5
MLS 350.....5
Total.....15

Second Semester

MLS 303.....1
MLS 305.....2
MLS 320.....3
MLS 346.....5
MLS 355..... 4
Total.....17

Summer Semester

MLS 431.....3

SENIOR YEAR

First Semester

MLS 432.....5
MLS 434.....4
MLS 436.....1
MLS 437.....3
MLS 438.....4
MLS 439.....1
MLS 440.....2
MLS 441.....1
Total……21

NURSING B.S.N. PRE-RN

FRESHMAN YEAR

First Semester

HSO (Student Success Seminar) 1
Gen. Ed. E-1A.....3
Gen. Ed. E-4A.....3
Gen. Ed. E-3A or B, or 3A/B or 5A or 6.....3
CHE 105.....3
CHE 105L.....1
PSY 200.....3
Total.....17

Second Semester

Gen. Ed. E-1B.....3
Gen. Ed. E-1C.....3
Gen. Ed. E-6.....3
BIO 171.....3
BIO 301.....3
MAT 105.....3
Total.....18

SOPHOMORE YEAR

First Semester

BIO 273 or MLT 209.....3-4
NSC 232.....3
NSC 242.....3
NSC 252.....3
NFA 201.....3
Total.....15-16

Second Semester

STA 215 or Gen. Ed. 3A or B, or 3A/B, 4A or B, 5A or B or 6.....3
NSC 332.....2
NSC 350.....3
NSC 380.....4
NSC 252.....3
Gen. Ed. 3A or B, or 3A/B, 4A or B, 5A or B or 6.....3
Total.....17

JUNIOR YEAR

First Semester

NSC 330.....3
NSC 386.....10
STA 215 or Gen. Ed. 3A or B, or 3A/B, 4A or B, 5A or B or 6.....3
Total.....16

Second Semester

NSC 390W.....3
NSC 392.....5
NSC 396.....7
Gen. Ed. E-3A or B, or 3A/B or 5A or 6.....3
Total.....18

SENIOR YEAR

First Semester

NSC 480.....3
NSC 484.....5
NSC 486.....5
Total.....13

OCCUPATIONAL SCIENCE B.S.

FRESHMAN YEAR

First Semester

HSO (Student Success Seminar) 1
ENG 101.....3
Gen. Ed. E-1C.....3
Gen. Ed. E-4A.....3
PSY 200.....3
OTS 101.....3
Total.....16

Second Semester

ENG 102.....3
Gen. Ed. E-2.....3
Gen. Ed. E-3B or 3A/B.....3
Gen. Ed. E-4B.....3
Elective.....3
Total.....15

SOPHOMORE YEAR

First Semester

BIO 171.....3
Gen. Ed. E-3A or 3A/B.....3
Gen. Ed. E-5A.....3
Wellness.....3
Gen. Ed. E-6.....3
Total.....15

Second Semester

BIO 301.....3
STA 215/270.....3
Gen. Ed. E-6.....3
Elective.....3
Elective.....3
Total.....15

JUNIOR YEAR

First Semester

OTS 301.....4
OTS 311.....3
OTS 432.....4
ENG 300.....3
Total.....14

Second Semester

OTS 302.....3
OTS 313.....3
OTS 335.....3
OTS 421.....3
BIO 371.....3
Total.....15

SENIOR YEAR

First Semester

OTS 312.....3
OTS 401.....3
OTS 422.....4
BIO 271.....3
Elective.....3
Total.....16

Second Semester

OTS 362.....3
OTS 402S.....3
OTS 430.....3
OTS 478W.....3
Elective.....3
Total.....15

PHYSICAL EDUCATION B.S.

FRESHMAN YEAR

First Semester

HSO (Student Success Seminar) 1
Gen. Ed. E-1A.....3
HEA 201.....3
CSC 104 or CIS 212.....3
REC 102 or 290.....3
PHE 180.....3
Total.....16

Second Semester

Gen. Ed. E-1B.....3
Gen. Ed. E-1C.....3
Gen. Ed. E-2.....3
NFA 201.....3
PHE 201.....3
Total.....15

SOPHOMORE YEAR

First Semester

Gen. Ed. E-3A or 3A/B.....3
Gen. Ed. E-4A.....3
Gen. Ed. E-5A.....3
PHE 212.....3
BIO 171.....3
PHE 241 or 313 or 340.....1-3
Total.....16-18

Second Semester

Gen. Ed. E-3B or 3A/B.....3
Gen. Ed. E-4B.....3
Gen. Ed. E-5B.....3
BIO 301.....3
PHE 315.....3
Total.....15

JUNIOR YEAR

First Semester

HEA 315 or 380 or 480.....3
PHE 325.....3
PHE 320.....3
Gen. Ed.....3
PHE 224 or 305.....3
Total.....15

Second Semester

HEA 315 or 380 or 480.....3
PHE 301.....3
PHE 261 or 360 or 361 or 362 or 420.....2
PHE 327.....3
PHE 383.....1
Gen. Ed.....3
Total.....15

SENIOR YEAR

First Semester

PHE 261 or 360 or 361 or 362 or 420.....2
PHE 400.....3
PHE 423.....3
PHE 407.....3
PHE 575.....3
Total.....14

Second Semester

NFA 517.....3
PHE 562.....3
Free Elective.....3
Free Elective.....3
Free Elective.....3
Total.....15

Health Sciences

RECREATION AND PARK ADMINISTRATION B.S. - NATURAL RESOURCES OPTION

FRESHMAN YEAR	SOPHOMORE YEAR	JUNIOR YEAR	SENIOR YEAR
First Semester	**First Semester**	**First Semester**	**First Semester**
HSO (Student Success Seminar) 1	Gen. Ed. E-5A....3	REC 380....3	REC 516....3
Gen. Ed. E-1A....3	Wellness....3	Gen. Ed. E-6....3	REC 460....3
MAT course....3	REC 290....3	REC 350....3	Elective....3
Gen. Ed. E-3A or 3A/B....3	REC 200....3	Elective....3	Elective....3
Gen. Ed. E-4A....3	REC 102....3	Total....12	Total....12
REC 101....3	Total....15		
Total....16		**Second Semester**	**Second Semester**
	Second Semester	REC 263....3	REC 530....3
Second Semester	Gen. Ed. E-5B....3	REC 311....3	REC 450....3
Gen. Ed. E-1B....3	Gen. Ed. E-6....3	REC 401....3	Elective....3
Gen. Ed. E-1C....3	REC 250....3	REC 406....3	Elective....3
Gen. Ed. E-3B or 3A/B....3	Option Elective....3	REC 410....3	Total....12
Gen. Ed. E-4B....3	Elective....3	Total....15	
REC 190....1	Total....15		**Summer Semester**
REC 163....1			REC 463....12
Total....14			

RECREATION AND PARK ADMINISTRATION B.S. - THERAPEUTIC RECREATION OPTION

FRESHMAN YEAR	SOPHOMORE YEAR	JUNIOR YEAR	SENIOR YEAR
First Semester	**First Semester**	**First Semester**	**First Semester**
HSO (Student Success Seminar) 1	Gen. Ed. E-5A....3	Gen. Ed. E-6....3	REC 511....3
MAT course....3	Wellness....3	REC 411....3	REC 460....3
Gen. Ed. E-4A....3	BIO 171....3	PSY 280....3	Elective....3
REC 101....1	REC 200....3	BIO 301....3	Elective....3
REC 163....1	Total....12	REC 350....3	Total....12
Total....9		Total....15	
	Second Semester		**Second Semester**
Second Semester	Gen. Ed. E-5B....3	**Second Semester**	REC 512....3
Gen. Ed. E-1B....3	Gen. Ed. E-3B or 3A/B....3	PSY 308....3	REC 450....3
Gen. Ed. E-1C....3	Gen. Ed. E-6....3	REC 401....3	Elective....3
Gen. Ed. E-4B....3	REC 311....3	REC 406....3	Elective....3
REC 102....3	CHS 105....3	REC 410....3	Total....12
Elective....3	Total....15	REC 263....2	
Total....15		Total....14	**Summer Semester**
			REC 463....12
			REC 570....3

RECREATION AND PARK ADMINISTRATION B.S. - TOURISM OPTION

FRESHMAN YEAR	SOPHOMORE YEAR	JUNIOR YEAR	SENIOR YEAR
First Semester	**First Semester**	**First Semester**	**First Semester**
HSO (Student Success Seminar) 1	Gen. Ed. E-5A....3	REC 350....3	REC 460....3
Gen. Ed. E-1A....3	Gen. Ed. E-3B or 3A/B....3	Gen. Ed. E-6....3	Elective....3
MAT 105....3	Wellness....3	REC 380....3	REC 480....3
Gen. Ed. E-3A or 3A/B....3	REC 200....3	REC 311....3	Elective....3
Gen. Ed. E-4A....3	REC 250....3	Total....12	Total....12
REC 101....1	Total....15		
Total....14		**Second Semester**	**Second Semester**
	Second Semester	REC 401....3	REC 450....3
Second Semester	Gen. Ed. E-5B....3	REC 406....3	Elective....3
Gen. Ed. E-1B....3	Gen. Ed. E-6....3	REC 410....3	Elective....3
Gen. Ed. E-1C....3	REC 225....3	REC 263....2	Elective....3
Gen. Ed. E-4B....3	REC 163....1	Elective....3	Total....12
Elective....3	REC 280....3	Total....14	
REC 102....3	EHS course....3		**Summer Semester**
Total....15	Total....16		REC 463....12

SPORT MANAGEMENT B.S. - BUSINESS MINORS

FRESHMAN YEAR	SOPHOMORE YEAR	JUNIOR YEAR	SENIOR YEAR
First Semester	**First Semester**	**First Semester**	**First Semester**
HSO (Student Success Seminar) ……1	Gen. Ed. E-1A.....3	PHE 322.....3	PHE 423.....3
Gen. Ed.....3	Gen. Ed. E-1A.....3	Free Elective.....3	MGT 300.....3
Gen. Ed.....3	Gen. Ed. E-1A.....3	Free Elective.....3	Free Elective.....3
Gen. Ed.....3	Free Electives.....3	Free Elective.....3	Free Elective.....3
Gen. Ed.....3	GBU 204.....3	CSC 300 or CCT 330W.....3	Free Elective.....3
Gen. Ed.....3	PHE 324.....3	Total……15	Total……15
PHE 180.....3	Total……18		
Total.....16		**Second Semester**	**Second Semester**
	Second Semester	PHE 328.....3	Free Elective.....3
Second Semester	Gen. Ed. E-1A.....3	PHE 530.....3	PHE 470.....6
Gen. Ed. E-1A.....3	PHE 400.....3	MKT 300.....3	Total……9
Gen. Ed. E-1A.....3	ECO 230.....3	Free Elective.....3	
Gen. Ed. E-1A.....3	PHE 327.....3	Free Elective.....3	
PHE 302.....3	Free Elective.....3	Total……15	
ACC 201.....3	Total……15		
Gen. Ed.....3			
Total.....18			

SPORT MANAGEMENT B.S. - NON-BUSINESS MINORS

FRESHMAN YEAR	SOPHOMORE YEAR	JUNIOR YEAR	SENIOR YEAR
First Semester	**First Semester**	**First Semester**	**First Semester**
HSO (Student Success Seminar) ……1	Gen. Ed. E-4A.....3	PHE 322.....3	PHE 423.....3
Gen. Ed. E-1A.....3	Gen. Ed. E-4B.....3	Free Elective.....3	MGT 300.....3
Gen. Ed.....3	Gen. Ed. E-5A.....3	Free Elective.....3	Free Elective.....3
Gen. Ed.....3	Free Electives.....3	Free Elective.....3	Free Elective.....3
Gen. Ed.....3	GBU 204.....3	CIS 212.....3	Free Elective.....3
PHE 180.....3	PHE 324.....3	Total……15	Total……15
Total.....16	ACC 202.....3		
	Total……18	**Second Semester**	**Second Semester**
Second Semester	**Second Semester**	PHE 328.....3	Free Elective.....3
Gen. Ed. E-1C.....3	Gen. Ed. E-5B.....3	PHE 530.....3	PHE 470.....6
Gen. Ed. E-3A or 3A/B.....3	Gen. Ed. E-6.....3	MKT 300.....3	Total……9
Gen. Ed. E-3B or 3A/B.....3	Gen. Ed. E-6.....3	Free Elective.....3	
PHE 201.....3	PHE 400.....3	Free Elective.....3	
ACC 201.....3	ECO 230.....3	Total……15	
Gen. Ed.....3	PHE 327.....3		
Total.....18	Free Elective.....3		
	Total……15		

Health Sciences

College of Justice and Safety

Dr. Allen L. Ault, Dean
Stratton 354-A
(859) 622-3565
www.justice.eku.edu

SCHOOL OF JUSTICE STUDIES

Dr. Victor E. Kappeler, Associate Dean
(859) 622-1978
Stratton 348

SCHOOL OF SAFETY, SECURITY AND EMERGENCY MANAGEMENT
Dr. Larry Collins, Associate Dean
(859) 622-1009
Stratton 245

The College of Justice and Safety at Eastern Kentucky University is one of the largest of its type in the United States and is one of the five colleges that comprise the academic structure of the University. Within the College of Justice & Safety is the School of Justice Studies, and the School of Safety, Security, & Emergency Management. Faculty in the College are nationally and internationally known for their teaching, research, service and experience. Professors have backgrounds as police officers, paramedics, corrections directors, juvenile justice administrators, safety and security consultants, arson investigators, military officers, lawyers, scholars, probation and parole officers, and FBI agents.

The Commonwealth of Kentucky named the College of Justice & Safety as the first Program of Distinction at Eastern Kentucky University in 1998. The Program of Distinction has funded a new annex, new degree programs, upgraded classrooms and computer labs, provided additional research opportunities for faculty and students, as well as scholarship opportunities for students majoring in programs offered by the college.

Certificate, associate, baccalaureate, and master's degree programs are offered by the College of Justice and Safety. Several courses and some complete programs are also available online.

The College is committed to a career ladder concept by providing opportunities for students enrolled in or completing associate (two-year) degree programs to transfer to a corresponding baccalaureate (four-year) program within the same department with little or no loss of credit.

Most programs in the College are housed in the Stratton Building, an outstanding and unique facility which includes two annexes, a remodeled shared entrance; renovated library and classrooms with new technology, 250-seat auditorium, two computer labs and a cafeteria. The Fire Science programs have additional offices, classroom, and labs in Ashland Building and the Emergency Medical Care program has offices, classrooms and labs in the Dizney Building.

In addition to its academic departments, the College houses two nationally recognized research and service centers: the Justice & Safety Center (JSC), and the Training Resource Center (TRC). The JSC works to serve the nation's public safety and security communities by providing research and evaluation, technology prototype development and testing, and training and technical assistance. The TRC is an adult professional development program which provides training for social, human and juvenile justice service professionals, and develops quality educational experiences for at-risk and delinquent youth.

Admission to the College

Students seeking admission to the College of Justice and Safety must meet general University requirements and should indicate their intention to major in a program of the College.

After being admitted to the College, a student will be assigned to a professional advisor, in the new Academic & Advising Center, who will assist in selecting the proper courses leading to the desired degree.

Degree Requirements

General University degree requirements appear in Section Four of this Catalog, and specific requirements for each of the degree programs offered by the College of Justice and Safety appear below; both sets of requirements must be met by students completing associate and baccalaureate programs. Unless otherwise specified, all programs in the College of Justice and Safety require a grade of "C" or better for all required major and supporting courses. See the program descriptions under each department for specific major and minor requirements. Common to all programs is the Academic Orientation course.

Major and Minor Credit Minimum

Unless otherwise specified, regardless of the advanced standing under which the student may have been admitted or what credits have transferred, 18 hours of advanced course work (courses numbered 300 or above) applied for credit toward the major subject for a baccalaureate degree, nine hours of advanced course work applied for credit toward the major subject for an associate degree, and six hours of advanced course work toward major subject for a minor must be earned at Eastern.

SCHOOL OF JUSTICE STUDIES

Associate Dean
Dr. Victor E. Kappeler
Stratton Building, Room 348

Faculty
T. Barker, K. Blevins, T. Cox, C. Dewhurst, P. Elrod, G. Ferrell, R. Haarr, S. Hunt, S. Kappeler, V. Kappeler, P. Kraska, E. Leichtman, B. Matthews, D. May, K. Minor, W. Nixon, D. Paulsen, G. Potter, J. Schept, I. Soderstrom, K. Tunnell, E. Wachtel, T. Wall, and J. Wells.

Baccalaureate Degrees

College of Justice and Safety Residency Requirement

The College of Justice and Safety requires that students graduating with a baccalaureate degree from the School of Justice Studies, or the School of Safety, Security, and Emergency Management, must earn a minimum of 18 upper division credit hours in the home department of their major.

BACHELOR OF SCIENCE (B.S.) CORRECTIONS AND JUVENILE JUSTICE STUDIES
CIP Code: 43.0102

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....36 hours
- Student Success Seminar (JSO 100; waived for transfers with 30+ hrs.)…….....1 hour
- Wellness…….....3 hours
- Writing Intensive Course (Hrs. incorporated into Major/ Supporting/Gen Ed/Free Electives category)
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)
- ACCT - Corrections and Juvenile Justice Studies majors will fulfill ACCT with CRJ 349, 349 (A-N), 424, or 490. (Credit hours are incorporated into major requirements below.)

Total Hours University Graduation Requirements.....40 hours

MAJOR REQUIREMENTS

Majors must have a minimum grade point average of at least 2.0 across major core, option, and elective course requirements in order to graduate.

Core Courses .....21 hours
COR 201, 311, 360; CRJ 313 or 313S, 331, 388, 400.

COR Electives…….....…18 hours
Select from any upper division COR elective in consultation with major advisor.

Supporting Courses…….....3-6 hours
Select any two of the following courses in consultation with major advisor: any upper division CRJ course; HLS 101, 201, 321, 341; PLS 103, 216, 316, 380, 390, 415; PSY 200 or 200W([G]Element 5B), 308, 314.

Free Electives.....35-38 hours

TOTAL HOURS TO COMPLETE DEGREE .....120 hours

Online Course Work

The major requirements for the B.S. degree, as well as coursework required for professional certificates (see below), are to be completed online. Admission to pursue Bachelor of Science (B.S.) major requirements online further requires a composite ACT score of 20 or higher. Students with composite ACT scores of 18 or 19 may be admitted on a probationary basis but are required to furnish a writing sample. Though students transferring from another accredited institution are not required to submit test scores, such students must meet EKU's requirements for admission as a transfer student. In addition, transfer students must have an overall 2.5 or greater grade point average (GPA) on a 4.0 scale on all work from accredited institutions. Transfer students with overall GPAs less than 2.5 but at least 2.0 may be admitted on a probationary basis but are required to furnish a writing sample. The requirement that B.S. students must earn a minimum of 30 of the last 36 hours through EKU is waived for students pursuing the B.S. major requirements online. However, for the B.S. degree, a minimum of 32 hours must be earned through EKU. Contact the Undergraduate Online Program Coordinator for additional details.

BACHELOR OF SCIENCE (B.S.) CRIMINAL JUSTICE
CIP Code: 43.0103

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....36 hours
- Student Success Seminar (JSO 100; waived for transfers with 30+ hrs.)…….....1 hour
- Wellness…….....3 hours
- Writing Intensive Course (Hrs. incorporated into Major/ Supporting/Gen Ed/Free Electives category)
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)
- ACCT - Criminal Justice majors will fulfill ACCT with CRJ 313S, 424, 490, HON 420. PLS 349, or 349(A-N).(Credit hours are incorporated into major requirements below.)

Total Hours University Graduation Requirements.....40 hours

MAJOR REQUIREMENTS

Core Courses.....15 hours
CRJ 101, 313 or 313S, 331, 388, 400.

CRJ Electives.....24 hours
Select from PLS, CRJ or COR electives (12 hrs must be upper division courses).

Supporting Course Requirements.....12 hours
Select 3 hrs from COR; 9 hrs from APS, COR, FSE, or PLS.

Free Electives or Minor.....29 hours
Major are recommended to include 3 hrs (200 level or above) of Foreign language or American Sign Language (ASL) in consultation with major their advisor ([G]Element 6).
[G] = Course also satisfies a General Education element. Hours are included within the 36 hr. General Education requirement above.

TOTAL HOURS TO COMPLETE DEGREE .....120 hours

Bachelor of Science (B.S.)
POLICE STUDIES
CIP Code: 43.0107

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....36 hours
- Student Success Seminar (JSO 100; waived for transfers with 30+ hrs.)…….....1 hour
- Wellness…….....3 hours
- Writing Intensive Course (Hrs. incorporated into Major/Supporting/Gen Ed/Free Electives category)
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)
- ACCT - Police Studies majors will fulfill ACCT with CRJ 313S, 424, 490, HON 420, PLS 349, or 349(A-N). (Credit hours are incorporated into major requirements below.)

Total Hours University Graduation Requirements.....40 hours

MAJOR REQUIREMENTS

Core Courses.....24 hours
CRJ 101, 331, 388, 400; PLS 103, 326, 414, 415.

Major Electives.....24 hours
Select from PLS, CRJ or COR electives (12 hrs must be upper division courses).

Supporting Electives.....6-9 hours
Select 9 hours from: APS 210, EMC 102 or 110, FOR 301, FSE 250, or TRS 332, or a combination to include 3 hrs (200 level or above) of Foreign language or American Sign Language (ASL) in consultation with major advisor ([G]Element 6).
[G] = Course also satisfies a General Education element. Hours are included within the 36 hr. General Education requirement above.

Free Electives.....23-26 hours

TOTAL HOURS TO COMPLETE DEGREE .....120 hours

Associate Degree

Associate of Arts (A.A.)
POLICE STUDIES
CIP Code: 43.0107

UNIVERSITY GRADUATION REQUIREMENTS

General Education ……36 hours
Standard General Education program (Elements 1-6 inclusive, per Section Four of this Catalog). Students should refer to their DegreeWorks audit for General Education course selections. Foreign language (200 level or above) or American Sign Language (ASL), selected in consultation with major advisor, is encouraged as a selection to fulfill General Education Element 6.

Student Success Seminar (JSO 100; waived for transfers with 30+ hrs.)…….....1 hour

Total Hours University Graduation Requirements.....37 hours

MAJOR REQUIREMENTS

Core Courses .....15 hours
CRJ 101, PLS 103, 326, 414, 415.

PLS Electives .....12 hours
Select from PLS, CRJ or COR electives.

Total Curriculum Requirements .....64 hours

Minors

Minor in Criminal Justice

A student may minor in Criminal Justice by completing CRJ 101, 313, 331, 388, 400 and one upper level CRJ elective.

Minor in Police Studies

A student may minor in Police Studies by completing a minimum of 18 semester hours of the following courses: CRJ 101, PLS 103, PLS 414, and 9 hours of PLS upper division electives. A grade of "C" or higher must be earned in each CRJ or PLS course for credit toward a PLS minor.

Minor in Social Justice

A student may minor in Social Justice by completing CRJ 101; CRJ 345 or SOC 400; CRJ 325, PLS 390 or CRJ 401; CRJ 406; SOC 235 or POL 464; and SOC 313 or 375. (Students majoring in police studies or criminal justice may not minor in social justice.)

Certificates

Professional Certificate in Correctional Intervention Strategies

This certificate includes 15 hours of required courses and 9 hours of electives and is available in the online format. Courses include content that reflects the theoretical and contemporary issues facing corrections professionals. The program will enhance student knowledge regarding effective correctional interventions, provide students with practical knowledge that can be used in their daily work, and for students interested in continuing their education, provide a first step toward degree completion.

Major Requirements.....15 hours
COR 201, 302, 303, 340, 360.

Electives.....9 hours
Select from COR 410, 412, 413, 420, 423; CRJ 313, 331.

Total Curriculum Requirements .....24 hours

Professional Certificate in Youth Services

This certificate includes 15 hours of required courses and 9 hours of electives and is available in the online format. Courses include content that reflects the theoretical and contemporary issues facing juvenile justice professionals. The program will

enhance student knowledge regarding effective juvenile justice interventions, provide students with practical knowledge that can be used in their daily work, and for students interested in continuing their education, provide a first step toward degree completion.

Major Requirements.....15 hours
COR 311, 321, 340, 360, 422.
Electives.....9 hours
COR 322, 410, 420, 421, 423; CRJ 313, 331.
Total Curriculum Requirements .....24 hours

SCHOOL OF SAFETY, SECURITY & EMERGENCY MANAGEMENT

Associate Dean
Dr. Larry Collins
(859) 622-1009
Stratton Building, Room 250

Faculty
S. Adkins, R. Baggett, M. Collier, L. Collins, P. Collins, N. Davis, R. Dotson, S. Dunlap, P. English, G. Gorbett, P. Grant, W. Hicks, S. Hunter, T. Kline, D. Lee, F. May, D. Miller, J. Pharr, S. Rockwell, T. Schneid, M. Schumann, N. Spain, J. Thurman, and A. Tinsley.

Baccalaureate Degrees

College of Justice and Safety Residency Requirement

The College of Justice and Safety requires that students graduating with a baccalaureate degree from the School of Justice Studies, or the School of Safety, Security, and Emergency Management, must earn a minimum of 18 upper division credit hours in the home department of their major.

Admission Procedure: Emergency Medical Care

Students who have been admitted to the University and College of Justice and safety and declare a major in Emergency Medical Care are admitted to the Pre-Emergency Medical Care Program. Admission to the Pre-Emergency medical Care Program does not guarantee admission to the Advanced Emergency Medical (paramedic) sequence.

Pre-Emergency Medical Care students are accepted each semester. Students are selected for admission into the Advanced Emergency Medical Care Program once a year for the following fall semester. Selection is made based on the admission matrix. Criteria include: GPA, entrance exam scores, pre-requisite course grades and completion. Information meetings will be held. Please refer to the EMC webpage for additional information.

Additional Requirements

1. Students must have a minimum grade of “C” in all advanced sequence, EMC pre-requisite courses, and in BIO 171, 301.
2. Students must maintain a minimum GPA of 2.0 on a 4.0 scale.
3. Students must purchase and maintain the student liability insurance prior to enrollment in EMC 110, 115, 270, 275, 280, 342, 352, 360, 362.
4. All transfer credit evaluation and program approval must be completed prior to the application deadline.
5. Application Deadline:
   Application Deadline for Fall Paramedic Advanced Sequence Courses: April 30

NREMT-P TO ASSOCIATE OF PARAMEDICINE (ASP) DEGREE PROGRAM

Admission Requirements:

Current holders of National Registry of Emergency Medical Technicians – Paramedic (NREMT-P or State credentialing as defined by the program) certification may earn the Associate of Paramedicine (ASP) degree through an accelerated program offered by the EMC department. Applicants for admission into this accelerated program are accepted each semester.

Program

Students admitted into the NREMT-P to ASP program will be required to take all general education and supporting coursework for the Associate of Science Paramedicine (A.S.P.).
Core Courses:
EMC 380 and 382.
After successful completion of both EMC 380 and 382, students will receive 18 credit hours which include EMC 335, 340, 342, 352, 360, 362.
EMC 105, 110, 225, 240.
Credit for EMC 105, 110, 225, 240 is available through successful completion of department proficiency examinations.
EMC 104, 310, 315, and 320.
Current and maintained certification in AHA CPR for Healthcare Professionals, ACLS-EP, PALS (and/or PEPP), and certification in PHTLS (or ITLS) may result in credit for EMC 104, 310, 315, and 320.

Supporting and General Education Courses are required:
General Education Elements:
Element 1. ENG 101, 102; Element 3. Arts and Humanities (3 credit hours); and Element 5B and Social Behavioral Sciences (3 credit hours);
Supporting Courses:
BIO 171, 301.

A total of 64 credit hours are required to obtain the Paramedicine (A.S.P.). Students must also obtain a minimum grade of “C” in all EMC courses, and BIO 171, 301. Students must also maintain an overall EKU GPA of 2.0 on a 4.0 scale.

Transferring Paramedic Credit into the EMC Program

Effective January 2013 the National Registry has instituted a policy requiring that all candidates for certification must complete coursework from a CoAEMSP nationally accredited paramedic program. The EKU EMC program therefore has instituted the following policy, effective with the 2012/13 academic year.

Time Limit for Program Completion

To maintain EKU’s status as a CoAEMSP nationally-accredited paramedic program students must progress through

their EMC advanced sequence of classes (200-level and 300-level courses, as well as the required BIO 171 and 301) within a specified time limit. Each student must successfully complete all of these courses before they are eligible to take the NREMT skill and didactic examinations to obtain the NREMT Paramedic card. National accreditation standards dictate that this must all be completed within a designated time window. The start of an individual student's time limitation ("advanced sequence and testing clock") will be determined by the student's program advisor.

Credit from a CoAEMSP Accredited Paramedic Program

Students with transfer credit from a CoAEMSP accredited paramedic program may have this credit used to fulfill a portion of their major and supporting program requirements. Such work will be evaluated by EMC faculty for comparability and content; students may be required to complete departmental exams to gauge subject mastery and to assist with appropriate course placement.

Credit NOT from a CoAEMSP Accredited Paramedic Program

Coursework accepted by EKU but earned through participation in a program that is not CoAEMSP accredited cannot be used to advance a student through EKU's nationally accredited EMC program. Such credit may fulfill general education and elective areas; but it cannot be applied toward the EMC major and supporting program requirements.

However a student who has earned a **National Registry Paramedic Card** may be allowed to use non CoAEMSP accredited transfer credit in partial fulfillment of major requirements. Earning the National Registry card validates use of the paramedic related transfer coursework. Students without this paramedic credential, and without CoAEMSP accredited transfer courses, must progress through the EKU EMC program by completing EKU coursework.

Bachelor of Science (B.S.)
EMERGENCY MEDICAL CARE
CIP Code: 51.0904

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....36 hours
- Student Success Seminar (GSD 101(3); waived for transfers with 30+ hrs.)…….....3 hour
- Wellness…….....3 hours
- Writing Intensive Course (Hrs. incorporated into Major/Supporting/Gen Ed/Free Electives category)
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)
- ACCT - Emergency Medical Care majors will fulfill ACCT with EMC 362. (Credit hours are incorporated into major requirements below.)

Total Hours University Graduation Requirements.....42 hours

MAJOR REQUIREMENTS

Core Courses.....……..... 46 hours

EMC 104(1), 110(6), 200(2), 205(1), 215, 225, 240, 310(2), 320, 335, 340, 342, 352, 360(2), 362(4), 400, 480.

Major Options (select one):

Emergency Services Administration, Paramedical Clinic/FSE, or Paramedic Science.

Supporting Courses:

Emergency Services Administration Option.....29 hours
BIO 171, 301; CHE ([G]Element 4B) 101/101L, 102/102L; EMC 420, 430, 440, 489; ENG 300; PSY 200([G]Element 5B), 308.

Paramedical Clinic/FSE Option.....29 hours
BIO 171, 301; CHE ([G]Element 4B) 101/101L, 102/102L; ENG 300; FSE 200, 225, 320, 400; PSY 200([G]Element 5B), 308.

Paramedic/Science Option.....29 hours
BIO 131(4), 171, 273(4), 301; CHE ([G]Element 4B) 111/111L, 112/112L, 361/361L, 362/362L; PHY 131.

[G] = Course also satisfies a General Education element. Hours are included within the 36 hr. General Education requirement above. A maximum of 3 cr. hr. will count toward Element 4B.

Free Electives.....3 hours

TOTAL HOURS TO COMPLETE DEGREE.....120 hours

Bachelor of Science (B.S.)
FIRE, ARSON, AND EXPLOSION INVESTIGATION
CIP Code: 43.0205

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....36 hours
- Student Success Seminar (JSO 100; waived for transfers with 30+ hrs.)…….....1 hour
- Wellness…….....3 hours
- Writing Intensive Course (Hrs. incorporated into Major/Supporting/Gen Ed/Free Electives category)
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)
- ACCT - Fire, Arson and Explosion Investigations majors will fulfill ACCT with FSE 495. (Credit hours are incorporated into major requirements below.)

Total Hours University Graduation Requirements.....40 hours

MAJOR REQUIREMENTS

The Department of Safety, Security, and Emergency Management requires that each graduate of Fire, Arson, and Explosion Investigation (B.S.) must complete a minimum of 32 credit hours in the College of Justice and Safety at Eastern Kentucky University and must complete a minimum of 18 upper division credits from the Safety, Security and Emergency Management Department.

Core Courses.....68 hours
FSE 101, 120, 200, 201 or 201S, 221, 223, 225, 250, 260, 280, 300W, 305, 320, 330, 349(3), 350, 355, 370, 380, 450, 495, 499(2); OSH 261.

Supporting Course Requirements.....17 hours
CHE 101/101L(4) ([G]Element 4B), 102/102L(4), or CHE([G]Element 4B) 111/111L,112/112L; FOR 301; MAT 107([G]Element 2); PLS 375.

[G] = Course also satisfies a General Education element. Hours are included within the 36 hr. General Education requirement above. A maximum of 3 cr. hr. will count toward Element 4B.

Free Electives.....1 hour

TOTAL HOURS TO COMPLETE DEGREE.....120 hours

BACHELOR OF SCIENCE (B.S.)
FIRE PROTECTION ADMINISTRATION
CIP Code : 43.0202

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....36 hours
- Student Success Seminar (JSO 100; waived for transfers with 30+ hrs.)…….....1 hour
- Wellness…….....3 hours
- Writing Intensive Course (Hrs. incorporated into Major/ Supporting/Gen Ed/Free Electives category)
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)
- ACCT - Fire Protection Administration majors will fulfill ACCT with FSE 400. (Credit hours are incorporated into major requirements below.)

Total Hours University Graduation Requirements.....40 hours

MAJOR REQUIREMENTS

The Department of Safety, Security, and Emergency Management requires that each graduate of Fire Protection Administration (B.S.) must complete a minimum of 32 credit hours in the College of Justice and Safety at Eastern Kentucky University and must complete a minimum of 18 upper division credits from the Safety, Security and Emergency Management Department.

Core Courses.....66 hours
FSE 101, 120, 200, 201, 221, 223, 225, 230, 300W, 305, 320, 322, 349(3), 350, 355, 360, 365, 375, 400, 425; OSH 261, 390.

Supporting Course Requirements.....17 hours
CHE 101/101L(4) ([G]Element 4B), 102/102L(4); MAT 107([G]Element 2); PSY 200([G]Element 5B); TRS 235.
[G] = Course also satisfies a General Education element. Hours are included within the 36 hr. General Education requirement above. A maximum of 3 cr. hrs. will count toward Element 4B.

Free Electives…….....6 hours

TOTAL HOURS TO COMPLETE DEGREE.....120 hours

BACHELOR OF SCIENCE (B.S.)
FIRE, PROTECTION, AND SAFETY ENGINEERING TECHNOLOGY
CIP Code: 43.0201

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....36 hours
- Student Success Seminar (JSO 100; waived for transfers with 30+ hrs.)…….....1 hour
- Wellness…….....3 hours
- Writing Intensive Course (Hrs. incorporated into Major/ Supporting/Gen Ed/Free Electives category)
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)
- ACCT - Fire, Protection, and Safety Engineering Technology majors will fulfill ACCT with FSE 480. (Credit hours are incorporated into major requirements below.)

Total Hours University Graduation Requirements....40 hours

MAJOR REQUIREMENTS

The Department of Safety, Security, and Emergency Management requires that each graduate of Fire, Protection, and Safety Engineering Technology (B.S.) must complete a minimum of 32 credit hours in the College of Justice and Safety at Eastern Kentucky University and must complete a minimum of 18 upper division credits from the Safety, Security and Emergency Management Department.

Core Courses.....48 hours
FSE 101, 120, 200, 221, 224, 300W, 305, 322, 350, 355, 360, 445, 480, 481, OSH 261, 410.

Supporting Courses.....41 hours
CHE ([G]Element 4B) 111/111L, 112/112L; CON 303, 322; MAT 124(4)([G]Element 2), 224(4); PHY 201(5), 202(5), 375; TEC 190.
[G] = Course also satisfies a General Education element. Hours are included within the 36 hr. General Education requirement above.

TOTAL HOURS TO COMPLETE DEGREE.....120 hours

BACHELOR OF SCIENCE (B.S.)
HOMELAND SECURITY
CIP Code: 43.9999

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....36 hours
- Student Success Seminar (JSO 100; waived for transfers with 30+ hrs.)…….....1 hour
- Wellness…….....3 hours
- Writing Intensive Course (Hrs. incorporated into Major/Supporting/Gen Ed/Free Electives category)
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)
- ACCT - Homeland Security majors will fulfill ACCT with HLS 349, 349(A-N), or 495. (Credit hours are incorporated into major requirements below.)

Total Hours University Graduation Requirements....40 hours

MAJOR REQUIREMENTS

Core Courses.....39 hours
HLS 101, 201, 225, 301, 321 or 321W, 391, 401, 441, 451, 461, 495 and 6 hours from HLS 341, 349, 402, 430, 435, 445, 455, or 491.

Supporting Course Requirements.....24 hours
EMC 450; FSE 310; GEO 210([G]Element 4B) or GLY 302; GEO 353; HIS 203([G]Element 5A); MGT 301 or POL 370; PLS 375 or POL 415; POL 100([G]Element 5B) or 101([G]Element 5B);
PSY 200([G]Element 5B) or 200W([G]Element 5B); SEC 210; STA 215 or 270.
[G] = Course also satisfies a General Education element. Hours are included within the 36 hr. General Education

requirement above. A maximum of 3 cr. hr. will count toward Element 5B.

Free Electives.....17 hours

TOTAL HOURS TO COMPLETE DEGREE.....120 hours

Bachelor of Science (B.S.)
OCCUPATIONAL SAFETY
CIP Code: 15.0703

UNIVERSITY GRADUATION REQUIREMENTS

- General Education ….....36 hours
- Student Success Seminar (JSO 100; waived for transfers with 30+ hrs.)…….....1 hour
- Wellness…….....3 hours
- Writing Intensive Course (Hrs. incorporated into Major/Supporting/Gen Ed/Free Electives category)
- Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)
- ACCT - Occupational Safety majors will fulfill ACCT with OSH 349 or 495. (Credit hours are incorporated into major requirements below.)

Total Hours University Graduation Requirements....40 hours

MAJOR REQUIREMENTS

Core Courses..... 42 hours
OSH 200, 225, 261, 262, 305, 349, 366, 367, 379, 390, 410, 412, 492, 495.

Supporting Course Requirements.....33 hours
APS 210; CHE 101/101L([G]Element 4B) or 111/111L([G]Element 4B); EHS 340, 345; FSE 101, 120, 221, 300W; MAT 107([G]Element 2); PHY 131(5).
[G] = Course also satisfies a General Education element. Some supporting course hours are therefore included within the 36 hr. General Education requirement above.

Free Electives.....11 hours

TOTAL HOURS TO COMPLETE DEGREE.....120 hours

Associate Degree

Associate of Science in Paramedicine (A.S.P.)
PARAMEDICINE
CIP Code: 51.0904

UNIVERSITY GRADUATION REQUIREMENTS

General Education …….....15 hours
Elements: 1A, 1B, 3B or 3A/B, 5A or 5B, and 3 hrs free elective General Education courses.

Student Success Seminar (GSD 101; waived for transfers with 30+ hrs.)…….....3 hour

Total Hours University Graduation Requirements.....18 hours

MAJOR REQUIREMENTS

Core Courses .....40 hours
EMC 104(1), 110(6), 200(2), 205(1), 215(1), 225, 240, 310(1), 315(1), 320, 335, 340, 342, 352, 360(2), and 362(4).

Supporting Courses .....6 hours
BIO 171, 301; ENG 101 and 102, or 105 with a grade of "A" or "B" ([G]Element 1A & 1B); 3 hrs General Education Humanities ([G]Element 3B or 3A/B); 3 hrs of Social Science ([G]Element 4A or 5B); 3hrs additional General Education.
[G] = Course also satisfies a General Education element. Hours are included within the General Education requirement above.

TOTAL HOURS TO COMPLETE DEGREE .....64 hours

Minors

Minor in Emergency Management
CIP Code: 43.9999

The Minor in Emergency Management is not available to B.S. in Homeland Security majors. A student may minor in Emergency Management by completing, with a grade of "C" or better, a total of 18 semester hours as follows:

Requirements.....9 hours
HLS 201, 451, 461

Electives.....select 9 hours from
EMC 450, FSE 310, 375, 400, GEO 353, 456, 553, HLS 391, 491, SEC 210 or select one course from GLY 302 or GEO 210.

Total Curriculum Requirements.....18 hours

Minor in Emergency Medical Care

Completing the minor requires a minimum grade of "C" in EMC 104, 110, 115, 200, and nine hours EMC course work pre-approved by the EMC Admission and Progression Committee.

Minor in Fire and Safety Engineering Technology

The courses required to complete a minor in Fire and Safety Engineering Technology include:

Requirements:
FSE 120, FSE 225 or OSH 262, and 12 hours of FSE or OSH electives. Nine hours must be upper division.

Total Curriculum Requirements.....18 hours

Minor in Fire, Arson, and Explosion Investigation

A student may minor in Fire, Arson, and Explosion Investigation by completing, with a grade of "C" or better, a total of 21 semester hours as follows:

Requirements:
FSE 120, 250, 350, 370, 380, 450, and 495.

Total Curriculum Requirements…….....21 hours

Minor in Fire Protection Administration

A student may minor in Fire Protection Administration by completing, with a grade of "C" or better, a total of 21 semester hours as follows:
Requirements:
FSE 120, 201, 223, 225, 365, 375, and 400.
Total Curriculum Requirements…….....…21 hours

Minor in Homeland Security

CIP Code: 43.9999

A student may minor in Homeland Security by completing, with a grade of "C" or better, a total of 18 semester hours as follows:
Requirements:
HLS 101, 201, 225, 301, and FSE 310 or HLS 391 or HLS 401, and HLS 430 or PLS 375 or POL 415.
Total Curriculum Requirements.....18 hours

Minor in Industrial Fire Protection

A student may minor in Industrial Fire Protection by completing, with a grade of "C" or better, a total of 21 semester hours as follows:
Requirements:
FSE 101, 120, 221, 224, 322, 360, and 480
Total Curriculum Requirements…….....……21 hours

Minor in Occupational Safety

A student may minor in Occupational Safety by completing, with a grade of "C" or better, a total of 18 semester hours as follows:
Requirements:
OSH 261, 262, 305, 366, 390, and 410.
Total Curriculum Requirements…….....18 hours

Minor in Security Management

CIP Code: 43.0112

A student may minor in Security Management by completing, with a grade of "C" or better, a total of 18 semester hours as follows:
Requirements:
SEC 210, 250, 320, 350.
Electives.....select 6 hours from
HLS 341, 301, 391, 402, 430, PLS 375, SEC 260, 338.
Total Curriculum Requirements.....18 hours

Minor in Traffic Safety (Non-Teaching)

A student may minor in Traffic Safety by completing 18 hours from the following courses: TRS 103, 233, 322, 413; plus seven additional hours selected from TRS 100, 234, 332, 342, 349, 407, 491.

Concentration

Homeland Security Concentration in the Associate of General Studies Degree

See page 72 of this *Catalog* for the Homeland Security Concentration requirements listed in the Associate of General Studies degree section.

Certificates

Advanced Emergency Medical Care

Major Requirements.....22 hours
EMC 130, 270, 275, 280, and 310.
Total Curriculum Requirements .....22 hours

Basic Emergency Medical Technician*

Meets the Kentucky Cabinet for Human Resources certification requirement: EMC 110. Co-requisite: EMC 104.
Total Curriculum Requirements .....7 hours
*Certificate awarded by the Department of Safety, Security, & Emergency Management and not Eastern Kentucky University.

Emergency Management

CIP Code: 43.9999

(Not available to B.S. in Homeland Security majors or minors.)

Students may obtain a Certificate in Emergency Management by completing, with a grade of "C" or better, a total of 24 semester hours as follows:
Requirements.....12 hours
GEO 353, HLS 201, 451, 461
Electives.....select 12 hours from
EMC 450, FSE 310, 375, 400, GEO 220, 315, 325, 425, 456, 553, HLS 301, 391, 491, or select one course from GEO 210 or GLY 302, SEC 210.
Total Curriculum Requirements.....24 hours

Homeland Security

CIP Code: 43.9999

(Not available to B.S. in Homeland Security majors or minors)

Students may obtain a Certificate in Homeland Security by completing, with a grade of "C" or better, a total of 24 semester hours as follows:
Requirements.....18 hours
HLS 101, 201, 225, 301, 401, select one course from HLS 430, PLS 375 or POL 415
Electives.....select 6 hours from
FSE 310, HLS 341, 391, 441, or SEC 210.
Total Curriculum Requirements.....24 hours

Industrial Fire Protection Certificate

CIP Code: 43.0201

This certificate prepares student for careers in Industrial

Fire Protection. The certificate requires a grade of "C" or better in 24 hours of required courses and 6 hours of specialized practicum. The courses required to complete the Industrial Fire Protection Certificate include:

FSE 101, 120, 221, 300W, 305, 320, 360, OSH 261, FSE 480, and FSE 499(6).

Total Curriculum Requirements .....30-32 hours

Intelligence and Security Operations

CIP Code: 43.9999

The certificate requires a grade of "C" or better in 15 hours of required courses and 9 hours of elective courses. Prerequisites for the certificate courses do not count toward the total curriculum requirements. This certificate is not available to students in the B.S. in Homeland Security, Minor in Security Management or Certificate in Intelligence Studies programs.

Requirements.....15 hours

HLS 391, 401, 402, SEC 320, 338

Electives.....select 9 hours from

GEO 353, 456, HLS 301, 341, 430, PLS 375, SEC 210, 250, 260, 350.

Total Curriculum Requirements.....24 hours

Intelligence Studies

CIP Code: 43.9999

The certificate requires a grade of "C" or better in 12 hours of required courses and 12 hours within a single option. Prerequisites for the below certificate course options do not count toward the total curriculum requirements.

Requirements……..……..…...…..……..12 hours

GEO 456, HLS 401, HLS 402, and GEO 353 or CRJ 403.

Options…….……..12 hours

Select 12 hours from one Option:

Intelligence Analysis Option:

CIS 320, CIS 325, GEO 455, GEO 553, GEO 556, PHI 371, STA 320, STA 375, OR STA 501.

Threat Specialist Option:

CRJ 301, CRJ 325, CRJ 355, CRJ 401, GEO 322, HLS 341, HLS 391, HLS 430, PLS 375, POL 321, POL 325, or POL 415.

Regional Analysis Option:

Select four courses in the culture, economics, environment, geography, military, politics, religions, security, etc., of a specific country or region (foreign or U.S). No more than two courses can have the same prefix.

Students selecting this option must also have a minimum of two courses in a language associated with the selected specific country or region. Option prerequisite: certificate advisor must pre-approve courses selected for this option.

Total Curriculum Requirements…….…....…....24 hours

Endorsement

Driver Education Endorsement

The requirements for a driver education endorsement for any teaching major are: TRS 285, 386, 487, and 588.

ASSETS PROTECTION AND SECURITY B.S.

FRESHMAN YEAR

First Semester

JSO (Student Success Seminar).....1
ENG 101.....3
MAT 107.....3
POL 100 or 101.....3
APS 110.....3
Total.....13

Second Semester

ENG 102.....3
HIS 203.....3
MUH 171 or ART 200.....3
APS 210.....3
HEA 285.....3
Total.....15

SOPHOMORE YEAR

First Semester

CMS 100.....3
BIO 100.....3
PHI 110.....3
APS 225.....3
CIS 212, 240, or CSC104.....3
Total.....15

Second Semester

CHE 101/107.....3
Free Elective.....3
PSY 200 or 200W.....3
STA 215 or 270.....3
CSC 307.....3
Total.....15

JUNIOR YEAR

First Semester

HLS 321 or 321W.....3
APS 320.....3
APS 350.....3
Free Elective.....3
Free Elective.....3
Total.....15

Second Semester

APS 333.....3
APS 351.....3
Option/Minor Requirement or Free Elective.....3
Option/Minor Requirement or Free Elective.....3
Option/Minor Requirement or Free Elective.....3
Total.....15

SENIOR YEAR

First Semester

APS 438.....3
APS 465.....3
APS Elective.....3
Option/Minor Requirement or Free Elective.....3
Gen. Ed. E-6.....3
Total.....15

Second Semester

APS 495.....3
Option/Minor Requirement or Free Elective.....3
Option/Minor Requirement or Free Elective.....3
Option/Minor Requirement or Free Elective.....3
Gen. Ed. E-6.....3
Total.....15

FIRE PROTECTION ADMINISTRATION B.S.

FRESHMAN YEAR

First Semester

JSO (Student Success Seminar).....1
ENG 101.....3
FSE 101.....3
FSE 120.....3
CHE 101/107.....3
Total.....13

Second Semester

ENG 102.....3
FSE 221.....3
FSE 201.....3
CHE 102.....3
FSE 225.....3
Total.....15

SOPHOMORE YEAR

First Semester

Gen. Ed. E-5A.....3
MAT 107.....3
CMS 210.....3
FSE 223.....3
FSE 350.....3
FSE 200.....3
Total.....18

Second Semester

PSY 200.....3
BIO 100.....3
BIO Lab.....3
FSE 300W.....3
FSE 305.....3
Total.....15

JUNIOR YEAR

First Semester

Wellness.....3
Gen. Ed. E-3A or 3A/B.....3
FSE 230.....3
FSE 355.....3
FSE 375.....3
Gen. Ed. E-6.....3
Total.....15

Second Semester

FSE 320.....3
FSE 349.....3
FSE 360.....3
Gen. Ed. E-6.....3
TRS 235.....3
Total.....15

SENIOR YEAR

First Semester

FSE 365.....3
FSE 322.....3
Free Elective.....3
Free Elective.....3
FSE 390.....3
Total.....15

Second Semester

FSE 400.....3
FSE 425.....3
Gen. Ed. E-3B or 3A/B.....3
FSE/OSH 261.....3
Free Elective.....3
Total.....15

HOMELAND SECURITY B.S.

FRESHMAN YEAR

First Semester

JSO (Student Success Seminar).....1
ENG 101.....3
MAT 107.....3
POL 100 or 101.....3
HLS 101.....3
Total.....13

Second Semester

ENG 102.....3
MUH 171 or ART 200.....3
HLS 201.....3
HIS 203.....3
HEA 285.....3
Total.....15

SOPHOMORE YEAR

First Semester

CMS 100.....3
BIO 100.....3
PHI 110.....3
HLS 225.....3
SPA 101.....3
Total.....15

Second Semester

GEO 210.....3
SPA 102.....3
STA 215 or 270.....3
PSY 200 or 200W.....3
APS 210.....3
Total.....15

JUNIOR YEAR

First Semester

HLS Elective.....3
HLS 321W.....3
PLS 375 or POL 415.....3
HLS 301.....3
GEO 353.....3
Total.....15

Second Semester

HLS 391.....3
FSE 310.....3
POL 370 or MGT 301.....3
HLS 401.....3
Free Elective.....3
Total.....15

SENIOR YEAR

First Semester

EMC 450.....3
HLS 441.....3
HLS 451.....3
HLS Free Elective.....3
Free Elective.....3
Total.....15

Second Semester

HLS 461.....3
HLS 495.....3
Free Elective.....3
Free Elective.....3
Free Elective.....3
Total.....15

OCCUPATIONAL SAFETY B.S.

FRESHMAN YEAR	SOPHOMORE YEAR	JUNIOR YEAR	SENIOR YEAR
First Semester	**First Semester**	**First Semester**	**First Semester**
JSO (Student Success Seminar)....1	Gen. Ed. E-1A....3	OSH 390....3	OSH 412....3
ENG 101....3	OSH 261....3	OSH 410....3	OSH 367....3
MAT 107....3	FSE/OSH 200....3	OSH 379....3	EHS 345....3
Gen. Ed....3	FSE/OSH 225....3	FSE 221....3	Gen. Ed....3
Gen. Ed....3	CHE 101/101L....3	Gen. Ed....3	Gen. Ed....3
FSE 101....3	Total....15	Gen. Ed....3	Total....15
Total....16		Total....18	
	Second Semester		**Second Semester**
Second Semester	Gen. Ed. E-1A....3	**Second Semester**	OSH 495 Capstone....3
ENG 102....3	OSH 262....3	FSE/OSH 305....3	OSH 492....3
Gen. Ed. E-1A....3	PHY 131....3	OSH 366....3	Free Elective....3
Gen. Ed. E-1A....3	APS 210....3	FSE 300W....3	Free Elective....3
MAT 108....3	Total....12	EHS 340....3	Gen. Ed....3
FSE 120....3		Gen. Ed....3	Total....15
Total....15		Gen. Ed....3	
		Total....18	

POLICE STUDIES B.S.

FRESHMAN YEAR	SOPHOMORE YEAR	JUNIOR YEAR	SENIOR YEAR
First Semester	**First Semester**	**First Semester**	**First Semester**
JSO (Student Success Seminar)....1	CMS 210....3	BIO 100....3	PLS 414....3
ENG 101....3	PSY 200, SOC 131, or SOC 235....3	CRJ/PLS/COR elective....3	Free Elective....3
MAT 105....3	Gen. Ed. E-6....3	PLS Supporting Course....3	PLS Supporting Course....3
Gen. Ed. E-3A or 3A/B....3	CRJ/PLS/COR elective....3	Free Elective....3	CRJ/PLS/COR elective....3
Free Elective....3	CRJ 331....3	CRJ 388W....3	Free Elective....3
CRJ 101....3	Total....15	Total....15	PLS Supporting Course....3
Total....13			Total....18
	Second Semester	**Second Semester**	
Second Semester	Gen. Ed. E-4B....3	Wellness....3	**Second Semester**
Gen. Ed. E-1B....3	Gen. Ed. E-6....3	Free Elective....3	CRJ/PLS/COR elective....3
Gen. Ed. E-5A....3	PLS 326....3	CRJ/PLS/COR elective....3	PLS 415....3
REL 301 or PHI 130....3	Free Elective....3	PLS Supporting Course....3	Free Elective....3
CRJ/PLS/COR elective....3	CRJ/PLS/COR elective....3	CRJ 400....3	Free Elective....3
PLS 103....3	Total....15	Total....15	ACCT....3
Total....15			Total....15

Justice and Safety

SECTION SIX

Course Descriptions

Course Prefixes

ASO 100	*Student Success Seminar*
BTO 100	*Student Success Seminar*
EDO 100	*Student Success Seminar*
GSO 100	*Student Success Seminar*
HSO 100	*Student Success Seminar*
JSO 100	*Student Success Seminar*

ACC	Accounting
ADM	Apparel Design and Merchandising
AED	Art Education
AEM	Applied Engineering Management
AFA	African/African-American Studies
AFS	Aerospace Studies (Air Force ROTC)
AGR	Agriculture
ANT	Anthropology
APP	Appalachian Studies
APS	Assets Protection and Security
ARH	Art History
ART	Art
ASL	American Sign Language
AST	Astronomy
ATR	Athletic Training
AVN	Aviation
BEM	Broadcasting and Electronic Media
BIO	Biology
BTS	Business and Technology Seminar
CAH	Arts and Humanities Interdisciplinary
CCT	Corporate Communication and Technology
CDF	Child and Family Studies
CDS	Communication Disorders and Sciences
CHE	Chemistry
CHS	College of Health Sciences Interdisciplinary
CIS	Computer Information Systems
CMS	Communication Studies
CNM	Arts and Sciences Interdisciplinary
COM	Communication
CON	Construction Management
COR	Correctional and Juvenile Justice Studies
CRE	Applied Creative Thinking
CRJ	Criminal Justice
CSC	Computer Science
CTE	Career and Technical Education
DES	Design
ECO	Economics
EDF	Educational Foundations
EES	Essential Elements of Success
EET	Electricity and Electronics Technology
EHS	Environmental Health Science
ELE	Elementary Education
EMC	Emergency Medical Care
EME	Elementary and Middle Grade
EMG	Middle Grade Education
EMS	Elementary, Middle Grade, and Secondary Education
ENG	English
ENR	Learning Skills
ENV	Environmental Sustainability and Stewardship
ESE	Secondary Education
ETL	Education Teacher Leader
FCC	Foreign Culture and Civilization
FCS	Family and Consumer Sciences
FIN	Finance
FLS	Foreign Language Studies
FOR	Forensic Science
FRE	French
FRM	Family Resource Management
FSE	Fire and Safety Engineering Technology
GBU	General Business
GCM	Graphic Communications Management
GCS	Interpersonal Skills and Career Counseling
GEO	Geography
GER	German
GLY	Geology
GSD	Student Development
GST	General Studies Tutoring
HEA	Health Education
HIS	History
HLS	Homeland Security
HON	Honors Program
HSA	Health Services Administration
HUM	Humanities
IES	Foreign Exchange Studies
INS	Insurance
ITP	Interpreter Training
JOU	Journalism
JPN	Japanese
LAS	Paralegal
LAT	Latin
LGS	Legal Studies
LIB	Library Science
MAE	Mathematics Education
MAR	Marine Sciences
MAT	Mathematics
MGT	Management
MKT	Marketing
MLS	Medical Laboratory Scientist
MLT	Medical Laboratory Technician
MPM	Medical Practice Management
MSL	Military Science and Leadership
MUH	Music History
MUS	Music
NAT	Natural Science
NET	Network Security and Electronics
NFA	Nutrition, Foods, and Food Administration
NSC	Nursing (Baccalaureate)
NSM	Network Security Management
NUR	Nursing (Associate)
OHO	Ornamental Horticulture
OSH	Occupational Safety
OTS	Occupational Therapy
PHE	Physical Education
PHI	Philosophy
PHY	Physics
PLS	Police Studies
POL	Political Science
PSY	Psychology
PUB	Public Relations
QMB	Quantitative Methods
REC	Recreation and Park Administration
REL	Religion
RST	Real Estate
SCI	Science
SEC	Security Management
SED	Special Education
SOC	Sociology
SPA	Spanish
STA	Statistics
SWK	Social Work
TEC	Technology, General
THE	Theatre Arts
TRS	Traffic Safety
WGS	Women and Gender Studies

Course Numbering

Courses are numbered according to the following plan:

000-099	are remedial non-degree credit courses
100-199	are primarily for freshmen
200-299	are primarily for sophomores
300-399	are primarily for juniors
400-499	are primarily for seniors
500-599	are primarily for seniors and are linked with 700 level graduate courses

A student may not take a course numbered more than one year above his/her classification level without advisor permission. To take courses numbered 300 and above in The School of Business see the College of Business and Technology section for requirements for BBA degree.

Special approval must be obtained from the dean of the college offering a 500-level course in order for junior-level students to enroll. (Students of less than junior status or unapproved juniors cannot be admitted to a 500-level course and will be disenrolled by the Registrar if such an enrollment occurs.)

Course Descriptions

The semester hours which may be earned by successful completion of a course are indicated in parentheses immediately following the course title, e.g., (3).

A course is offered during the semester indicated by the term-offering designation immediately following the credit hours earned:

I —Fall Semester
II—Spring Semester
A—By Announcement

A course is offered during the indicated semester or by announcement on the assumption there will be adequate enrollment. If a course does not obtain adequate enrollment, it is subject to cancellation. The University reserves the right to cancel any course if the enrollment is not sufficient, to divide a course if the enrollment is too large for efficient instruction, and to change instructors when necessary.

The description of the course format for courses which include a laboratory experience is found at the end of the course description. A course which consists of three hours of classroom lecture and two hours of laboratory per week is described as “3 Lec/2 Lab.”

Courses approved for general education are noted as such by the phrase “Gen. Ed.” and a number following the course description. The number refers to the general education block to which the course may be applied. Letters in brackets [ ] designate Kentucky statewide General Education core coding. See General Education Requirements in Section Four.

Cooperative Education/ Internship (Applied Learning)

XXX —349 Applied Learning
XXX —349 A-N Cooperative Education

Students may register for additional hours of applied learning and cooperative education beyond those specified in each course description. However, courses students are taking will then fall into a repeat cycle where the last course taken replaces the former course so that no more than the limit noted may be counted toward a degree program, minor, or certificate.

ACC—Accounting
Dr. Oliver Feltus, Chair

ACC 201 Introduction to Financial Accounting. (3) I, II. Prerequisite: MAT 105 or higher. A user's approach to understanding financial accounting and reporting, emphasizing how creditors, investors, and others use accounting information in decision making and why financial accounting information is important to these users.

ACC 202 Introduction to Managerial Accounting. (3) I, II. Prerequisite: ACC 201 with a grade of "C" or better. A study of the objectives, preparation and uses of managerial accounting information primarily from a user perspective. Emphasis on measurement, allocation, and reporting of costs to identify and solve business problems.

ACC 301 Intermediate Accounting I. (3) I, II. Prerequisites: ACC 201, 202, QMB 200 (or STA 270) with a grade of "C" or better in each course. Proficiency in spreadsheet and word processing capability is required. Financial statements, current assets, investments, current and long-term liabilities, acquisitions, use and retirement of plant and equipment.

ACC 302 Intermediate Accounting II. (3) I, II. Prerequisite: ACC 301 with a grade of "C" or better. Capital stock, financial statement analysis, statement of cash flows, lease and pension accounting, accounting changes, and deferred taxes.

ACC 322 Tax I. (3) I, II. Prerequisite: ACC 201 with a grade of "C" or better and junior standing. Income tax legislation-Federal and State; returns for individuals; gross income; basis and determination of gain or loss; capital gains and losses; dividends, deductions; withholding. Credit will not be awarded for both ACC 322 and ACC 322S.

ACC 322S Tax I. (3) I, II. Prerequisite: ACC 201 with a grade of "C" or better and junior standing. Income tax legislation - Federal and State; returns for individuals; gross income; basis and determination of gain or loss; capital gains and losses; dividends, deductions; withholding – using a service learning approach. Credit will not be awarded for both ACC 322 and ACC 322S.

ACC 327 Cost Accounting. (3) I, II. Prerequisite: ACC 202 and QMB 200 with a grade of "C" or better. Cost flows and cost systems; the cost accounting cycle; basic cost determination systems and procedures; standard costing; budgeting and decision making applications.

ACC 349 Applied Learning in Accounting. (.5-8) A. Prerequisites: minimum GPA of 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work required for each credit hour. Three hours may be used as a major elective. Additional hours may be used to fulfill the 150-hour CPA exam requirement. May be repeated for a total of 16 credit hours.

ACC 349 A-N Cooperative Study: Accounting. (.5-8) A. Prerequisites: minimum GPA of 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work required for each credit hour. Three hours may be used as a major elective. Additional hours may be used to fulfill the 150-hour CPA exam requirement. May be repeated for a total of 16 credit hours.

ACC 350 Accounting Information Systems. (3) I, II. Prerequisite: A minimum grade of "C" in ACC 202 and (CIS 212 or CSC 104.) An introduction to manual and computer-based accounting information systems. Topics include AIS components, transaction cycles, system development, internal controls, and the audit process. The course stresses problem solving, critical thinking, and computer application skills.

ACC 390 Internship In Accounting. (4) II. Prerequisites: "B" average and departmental approval. By invitation only.

ACC 425 Accounting Theory. (3) I, II. Prerequisites: ACC 302 with a grade of "C" or better and CCT 300W. Emphasis on a conceptual understanding of accounting principles using literature published by the AICPA. FASB, and current writers. Accounting history, SEC, legal liability, conceptual framework. SFAS's and APB's.

ACC 440 Legal Aspects of Accounting. (3) I, II. Prerequisites: Senior standing (90 hours or more) and GBU 204 with a grade of "C" or better. Law as it relates to the accounting profession.

ACC 441 Auditing I. (3) I, II. Prerequisites: ACC 302, 350, and GBU 204 with grades of "C" or better. Professional ethics; accountant's legal responsibility; internal control; general arrangement and procedure of an audit; asset accounts; liability accounts; operating accounts; the audit report.

ACC 490 Special Problems in Accounting. (1-6). A. May be retaken under different sub-topics to a cumulative maximum of six hours. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

ACC 501 International Accounting and Combinations. (3) II. Prerequisite: ACC 302 with a minimum grade of "C". Corporate combinations including consolidated balance sheets and income statements and special problems with consolidations. International topics: standards, foreign exchange transactions and translation of financial statements of foreign subsidiaries.

ACC 521 Fund Accounting. (3) I. Prerequisite: ACC 302 with a minimum grade of "C". Advanced study in accounting and fiscal procedures for institutions and for federal, state, county, and municipal governments.

ACC 523 Taxation of Corporations. (3) A. Prerequisite: ACC 322 with a minimum grade of "C". Federal income tax report preparation with emphasis on partnership and corporate returns; estate and trusts; gift and estate taxes; special problems in preparation of tax returns.

ACC 525 Forensic Accounting. (3) A. Prerequisites: ACC 301, 322 and GBU 204 with a grade of "C" or better or departmental approval. A study of investigative accounting procedures and techniques used in litigation support. Topics to be covered include financial reporting fraud, employee fraud, income reconstruction methods, testifying as an expert witness, evidence management, cybercrime, and business valuations.

ADM—Apparel Design and Merchandising
Dr. Diane Leggett, Chair

ADM 102 Introductory Apparel Production. (3) I, II. Basic principles of apparel production; selection, alteration, and fitting of commercial patterns.

ADM 119 Introduction to Apparel Design and Merchandising. (3) I. An introductory study of apparel and textile producers, designers, merchandisers, retailers, consumer characteristics, consumer behavior, and ethical issues. Information sources about the industry and consumers are examined. Exploration of career opportunities.

ADM 201 Introduction to Textiles. (3) I, II. Introduction to fibers, yarns, fabrics, colorations, and finishes. Emphasis on consumer use. 2 Lec/2 Lab.

ADM 203 Pattern Alteration and Fitting. (3) II. Prerequisite: ADM 102. A basic study of pattern alteration and fitting using commercial patterns.

ADM 210 Dress, Appearance and Culture. (3) A. Prerequisites: CDF 132 and PSY 200. Social, cultural, and psychological factors which influence beliefs, attitudes and choices regarding appearance and dress of individuals and groups.

ADM 222 Fashion Illustration. (3) A. Methods and materials for clothing illustration, including sketching of the elongated fashion figure and computer-aided-design. Illustration, color and fabric rendering of original designs and clothing lines.

ADM 300 Apparel and Textile Sourcing. (3) I. Prerequisites: ADM 119, 201, and ECO 230. Study of domestic and international apparel and textile sources of supply. Examines topics related to textile/apparel production, manufacturing, import/export, retailing and consumption.

ADM 302 Textile Evaluation and Specification. (3) II. Prerequisite: ADM 201. Performance evaluation of textiles. Examination and development of textile standards and specifications. 2 Lec/2 Lab.

ADM 310 Historical Costume and the Social Order. (3) I. Cross listed as WGS 310. Prerequisite: ADM 102 or 201. History of dress from ancient Egypt through the 20th century. Factors which influence the style of dress are studied and relationship between costume of the past and current modes. Credit will not be awarded for both ADM 310 and WGS 310.

ADM 312 Flat Pattern Draping Design. (3) A. Prerequisites: ADM 102 or department approval. Development of apparel designs through flat pattern and draping techniques.

ADM 313 Apparel Design and Quality. (3) II. A study of apparel selection including terminology, sizing of ready-to-wear, factors influencing quality levels of sewn products, and principles of design and aesthetics of dress.

ADM 319 Apparel Merchandising. (3) A. Prerequisites: ADM 119 and ECO 230. The merchandising of apparel, including merchandise control, buying procedures, vendors, vendor relations, planning assortments and budgets for basic and fashion categories. Practice in merchandise mathematics.

ADM 339 Visual Merchandising. (3) I. Prerequisite: junior standing or department approval. Principles and techniques used in the display of fashion merchandise and their application in planning and actual display of fashion goods for store windows and interiors.

ADM 349 Applied Learning in Apparel. (.5-8) A. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester. Total hours: eight, associate; sixteen, baccalaureate. Minimum of 80 hours work required for each academic credit.

ADM 349 A-N Cooperative Study: Apparel. (.5-8) A. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester. Total hours: eight, associate; sixteen, baccalaureate. Minimum of 80 hours work required for each academic credit.

ADM 411 Advanced Apparel Production. (3) A. Prerequisites: ADM 102 or department approval. Tailoring and other advanced apparel production techniques. Exploration of appropriate production techniques for specialty fabrics.

ADM 412 Advanced Apparel Design. (3) A. Prerequisites: ADM 201 and 312 or department approval. Solving design problems through fabric selection, patternmaking techniques, and apparel production methods. Presentation of design concepts in a portfolio.

ADM 413 Apparel Product Development. (3) II. Prerequisites: ADM 102, 210, 300, 313, 349. Problem solving and the development of sewn products and services in the apparel industry.

ADM 414 Apparel Design and Merchandising Practicum. (6) A. Prerequisites: ADM 312 or 319, 413 and 2.0 cumulative GPA. Supervised practicum studying apparel design and/or merchandising in manufacturing, design, retail or wholesale firms.

ADM 419 Special Problems in ADM. (1-3) A. Prerequisites: 3.0 GPA and department approval. The student selects a problem and works under the supervision of the instructor. Students must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of six hours provided topics differ.

ADM 550 ADM Topics: _____. (1-3) A. A course designed to offer specialized expertise in numerous areas related to textiles, clothing, and fashion. May be retaken to a maximum of six hours provided topics vary.

AED - Art Education

AED 360 Introduction to Materials Inquiry. (3) I. Students will explore processes and materials used in K-12 programs, will present exploration results through seminar-style discussions and demonstrations, and will begin to understand and practice developmentally appropriate teaching strategies through peer teaching. Credit will not be awarded for both AED 360 and ART 360.

AED 361 Art Teaching: Grades P- 8. (3) I. Prerequisites: Major in Art Education. Developmentally- appropriate curriculum, materials, and methods for the P-8 art program. Minimum of 20 field/clinical hours. Credit will not be given for both EME 361 and AED 361.

AED 540 Art Teaching: Secondary Schools. (3) I. Prerequisite: Admission to the Teacher Education Program. Pre/Co-Requisites: EDF 413, SED 401. Co-requisite: AED 561. Developmentally appropriate materials and methods for teaching visual art in the secondary schools. Minimum of 40 field/clinical hours. Credit will not be awarded for both ESE 540 and AED 540.

AED 561 Materials Inquiry in Art Education. (3) I. Formerly AED 460. Prerequisite: AED 360 and open to senior art students who plan to teach. Corequisite: AED 540 Diversified inquiry into art materials and processes in the elementary and secondary schools. Maximum number of repeatable hours: 6. Credit will not be awarded for both ART 460 or AED 460 and AED 561.

AEM— Applied Engineering Management
Dr. Dennis Field, Coordinator

AEM 192 Descriptive Geometry. (3) II. Prerequisite: TEC 190. Application of the theory of orthographic projection to the graphical representation and solution of three-dimensional problems. 2 Lec/2 Lab.

AEM 195 Computer Aided Drafting. (3) I, II. Prerequisite: TEC 190. A study of the computer aided drafting (CAD) software commands. Content will include basic fundamentals, drawing and editing commands, input/out methods, and industry application. 2 Lec/2 Lab.

AEM 200 Introduction to Industrial Distribution. (3) I, II. The study of the distribution industry including channels of distribution, roles of manufacturers, industrial distributors, and customers, and understanding the process of receiving and distributing commercial products within the supply chain. A survey of current trends in global logistic and warehouse management.

AEM 201 Metallic Material Processes. (3) I, II. Introduction to manufacturing processes involving metallic materials. Families of processes covered are casting, molding, forming, separating, conditioning, assembling, and finishing. 2 Lec/2 Lab.

AEM 202 Introduction to Quality. (3) I, II. Prerequisite: STA 215 or 270 and MAT 107 or higher mathematics. Role of statistical thinking in modern quality control. Methods for problem solving, data collection, and process improvement. Deriving actionable conclusions from data analyses. Understanding, quantifying, and reducing variation to improve business performance.

AEM 238 Industrial Materials. (3) I, II. Prerequisite: CHE 101 and 107 or CHE 111 and 115. Structure, composition, properties, and common industrial applications of metals, plastics, woods, composites, ceramics, and other materials. Use of common testing machines for standard materials testing. 2 Lec/2 Lab.

AEM 242 Furniture and Cabinet Construction. (3) A. Prerequisite: TEC 141. Principles of furniture and cabinet construction, elements of structural design, advanced woodworking operations; care and sharpening of tools; related technical information; furniture and cabinet construction and finishing. 2 Lec/2 Lab.

AEM 301 Non-Metallic Material Processes. (3) II. Introduction to manufacturing processes used to shape or form wood, plastic, and composite materials. Families of processes covered are casting, molding, forming, separating, conditioning, assembling, and finishing. 2 Lec/2 Lab.

AEM 308 Methods of Lean Operations. (3) I, II. Prerequisite: STA 215 or 270 and MAT 107 or higher. Examination of lean principles, such as value mapping, continuous flow, continuous improvement, determination of customer demand, and standard work. Concepts and implementation of pull, line balancing, lean accounting, FMEA, time studies, and total productive maintenance.

AEM 310 Computer Communications in Industry. (3) I. Prerequisites: ENG 102 and TEC 161. A conceptional approach to computer aided communication systems typically applied in industrial environments. Emphasis will be placed on utilizing computer technology to integrate text and graphics in the preparation of documents and presentation materials.

AEM 320 Warehousing and Material Handling. (3) A. Pre/Corequisites: AEM 202 and 308. A laboratory oriented course that examines basic warehouse layout configurations, material flow, an a critical evaluation of the application of computers to control material flow, plus the use of computer simulation to analyze various warehouse layout options for scheduling, picking and material tracking. 2 Lec/2 Lab.

AEM 330 Dimensional Metrology. (3) A. Prerequisites: MAT 108 and TEC 190. A study of geometric dimensioning and tolerancing as used in detail working drawings and the principles, standards, equipment, and techniques of precision electronic and mechanical measurement. 2 Lec/2 Lab.

AEM 332 Process Control and Auditing. (3) A. Prerequisite: AEM 202. An advanced study of the Statistical Process Control methods and procedures in industry, and auditing as a method of evaluating the documentation, implementation, and effectiveness of a Quality System.

AEM 336 Reliability and Sampling. (3) A. Prerequisite: AEM 202. An overview of reliability, testing, and sampling theories. Topics include component and system reliability, product safety, sampling plans, control charts, and standards.

AEM 338 Engineered Materials Testing. (4) A. Prerequisites: AEM 201 and TEC 190 and MAT 108. Structure, composition, properties, tolerances, standards, and common applications of engineering materials. Use of GD&T and techniques for precision electronic and mechanical measurement and testing.

AEM 349 Applied Learning in Industrial Technology. (.5-8) I, II. Prerequisite: departmental approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate, sixteen, baccalaureate. A minimum of 80 hours work required for each academic credit.

AEM 349 A-N Cooperative Study: Industrial Technology. (.5-8) I, II. Prerequisite: departmental approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate, sixteen, baccalaureate. A minimum of 80 hours work required for each academic credit.

AEM 352 Automated Technology Devices. (3) A. Prerequisite: EET 251. The electronic hardware used in computer integrated manufacturing. Topics include PLCs, interfacing devices, sensors, data entry and bar coding, motors, ADCs, and DACs. 2 Lec/2 Lab.

AEM 371 Hydraulics and Pneumatics. (3) II. Principles of the operation, construction, control, and application of hydraulic and pneumatic components and circuits. The study of control applications includes manual, mechanical, fluid, electrical, and computer controlled fluid circuits. 2 Lec/2 Lab.

AEM 382 Advanced Material Processing. (3) A. Prerequisites: AEM 201 and 301. A laboratory course involving advanced material processing which includes project planning and management, machining, welding, precision layout, and measuring. Students will design and fabricate projects that include two-part mold designs, CNC machining, and multi-process welding. 2 Lec/2 Lab.

AEM 383 CAD/CAM Integration. (3) A. Prerequisites: AEM 201. The use of computer application software to link data bases created with computer aided design software to computer numerical controlled machine tools. 2 Lec/2 Lab.

AEM 390 Advanced Computer Aided Design. (3) A. Prerequisite: AEM 195. A study of advanced topics in three-dimensional computer aided design. The content will include advanced modeling and rending. 2 Lec/2 Lab.

AEM 392 Computer Aided Machine Drawing. (3) I. Prerequisite: AEM 195. Computer generated detail and assembly drawings. Topics include threads and fasteners, gearing and cams, and dimensioning and tolerancing. 2 Lec/2 Lab.

AEM 395 Special topics in AEM:_____ (2-3) Prerequisite: AEM 202, Departmental approval, junior or higher standing. Explores emerging technologies in the area of applied engineering. May be repeated up to a maximum of 9 hours provided subject matter is different each time.

AEM 397 Advanced Machine Drawing. (3) A. Prerequisites: AEM 390 and 392. Advanced machine drawing applications to include detail and assembly drawings, threads and fasteners, gearing and cams. Emphasis on shape description. 2 Lec/2 Lab.

AEM 400 Distribution Operations Management. (3) II. Prerequisites: AEM 200, AEM 308 and MKT 312. A course designed to build upon previous distribution related topics that assist in making strategic decisions in distribution operations. An integration of warehouse types and configurations, stock analysis and control, picking and packing, plus value added analysis related to customer service and return on investment.

AEM 406 Integrated Materials Mgmt. (3) I, II. Prerequisite: AEM 202. A senior course which examines consumer demand characteristics, product bill materials, establishing sales and operations plans, planning and controlling inventory in the supply chain.

AEM 408 Human Resource Development. (3) I, II. Topics in human relations and production management. To be scheduled the semester before graduation.

AEM 499 Senior Capstone Project. (3) II. Prerequisite: AEM 352, 371 and Senior Standing. A synthesis experience involving the application of theory in solving a realistic industrial problem. Emphasis is placed upon project setup, solution, justification, report and presentation. 2 Lec/2 Lab.

AEM 506 Six Sigma Quality. (3) A. Prerequisite: AEM 202. A study of six sigma methodology and current practices with an emphasis on key quality drivers and statistical methods for world-class products and companies.

AEM 530 Design of Experiments. (3) A. Prerequisite: AEM 202. Principles and practices of efficient experiment design for industry. Topics include the philosophy of experiment design, comparison of various designs, hypothesis testing, and the analysis of data.

AFA— African/African-American Studies
Dr. Sara Zeigler, Dean
Dr. Salome Nnoromele, Director

AFA 201 The African Experience. (3) A. Introduces students to the historical, socio-economic, cultural, and political experiences of African people in Africa and Diaspora. It fulfills a core requirement for African/African-American Studies. Credit will not be awarded for both AFA 201 and 201W. Gen. Ed. IIIB, VII (AH), and VIII. [AH].

AFA 201W The African Experience. (3)

A. Prerequisite: ENG 102, or ENG 105(B), or HON 102(B). Introduces students to the historical, socio-economic, cultural, and political experiences of African people in Africa and the Diaspora. It fulfills a core requirement for African/African-American Studies. Credit will not be awarded for both AFA 201W and 201. Gen. Ed. Element 6.

AFA 202 The African-American Experience. (3) A. An overview of the historical, social, political, economic, and cultural factors that have helped shape the experiences of African Americans in the United States. It fulfills a core requirement for African/African-American Studies. Credit will not be awarded for both AFA 202 and 202W. Gen. Ed. Element 6.

AFA 202W The African-American Experience. (3) A. Prerequisite: ENG 102, or ENG 105(B), or HON 102(B). An overview of the historical, social, political, economic, and cultural factors that have helped shape the experiences of African Americans in the United States. It fulfills a core requirement for African/African-American Studies. Credit will not be awarded for both AFA 202W and 202. Gen. Ed. Element 6.

AFA 225 African/African-American Health Issues. (3) A. Cross listed as EHS 225. Provides the student with an understanding of the medical and public health issues relevant to the maintenance of health conditions both in the United States and Africa. Credit will not be awarded for both AFA 225 and EHS 225.

AFA 304 Slavery in the Americas. (3) A. Cross listed as HIS 304. The history of slavery, bound labor, and freedom in the Western Hemisphere. Special attention will be given to anti-slavery and abolitionist movements. Credit will not be awarded for both AFA 304 and HIS 304.

AFA 305 African American History. (3) A. Cross listed as HIS 305. African history to 1500: Europe, Africa, and the Americas; trans-Atlantic and domestic slave trades; American slavery; emancipation; post-emancipation experiences and initiatives; persistence of black nationalism. Credit will not be awarded for both AFA 305 and HIS 305.

AFA 330 U.S. South and Black Education (3). A. Cross listed as EDF 330. This course introduces the major themes of Black populations pursuing educational opportunities in Southern States in the U.S. Students will acquire knowledge about historical events, people and policies shaping the evolution of Blacks in education. Credit will not be awarded for both AFA 330 and EDF 330. Gen. Ed. VIII.

AFA 345 Minority Group Politics. (3) A. Cross listed as POL 345. Examination and comparison of various theories, strategies, forms of participation, leadership styles, and concepts (e.g. Black Power) of minority group politics. Credit will not be awarded for both AFA 345 and POL 345. Gen Ed. VIII.

AFA 346 Diversity and Criminal Justice. (3) A. Cross listed as CRJ 345. Prerequisite: departmental approval. Contemporary race, gender, and other diversity issues and their relevance to criminal offenders, crime victims, and the criminal justice system. Includes such issues as the civil rights and women's movements, and equal opportunity. Credit will not be awarded for both AFA 346 and CRJ 345.

AFA 347 Special Topics in AFA Studies. (3) A. Specialized study of selected topics not available in traditional course offerings. May be retaken with different topics to a maximum of six hours.

AFA 349 Applied Learning in AFA Studies. (.5-3) A. Work in a cooperative placement related to student's academic studies. May earn a maximum of three hours. A minimum of 80 hours work required for each semester hour credit.

AFA 349 A-N Cooperative Study: AFA Studies. (.5-3) A. Work in a cooperative placement related to student's academic studies. May earn a maximum of three hours. A minimum of 80 hours work required for each semester hour credit.

AFA 360 Literature of Africa. (3) A. Cross listed as ENG 360. Survey of the genres and components of African literature, oral and written; study of how key concepts in African thought, culture and experiences are reflected in the literatures composed by writers from Africa or of African origin. Credit will not be awarded for both AFA 360 and ENG 360.

AFA 361 African-American Literature. (3) A. Cross listed as ENG 361. Survey of selected works of African-American literary traditions. Credit will not be awarded for both AFA 361 and ENG 361.

AFA 367 African Caribbean Literatures. (3) A. Cross listed as ENG 367. A study of selected literatures written by Caribbean writers of African descent. Credit will not be awarded for both AFA 367 and ENG 367.

AFA 372S Blacks in Madison County (3) A. Through a service-learning approach this course provides an opportunity for students to research the historical people, institutions, and cultural factors that helped shape the experience of African-Americans in Madison County, Kentucky.

AFA 378 Black Women in History. (3) A. Cross listed as WGS 378. Examines the lives of African-American women from slavery to the present with emphasis on the impact of race, gender, and class issues on their multi-faceted lives as women in America. Credit will not be awarded for both AFA 378 and WGS 378.

AFA 385 Early African History. (3) A. Cross listed as HIS 385. Prerequisite: three hours HIS or departmental approval. History of Africa from earliest times to 1860. Emphasis on social, political, economic, and cultural change in states and societies; oral tradition; the environmental and human activities; slavery and the slave trades. Credit will not be awarded for both AFA 385 and HIS 385.

AFA 386 Modern African History. (3) A. Cross listed as HIS 386. History of Africa from the 19th century to the present. Themes include: trade and politics; European conquest and African resistance; rural survival and urban popular culture; race, class, gender, ethnicity, and age; African nationalism and independence. Credit will not be awarded for both AFA 386 and HIS 386.

AFA 388 Islam in West Africa. (3) A. Cross listed as HIS 388. History of Islam and politics in West Africa from 1000 C.E. to the present. Emphasis on the role of Islam in major socio-economic, political, and cultural transformations of West African states and societies. Credit will not be awarded for both AFA 388 and HIS 388.

AFA 435 U.S. Civil Rights Movement. (3) A. Cross listed as HIS 435. Prerequisites: three hours AFA or departmental approval. Examination through primary and secondary sources of the origins, course, ideologies, and legacy of the mid-twentieth century American movement for racial justice and equality. Discussion of the central scholarly issues in civil rights studies. Credit will not be awarded for both AFA 435 and HIS 435.

AFA 495 Independent Study. (3) A. Prerequisites: AFA 201, AFA 202, departmental approval. Individual study and/or research on a problem/topic pertaining to African, African-American and/or Afro-Caribbean experience. Student must have the independent study proposal form approved by the faculty supervisor and the program director prior to enrollment.

AFS—Aerospace Studies (Air Force ROTC)
Gregory Franklin, Chair
University of Kentucky
(859) 257-7115

Leadership Seminar is open to students who are members of the Air Force Reserve Officer Training Corps or are eligible to pursue a commission as determined by the Professor of Aerospace Studies.

AFS 111 Aerospace Studies I. (1) I. This course deals with the Air Force in the contemporary world through a study of the total force structure, strategic offensive and defensive forces, general purpose forces, and aerospace support forces.

AFS 112 Leadership Seminar. (1) I. Introduces Air Force customs and courtesies, drill and ceremonies, and wear of the uniform. The course also includes a discussion of career opportunities in the Air Force.

AFS 113 Aerospace Studies I. (1) II. A continuation of AFS 111.

AFS 114 Leadership Seminar. (1) II. A course designed to develop managerial skills including superior/subordinate relationships, communications, customs and courtesies, basic drill movements and career progression requirements. Credit will not be granted toward the requirements for the degree. Pass-Fail only.

AFS 211 Aerospace Studies II. (1) I. This course is a study of air power from balloons and dirigibles through the jet age. It is an historical review of air power employment in military and nonmilitary operations in support of national objectives; and a look at the evolution of air power concepts and doctrine.

AFS 212 Leadership Seminar. (1) I. Air Force customs, courtesies, and opportunities are emphasized. The cadet is prepared for individual, flight, and squadron movements in drill and ceremonies.

AFS 213 Aerospace Studies II. (1) II. A continuation of AFS 211.

AFS 214 Leadership Seminar. (1) II. Emphasis on preparing cadets for attendance at field training during succeeding summer.

AFS 311 Aerospace Studies III. (3) I. Prerequisite: acceptance into the professional officer course. A study of management functions with emphasis on the environment. Individual motivational and behavioral process, communication, and group dynamics are included for the development of professional skills.

AFS 312 Leadership Seminar. (1) I. Involves the cadets in advanced leadership experiences to prepare for active duty. Cadet responsibilities include planning, organizing, directing, coordinating, and controlling the activities of the cadet corps and preparing briefings and written communications.

AFS 313 Aerospace Studies III. (3) II. Prerequisite: AFS 311. A study of leadership with specific emphasis on the Air Force leader. Includes theoretical, professional, and communicative aspects. In addition, military justice and administrative law are discussed within the context of the military organization.

AFS 314 Leadership Seminar. (1) II. Cadets continue preparations for fulfilling leadership positions as an active duty Air Force officer.

AFS 411 Aerospace Studies IV. (3) I. Prerequisites: AFS 311 and 313. A study of the military profession, civil-military interactions, communication skills, framework of defense policy, and formulation of defense strategy.

AFS 412 Leadership Seminar. (1) I. Involves the cadets in higher level advanced leadership experiences. In addition, the cadets receive a final block of instruction for Initial Commissioned Service.

AFS 413 Aerospace Studies IV. (3) II. Prerequisite: AFS 411. Continues the study of strategy and the management of conflict, formulation and implementation of U.S. defense policy, defense organization, and case studies in defense policy making.

AFS 414 Leadership Seminar. (1) II. Cadets prepare for Initial Commissioned Service by fulfilling advanced leadership positions. Continued emphasis on group dynamics and the role of future leaders in the Air Force.

AFS 495 Independent Work. (2-6) A. Prerequisite: approval of professor of aerospace studies. A study of an advanced problem on an

aerospace subject under the guidance of the Chairman of the Department of Aerospace Studies.

AGR—Agriculture
Dr. John Settimi, Chair

AGR 105 Introductory Topics in Agriculture. (3) I, II. A non-structured course for incoming students who have met the secondary skills standard examination requirements in the area of agriculture. Departmental chair approval required prior to enrollment. May be taken to a maximum of 6 hours.

AGR 110 Introduction to American Agriculture. (2) A. The agriculture industry in the United States from significant past events to current status. Complexities of laws and regulations and their influence on the farmer's ability to produce for U.S. and World Markets. Credit may not be counted toward major or minor in the Department.

AGR 115 Operation of Agricultural Equipment. (2) I. Lecture, laboratory and field experiences related to agricultural power equipment, and their safe operation, including hydraulics, electricity, chemical, and processing and handling facilities. 1 Lec/2 Lab.

AGR 125 Principles of Animal Science. (3) I. Corequisite: AGR 126. Management and production of livestock enterprises; types, market classes, and grades of beef cattle, sheep and swine, and the breeds and products of dairy cattle.

AGR 126 Animal Science Laboratory. (1) I. Corequisite: AGR 125. Applied principles in the proper handling, restraint, and management techniques in beef, dairy, sheep, swine, and horses.

AGR 130 Principles of Agronomy. (3) I. Corequisite: AGR 131. Principles of plant growth, reproduction, crop-soil relationships. Provides foundations of information for further study in field crop production and soil management.

AGR 131 Agronomy Laboratory. (1) I. Corequisite: AGR 130. Laboratory and field experiences related to plant growth, development, and management of agronomic resources.

AGR 210 Agricultural Measurements. (2) A. Prerequisite: MAT 105 or higher. Measuring and computing areas of land, volumes and capacities of buildings, and feed structures, spray mixtures, fertilizer needs, parts per million, feed rations and other measurement situations encountered on the farm. Majors must take AGR 210 during the first 60 hours of course work or credit will not be awarded. Transfer students must take AGR 210 during their first semester after declaring a major.

AGR 213 Principles of Agricultural Mechanics and Energy Systems. (3) I, II. Principles of operation, maintenance, and repair of electrical motors; basic electrical circuits, electrical power generation and electrical controls for agricultural mechanization systems and power requirements for agricultural structures; theoretical and practical experience.

AGR 215 Principles of Soils. (3) I, II. Corequisite: AGR 216. Soil origin, classification and properties, soil conservation, soil microorganisms, organic matter, soil water, soil minerals, lime and commercial fertilizers, soil erosion, soil management.

AGR 216 Principles of Soils Laboratory. (1) I, II. Corequisite: AGR 215. Laboratory and field experiences related to soils and their properties, including soil sampling, fertility, pH, liming, water and texture. 2 Lab.

AGR 225 Evaluation and Selection of Livestock. (3) II. An evaluation of dairy cattle, beef cattle, swine and sheep; use of records, body type ratings, and carcass information as they relate to functional anatomy and efficiency of production; sire selection and pedigree interpretation. 2 Lec/2 Lab

AGR 250 Light Horse Production and Management. (3) A. History and role of equine industry, breeds of horses and ponies for work and pleasure, includes management, breeding, pests, and care of horses.

AGR 255 Companion Animal Management. (3) A. Care and management of dogs, cats, rabbits, birds, reptiles and tropical fish. Companion animal breeds, behavior, nutrition, genetics and reproduction will be emphasized.

AGR 300 Travel Study in Agriculture Technology. (1-6) A. A travel course for groups and individuals in agriculture and horticulture to study new and emerging technologies in agriculture and horticulture, structural organizations of agricultural enterprises, and professional and interpersonal relationships. May be retaken once.

AGR 301 Directed Work Experience. (1-4) I, II. Agriculture majors only; minimum sophomore standing or departmental approval. A minimum of three hours per week per hour of credit using university or other approved facilities. May be retaken for a maximum of 4 credit hours.

AGR 302 Directed Work Experience - Management Practicum. (3) I, II. Student will schedule nine hours of work per week during the semester on a university farm to practice management and production skills related to a livestock herd or machinery operations. Options may be taken to a maximum of 12 hours.

AGR 302A Agricultural Mechanization Option.
AGR 302B Beef Cattle Option.
AGR 302C Swine Option.
AGR 302D Dairy Cattle Option.
AGR 302E Crops Option.
AGR 302F Sheep Option.

AGR 304 Pest Management. (4) II. Identification of the principal agriculture and horticulture insect disease and weed pests in Kentucky. Control measures are identified with special emphasis on the safe use of chemicals and equipment calibration. Credit will not be awarded for both AGR 304 and OHO 304. 3 Lec/2 Lab.

AGR 305 Professional Skills Seminar. (1) A. Prerequisite: completion of 30 hours in the Associate or more than 60 hours and less than 90 hours in the Bachelor Degree Program. Course prepares students for the job market including; resume development, cover letter preparation, job interview skills and oral presentations.

AGR 306 The Global Society's Food Supply. (3) A. A study of the complexities of the global food and fiber supply including the production, manufacturing and distribution systems. These studies include historical influences, current topics and health related food issues.

AGR 308 Agricultural Economics. (3) I, II. Prerequisite: ECO 230. An introduction to the economic environment of the agribusiness sector. Examines the role of agriculture in the U.S. and world economies. Includes concepts and principles concerning individual agribusiness decision making.

AGR 310 Principles of Agribusiness Management. (3) II. Prerequisite: AGR 308. Organization and operation of the farm related agricultural business with emphasis on budgeting, enterprise selection, financial statements, and resource management. Includes microcomputer applications and survey of government regulations that are applicable to topic.

AGR 311 Agriculture Metal Fabrication. (2) A. Principles and techniques of arc and oxyacetylene welding and soldering as it pertains to fabrication and repair of agriculture machinery and equipment. 1 Lec/2 Lab.

AGR 312 Ecology and Management of Grasslands and Pastures (4) A. Prerequisites: AGR 130 and 131, and Junior Standing. Examination of grasslands and pastures from an ecological perspective with an emphasis on wildlife and livestock management. 3 Lec/2 Lab.

AGR 318 Soil/Water Conservation Technology. (3) A, I. Principles and procedures for basic surveying and soil-water conservation systems. This will include how rainfall, run-off, erosion, contours, ponds, lagoons, drainage, and irrigation interact with the desired conservation system. 2 Lec/2 Lab.

AGR 319 Renewable and Sustainable Energy Systems. (3) II. Prerequisite: Junior Standing. Principles of energy and how those needs can potentially be met in the future will be discussed. Comparisons of existing energy sources (fossil fuels, nuclear power) with renewable sources (biomass, solar, and tidal).

AGR 321 Feeds and Feeding. (4) I. Feeds used in livestock feeding; including harvesting, storage, feeding characteristics, and ration formulation from these feedstuffs. 3 Lec/2 Lab.

AGR 324 Beekeeping Methods. (3) II. Establishing an apiary, maintaining and increasing bee colonies, utilizing bees for pollination, methods of handling bees safely, integrated pest management, harvesting and processing honey.

AGR 327 Beef Production. (4) I. Prerequisites: AGR 125 and 126. History, importance, and trends associated with the beef cattle industry; systems of selecting, breeding, feeding, marketing, and management of beef cattle. 3 Lec/2 Lab.

AGR 328 Swine Production. (4) A. Prerequisites: AGR 125 and 126. History, importance, and trends associated with the swine industry; systems of selecting, breeding, feeding, marketing, and management of swine. 3 Lec/2 Lab.

AGR 329 Sheep and Goat Production (4) A. Prerequisite: AGR 125 and 126. An overview of the sheep and goat industry. Topics include selection, breeding, reproduction, health, nutrition, management, and marketing of sheep and goats and their products. 3 Lec/2 Lab.

AGR 330 Animal Products. (2) A. Principles of grading, cutting, identifying, pricing, and consumer evaluation of poultry, beef, pork, and lamb cuts, and related products. 1 Lec/2 Lab.

AGR 332 Poultry Production and Management. (3) A. History and importance of the poultry industry, breeds, breeding, feeding, and management in the layer and broiler industry.

AGR 340 Conservation of Agricultural Resources. (3) A. Conservation of soils and their fertility, erosion and control, soil conservation methods for individual farms, water supply and distribution, problems of water and air pollution, problems resulting from the population explosion.

AGR 345 Sustainable Agroecosystems. (3) A, I. Prerequisites: any course in chemistry, AGR 130, and 131; or OHO 131 and 132 or BIO 131. A comprehensive study of new technology related to crop, and pest management practices which could enhance economic returns, environmental quality, and the resource base for the short and long term.

AGR 349 Applied Learning in Agriculture. (.5-8) A. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours work required for each academic credit.

AGR 349 A-N Cooperative Study: Agriculture. (.5-8) A. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours work required for each academic credit.

AGR 350 Agricultural Marketing. (3) A. Prerequisite: AGR 308. A study of concepts, principles and practices of marketing as related to the agribusiness system. Emphasis on agricultural input, production and processing/manufacturing sectors. Includes agriculture futures commodity market theory, mechanics and practical applications.

AGR 362 Hydraulic Systems. (2) A. A study of basic principles of hydraulic systems and their application to agricultural and turf equipment. Lab experiences will provide familiarity and practice with

equipment. 1 Lec/2 Lab.

AGR 372 Topics and Laboratories in Animal Science. (1-2) A. May be taken to a maximum of two hours, provided the topics are different.

AGR 372A Feeds and Feeding Laboratory.

AGR 372F General.

AGR 373 Animal Diseases. (3) I. Prerequisite: six hours of animal science. Treatment, prevention, and eradication of infectious and parasitic disease of farm animals.

AGR 374 Genetics of Livestock Improvement. (3) II. Prerequisite: six hours of animal science. Applied genetic principles of improving farm animals including crossbreeding, inbreeding, and other mating plans.

AGR 375 Reproduction and Artificial Insemination of Domestic Animals. (3) A. Prerequisite: six hours of animal science. Reproductive systems, study and practice of artificial insemination, and pregnancy diagnosis of domestic animals. 2 Lec/2 Lab.

AGR 376 Anatomy and Physiology of Domestic Animals. (3) A. Prerequisite: AGR 125. Fundamental physiological processes of livestock relating to production, nutrition, and diseases. 2 Lec/2 Lab.

AGR 377 Livestock Behavior and Welfare (3) A. Prerequisite: AGR 125 and 126. An overview of livestock behavior and its application in modern animal husbandry.

AGR 380 Technical Management of Dairy Cattle. (4) I. Prerequisites: AGR 125 and 126. History, economics and nutritional importance and trends associated with the dairy industry including systems of selecting, breeding, feeding, sanitation, housing, marketing and management for financial success emphasizing both the cow and herd management. 3 Lec/2 Lab.

AGR 381 Agriculture Structures. (3) I. Study the principles of planning, drawing, locating, and constructing farm livestock and materials handling facilities. Also, develop an understanding of closely related structure aspects: such as, environmental control, waste management, ventilation, and structure design. 2 Lec/2 Lab.

AGR 383 Diesel Power Systems. (3) I. Study of the operation, maintenance, and repair of agricultural diesel powered systems; includes electrical systems, fuels, injection pumps, and nozzles; laboratory practice. 2 Lec/2 Lab.

AGR 404 Advanced Pest Management. (3) II. Prerequisite: AGR 304 or OHO 304. Physical, biological, chemical, cultural, and genetic control of insects, weeds, and diseases. Specific emphasis on the science behind pest controls and use of organic and/or sustainable control methods.

AGR 409 Agriculture Business Records and Analysis. (3) I. Management and analysis of record systems for decision support involving organization, enterprise selection, and operation of agricultural and horticultural businesses.

AGR 410 Special Problems in Agriculture. (1-3) I, II. Prerequisite: Departmental approval. Cross listed as OHO 410. Students choose a problem and work under the supervision of the instructor in the field of the problem. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken for a maximum of 6 credit hours provided topics are different. Credit will not be awarded for both AGR 410 and OHO 410.

AGR 411 Senior Seminar. (1) I, II. Prerequisite: senior standing. Preparation of graduates to enter the job market. Students complete oral presentations, resumes, job applications, cover letters, job interviews and register with CD and P. Includes overall assessment of the graduate and department curriculum.

AGR 416 Soil Fertility. (3) A. Prerequisite: AGR 215. Various soil amendments including lime, organic and inorganic fertilizers, and conditioners are studied and evaluated for their effect on the physical, chemical, and biological properties of soils and subsequent crop yields.

AGR 417 Plant Tissue Culture Techniques. (3) I, II. A study of regeneration and morphogenesis of plant materials with emphasis on media preparation, callus induction, and in vitro propagation for several economic plant species. 1 Lec/4 Lab.

AGR 421 Animal Nutrition. (3) II. Prerequisite: AGR 321 or instructor approval. Principles of nutrition basic to modern livestock feeding; symptoms of nutrient deficiencies, nutritional disorders, metabolism of nutrients, feed additives, and modern methods of feed preparation and feeding.

AGR 430 Row and Biofuel Crops (3) A. Prerequisite: AGR 130 and 131. Advanced study of crop production theories and practices for row crops and crops for biofuels. Topics include ecological, physiological and economic aspects of production. 2 Lec/2 Lab.

AGR 440 Agricultural Financing. (3) II. Uses and types of agricultural credit, credit institutions, and relating credit needs to farm enterprises.

AGR 499 Agricultural Advocacy and Issues Capstone (3) A. Prerequisite: Junior or Senior standing. Development of critical thinking skills, debates of current issues facing agriculture, and training to become agriculture advocates.

AGR 501 Special Problems in Agriculture. (3) A. A course for exceptional seniors involving independent study and research related to problems of a theoretical and/or practical nature. May be retaken to a maximum of six hours. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

AGR 509 Agricultural Research Methods and Interpretation (3). I. Prerequisite: Junior or Senior standing. Explores the scientific underpinnings of modern agriculture and adaptive management, including: the scientific method, observation, experimentation, and data interpretation with an examination of fallacies that masquerade as science. May be repeated up to six hours provided topic is different.

AGR 570 Advanced Technical Agriculture: _____. (3) A. Advanced study of agriculture with emphasis on updating, understanding, and developing competency in recent technology. May be retaken to a maximum of nine hours provided the topic varies.

AGR 577 Workshop in the Conservation of Natural Resources. (3) A. For teachers returning for graduate work. Instruction is given in the areas of soil, water, fish and wildlife, forest conservation, and methods of teaching related units at the elementary and junior high level.

ANS—Animal Studies
Dr. Robert Brubaker, Chair

ANS 200 Introduction to Animal Studies. (3) A. A survey of the field of animal studies, focusing on animals' lives and histories, and the human experience of animals as food, as objects of entertainment, spectacle and science, as companions, and as representations. Gen. Ed. E-5B.

ANS 310 Animals in Literature (3) A. Prerequisite: ANS 200(C) or ENG 102 or ENG 105(B) or HON 102, or instructor approval. A survey of the rhetorical and thematic use of animals in imaginative texts.

ANS 320 Animals in History. (3) A. Prerequisite: ANS 200(C) or instructor approval. A survey of the history of animals in European and American cultures, from prehistory to the modern age. Animals are examined as food, objects of entertainment and knowledge, companions, and representations.

ANS 400 Senior Seminar: _____. (3) A. Prerequisite: ANS 200(C) and 15 hours of courses required for the ANS major. The examination of a topic in animal studies from the perspectives of application, science, and humanities. May be retaken once, provided the subject matter differs each time.

ANS 497 Topics in Animal Studies: _____ __. (3) A. Prerequisite: ANS 200(C) and 9 hours of courses required for the ANS major, or instructor approval. The course examines a topic in animal studies in detail. May be retaken once, provided the subject matter differs each time.

ANT—Anthropology
Dr. Kelli Carmean, Chair

ANT 120 Introduction to Cultural Anthropology. (3) I, II. Explanation of culture and related concepts. Development of generalizations concerning social, economic, political, and ritual organization, based chiefly on comparative study of various traditional societies. Includes a brief survey of archeology and linguistics. Gen. Ed. E-5B.

ANT 200 Anthropology of Human Society. (3) A. Study of the evolution of human societies through time and over space. The course focuses on hunter-gatherer, horticultural, agrarian and industrial societies, and their change through time. Credit will not be awarded to students who have credit for both ANT 210 and 211. Gen. Ed. E-5A.

ANT 201 Introduction to Physical Anthropology. (3) I, II. General survey of the human biological species and its evolution, emphasizing the study of genetics, osteology, primate behavior and biology, fossil populations, and contemporary human biological variation. 2 Lec/2 Lab. Gen. Ed. VII (NS).

ANT 306 Human Evolution. (3) A. Prerequisite: ANT 201 or departmental approval. A detailed analysis of primate and human development emphasizing the fossil evidence of humankind's evolution.

ANT 308 Quantitative Methods in Anthropology (3) A. Prerequisite: ANT 201. Addresses how anthropologists collect and organize quantitative data, select and utilize appropriate statistical analyses and procedures, and summarize results. Emphasis is given to physical anthropology applications.

ANT 311 Anthropology of Religion (3) A. Prerequisite: ANT 120 or 200. Anthropological exploration of religious belief systems across cultures and time. Analyzes the intersection of religion with subsistence strategies, economic systems, political systems, and gender structures. Topics include magic, witchcraft, sorcery, monotheism, polytheism, possession, and health.

ANT 321 Historical Archaeology. (3) A. Prerequisite: ANT 120 or ANT 200. This course provides an introduction to the material culture of North America's recent past. Lecture is combined with hands-on exercises using historic artifacts and documentary sources.

ANT 330 American Indians. (3) A. Prerequisite: ANT 120 or 200. Explores the cultural diversity of American Indians by examining their historical and contemporary lives. Focus on cultural similarities and differences of American Indian groups living in ecologically diverse areas. Gen. Ed. E-6.

ANT 341 North American Archaeology. (3) A. Prerequisite: ANT 120 or 200. A basic but comprehensive introduction to North American archaeology from the earliest peopling through European Contact.

ANT 344 Applied Anthropology (3) A. Prerequisite: ANT 120 or ANT 200. Comprehensive survey of applied anthropology theories, methods, and approaches. Based on extensive cross-cultural case materials, examines the historical, current, and potential applications of anthropological perspectives to social problems.

ANT 351W Archaeology. (3) A. Prerequisite: ANT 120 and 200, and ENG 102 or ENG 105(B) or HON 102. A comprehensive introduction to archaeological goals, methods, practice and challenges. Data-based problem solving, critical thinking and writing are integral components of this course. Credit will not be awarded for both ANT 351W and ANT 350.

ANT 355 Selected Topics in Archaeology: _____. (1-3) A. Prerequisite: ANT 120 or 200 or departmental approval. Topics vary. Offered occasionally. May be retaken to a maximum of nine hours, provided the subject matter differs each time.

ANT 357 Archaeology and the Law. (3) A. Prerequisite: ANT 120 or 200. Survey of Federal legislation for the management of cultural resources, and the repatriation of human remains and other materials to descendant Native American tribes. Global heritage issues also addressed.

ANT 360 Mesoamerica Before Cortez. (3) A. Prerequisite: ANT 120 or ANT 200. The study of archaeological past, the colonial experience, and the contemporary reality of the Indians of Mesoamerica, focusing primarily on the ancient Maya.

ANT 365 Selected Topics in Physical Anthropology: _____. (1-3) A. Prerequisite: ANT 201 or departmental approval. Topics vary. Offered occasionally. May be retaken to a maximum of nine hours, provided the subject matter differs each time.

ANT 370 Primate Conservation (3) A. Prerequisite: ANT 201 or departmental approval. The local human and biological impact of conservation programs affecting primate communities throughout the world. Topics include forest fragmentation, historical perspectives on conservation, agroforestry, ecotourism, ethnography, and disease.

ANT 371 Primate Ecology & Sociality. (3) A. Prerequisite: ANT 201. Ecological relationships within primate communities. Students examine primate social structure, habitat use, diet, locomotion, seasonality, plant-primate interactions, and predator-prey relationships.

ANT 375 Selected Topics in Cultural Anthropology: _____. (1-3) A. Prerequisite: ANT 120 or 200 or departmental approval. Topics vary. Offered occasionally. May be retaken to a maximum of nine hours, provided the subject matter differs each time.

ANT 377 Medical Anthropology. (3) A. Prerequisite: ANT 120 or ANT 200. Exploration of health, healthcare, and healing cross-culturally. Through medical anthropology theory and methods, apply critical perspectives to the health status of populations, the distribution of health in societies, and health outcomes. Credit will not be awarded for both ANT 377 and ANT 377S.

ANT 377S Medical Anthropology: Service Learning. (3) A. Prerequisite: ANT 120 or ANT 200. Exploration of health, healthcare, and healing cross-culturally. Through medical anthropology theory and methods, apply critical perspectives to the health status of populations, the distribution of health in societies, and health outcomes. Credit will not be awarded for both ANT 377 and ANT 377S.

ANT 380 Forensic Anthropology. (3) A. Prerequisite: ANT 201. Forensic osteology and dentistry; including demographic methods, pathology, and practical methods of collecting human physical evidence; and the role of the expert witness. 2 Lec/2 Lab.

ANT 385 Human Osteology. (3) A. Prerequisite: ANT 201. Analysis of individual skeletal remains, focusing on functional anatomy and bone physiology, disease and injury, and nutrition. Includes introductions to bioarchaeology, forensic anthropology, and biocultural reconstruction.

ANT 393 Kinship and Marriage. (3) A. Prerequisite: ANT 120 or ANT 200. Explores anthropological perspectives of social organization emphasizing kinship structures, families, and marriage across cultures. Through case examples, understand the anthropological methods and theories that guide studies of how cultures and societies organize social units.

ANT 395 History and Theory of Anthropology. (3) A. Prerequisites: ANT 120, ANT 200, and ANT 201. An investigation of past and present theories used to interpret data from each of anthropology's four subdisciplines.

ANT 439 Practicum in Archaeology. (3) A. Prerequisite and/or Corequisite: ANT 351W, ANT 470, or departmental approval. This course pairs senior anthropology majors with professional archaeologists for on-the-job training. Practicum options may include federal and state governments, private archaeological consultants, and anthropology museums.

ANT 470 Field Methods in Archaeology. (4) A. Prerequisite: ANT 351W with a minimum grade of "B." A hands-on study of archaeological field methods including excavation techniques as well as some laboratory analysis of archaeological remains. May be repeated for 4 additional hours provided the dig site is different.

ANT 471 Archaeological Materials Analysis (3). Prerequisite: ANT 351W with minimum grade of "B." Familiarizes students with processing, analysis, and interpretation of archaeological materials. This course has a laboratory component where students will work with archaeological materials.

ANT 490 Independent Study in Anthropology. (1-6) A. Prerequisite: student must have the independent study proposal form approved by faculty supervisor and departmental chair prior to enrollment. May be retaken to a maximum of six hours, provided the subject matter differs each time.

APP—Appalachian Studies
Dr. Sara Ziegler, Dean
Dr. Alan Banks, Director

APP 200 Introduction to Appalachia. (3) A. An introduction to the interdisciplinary study of the Appalachian region. Special emphasis on the region's place in a national and global context, and on internal and external definitions of the region. Gen. Ed. VII.

APP 340 Environmental Economics. (3) A. Cross listed as ECO 340. Prerequisite: ECO 230. Applications of basic economic analysis to a study of the environment and environmental problems. Major topics include benefit-cost analysis for environmental decision-making, the potential for market-based solutions to environmental problems, and the role and development of environmental policy. Credit will not be awarded for both APP 340 and ECO 340.

APP 350 Special Topics: _____ (3) A. Exploration of particular topics not covered in the existing curriculum. May be taken for a maximum of six hours provided the subject matter is different each time.

APP 355 Rural Crime and Justice (3) A. Cross-listed as CRJ 355. Prerequisite: sophomore standing. Survey of rural crime and justice issues, crime trends, policing and control of rural crime with particular attention given to Kentucky and Appalachia. Credit will not be awarded for both CRJ 355 and APP 355.

APP 363 Appalachian Images in Film and Song. (3) A. Cross listed as SOC 363. Completion of SOC 131 is advised before taking APP 363. Media images of the Appalachian region and its people through film and music; the processes by which such images become produced and reproduced. Credit will not be awarded for both APP 363 and SOC 363.

APP 365 Appalachian Literature. (3) I. Cross listed as ENG 365. Prerequisite: ENG 102 or 105 or HON 102. Study of selected major Appalachian literature, with emphasis on twentieth-century writers such as Agee, Arnow, Chappell, Dykeman, Miller, Norman, Roberts, Smith, Still and Wolfe. Credit will not be awarded for both APP 365 and ENG 365.

APP 366 Social Change in Appalachia. (3) A. Cross listed as SOC 365. Completion of SOC 131 is advised before taking APP 366. Analysis of patterns of social change and development in an important area of the Southern United States, Central and Southern Appalachia. Emphasis will be placed upon competing theoretical perspectives and the importance of historical research. Credit will not be awarded for both APP 366 and SOC 365.

APP 370 Religion in Appalachia. (3) A. Cross listed as SOC 370. Completion of SOC 131 is advised before taking APP 370. An examination of diversity and change in the religious beliefs, practices, groups, and organizations found in the Southern Appalachian region. Credit will not be awarded for both APP 370 and SOC 370.

APP 373 Politics of Development in Appalachia. (3) A. Cross listed as POL 373. This course examines community and economic development in the Appalachian region with special emphasis on Kentucky. Focus will be on the political, economic, and social aspects affecting development. Credit will not be awarded for both APP 373 and POL 373.

APP 420 Appalachia in American History. (3) A. Cross listed as HIS 420. Prerequisite: three hours HIS or department approval. The relationship between Appalachia and the rest of the United States. Topics include the "yeoman" myth, coal industrialization, settlement houses, company towns, and the identification of the region with poverty. Credit will not be awarded for both APP 420 and HIS 420.

APP 430 Sustainability in Appalachia. (3) A. Cross listed as GEO 430. Examination of Appalachia's ecological, social, and economic patterns, and the processes through which residents can ensure their social, economic and ecological sustainability in the future. Credit will not be awarded for both APP 430 and GEO 430.

APP 460 Seminar in Appalachian Studies. (3) A. Prerequisite: 12 hours Appalachian Studies or instructor approval. In-depth analysis of current social, political, economic or environmental issues in the Appalachian region through a directed research project or applied service-learning field experience. Capstone course for the Appalachian Studies minor.

APP 490 Independent Study. (1-3) A. Prerequisite: Student must have the independent study form/proposal approved by the faculty member and Center director prior to enrollment. May be taken for a maximum of six hours provided the subject matter is different each time.

APP 520 Providing Health Care Services in Appalachia. (3) A. Cross listed as OTS 520/720. Prerequisite: departmental approval. An analysis of the development and delivery of health care services in Appalachia. Examination of relevant current and historical factors which have an impact on the health of the Appalachian people. Credit will not be awarded for both APP 520 and OTS 520/720.

APS—Assets Protection and Security
Dr. Michael Collier, Coordinator

APS 110 Principles of Assets Protection. (3) A. History and overview of the assets protection industry and employment opportunities, and introduction to the basic methodologies of assets protection: personnel, physical, procedural, and auditing systems.

APS 210 Physical Security. (3) A. Principles of physical security including regulations and standards, physical security surveys, integrated physical security systems, countermeasures, and mitigation issues.

APS 225 Assets Protection Law. (3) A. Review of civil and criminal authority and liability of assets protection personnel, with emphasis upon tort liability for use of force, false imprisonment, defamation, invasion of privacy, malicious prosecution, negligent hiring and retention, and negligent security.

APS 320 Assets Protection Management. (3) A. Prerequisite: APS 110 or departmental approval. The evolution and application of traditional and current theories of assets protection management.

APS 333 Assets Protection Ethics and Policy. (3) A. Prerequisite: APS 110 or departmental approval. Case study review, assessment and design of assets protection codes of ethics, policies and procedures. Case studies include private and government entities.

APS 338 Classification Management. (3) A. Focuses on the protection of government information, including classification, handling, dissemination, transmission, and storage of classified and sensitive information. Includes other administrative issues

involved with computer/cyber security and protection of trade secrets.

APS 349 Applied Learning in Assets Protection. (.5-8) A. Prerequisite: departmental approval. Co-curricular work experience under the direction of faculty and field supervisors. Placements related to academic studies. One to eight hours credit. Minimum 80 hours work required per credit hour.

APS 349 A-N Cooperative Study: Assets Protection. (.5-8) A. Prerequisite: departmental approval. Co-curricular work experience under the direction of faculty and field supervisors. Placements related to academic studies. One to eight hours credit. Minimum 80 hours work required per credit hour.

APS 350 Private Investigations, Ethics and the Law. (3) A. Review of methods and management of private investigations, public and private investigative resources, investigative technology, and ethical and public policy considerations related to private investigations. Also an examination of statutory and case law pertaining to private investigations, and presentation of investigative evidence in internal, administrative, civil and criminal proceedings.

APS 351 Investigative Interviews and Reports (3) A. Prerequisites: ENG 101 and 102; or departmental approval. Review of literature and techniques for conducting investigative interviews and interrogations, and preparation of investigative reports for internal, administrative, civil and criminal proceedings.

APS 395 Homeland Security - An Overview. (3) A. Review of the Homeland Security Agency of the Federal government including its organization, responsibilities, and authority, and how it impacts and relates to the private security discipline. The critical role of information collection, analysis, and dissemination in a proactive approach to protecting the public from terrorism will also be explored.

APS 435 Topical Assets Protection Seminar: _____. (1-3) A. Study of contemporary issues in assets protection. Selected topics may include credit card fraud, contract security management, employee drug testing, information security, insurance fraud, interviewing and negotiating, retail security, and other topics. May be retaken under different subtitles.

APS 438 Information and Computer Security. (3) A. Prerequisite: departmental approval. Vulnerability assessments and countermeasures for securing computer and network information systems from unauthorized entry, abuse, and sabotage, with emphasis on system software, database analysis, communication networks, and auditing techniques.

APS 445 Field Experience. (3-12) A. Prerequisite: departmental approval. Field training is designed to broaden the educational experience through appropriate observational work assignments in cooperating agencies. May be retaken to a maximum of twelve hours.

APS 455 Independent Study. (1-3) A. Prerequisite: departmental approval. Individual reading and research on a problem or area within the field of assets protection after student consultation with the instructor. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of six hours.

APS 465 Assets Protection Auditing. (3) A. Prerequisites: ACC 201 and introductory level statistics course; or departmental approval. Review and application of investigative auditing, inventorying, and surveying procedures, and application of probability and statistical information to assets protection decision making.

APS 495 Applied Assets Protection. (3) A. Prerequisite: APS senior standing or departmental approval. Senior capstone course which requires synthesis and application of prior course work in assets protection. Development, by each student and/or team, of a comprehensive assets protection program for a specific business or government agency, with oral and written presentation required.

ARH—Art History
Mr. Herb Goodman, Chair

ARH 390 Survey of Art History I: Non-Western Art. (3) I, II. Prerequisites: ENG 102 or ENG 105 (B) or HON 102; ART 164 or 200. Study of the arts of Asia, Africa, Oceania, and Native Americans. Credit will not be awarded for both ARH 390 and ART 390. Gen. Ed. VII (AH).

ARH 391 Survey of Art History II: Western Art. (3) I, II. Prerequisites: ENG 102 or 105 (B) or HON 102; ART 164 or 200. A study of the art of Western Civilization from Ancient Greece to Modern Europe and America. Credit will not be awarded to students who have credit for ARH 391W or ART 391. Gen. Ed. VII (AH).

ARH 391W Survey of Art History II: Writing Intensive. (3) I, II. Prerequisites: ENG 102 or 105 (B) or HON 102; ART 164 or 200. A writing intensive study of the art of Western Civilization from Ancient Greece to Modern Europe and America. Credit will not be awarded to students who have credit for ARH 391 or ART 391. Gen. Ed. VII (AH).

ARH 463 Problems in Art History. (1-3) A. Prerequisites: ARH 390 and 391 or ART 390 and 391 and approval of proposal by department. Limited to seniors. Continuation of study begun in regular, departmental, art history courses. May be retaken to a maximum of nine hours.

ARH 464 Renaissance and Baroque Art. (3) A. Prerequisite: ARH 390 and 391 or departmental approval. An indepth study of representative aspects of the painting, sculpture, and/or architecture of Europe between 1400 and 1750.

ARH 465 History of Graphic Arts. (3) I, II. Prerequisite: ARH 390 and 391 or ART 390 and 391 or departmental approval. The history of the reproducible image in Western Art, from the introduction of printing and typography in the 15th century, through the advent of photography and the emergence of the modern graphic design profession.

ARH 492 Greek and Roman Art. (3) A. Prerequisite: ARH 390 and 391 or ART 390 and 391 or departmental approval. Study of the history of the classical Greek and Roman architecture, sculpture, and painting from the beginnings of Greek art to the time of Constantine.

ARH 493 Medieval Art. (3) A. Prerequisite: ARH 390 and 391 or ART 390 and 391 or departmental approval. Development of art in Eastern and Western Europe from 313-1400 A.D.

ARH 496 Nineteenth Century Art. (3) A. Prerequisites: ARH 390 and ARH 391 or ART 390 and 391 or departmental approval. Study of major artistic styles of the century, including neoclassicism, romanticism, realism, impressionism, and post impressionism.

ARH 497 History of Modern Art. (3) A. Prerequisite: ARH 390 and 391 or ART 390 and 391 or departmental approval. A specialized study of art and architecture in Europe and America from the late nineteenth to the late twentieth century.

ARH 498 U.S. Art History. (3) A. Prerequisites: ARH 390 and 391 or departmental approval. An in-depth study of the arts of the United States of America from 1565 to 2000.

ART—Art
Mr. Herb Goodman, Chair

ART 098 Introduction to Visual & Performing Arts. (3) A. An interdisciplinary course in the visual and performing arts, incorporating the study of the relationships between the arts of theater, visual art, and music within their larger cultural context. Students will explore the arts experiences available to them to develop both a personal appreciation and broader understanding of the arts. Meets the KDE Pre-College Curriculum visual and performing arts deficiency, and does not count toward degree credit.

ART 100 Drawing I. (3) I, II, A. Introduction to basic principles and techniques of drawing, emphasizing perceptual skills and the use of value and line.

ART 101 Drawing II. (3) I, II, A. Prerequisite: ART 100. Continuation of ART 100, with an emphasis on the human figure as subject matter. Classroom instruction utilizes draped and undraped (clothed and unclothed) human models.

ART 152 Design, Two-Dimensional. (3) I, II. Introduction to the elements and principles of design as they apply to the two-dimensional surface.

ART 153 Design, Three-Dimensional. (3) I, II. Introduction to the methods, materials, and concepts related to the control of space.

ART 164 Concepts of Art and Design. (3) I, II, A. An introduction for Art & Design majors, providing an understanding of why art is made, how it is evaluated, and the ways in which it relates to society. Includes experience in written and oral analysis of art and design work in terms of media, composition and function.

ART 200 Art Appreciation: Orientation. (3) I, II. Prerequisite: ENG 101 or ENG 105 or HON 105. Introduction to the visual arts and their purposes, emphasis on ways and means available to the artist. Student has opportunity for individual expression through a visual arts medium. Not open to art majors or minors. Gen. Ed. E-3A.

ART 210 Painting I. (3) I, II. Prerequisites: ART 101, 152, 164. Introduction to painting, emphasizing basic painting techniques and concepts, perceptual skills, and the use of color.

ART 220 Sculpture Survey I. (3) I, II. Prerequisites: ART 101, 153, 164. Provides an introduction to basic sculpture problems, approaches, and techniques. Course problems are set in additive, substitutive, and subtractive processes.

ART 230 Printmaking I. (3) I, II. Prerequisites: ART 100, 152, 164. Introduction to basic concepts and techniques of printmaking.

ART 240 Jewelry and Metalsmithing I. (3) I, II. Prerequisites: ART 100, 153, 164. Provides an introduction to metal as an expressive media and acquaints students with various materials, techniques and tools associated with the art form. Students explore piercing, sawing, embossing, soldering, simple stone setting, and casting.

ART 270 Ceramics I. (3) I, II. Prerequisites: ART 100, 153, 164. Introductory experiences with ceramic handbuilding and decorating techniques and materials. Emphasis placed upon the application of clay to design problems involving aesthetic value and procedure in the making of ceramic objects.

ART 280 Photography I. (3) I, II. Prerequisites: ART 100, 152, 164. *Fully Manual Camera Required.* Introduction to basic camera operation, darkroom and lighting techniques, principles and aesthetics of black and white photography.

ART 300 Drawing Media. (3) A. Prerequisite: ART 101. Investigation of various media for drawing, emphasizing experimentation and the development of technical skills in each.

ART 301 Figure Drawing. (3) A. Prerequisite: ART 101. A drawing course aimed at developing an increased understanding of the human figure and its possibilities as subject matter for art.

ART 312 Painting II. (3) I, II. Prerequisite: ART 210 or departmental approval. Continuation of Painting sequence, emphasizing further development of skills and conceptual abilities as they relate to image-making.

ART 313 Painting III. (3) I, II. Prerequisite: ART 312. Intermediate course in painting. Course builds on previous painting courses, providing opportunity to explore contemporary and traditional techniques, media, and subject matter.

ART 314 Painting IV. (3) I, II. Prerequisite: ART 313, Major GPA 3.0 or above and admission to

the BFA program. Intermediate course in painting. Course builds on previous painting courses, providing opportunity to further explore contemporary and traditional techniques, media, and subject matter.

ART 321 Sculpture Survey II. (3) I, II. Prerequisite: ART 220. Continuation of Sculpture sequence, with basic sculptural problems set in foundry, constructive, and mixed-media processes.

ART 322 Intermediate Sculpture I. (3) A. Prerequisite: ART 321. Provides an in-depth exploration of sculptural problems at the intermediate level, developed through projects designed to fit personal interests in foundry processes.

ART 323 Intermediate Sculpture II. (3) A. Prerequisite: ART 321. Provides an in-depth exploration of sculptural problems at the intermediate level, developed through projects designed to fit personal interests in figurative sculpture.

ART 331 Printmaking II. (3) I, II. Prerequisite: ART 230. Continuation of Printmaking sequence, with emphasis on entaglio and relief printmaking processes.

ART 332 Printmaking III. (3) I, II. Prerequisite: ART 331. The student will work in a specific area of printmaking concentration.

ART 333 Printmaking IV. (3) I, II. Prerequisites: ART 332, and admission to the BFA program. The student is free to pursue a program of individual interest. Emphasis placed on creativity and professionalism.

ART 341 Jewelry and Metalsmithing II. (3) I, II. Prerequisite: ART 240. An extension of the introductory course. Advanced study develops students' understanding of metal as an art medium and provides opportunity for personal expression. Students explore raising, sinking, forging, casting, etching, enameling and advanced fabrication.

ART 343 Jewelry and Metalsmithing III. (3) I, II. Prerequisite: ART 341. An advanced course emphasizing continued creative exploration and personal expression with jewelry and metalsmithing. Students explore raising, sinking, forging, casting, etching, enameling and advanced fabrication.

ART 344 Jewelry and Metalsmithing IV. (3) I, II. Prerequisite: ART 343, Major GPA 3.0 or above and admission to the BFA program. An advanced course emphasizing continued creative exploration with jewelry and metalsmithing. Advanced problems develop students' understanding of metal as an art medium and provide opportunity for personal expression. Students explore raising, sinking, forging, casting, etching, enameling and advanced fabrication.

ART 371 Ceramics II. (3) I, II. Prerequisite: ART 270. Introduction into the wheel forming process with clay. Basic formulation of clay and glazes.

ART 372 Ceramics III. (3) I, II. Prerequisite: ART 371. An exploration into the fundamental structural problems of sculptural ceramic forms. Research into various decorating techniques utilizing clay and glaze.

ART 376 Ceramics for Non-Majors. (3) A. Prerequisite: none. Closed to Art majors. An introduction to the craft and art of Ceramics for non-Art majors, providing fundamental experiences with materials, handbuilding, decorating techniques, and firing directed toward both aesthetic and functional problem-solving in the making of ceramic objects. Credit earned may eventually be applied to a major in Art with approval of the Department.

ART 381 Photography II. (3) I, II. Prerequisite: ART 280. Intermediate course in photography. Builds on creative skills and techniques learned in previous photography courses. Students may explore conventional, digital and alternative processes.

ART 382 Photography III. (3) I, II. Prerequisite: ART 381. Intermediate course in photography. Builds on creative skills and techniques learned in previous photography courses. Course may cover traditional, digital or alternative processes.

ART 383 Photography IV. (3) I, II. Prerequisite: ART 382, Major GPA 3.0, and admission to the BFA program. Intermediate course in photography. Builds on creative skills and techniques learned in previous photography courses. Course may cover traditional, digital or alternative processes.

ART 401 Advanced Drawing. (3) A. Prerequisites: ART 300 and 301. Advanced problems in drawing emphasizing personal explorations of media and imagery.

ART 413 Advanced Painting. (3) I, II. Prerequisites: ART 313, 314, Major GPA 3.0, and admission to the painting option of the BFA program. Advanced problems in painting, emphasizing the student's personal expression through imagery and techniques.

ART 414 BFA Painting. (3) I, II. Prerequisites: ART 413, Major GPA 3.0, and admission to the BFA program. Corequisite: ART 499. Final exit course in BFA painting area with emphasis in professional development. Course includes preparation for senior show, writing of senior thesis, and portfolio assembly.

ART 423 Advanced Sculpture. (3) I, II. Prerequisites: ART 322, 323, Major GPA 3.0, and admission to the sculpture option of the BFA program or departmental approval. The students' sculptural abilities are defined and directed at the advanced level, through individually tailored extended projects.

ART 424 BFA Sculpture. (3) I, II. Prerequisites: ART 423, Major GPA 3.0, and admission to the BFA program. Corequisite: ART 499. Final exit course in BFA sculpture area with emphasis on professional development. Course includes preparation for senior show, writing of senior thesis, and portfolio assembly.

ART 432 Printmaking V. (3) I, II. Prerequisites: ART 333, Major GPA 3.0, and admission to the printmaking option of the BFA program. The student is free to pursue a program of individual interest. Emphasis placed on creativity and professionalism.

ART 434 BFA Printmaking. (3) I, II. Prerequisites: ART 432, Major GPA 3.0, and admission to the printmaking option of the BFA program. Corequisite: ART 499. Final exit course in BFA printmaking area with emphasis on professional development. Course includes preparation for senior show, writing of senior thesis, and portfolio assembly.

ART 443 Jewelry and Metalsmithing V. (3) I, II. Prerequisites: ART 344, Major GPA 3.0, and admission to the Jewelry and Metals option of the BFA program. Designed for the advanced student pursuing a career as a professional jeweler/metalsmith. Attention given to developing a personal design philosophy. Students will submit a work proposal for the semester.

ART 444 BFA Jewelry and Metalsmithing. (3) I, II. Prerequisites: ART 443, Major GPA 3.0, and admission to the BFA program. Corequisite: ART 499. Final exit course in BFA jewelry and metalsmithing area with emphasis on professional development. Course includes preparation for senior show, writing of senior thesis, and portfolio assembly.

ART 463 Problems in Art and Design. (1-3) A. Prerequisite: approval of proposal by department. Limited to seniors. Continuation of study begun in regular departmental courses. May be retaken to a maximum of nine hours.

ART 472 Ceramics IV. (3) I, II. Prerequisites: ART 372, Major GPA 3.0, and admission to the BFA program. An exploration into an independent and personal way of working with clay. Various kiln building and firing techniques will be explored.

ART 473 Ceramics V. (3) I, II. Prerequisite: ART 472, Major GPA 3.0, and admission to the ceramics option of the BFA program. Continued independent work in clay as defined and directed through individual projects.

ART 474 BFA Ceramics. (3) I, II. Prerequisites: ART 473, Major GPA 3.0, and admission to the BFA program. Corequisite: ART 499. Final exit course in BFA ceramics area with emphasis on professional development. Course includes preparation for senior show, writing of senior thesis, and portfolio assembly.

ART 483 Photography V. (3) I, II. Prerequisites: ART 383, Major GPA 3.0, and admission to the photography option of the BFA program. Advanced course builds on creative skills and techniques learned in previous photography courses. Stresses development of student initiative/personal expression.

ART 484 BFA Photography. (3) I, II. Prerequisites: ART 483, Major GPA 3.0. Corequisite: ART 499. Culminating experience in art photography serving to crystallize and unify individual expression. The student prepares a portfolio and written statement of personal photographic concerns.

ART 499 Senior Exhibition. (1) I, II. Prerequisite: Major GPA 3.0 and last semester senior in BFA program. Corequisite: ART 414 or 424 or 434 or 444 or 474 or 484 or DES 426 or 454. Organization and presentation of an exhibition of the student's work.

ART 560 Workshop in Art and Design:__ _____. (3) A. Prerequisite: approval of department. Intensive study in a specific phase of the visual arts. Current processes, materials, and theoretical foundation will be considered. May be retaken with different topics to a maximum of nine hours.

ART 562 Seminar in Art Criticism. (3) A. Prerequisites: ARH 390 and 391. Study of various topics and problems which relate to the student's understanding and critical awareness of the visual arts.

ASL—American Sign Language
Dr. Laurence Hayes, Chair

ASL 101 American Sign Language I. (3) I, II. A functional notional approach to learning beginning American Sign Language (ASL). Development of basic knowledge and understanding of conversational ASL and cultural features of the language and community. 3 Lec/1 Lab. Gen. Ed. Block VIII and E-6.

ASL 102 American Sign Language II. (3) I, II. Prerequisite: ASL 101 with a minimum grade of "C" or departmental permission. Continued development of basic knowledge of and understanding of conversational ASL and cultural features of the language and community. 3 Lec/1 Lab. Gen. Ed. Block VIII and E-6.

ASL 201 American Sign Language III. (3) I, II. Prerequisite: ASL 102 with a minimum grade of "C" or departmental permission. Development of intermediate expressive and receptive ASL skills and cultural features of the language and community. 3 Lec/1 Lab.

ASL 202 American Sign Language IV. (3) I, II. Prerequisites: ASL 201 with a minimum grade of "C" or departmental permission. Continued development of intermediate expressive and receptive ASL skills and cultural features of the language and community. 3 Lec/1 Lab. Gen. Ed. VIII.

ASL 210 ASL Fingerspelling & Numbers. (3) I, II. Prerequisite: ASL 201 with a minimum grade of "C" or departmental permission. The course will focus on aspects of receptive and expressive fingerspelling usage, including lexicalized fingerspelling and various numbering systems within ASL.

ASL 225 Introduction to Deaf Studies (3) I, II. Prerequisite: ASL 102 or permission of instructor. Introduces students to the historical, sociological, cultural and political experiences of Deaf people. Provides overview of Deaf people's experiences, images, and issues from a wide variety of disciplinary perspectives. Credit will not be awarded for both ASL 225 and ITP 115.

ASL 301 American Sign Language V. (3) I. Prerequisite: ASL 202 with a minimum grade of "C" or departmental permission. Development of advanced

expressive and receptive ASL skills and cultural features of the language and community. 3 Lec/1 Lab.

ASL 302 American Sign Language VI. (3) II. Prerequisite: ASL 301 with a minimum grade of "C" or departmental permission. Continued development of advanced expressive and receptive ASL skills and cultural features of the language and community. 3 Lec/1 Lab.

ASL 380 Special Topics in Deaf Studies:_____. (1-3) A. Prerequisite: ASL 225(C). For special workshops or topics related to the field of Deaf Studies beyond the scope of regularly offered courses. May be taken to a maximum of 9 hours provided subtitle/topics vary.

ASL 385 Independent Work in Deaf Studies. (1-3) A. Prerequisite: ASL 225(C) and departmental permission. For independent work related to the field of Deaf Studies beyond the scope of regularly offered courses. May be taken to a maximum of 6 hours provided subtitle/topics vary. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

ASL 400 ASL Skills for Interpreters (1) I, II. Prerequisites: Admission to the interpreting, ASL 202, with a minimum grade of "C" or departmental permission. In this course students will continue to develop skills in American Sign Language, specifically focusing on vocabulary development and language usage beneficial for interpreters. Clinical hours required.

ASL 425 Deaf Literature (3) A. Prerequisite: ASL 225(C), 202(C). Cultural and literary analysis of ASL and Deaf-related literature (major works in text, cinema, and video) in contemporary society. Literary style, register, grammatical features, and linguistic expression will be explored in a cultural context.

ASO—Orientation
Dr. John Wade, Dean

ASO 100 Academic Orientation. (1) I. An introduction to the programs of the University and the College. Discussion of how to study, what to consider in choosing a profession, and what career opportunities exist for graduates from the College's programs. Additional topics include University regulations, publications, and support areas. Open to all students during their first two semesters of enrollment at EKU; beyond that open to students with fewer than 30 semester hours earned.

AST—Astronomy
Dr. Jerry Cook, Chair

AST 130 Introductory Astronomy. (3) I, II. Prerequisite: MAT 105 or higher. Elementary survey course; study of Moon, Sun, and eclipses; Solar System; near stars and Milky Way. Non-laboratory. Credit will not be awarded for both AST 130 and AST 135. Gen. Ed. 4B (only when combined with AST 133).

AST 133 Astronomy Transition Lab. (1) I, II. Prerequisite: AST 130 or departmental approval. A transition laboratory that will allow students with credit for AST 130 to gain credit for a laboratory science course that is equivalent to AST 135. 2 Lab. Gen. Ed. E4B [NS].

AST 135 Introductory Astronomy. (3) I, II. Prerequisite: MAT 105 or higher. This course is the same as AST 130 except that a laboratory is offered in place of certain topics. Credit will not be awarded for both AST 135 and AST 130. 2 Lec/2 Lab. Gen. Ed. E-4B.

AST 330 Stars, Blackholes: the Cosmos. (3) A. Prerequisite: MAT 105 or higher and ENG 102 or ENG 105(B) or HON 102. An introductory survey course for non-science majors directed at studying the origin and evolution of the Universe, of galaxies, and of stars as well as of quasars, pulsars, and Black Holes. Non-laboratory. Gen. Ed. VII (NS).

ATR - Athletic Training
Dr. Jack Rutherford, Chair

ATR 100 Introduction to Athletic Training. (1) I. For students who will be applying for admission to the Athletic Training Education Program. Students will receive an introduction to professional organizations and issues, in addition to instruction and assessment of clinical skills necessary for progress to the next athletic training course. 2 Lab hours.

ATR 201 Practicum I. (3) I. Prerequisite: PHE 212 and EMC 102 or EMC 110. Corequisite: ATR 211. This first practicum course provides the student with clinical skill based opportunities within a variety of athletic training settings. Classroom and laboratory sessions are designed to introduce the learner to specific educational competencies and clinical proficiencies. The proficiencies will be practiced and assessed to given specific standards of achievement and linked to courses previously taken.

ATR 202 Practicum II. (3) II. Prerequisite: Athletic Training major and ATR 201. This second practicum course provides the student with clinical skill based opportunities within a variety of athletic training settings. Classroom and laboratory sessions are designed to introduce the learner to specific educational competencies and clinical proficiencies. The proficiencies will be practiced and assessed to given specific standards of achievement and linked to courses previously taken.

ATR 211 Evaluation of Lower Extremity Injuries. (4) I. Prerequisite: acceptance into the professional Athletic Training Education program. Corequisite: ATR 201. Students will learn how to properly evaluate common injuries of the lower extremity and lumbar spine. Classroom and skill laboratory sessions are designed to introduce the learner to proper assessment techniques of the lower extremity and lumbar spine in various athletic training settings. 3 Lec/2 Lab.

ATR 212 Evaluation of Upper Extremity Injuries. (4) II. Prerequisite: ATR 211. Students will learn how to properly evaluate common injuries of the upper extremity, cervical spine, head, and face. Classroom and skill laboratory sessions are designed to introduce the learner to proper assessment techniques of these areas in the various athletic training clinical settings. 3 Lec/2 Lab.

ATR 221 Sport and Exercise Nutrition. (1) A. Prerequisite: ATR 100, PHE 212, and PHE 180. This course will provide an understanding of the theoretical principles and application underlying the use and effectiveness of proper nutritional guidelines to influence the performance and well being of competitive and recreational athletes.

ATR 225 Applied Palpation Anatomy (3) A. Prerequisite: ATR 100 or PHE 212 or permission of the instructor. Provide students with hands on opportunity to locate, explore and compare human body structures through palpation. This course will focus on musculoskeletal, nerve and vascular structures. 3 Lec/1 Lab.

ATR 301 Practicum III. (3) I. Prerequisite: ATR 202. This third practicum course provides the student with clinical skill based opportunities within a variety of athletic training settings. Classroom and laboratory sessions are designed to introduce the learner to specific educational competencies and clinical proficiencies. The proficiencies will be practiced and assessed to given specific standards of achievement and linked to courses previously taken.

ATR 302 Practicum IV. (3) II. Prerequisite: ATR 301. This fourth practicum course provides the student with clinical skill based opportunities within a variety of athletic training settings. Classroom and laboratory sessions are designed to introduce the learner to specific educational competencies and clinical proficiencies. The proficiencies will be practiced and assessed to given specific standards of achievement and linked to courses previously taken.

ATR 311 Therapeutic Modalities. (4) I. Prerequisite: ATR 211. Study and practice related to physical effects, indications, and contraindications of therapeutic modalities. 3 Lec /2 Lab.

ATR 312 Therapeutic Exercise. (4) II. Prerequisite: ATR 311. Study and development of therapeutic exercise programs. Emphasis on understanding the influence of the pathological status of a tissue on its response to various types of activity. 3 Lec/2 Lab.

ATR 322 Therapeutic Interventions. (3) II. Prerequisite: ATR 311. Study of the therapeutic use of drugs in patients, including pharmacokinetics, pharmacodynamics, and routes of administration, in addition to the legal, moral and ethical implications of drug administration by the athletic trainer. Further study will include the principles of psychosocial intervention with respect to injury and rehabilitation.

ATR 398 Pre-Season Practicum in Athletic Training (3). A. Prerequisites: ATR 202, Pre-season clinical experience in athletic training in a university setting, requiring 6-hour daily clinical experiences during pre-season athletic camps at EKU from August 1 Summer until Day before Fall Semester classes start. Credit will not be awarded for both ATR 398 and PHE 398.

ATR 401S Practicum V (3) I. Prerequisite: ATR 302. This fifth practicum course provides the student with clinical skill based opportunities within a variety of athletic training settings. Classroom and laboratory sessions are designed to introduce the learner to specific educational competencies and clinical proficiencies. The proficiencies will be practiced and assessed to given specific standards of achievement and linked to courses previously taken. Includes a minimum of 15 service-learning hours.

ATR 402 Practicum VI. (3) II. Prerequisite: ATR 401. This sixth practicum course provides the student with clinical skill based opportunities within a variety of athletic training settings. Classroom and laboratory sessions are designed to introduce the learner to specific educational competencies and clinical proficiencies. The proficiencies will be practiced and assessed to given specific standards of achievement and linked to courses previously taken.

ATR 411 General Medical. (3) I. Prerequisite: ATR 322. Study of general medical conditions and disabilities.

ATR 412 Organization and Administration. (3) I. Prerequisites: ATR 312 and ATR 322. Study of concepts of health care organization and administration relative to athletic training. The course will include such topics as legal liability, fiscal management, facilities operation, personnel supervision, public relations, and organizational structures.

ATR 421 Senior Seminar. (2) I. Prerequisites: ATR 411 and ATR 412. Integration and application of athletic training clinical skills and knowledge through research and presentation of critical questions and contemporary issues in athletic training.

AVN—Aviation
Mr. Tony Adams, Coordinator

AVN 150 Introduction to Aviation. (3) A. An introductory course specifically designed for students to obtain a broad understanding of the aviation world including varying aspects of space exploration. Includes a study of aviation history and the general aviation environment.

AVN 192 Private Pilot-SEL: Ground. (4) A. Provides aeronautical knowledge and 5 hours flight simulation necessary to prepare student pilots to successfully complete FAA Private Pilot written examination.

AVN 192A Private Pilot-SEL: Flight I. (1) A. Prerequisite or Corequisite: AVN 192 with "C" or better and overall 2.0 GPA. First twenty-five dual and/or solo flight hours leading to FAA private pilot SEL certification using FAAapproved Part 141 flight training syllabus (Lab).

AVN 193A Private Pilot-SEL: Flight II. (1) A. Prerequisite: AVN 192A with "S" grade and overall 2.0 GPA. Second twenty-five dual and/or solo flight hours leading to FAA private pilot SEL certification using FAA-approved Part 141 flight training syllabus.

AVN 194A Private Pilot. (1) A. Prerequisite or Corequisite: AVN 192 with a grade of "C" or better, and an overall GPA of 2.0. This course consists of the dual and solo flight hours and experiences required for the private pilot certification with the Federal Aviation Administration.

AVN 205A Intermediate Supervised Flight I. (1) A. Prerequisites: departmental approval and an overall GPA of 2.0. This course is designed to permit students holding the private pilot license to acquire additional supervised flight time. This course includes approximately 24 flight hours.

AVN 206A Intermediate Supervised Flight II. (1) A. Prerequisites: departmental approval and an overall GPA of 2.0. This course is designed to permit students holding the private pilot license to acquire additional supervised flight time. This course includes approximately 24 flight hours.

AVN 220 Instrument Pilot SEL & MEL: Ground. (4) A. Prerequisite: AVN 192 with "C" or better and overall 2.0 GPA. Provides aeronautical knowledge and 20 hours flight simulation necessary to prepare student pilots to successfully complete the FAA Instrument Pilot written examination. 3 Lec/2 Lab.

AVN 220A Instrument Pilot: Flight. (1) A. Prerequisites: departmental approval and an overall GPA of 2.0. A course designed to permit the student to gain instrument flight training.

AVN 221A Instrument Pilot: Flight I. (1) A. Prerequisite or corequisite: AVN 220 with "C" or better. Prerequisite: 193A with "S" grade, and overall 2.0 GPA. First twenty-five dual flight hours leading to the FAA instrument pilot certification using FAA-approved Part 141 flight training syllabus.

AVN 222A Instrument Pilot: Flight II. (1) A. Prerequisite: AVN 221A with "S" grade and overall 2.0 GPA. Second twenty-five dual flight hours and ten simulator flight hours leading to the FAA instrument pilot certification using FAA-approved Part 141 flight training syllabus.

AVN 229A Advanced Supervised Flight I. (1) A. Prerequisites: departmental approval and an overall GPA of 2.0. This course is designed to provide students flight training and experience for FAA Commercial Pilot License.

AVN 230A Advanced Supervised Flight II. (1) A. Prerequisites: departmental approval and an overall GPA of 2.0. This course is designed to provide students flight training and experience for FAA Commercial Pilot License.

AVN 300 Commercial Pilot-SEL & MEL: Ground. (2) A. Prerequisites: AVN 192 and 220, with "C" or better, 193A and 222A with "S", and overall 2.0 GPA. Provides aeronautical knowledge and 5 hours flight simulation necessary to prepare student pilots to successfully complete FAA Commercial Pilot written examination.

AVN 300A Commercial Pilot: Flight. (1) A. Prerequisites: departmental approval and an overall GPA of 2.0. The course consists of all or part of the dual and solo flight hours required for FAA commercial pilot certification.

AVN 301A Commercial Pilot-SEL: Flight I. (1) A. Prerequisite or corequisite: AVN 300 with "C" or better. Prerequisite: AVN 193A and 222A with "S" grade, and overall 2.0 GPA. First twenty dual flight hours leading to the FAA commercial pilot SEL certification using FAA-approved Part 141 flight training syllabus.

AVN 302A Commercial Pilot-SEL: Flight II. (1) A. Prerequisite: AVN 301A with "S" grade and overall 2.0 GPA. Second twenty solo flight hours leading to the FAA commercial pilot SEL certification using FAA-approved Part 141 flight training syllabus.

AVN 303A Commercial Pilot-SEL: Flight III. (1) A. Prerequisite: AVN 302A with "S" grade and overall 2.0 GPA. Third twenty solo flight hours leading to the FAA commercial pilot SEL certification using FAA-approved Part 141 flight training syllabus.

AVN 304A Commercial Pilot-SEL: Flight IV. (1) A. Prerequisite: AVN 303A with "S" grade and overall 2.0 GPA. Final twenty solo flight hours leading to the FAA commercial pilot SEL certification using FAA-approved Part 141 flight training syllabus.

AVN 305 Multi-Engine Pilot (MEL): Ground. (1) A. Prerequisite: AVN 193A with "S" grade and overall 2.0 GPA. Provides multi-engine aeronautical knowledge and 10 hours MEL flight simulation to facilitate successful completion of multi-engine practical checkride.

AVN 305A Private Pilot—Multi-Engine: Flight. (1) A. Prerequisite or corequisite: AVN 305 with "C" or better. Prerequisite: AVN 193A with "S" Grade and overall 2.0 GPA. Twenty dual flight hours leading to the FAA Multiengine land (MEL) pilot certification using FAA-approved Part 141 flight training syllabus.

AVN 310 Flight Training Analysis I. (4) A. Prerequisite: AVN 300 with a grade of "C" or better. A study of basic information regarding fundamentals of teaching and learning (including effective teaching methods), aerodynamics helpful to flight instruction, and flight instructor responsibilities.

AVN 310A Flight Training Techniques I. (1) A. Prerequisites: departmental approval and an overall GPA of 2.0. Flight training to prepare students for FAA examinations.

AVN 315 Human Factors In Flight Safety. (3) I, II. A presentation and analysis of factors and procedures relating to aviation safety inclusive of techniques for accident prevention, development of safety programs, procedures used in accident investigation, and the human factor.

AVN 320 Flight Training Analysis II. (2) A. Prerequisite: appropriate flight credentials. A study of aeronautical information and instructional background necessary for becoming instrument flight instructors. Included in the course is teaching methodology, instrument interpretations, and instrument flight procedures.

AVN 320A Flight Training Techniques II. (1) A. Prerequisites: departmental approval and an overall GPA of 2.0. Flight training to prepare students for FAA examinations.

AVN 325 Aircraft Systems. (3) I, II. A study of electrical, mechanical and hydraulic systems, design and performance standards, capabilities and limitations, and conformance to FAA specifications.

AVN 331A Commercial Pilot-MEL: Flight I. (1) A. Prerequisite or corequisite: AVN 193A and 222A with "S" grade, AVN 300 with "C" grade or better and overall 2.0 GPA. First twenty dual flight hours leading to the FAA commercial pilot MEL certification using FAA-approved Part 141 flight training syllabus.

AVN 332A Commercial Pilot-MEL: Flight II. (1) A. Prerequisite: AVN 331A with "S" grade and overall 2.0 GPA. Second twenty buddy/PDPIC flight hours leading to the FAA commercial pilot MEL certification using FAA-approved Part 141 flight training syllabus.

AVN 333A Commercial Pilot-MEL: Flight III. (1) A. Prerequisite: AVN 332A with "S" grade and overall 2.0 GPA. Third twenty buddy/PDPIC flight hours leading to the FAA commercial pilot MEL certification using FAA-approved Part 141 flight training syllabus.

AVN 334A Commercial Pilot—MEL: Flight IV. (1) A. Prerequisite: AVN 333A with "S" grade or better and overall 2.0 GPA. Final twenty buddy/PDPIC flight hours leading to the FAA commercial pilot MEL certification using FAA-approved Part 141 flight training syllabus.

AVN 335 Weather Reporting/Analysis. (3) I, II. A comprehensive analysis of weather conditions and patterns as they apply to flight.

AVN 340 Airport Management. (3) I, II. A study of guidelines for aviation management and administrative functions including problems, trends, and planning regarding operation of airports.

AVN 349 Applied Learning in Aviation. (.5-8) A. Prerequisite: coordinator approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. A minimum of 80 hours work required for each academic credit.

AVN 349 A-N Cooperative Study: Aviation. (.5-8) A. Prerequisite: coordinator approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. A minimum of 80 hours work required for each academic credit.

AVN 350 Air Transportation. (3) A. A survey of the historical development of the air transportation system covering facilities, impact of regulations, problems encountered, and future requirements.

AVN 360 Problems In Aviation Administration. (3) I, II. Designed for utilization of aviation industry case studies to introduce the techniques, methods, and procedures for problem solving.

AVN 365 Airline Reservation Systems. (3) A. This course uses lecture and computer simulation to develop student proficiency in operation of reservation systems used by major airlines. The systems are used for passenger booking, hotel reservation, automobile rentals and packaged tours.

AVN 370 Techniques: Aviation Supervisors. (3) I, II. A study of effective personnel management theory through application to practical situations in the aviation industry.

AVN 390 Aviation Administration Decision Making. (3) I, II. A study of decision theory and its application to aviation administration decision-making and problem solving processes.

AVN 400 Multi-Engine Pilot: Ground. (1) A. Prerequisite: appropriate flight credentials. The course is designed to provide appropriate aeronautical knowledge about multi-engine aircraft to facilitate successful completion of the multi-engine flight component.

AVN 400A Multi-Engine Pilot: Flight (1) A. Prerequisites: departmental approval and an overall GPA of 2.0. A one hour laboratory course integrated with AVN 400 consisting of the dual and solo flight hours required for FAA certification.

AVN 401 Airline Management. (3) A. Prerequisite: AVN 350 with a "C" or better. Acquaint student with the development, administrative and operational factors peculiar to FAR Part 121 Airline Operations. Emphasis is placed on proper market analysis, financial matters, the company plan, aircraft selection, aircraft acquisition, route structure, timetable and pertinent regulatory requirements.

AVN 402 Corporate and Business Aviation. (3) A. The study of the operation of a corporate flight department. Course includes the value of management mobility, aircraft and equipment evaluation, maintenance, flight operations, administration and fiscal considerations.

AVN 410 Air Traffic Control. (3) I, II. A study of the national air traffic control system with emphasis on basic air traffic control procedures; the role of centers, approach control, towers, and flight service centers; communications; navigation procedures, radar operations, facilities.

AVN 415 Instructor Pilot-SEL: Ground. (3) A. Prerequisite: AVN 192, AVN 220, and AVN 300 with "C" grade or better and overall 2.0 GPA. Prepares student pilots for the FAA Certified Flight Instructor (CFI) & Fundamentals of Instruction (FOI) written exams.

AVN 415A Instructor Pilot-SEL: Flight. (1) A. Prerequisite: AVN 304A with "S" grade. Prerequisite or corequisite: AVN 415 with C" or higher, and overall 2.0 GPA. Fifteen dual flight hours and 5 hours flight simulation leading to the FAA instructor pilot (SEL) certification using FAA-approved Part 141

flight training syllabus.

AVN 416A Instructor and Commercial Pilot—SEL: Flight. (1) A. Prerequisite: AVN 334A with "S" grade, Prerequisite or corequisite: AVN 415 with a "C" or better, and overall 2.0 GPA. Twenty-five dual flight hours and 5 hours flight simulation leading to the FAA Instructor Pilot (IP) SEL and Commercial Pilot- SEL certifications using FAA-approved Part 141 flight training syllabus.

AVN 420 Flight Training Analysis III. (2) A. Prerequisite: appropriate flight credentials. Principles and methodology of teaching multi- engine flight and includes ground instruction required by the FAA in preparation for a flight instructor multi-engine rating.

AVN 420A Flight Training Techniques III. (1) A. Prerequisites: appropriate flight credentials, AVN 420 with a grade of "C" or better, an overall GPA of 2.0, or coordinator approval. Flight preparation for FAA CFI Multi-Engine flight test.

AVN 421 Instrument and Multi-Engine IP: Ground. (2) A. Prerequisite: AVN 415 with "C" grade or better and overall 2.0 GPA or an Instructor Pilot-SEL rating. Provides study of aeronautical information for becoming instrument and multi-engine flight instructor, and preparation for FAA Instrument Instructor written.

AVN 421A Instrument Instructor-SEL: Flight. (1) A. Prerequisite or corequisite: AVN 421 with "C" or better. Prerequisite: AVN 304A or AVN 334A, and overall 2.0 GPA. Ten dual flight hours and ten flight simulation hours leading to the FAA Instrument Instructor Pilot (IP) SEL rating using FAA-approved Part 141 flight training syllabus.

AVN 422A Commercial and Instructor Pilot—MEL: Flight. (1) A. Prerequisite: AVN 421 and AVN 415 with a "C" or better, AVN 304A and 305A with "S" grade, and overall 2.0 GPA. Twenty-five dual flight hours and five hours flight simulation leading to the FAA commercial multi-engine add-on and multi-engine instructor ratings using FAA-approved Part 141 flight training syllabus.

AVN 423A Instructor Pilot—Multi-Engine: Flight. (1) A. Prerequisite: AVN 421 & AVN 334A with "C" & "S" grades respectively, and overall 2.0 GPA. Ten dual flight hours and ten hours flight simulation leading to the FAA Multi-Engine instructor rating using FAA-approved Part 141 flight training syllabus.

AVN 425 Advanced Aerodynamics. (3) A. Prerequisite: PHY 131. Advanced theories of flight and flight factors as well as advanced principles of performance.

AVN 435 Turbine Aircraft Systems. (2) A. Prerequisite: AVN 325 with a "C" or better or instructor approval. A study of electrical, mechanical and hydraulic systems as they relate to turbine engine aircraft.

AVN 460 Aviation Legislation. (3) I, II. Prerequisite: junior standing (at least 60 hours). A study of civil law as it pertains to aviation and includes the historic development of United States and international aviation law while surveying governmental responsibility for aviation accidents.

AVN 470 National Air Space System. (3) A. An overview of the National Air Space System with emphasis on problems of implementation, safety considerations, and social/economic impact.

AVN 495 Internship. (1-3) A. Prerequisite: departmental approval. Students will work under departmental supervision in a private or public agency engaged in aviation activities.

AVN 498 Independent Study. (1-3) A. Prerequisite: AVN major with senior standing. Student must have the independent study proposal form approved by faculty supervisor and program coordinator prior to enrollment. May be retaken to a maximum of six hours.

BEM—Broadcasting and Electronic Media
Dr. Elizabeth Hansen, Chair

BEM 240 Basic Media Skills. (3) I, II. An examination of the audio, lighting, and web-based skills needed by broadcast professionals in today's integrated media marketplace.

BEM 295 Video Production I. (4) I, II. Training in non-studio video production and editing. Includes applied aesthetics and production of dramatic informational or experimental work on video. Introduction to techniques, styles, and image structure. Requires weekly projects, critiques. 3 Lec/3 Lab.

BEM 300 Performance in Electronic Media. (3) I, II. Prerequisite: BEM 240. Study of the announcer's role in electronic media. Stresses practice in performing areas, including radio and television production, microphone and television camera techniques with an added emphasis on phonetics and pronunciation.

BEM 301 Broadcast Newswriting. (3) I, II. Prerequisites: ENG 101 and 102 (or 105). Study of the elements of news for the electronic media. Includes broadcast newswriting style, development of sources, interviewing, story types and formats, libel and ethics. Practice in gathering, writing and evaluating news for broadcast.

BEM 343 Audio Practicum. (1-3) I, II. Prerequisite: BEM 240. Supervised practical experience on the staff of a radio or other audio facility. May be taken to a maximum of three hours. One hour may be counted toward the major.

BEM 349 Applied Learning in Broadcasting and the Electronic Media. (.5-8) A. Prerequisites: junior standing, "B" average in all courses within the department, and departmental approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen baccalaureate. A minimum of 80 hours work required for each academic credit. One hour may be used to satisfy major requirements within the department.

BEM 349 A-N Cooperative Study: Broadcasting and the Electronic Media. (.5-8) A. Prerequisites: junior standing, "B" average in all courses within the department, and departmental approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen baccalaureate. A minimum of 80 hours work required for each academic credit. One hour may be used to satisfy major requirements within the department.

BEM 350 Cinema History I. (3) A. Prerequisite: ENG 102 or ENG 105(B) or HON 102. Historical survey of cinema from its origins to 1939. Examines developments in directing, acting, editing, and other areas of cinema as an art form. Feature length and short films viewed. Gen. Ed. E-3A. 2 Lec/2 Lab.

BEM 351 Cinema History II. (3) A. Prerequisite: ENG 102 or ENG 105(B) or HON 102. Historical survey from 1939 to present. Includes theories, styles, and critical positions related to the sound film and considers origins and implications for future directions. Feature length and short films viewed. Gen. Ed. E-3A. 2 Lec/2 Lab.

BEM 352 Film Techniques &Technology. (3) I. Prerequisite and/or Corequisite: BEM 350 or 351. The study of various technologies employed in traditional/electronic film production. Emphasis on the study of social, economic, technological and political factors and their effects on the development of cinematic techniques.

BEM 353W The Art and Craft of Screenwriting. (3) A. Conceiving, structuring, writing and marketing the contemporary American screenplay. Requires developing and writing original screenplays for marketing in the contemporary film environment. Credit will not be awarded for both BEM 353W and 353.

BEM 370 Electronic Cinema Production. (4) I, II. Prerequisites: BEM 240, 295, and 352 with a minimum grade of "C". Principles and procedures behind single-camera dramatic productions recorded and edited on videotape. Requires group and individual portfolio projects involving a critical and artistic understanding of sound-image relationships. Includes multi camera production, directing and producing. 3 Lec/3 Lab.

BEM 373 Electronic Cinema Practicum. (1-3) I, II. Prerequisite: BEM 370. Supervised practical experience in film making, editing, and other aspects of film-style production. May be retaken to a maximum of three hours. One hour may be counted toward the major.

BEM 375 Writing for the Electronic Media. (3) I, II. Prerequisites: ENG 101 and 102 (or 105). Examination of the specialized forms of writing for the electronic media. Emphasizes both visual and verbal planning elements as well as practical experience in writing commercial, public service, narrative, and promotional copy.

BEM 395 Video Production II. (4) I, II. Prerequisite: BEM 295. Training on and mastery of advanced production and post production equipment. Requires group and individual portfolio projects involving a critical and artistic understanding of sound-image relationships. Includes multi camera production, directing and producing. 3 Lec/3 Lab.

BEM 398 Electronic Video Practicum. (1-3) I, II. Prerequisite: BEM 295. Supervised practical experience on the staff of a television station or other video facility. May be taken to a maximum of three hours. One hour may be counted toward the major.

BEM 400 Studies in Electronic Media (1-4) A. Prerequisite: departmental approval. Study of specific areas of media through a course examining timely or topical concerns in the field. Specific topic included in schedule. May be retaken to maximum of nine hours.

BEM 401 Broadcast News. (3) A. Prerequisites: BEM 295 and 301. Introduces television news production. Designed to acquaint students with techniques, principles and equipment used in broadcast journalism; emphasizes writing, field reporting and editing; evaluation of commercial station newscasts; individual and team projects.

BEM 402 Advanced Broadcast News. (3) A. Prerequisite: BEM 401. Advanced study in broadcast journalism. Planning, gathering, writing, editing and producing news for television; critical evaluation of broadcast news techniques; individual and team projects.

BEM 425 Electronic Media Operations (3) A. Prerequisite: COM 200 or 200W. Study of the management styles and issues that impact managing, programming and operating a radio/television facility, cable system, or media web enterprise. Includes regulation issues imposed by FCC and other government agencies.

BEM 460 Advanced Film Genre: _____. (3) I, II. Detailed study of the types of motion pictures. Requires independent research, extended analysis, and critical evaluation of films. May be retaken to a maximum of six hours with different course content. 2 Lec/2 Lab.

BEM 491 Senior Seminar. (1) I, II. Prerequisites: completion of 90 hours with at least one hour from BEM 349 or 343 or 398. Evaluates students' progress toward a career in mass communications, especially the development of a portfolio, and develops job search strategies and skills. Includes assessment of instruction and curriculum.

BEM 495 Video Production III. (4) I, II. Prerequisite: BEM 395 or 370. Advanced study of video production and direction, combining studio and field work. Includes writing program proposals, scripts, and shooting schedules. Programs produced outside normal class hours. 3 Lec/3 Lab.

BEM 499 Independent Study in Electronic Media. (1-4) A. Prerequisite: Student must consult with the faculty supervisor and have the independent study proposal form approved by the faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of four hours.

BIO—Biology
Dr. Robert Frederick, Chair

BIO 100 Introductory Biology. (3) I, II. The course will deal with introductory principles of biology that are fundamental to an individual's knowledge as it pertains to the interrelationships of organisms in the natural world. Topics to be addressed: cellular basis of life, metabolism, genetics, biological diversity, reproduction, evolution, ecology, and environmental biology. May not be used to satisfy area, major, or minor requirements. Credit will not be awarded for both BIO 100 and NAT 101. 2 Lec/2 Lab. Gen. Ed. E-4A.

BIO 101 Essentials of Biology. (3) I, II. ONLINE ONLY. Biological principles and applications as relates to life on earth from the molecular to ecosphere scale; current topics in genetics, evolution, ecology, plant and animal diversity, and human biology will be discussed. May not be used to satisfy area, major, or minor requirements. Credit will not be awarded to students with credit in BIO 100,102, 121, or NAT 101. 2 Lec/2 Lab. Gen. Ed. E-4A.

BIO 102 Inquiry Biology for Teachers. (3) I, II. Prerequisite: pre-teaching or teaching elementary and middle school education majors only or departmental approval. An inquiry-based, conceptual-approach biological sciences course for teaching majors. Topics include the nature of science, cell biology, biodiversity, inheritance, ecology and ecosystems, evolution and adaptation. May not be used to satisfy area, major, or minor requirements. Credit will not be awarded to students who have credit for NAT 101 or BIO 100. 2 Lec/2 Lab. Gen. Ed. E-4A.

BIO 111 Cell and Molecular Biology. (4) I, II. An introduction to fundamental principles of cell and molecular biology as they apply to plants, animals, and microbes; the molecular basis of life, cellular structure and function, genetic and molecular biology. Designed for biology majors. Credit will not be awarded for both BIO 111 and BIO 121. 3 Lec/2 Lab. Gen. Ed. E4A [NS]

BIO 112 Ecology and Evolution. (4) I, II. An introduction to the fundamental principles of ecology and evolution: interactions among plants, animals, microbes, and their environment, and the diversification of life through evolutionary processes. Designed for biology majors. 3 Lec/2 Lab. Gen. Ed. E4A [NS]

BIO 171 Human Anatomy. (3) I, II. A study of the basic anatomy of the human body and appropriate correlations with body functions. May not be used to satisfy area, major, or minor requirements. 2 Lec/2 Lab. Gen. Ed. VII (NS).

BIO 215 Insects and Society (3)(A). An introduction to insects and their influence on human society. Impacts of insects on our food supply, homes and health, as well as the influence of insects on culture, world history, and the long-term maintenance of the earth's critical support systems. May not be used to satisfy biology major or minor requirements. Gen. Ed. VII.

BIO 271 Advanced Human Anatomy. (3) II. Prerequisites: BIO 171 and departmental approval. An advanced study of human anatomy. Emphasis is placed on the musculoskeletal and nervous systems and their anatomical and functional relationships. May not be used to satisfy area, major, or minor requirements. 2 Lec/2 Lab.

BIO 273 Clinical Microbiology. (4) I, II. Prerequisite: BIO 171. A study of microorganisms as causative agents in diseases of humans with emphasis on differentiation and culture, types of diseases, modes of transmission, prophylactic, therapeutic and epidemiological considerations. May not be used to satisfy area, major, or minor requirements. Credit will not be awarded for both BIO 273 and CLT 209. 2 Lec/4 Lab. Gen. Ed. VII (NS).

BIO 300 Economic Plants. (3) I, II. Economic consideration of plants as sources of food, medicine, and other products; the origin, domestication, general anatomy and culture of plants; deleterious plants; aspects of aesthetics and effect on society and world events. May not be used to satisfy area, major, or minor requirements, except the biology (teaching) major and minor.

BIO 301 Human Physiology. (3) I, II. Functions of human life processes at the cellular, tissue, and organ-system levels of organization with emphasis on homeostatic mechanisms will be considered in this course. May not be used to satisfy area, major, or minor requirements. Gen. Ed. VII (NS).

BIO 303 Human Heredity and Society. (3) I, II. Inheritance of human traits, including blood groups, sex and sex-related traits, lethal factors, mental capacities, and metabolic disorders; pedigrees, family traits, and population trends. A current background in general biology (BIO 100 or NAT 101) is recommended but not required. May not be used to satisfy area, major, or minor requirements. Gen. Ed. VII (NS).

BIO 304 Birds of Kentucky. (3) A. Popular consideration of birds of the eastern and central United States with emphasis on birds of Kentucky and especially birds of the local area. Field trips required. May not be used to satisfy area, major, or minor requirements. 2 Lec/2 Lab.

BIO 310 Biology of Aging. (3) A. Prerequisite: BIO 100 or NAT 101 or BIO 171 or instructor approval. System by system approach to the biological effects of the aging process on the human body. May not be used to satisfy area, major, or minor requirements in the Department of Biological Sciences. Gen. Ed. VI.

BIO 315 Genetics. (4) I, II. Prerequisite: BIO 111 or 112 or departmental approval. Discussion of Mendelian genetics, molecular genetics, genetic mapping, and population genetics. Emphasis on critical thinking skills and logic through experimental analysis. Laboratory will include experimental manipulation of prokaryotic and eukaryotic organisms. 3 Lec/3 Lab.

BIO 316 Ecology. (4) I, II. Prerequisite: BIO 112. Basic concepts and principles as applied to the study of organisms or groups of organisms in their interrelations to each other and to their environments. 2 Lec/4 Lab.

BIO 317 Conservation of Wildlife Resources. (3) I, II. Introduction to the principles and practices of conservation of plants and animals; requirements and values of wildlife resources; impact of human activities on resources. May not be used to satisfy area, major, or minor requirements. Gen. Ed. VII (NS).

BIO 318 General Botany. (4) I, II. Formerly BIO 131. Prerequisite: BIO 111. Structure and functions of vascular plants; morphology, classification, life histories, ecology and evolution of autotrophs, plantlike protists, and fungi. 3 Lec/3 Lab. Credit will not be awarded for both BIO 318 and 131.

BIO 319 General Zoology. (4) I, II. Formerly BIO 141. Prerequisite: BIO 112. Morphology, physiology, comparative anatomy, development, life history, evolution, and diversity of animals. 3 Lec/3 Lab. Credit will not be awarded for both BIO 319 and 141.

BIO 320 Principles of Microbiology. (4) I, II. Prerequisites: BIO 111 and CHE 112; or departmental approval. A study of bacteria and other microorganisms, their morphology, development and function; techniques of isolation, cultivation and identification; physiology, nutrition, and genetics; role of microbes in medicine, agriculture, and industry. 2 Lec/4 Lab.

BIO 328 Plant Physiology. (4) II. Prerequisites: BIO 318 and CHE 112; or instructor approval. Application of elementary physical and biological principles to the understanding of plant processes involved in the assimilation, metabolism, and regulation of growth and development. 2 Lec/4 Lab.

BIO 331 Cell Biology. (3) I. Prerequisites: BIO 111 and CHE 112. An introduction to the structure and function of plant and animal cells, with emphasis on the structure and function of cell organelles. An overview of molecular techniques used in the study of cellular metabolism.

BIO 335 Plant Systematics. (3) II. Prerequisites: BIO 111, 112, and 318. Identification, classification and phylogeny of vascular plants; principles of taxonomy. 1 Lec/4 Lab.

BIO 340 Marine Biology. (3) II. Prerequisite: instructor approval. To develop an understanding of marine organisms, the course will include an extended field trip to a marine ecosystem and will involve collection, identification, study of the ecology and life histories of marine organisms. 2 Lec/3 Lab.

BIO 342 Comparative Vertebrate Anatomy. (4) I. Prerequisites: BIO 112 and 319. Phylogeny and morphology of the classes of vertebrates. Comparative studies of organs and systems of vertebrate animals based principally on the dogfish, *Necturus*, and cat. 2 Lec/4 Lab.

BIO 348 Animal Physiology. (4) I, II. Prerequisites: BIO 111 and CHE 112. A study of the physical and chemical aspects of mechanisms of function of animals at the organ-system level of organization, in relationship to homeostasis, with appropriate laboratory methodology. 2 Lec/4 Lab.

BIO 349 Applied Learning in Biology. (.5-8) A. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours of employment required for each semester hour of academic credit. May not be used to satisfy area, major, or minor requirements.

BIO 349 A-N Cooperative Study: Biology. (.5-8) A. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours of employment required for each semester hour of academic credit. May not be used to satisfy area, major, or minor requirements.

BIO 371 Neuroanatomy. (3) I, II. Prerequisite: BIO 171 or instructor approval. Anatomy of the nervous system and the relationships to functions of systems of the human body. May not be used to satisfy area, major, or minor requirements in the Department of Biological Sciences. 2 Lec/2 Lab.

BIO 378 Human Physiology Laboratory. (1) I, II. Prerequisite or Corequisite: BIO 301. A series of experiments will be presented which will allow students to demonstrate some of the typical physiological processes of animals as these relate to human physiology. May not be used to satisfy area, major, or minor requirements. 2 Lab. Gen. Ed. 13 with BIO 301.

BIO 380 Wildlife Law & Law Enforcement. (3) A. Discussion of pertinent state and federal wildlife laws and how law enforcement impacts wildlife management.

BIO 381 Principles of Wildlife Management. (3) I. Basic principles of wildlife management and their application to current management issues.

BIO 382W Wildlife Population Analysis. (4) I. Prerequisites: ENG 102 or ENG 105(B) or HON 102, and Wildlife Management major or department approval. Population ecology of vertebrates, with a focus on field methods, analysis of data, and writing techniques applicable to wildlife conservation. Recommend BIO 316 and 381 prior to or concurrent with enrollment. Credit will not be awarded for both BIO 382 and 382W. 2 Lec/4 Lab.

BIO 399 Trends in The Biological Sciences. (1-4) A. Prerequisite: instructor approval. A presentation of selected topics in the biological sciences reflective of new developments and current trends in scientific advancement. May be retaken to a

maximum of six hours. Gen. Ed. 15 or 16.

BIO 489 Field Studies in Wildlife. (1-3) A. Prerequisite: student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. Field studies designed to enhance the student's wildlife management techniques. Required of all wildlife management majors during the junior or senior year. May be retaken to a maximum of three hours.

BIO 490 Biology Seminar. (1) I, II. Prerequisite: junior or senior standing in biology. Students and members of the faculty meet to present, discuss, and exchange ideas on selected topics, based on the scientific literature for the biological sciences.

BIO 495 Evolutionary Application and Theory. (1) I, II. Prerequisite: BIO 315 and junior or senior standing. Discussion of topics relating to evolutionary theory with special emphasis on the impact of evolution in everyday life. This is a course that builds upon evolutionary concepts learned throughout the biology curriculum. 2 Lab.

BIO 511 Experimental Approaches in Molecular Biology. (3) I. Prerequisite: BIO 111. Laboratory experience-based course in molecular biology techniques. Subject will be introduced in a lecture setting and practical laboratory training. Techniques will include PCR-based methodologies; immunological approaches; basic protein and nucleic acid manipulations. 1 Lec/4 Lab.

BIO 514 Evolution. (3) I, II. Prerequisites: BIO 112 and 315 or departmental approval. A study of Darwinism, the history of life in the context of contemporary biology, and the evidences and mechanisms of evolutionary change, with particular emphasis on human evolution and the challenges of teaching and understanding evolution in modern society.

BIO 521 Plant Ecology. (4) A. Prerequisites: BIO 316, and 318, or 335 or departmental approval. Ecological concepts and principles relevant to eastern terrestrial ecosystems. Required weekend field trips and an extended field trip in the region. 2 Lec/4 Lab.

BIO 522 Grasses and Grasslands. (3) I. Prerequisite: instructor approval. Development and composition of grasslands; phylogeny, classification, and identification of grasses. Emphasis on North American grasses and grasslands with field trips to native and managed grasslands. 1 Lec/4 Lab.

BIO 525 Aquatic and Wetland Plants. (3) A. Prerequisites: BIO 111, 112, and 318. Collection, systematics, distribution, ecology, and reproduction of aquatic and wetland vascular plants. 1 Lec/4 Lab.

BIO 527 Immunology. (3) A. Prerequisites: BIO 320 and CHE 361; or instructor approval. Characteristics of immune reactions at the molecular level and *in vivo*. Nature and interactions of antigens and antibodies, and allergic phenomena. 2 Lec/3 Lab.

BIO 528 Virology. (3) A. Prerequisite: BIO 320. Fundamentals of classification, structure, and pathogenesis of viruses. Host-virus interactions and their applications to medicine and industry. Viral related areas of immunology, cell culture procedures, and applications will be introduced. 2 Lec/3 Lab.

BIO 529 Microbiology in Everyday Life. (3) I, II. Prerequisite: BIO 100, 102, 111, 112 or departmental approval. Microbes in medicine, agriculture, and industry; emphasis on teaching microbiology in the classroom. Course open only to Biology-Teaching or Education majors.

BIO 530 Microbial Physiology and Genetics. (3) A. Prerequisites: BIO 315, 320, and CHE 361; or instructor approval. A study of microbial genetics, metabolism, nutrition, and the effects of chemical and physical environments upon microorganisms in their habitats, with emphasis upon microbes of economic, human, and industrial importance.

BIO 531 Principles of Molecular Biology I. (4) A. Prerequisites: BIO 315, CHE 361, and 366; or instructor approval. An in-depth study of the structure, function, and biochemistry of nucleic acids and proteins. Laboratory experiences will involve manipulations of DNA and protein molecules for the purpose of isolation, purification, and structural modification. 2 Lec/4 Lab. Credit will not be awarded for both BIO 531 and 531S.

BIO 531S Principles of Molecular Biology I. (4) A. Prerequisites: BIO 315, CHE 361, and 366; or departmental approval. An in-depth study of the structure, function, and biochemistry of nucleic acids and proteins enhanced with a service-learning component. Laboratory experiences will involve manipulations of DNA and protein molecules for the purpose of isolation, purification, and structural modification. Credit will not be awarded for both BIO 531S and BIO 531. 2 Lec/4 Lab.

BIO 532 Conservation Biology. (3) L. Prerequisite: BIO 316 or instructor approval. Examination of principles and practices of conserving global biological diversity. Causes, consequences and rates of extinction. Application of philosophical, biological, sociological, and legal principles to the conservation of genes, species and ecosystems.

BIO 533 Bioinformatics: Principles and Applications. (3) II. Prerequisite: BIO 315. An exposure to the theory and practice of bioinformatics, as they relate to laboratory (Cell and Molecular Biology, Biochemistry) and field (Evolutionary and Population Biology) research applications in the life sciences. Discussion and utilization of the prevalent approaches and methodologies currently used in Bioinformatics.

BIO 535 Pathogenic Microbiology. (4) A. Prerequisite: BIO 320 or departmental approval. Studies in the field of advanced clinical microbiology with emphasis on morphology, cultivation, biochemistry, and serological identification of bacterial diseases; aspects of pathogenesis, epidemiology, and control measures of bacterial and mycotic diseases. 2 Lec/4 Lab.

BIO 536 Dendrology. (3) I. Prerequisite: BIO 111, 112, and 318 or departmental approval. Woody plant taxonomy with emphasis on field identification of trees and shrubs in summer and winter conditions; habitats and distributions; economic importance; forest regions of North America. 1 Lec/4 Lab.

BIO 542 Freshwater Invertebrates. (3) A. Prerequisites: BIO 112 and 319 or departmental approval. Collection, systematics, distribution, behavior, ecology, and life histories of freshwater invertebrates. 2 Lec/3 Lab.

BIO 546 Histology. (4) II. Prerequisite: BIO 111. Microscopic anatomy of normal vertebrate cells, tissues, and organs. 2 Lec/4 Lab.

BIO 547 Comparative Vertebrate Embryology. (4) II. Prerequisite: BIO 111. Gametogenesis, fertilization, morphogenesis, and organogenesis of the frog, bird, and mammal. Particular emphasis is placed on mammalian development. 2 Lec/4 Lab.

BIO 550 Animal Behavior. (4) A. Prerequisites: BIO 111 and 112. Advanced study of behavior with emphasis on inherited behavioral patterns in relation to the evolution and ecology of animals. 3 Lec/2 Lab.

BIO 552 Hormones and Behavior (3) A. Prerequisites: BIO 111 and 112. Provide an understanding of modern-day issues in endocrinology by exploring the effects of hormones on behavior within all taxa.

BIO 553 Mammalogy. (3) A. Classification, natural history, field methods, and distribution of mammals. 1 Lec/4 Lab. BIO 316 or 342 recommended prior to enrollment.

BIO 554 Ornithology. (3) A. Prerequisite: BIO 111 and 112 or departmental approval. Avian biology with emphasis on field identification of local avifauna, anatomy, physiology, ecology, evolution, migration, economic importance, distribution, and behavioral patterns. Early morning field trips required. 2 Lec/4 Lab.

BIO 555 Behavioral Ecology. (3) A. Prerequisite: BIO 316 or instructor approval. How behavior is influenced by natural selection in relation to ecological conditions. Emphasis on quantitative and experimental methods and on integrating theoretical ideas with field and laboratory evidence.

BIO 556 Herpetology. (3) A. Prerequisite: BIO 112 and 319 or departmental approval. Natural history of the amphibians and reptiles including taxonomy, general ecology, behavior, distribution, breeding, and food habits. 2 Lec/3 Lab.

BIO 557 Ichthyology. (3) A. Prerequisite: BIO 112 and 319. A phylogenetic examination of morphological, ecological, and behavioral diversification of fishes of the world, with special attention to the Appalachian fauna. Laboratory devoted to anatomy, identification, and reproductive strategies. 2 Lec/4 Lab.

BIO 558 Freshwater Ecology. (3) A. Prerequisite: BIO 316 or instructor approval. Ecology of lakes and streams with special reference to physical, chemical, and biological factors. To include a variety of methods and instruments. 2 Lec/3 Lab-Disc.

BIO 561 Fisheries Biology. (3) A. Prerequisites: BIO 112 and 316. Methods for assessment and analysis of fish populations and aquatic habitats, including age and growth, fecundity, food habits, and yield. Emphasis on economic and ecological importance of management decisions. 2 Lec/4 Lab.

BIO 584 Upland Wildlife Management. (4) A. Prerequisite: BIO 381 or departmental approval. Ecological principles and management strategies to preserve and enhance forest and grassland wildlife and their habitats.

BIO 585 Wildlife Resource Policy and Administration. (3) A. Discussion of state, regional, national, and international policies and agencies which impact management of wildlife resources; with emphasis in North America. BIO 381 recommended prior to enrollment.

BIO 586 Wetland Wildlife Management. (4) II. Ecology and management of migratory and resident wetland wildlife populations and their habitats, with a focus on waterfowl. Recommend BIO 316 and 381 prior to enrollment. 2 Lec/4 Lab.

BIO 587 Urban Wildlife Management. (3) A. The strategies employed to manage urban wildlife and prevent/control animal damage in North America will be discussed.

BIO 598 Special Problems. (1-3) I, II. Prerequisites: junior or senior standing; students must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. Independent research in the biological sciences, under the guidance of a faculty member, which allows students to design a research problem and make experimental observations and conclusions. May be retaken to a maximum of four hours.

BIO 599 Topics in Biological Sciences. (1-6) A. Prerequisites: BIO 111 and 112 and departmental approval. Special topics in the biological sciences of current interest to faculty and students will be presented through lecture, discussion, and reports. May be retaken to a maximum of six hours.

BTO—Business and Technology Orientation
Dr. Robert Rogow, Dean

BTO 100 Academic Orientation. (1) I, II. Designed to orient the student to university academic life and afford background for career choice and preparation. Included are University regulations and calendar, catalog details, registration, various career opportunities, and program requirements. Open to all students during their first two semesters of enrollment at EKU; beyond that open to students with fewer than 30 semester hours earned. (1 Lec/1 Lab for School of Business Majors Only.)

BTS—Business and Technology Seminar
Dr. Robert Rogow, Dean

BTS 300 Professional Skills Seminar. (0) I, II. Required of all Business and Technology students who have earned at least 60 hours. Credit (CR) will be given when students have attended and/or completed department-sponsored activities regarding professional skills and careers.

BTS 400 College to Careers Seminar. (0) II. Prerequisite: AGR 305 or BTS 300. Required of all Business and Technology students who have earned at least 90 hours. Credit (CR) will be given when students have attended the annual College of Business and Technology's Student Success: College to Careers Conference.

CAH—Arts and Sciences Interdisciplinary
Dr. John Wade, Dean

CAH 515 Topics in Humanities:_____. (1-3) A. An experimental course designed to investigate relevant topics in Arts and Humanities.

CCT—Corporate Communication and Technology
Dr. Lana Carnes, Chair

CCT 101 Entrepreneurship. (3) I, II. An introduction of entrepreneurship in the global economy. The processes of creating and launching a new business based on the economic environment, types of business ownership, and the functions of business. For pre-business, business, and non-business majors.

CCT 106 Electronic Data Input. (1) I, II. Development of basic touch keyboarding skills for using computers; introduction to formatting memorandums and letters. Students who have basic keyboarding skills may be able to test out of this course.

CCT 200 Word Processing Applications. (3) A. Development of basic word processing skills using computers. Emphasis on document building, text editing, formatting, saving and retrieving files, search, replace, and the columns feature.

CCT 201 Professional Communication. (3) I, II. Prerequisites: ENG 101 and 102 (or 105). Principles and practices of modern professional communication; various types of professional letters and reports are studied; emphasis on writing letters and reports.

CCT 250 Integrated Office Software. (3) A. Prerequisite: CSC 104 or CIS 212. Introduction to integrated office software applications.

CCT 280 Office Procedures and Administration. (3) A. Procedures, technologies, human relations, and services of modern, dynamic offices.

CCT 290 Office Systems Applications. (3) I, II. Prerequisite: CCT 250 or CIS 212 or CSC 104. Emphasis on advanced applications of integrated office software as productivity tools.

CCT 300W Managerial Reports. (3) I, II. Prerequisites: ENG 101 and 102 (or 105), ACC 201, 202 and ECO 230 with a grade of "C" or better in each course; Junior Standing (A minimum of 60 hours) with an overall minimum 2.0 GPA. A writing intensive study of applications of communication theory, research methods, and information technology to communication within organizations. Includes common communication tasks faced by managers; communication task and audience analysis; collecting, organizing, analyzing, and interpreting data. Emphasizes written and oral reporting.

CCT 302 Desktop Publishing for the Business Office. (3) I, II. Prerequisite: CCT 200 or 250 or CIS 212. Development of business document design techniques using Windows and desktop publishing.

CCT 303 Office Systems Management and Support. (3) A. Prerequisite: CCT 200 or 250 or CIS 212 or CSC 104. Provides opportunities for students to study, understand, and experience a wide range of activities appropriate for modern office operations. Refinement and application of skills and knowledge for effective and efficient management of office systems and technology.

CCT 304S Applied Entrepreneurship and Service Learning. (3) A. Provides entrepreneurship opportunities for students to apply skills and knowledge for integration of new business development, aid to existing businesses, and service learning strategies for the EKU region.

CCT 310 International Business Communication. (3) A. Prerequisites: ENG 101 and 102 (or 105). Characteristics of cultural differences that alter communication symbols and meanings for international business activity. Topics include culture profiles and conducting business, business protocol, international documents/U.S. documents, negotiation strategies, and oral presentations to intercultural business audiences.

CCT 349 Applied Learning in Corporate Communication and Technology. (.5-8) A. Prerequisites: minimum GPA of 2.25 and 30 hours for associate degree, 60 hours for baccalaureate degree. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work for each credit hour. Three hours required in Office Systems Technology. Three hours may be used as an upper division business elective in the undergraduate program. May be repeated up to 8 credit hours for the associate degree and 16 credit hours for undergraduate program.

CCT 349 A-N Cooperative Study: Corporate Communication and Technology. (.5-8) A. Prerequisites: minimum GPA of 2.25 and 30 hours for associate degree, 60 hours for baccalaureate degree. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work for each credit hour. Three hours required in Office Systems Technology. Three hours may be used as an upper division business elective in the undergraduate program. May be repeated up to 8 credit hours for the associate degree and 16 credit hours for undergraduate program.

CCT 490 Special Problems in Corporate Communication and Technology. (1-4) A. May be retaken under different sub-topics to a cumulative maximum of six hours. Independent work, special topics, or seminars. Students must have the independent study proposal form approved by department chair prior to enrollment.

CCT 520 Corporate Training. (3) A. Prerequisite: 90 credit hours completed. This course applies theories of learning and instructional development to office systems employee education and skills training. Topics include instructional design; strategy; technology; and the implementation, evaluation, and management of training in an organizational environment.

CCT 550 Integrated Corporate Communication. (3) A. Prerequisite: senior or graduate standing. Examines effective integrated communication skills to achieve organizational objectives. Emphasizes analysis and application of communication process and strategies for managerial decision-making. Examines change process, corporate culture, and negotiation issues. Provides corporate training component.

CCT 570 Web Design for Offices. (3) A. Prerequisites: CCT 250 or CIS 212 or CSC 104. Advanced development of business document design techniques with an emphasis on web design and multi-media resources. Geared for education, small offices or businesses, personal use, and not-for-profit organizations.

CCT 580 Office Technology Seminar. (3) A. Prerequisites: CCT 250 or CSC 104 or CIS 212 and CCT 300W or CCT 201, 90 credit hours completed. This capstone course requires synthesis and applications of concepts related to current office systems topics.

CDF—Child and Family Studies
Dr. Diane Leggett, Chair

CDF 132 Introduction to the Family. (3) I, II. Cross listed as WGS 132. Ecological and systems approach applied to public and private family concepts; historical changes and current status; relationships among individuals, families, consumers, and communities; status of women, men, children and the elderly; public policy related to changes in the family. Credit will not be awarded for both CDF 132 and WGS 132.

CDF 147 Role of EC Educator. (2) I, II. An introduction to the profession: Exploration of the qualities, expectations, and responsibilities of an EC professional. Relationships among early learning standards, interdisciplinary fields, professional organizations, & philosophical approaches. Requires 5 hours of field experience.

CDF 210 Special Topics in Early Childhood Education: _____. (1-3) A. Selected topics in child development and early childhood program planning. May be retaken to a maximum of six hours provided topics vary.

CDF 232 Identity and Sexuality. (3) I, II. Cross listed as WGS 232. An exploration of the changing attitudes about and among men/women and their effect on choices and interpersonal relationships. Emphasis will be on promotion and maintenance of positive mental, physical, emotional, and sexual development. Credit will not be awarded for both CDF 232 and HEA 375 or WGS 232.

CDF 235 Child Development: Conception-Eight Years. (3) I, II. Developmental characteristics and theory pertinent to children conception to age eight. Special emphasis on early childhood theoretical frameworks.

CDF 236 Interaction and Guidance. (3) I, II. Overview of guidance strategies in fostering children's social competency within group or individually. Adults' role in various interactions (e.g. parent-child, teacher-child) and resources for working with families/parents (e.g. parent education workshop) will be explored.

CDF 243 Introduction to Family Life Programs. (3) A. Prerequisite or Corequisite: CDF 132. Examination of programs which focus on forming partnerships with families through the public, private, and nonprofit sectors to support family and individual well-being. Career development and opportunities explored.

CDF 246 Creative Activities and Materials for Young Children. (3) I, II. Prerequisite: CDF 235 or department approval. Survey of learning experiences in various curriculum areas. Planning activities, including techniques and materials, to provide environment appropriate to the age and background of young children for the individual child based on age, ability, culture and ethnicity.

CDF 299 Case Study: Observational Assessment. (1) A. Survey of observational methods applied to individual studies. Open to transfer students only.

CDF 310 Observation and Assessment in ECE. (3), I, II. Prerequisite: CDF 235. Corequisite: CDF 349. Authentic assessment approaches through observation of children in natural environments. Intentional planning and implementation of Developmentally Appropriate Practice in EC settings. Special emphasis on linking assessment to the EC curriculum.

CDF 327S Family Involvement with Young Children. (3) I, II. Prerequisites: CDF 235 or CDF 241 and 244, 236, and 246 or CDF 345 or departmental approval. Study of effective relationships with families. Methods and materials useful in fostering family life education, including adult learning principles. Experiences include implementing family service plans, planning discussion groups, conducting home

visits, and parent-teacher conferences. Includes 15 service learning hours.

CDF 331 Marriage and Intimate Relationships. (3) I. Cross listed as WGS 331. The process within and types of intimate relationships in contemporary times. Topics include singlehood, partner selection, marriage, divorce, remarriage, long-term enduring marriage, and factors which affect the success of intimate relationships. Credit will not be awarded for both CDF 331 and WGS 331.

CDF 342 Child and Adolescent Development. (3) II. Study of U.S. youth, utilizing systems theory and a life-course perspective approach. Effects of economic, social, and technological change on policies and programs affecting youth of diverse backgrounds.

CDF 346 Play-Based Assessment for Early Childhood Program Planning. (3) II. Prerequisites: CDF 343 and 344; or department approval. Overview of play-based assessment and examination of tools emphasizing a transdisciplinary approach. Use of information collected from screening and arena-based assessment for program planning in center and home based settings.

CDF 349 Applied Learning in Child Development. (.5-8) A. Prerequisite: department approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours work required for each academic credit. Maximum of three hours may be counted in major requirements toward degree.

CDF 349 A-N Cooperative Study: Child Development. (.5-8) A. Prerequisite: department approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours work required for each academic credit. Maximum of three hours may be counted in major requirements toward degree.

CDF 351 Practicum for Early Childhood Practitioners. (3) A. Prerequisites: department approval, 2.5 cumulative GPA, minimum grade of "C" in all courses with "CDF" prefix. Enrollment limited to students who have earned a Child Development Associate credential with college credit. Teaching experience in early childhood programs emphasizing emergent curriculum, documentation, project work, and family involvement. Meetings for collaborative planning/preparation.

CDF 363 Early Childhood Literacy (3) I, II. Prerequisite: Admission to Child & Family Studies or department Approval. An exploration of the emergent literacy development of young children within the language-rich context of play. Emphasis on state and national language arts standards, 2nd language learners, literacy assessment, resources for literacy instruction. Course material presented within theoretical context.

CDF 399 Early Childhood Practicum. (3-6) III. Prerequisites: Admission to Child and Family Studies or departmental approval. Corequisite CDF 349. Supervised practicum experience in programs serving young children & families. Focus on organizations at the public, private and non-profit sectors. Open to A.A.S. and B.S. child development students only. Minimum of 100 hours of field experience.

CDF 405 Program Planning for Infants and Toddlers. (3) I, II. Formerly CDF 344. Prerequisite: Admission to Child and Family Studies or department approval. Corequisite CDF 349. Planning, implementation, and evaluation of developmentally and culturally appropriate environments for infants and toddlers. Emphasis is placed on the caregiver-infant relationship, intentional teaching and curriculum/program assessment, laboratory and field experiences, and environmental adaptations for special needs. Credit will not be awarded for both CDF 344 and 405.

CDF 406 Program Planning for Preschool Children. (3) I, II. Formerly CDF 343. Prerequisites: Admission to Child and Family Studies or department approval. Corequisite: CDF 349. Planning, implementation, and evaluation of developmentally and culturally appropriate environment for preschool children. Emphasis on intentional teaching, curriculum/program assessment, inquiry learning, documentation, project work, collaborative work with families/colleagues/community, and various programs (e.g. Montessori, Head Start, HighScope). Credit will not be awarded for both CDF 406 and 343.

CDF 424 Diversity Awareness for Professional Practice. (3) II. Prerequisite: junior standing. Professionals working with individuals and families today must develop cultural competency. With a focus on sensitivity and respect, this course provides an overview of diversity in society, including race, gender, socioeconomic status, sexual orientation, religion, and other forms of diversity.

CDF 437 Family Stress and Resilience. (3) I, II. Prerequisite: CDF 132 or department approval. Study of stressors which may affect the quality of family life and resiliency factors which families and individuals employ to cope effectively with these stressors. Current research and models of family stress and resilience are studied.

CDF 441 Family Dynamics in Adulthood and Aging. (3) A. Individual and familial development from young adulthood though death. Particular focus on changing family roles as members age. Emphasis on social changes affecting life satisfaction, living environments, and social relations of the middle-aged and elderly.

CDF 443 Family Studies Practicum. (9) A. Prerequisites: CDF 132, 243, and 247 or 327 or 327S; 3.0 GPA in major, and minimum of "C" in all courses with a CDF prefix; senior standing. Supervised practicum experience in family life education, family resources and community-based programs serving individuals and families in the public, private, and nonprofit sectors.

CDF 449 Special Problems in Child Development. (1-3) A. Prerequisites: department approval and a 3.0 GPA (major). May be retaken to a maximum of six hours provided topics vary. The student chooses a problem and works under the supervision of the instructor. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

CDF 450 Early Childhood Practicum. (9) I, II. Prerequisites: CDF 247 or 327 or 327S, 248 or 343 or 406 and 246 or 345, 3.0 GPA in major requirements, and minimum grade of "C" in all courses with a CDF prefix. Practicum focusing on designing and equipping the environment, implementing learning experiences, developing strategies for guiding young children, and arranging effective communication for family involvement. Meetings for collaborative planning and reflective discussion to make program decisions.

CDF 499 Supervised Teaching IECE. (12) I, II. Prerequisites: completion of all major courses, supporting courses, special education minor, and professional courses. Practice teaching in programs for children ages birth through five years focusing on organizing environments for learning, planning and implementing developmentally appropriate curricula, selecting and implementing guidance strategies, assessing individual strengths and concerns of children and their families and colleagues for the benefit of children.

CDF 501 Prenatal and Infant Development. (3) I, II, A. Growth and development from conception to three years. In-depth study of theories and issues related to development during the first three years and before birth. Impact of family, education, and community will be explored.

CDF 538 Research Analysis in Child and Family Studies. (3) I. Prerequisites: CDF 235 and six hours in CDF; or department approval. Students will acquire the skills required to read and evaluate professional research literature in child and family studies by examining current studies. Students will also compare and contrast the treatment of current issues in their field in both popular and professional writing.

CDF 541 Infant-Toddler Development and Group Care. (3) A. Growth and development from conception to three years. Emphasis on family intervention, appropriate policies and practices for group care, assessment, disabilities, multicultural and gender issues, and caregiver professional growth.

CDF 544 Early Childhood Development and Program Planning. (3) A. Theory pertinent to early childhood development and learning including constructivism, socially-mediated intelligence, multiple intelligences and creativity. Emphasis on emergent curriculum and teaching strategies reflecting social collaboration such as webbing, project work, and multimedia documentation.

CDF 547 Organization and Administration of Early Childhood Programs. (3) I. Prerequisites: CDF 327 or 247, 343, or 406 or 248, and 344 or 405 or department approval. Review of the theories influencing the definition of goals, philosophies and rationales for establishment of early childhood programs (0-5), study of the procedures for organizing early childhood programs, and discussion of the management processes for administering quality early childhood programs.

CDF 550 Child and Family Studies Topics: _____. (1-3) A. Study of various topics in child and family studies selected to meet student needs and interests. May be retaken to a maximum of six hours provided topics vary.

CDS—Communication Disorders and Sciences
Dr. Debbie Haydon, Chair

CDS 090 Speech-Language Laboratory. (3) A. Clinical approach to communication problem(s). Instruction in proper use of speech mechanism. Individualized remediation of articulation, fluency, language, and/or voice problems. Concurrent enrollment in Speech-Language-Hearing Clinic may be required. Institutional credit; cannot be used toward graduation.

CDS 250 Phonetics. (3) I. Prerequisite: admission to CDS program. Study of the articulatory postures and movements used to produce standard English and defective sounds. Introduction of the International Phonetic Alphabet and practice in using it to transcribe both normal and defective speech.

CDS 273 Observation in Communication Disorders. (1) II. Prerequisite: admission to CDS program. Supervised clinical observation of therapy and/or diagnostic services for individuals with communication disorders. Instruction in report writing and observing in various settings. Students must complete 25 clock hours of observation by the end of this semester.

CDS 275 Introduction to Communication Disorders. (3) I. Introduction to the nature and causes of speech, language, and hearing disorders. An overview of the field of communication disorders and sciences.

CDS 285 Anatomy and Physiology of Speech and Hearing Mechanism. (3) I. Prerequisite: admission to CDS program. Introduction to the anatomical and physiological bases of hearing, respiration, phonation, resonation, and articulation.

CDS 360 Normal Speech and Language Development. (3) II. Normal speech and language acquisition from birth through the developmental years; basic linguistic concepts and theories; language differences.

CDS 365 Language Disorders: Assessment. (3) I. Prerequisite: admission to the CDS program. Prerequisite/Corequisite: CDS 360. Methods of assessing language content/form/use. Assessment techniques will include standardized tests, language sampling and analysis, and observational techniques and scales.

CDS 372 Methods and Materials in Communication Disorders. (3) II. Prerequisite: admission to the CDS program. Overview of scope of practice and credentials for service delivery; management of therapy sessions; clinical policies and procedures; Code of Ethics; precautions for infectious disease control; development of therapy materials and oral mechanism examination kit.

CDS 373 Articulation and Phonology Disorders. (3) II. Prerequisite: admission to the CDS program. Characteristics of articulation and phonological problems. Principles of identification and treatment.

CDS 374 Practicum in Speech Pathology. (3) I. Prerequisites: 25 hours of observation in communication disorders and sciences, CDS 372 and 373, and overall 3.0 GPA, or Clinic Director approval. Supervised clinical practicum in communication disorders services. May be retaken to a maximum of six credit hours.

CDS 380 Introduction to Clinical Audiology. (3) I. Prerequisite: admission to CDS program. Physics of sound, anatomy & physiology of hearing, auditory pathologies, and introduction of basic audiological assessment.

CDS 464 Language Disorders: Intervention. (3) II. Prerequisites: CDS 360 and 365. Study of language impairment in children and principles for remediation.

CDS 465 Disorders of Fluency. (3) I. Prerequisite: admission to the CDS program. Lectures and selected readings in the theoretical, etiological, and developmental views of assessment and management of stuttering problems in children.

CDS 474 Advanced Practicum in Speech Pathology. (3) II. Prerequisites: Overall 3.0 GPA and CDS 374, or Clinic Director approval. Advanced supervised clinical practice in communication disorders services. May be retaken to a maximum of six credit hours.

CDS 475 Voice Disorders. (3) I. Prerequisite: admission to the CDS program. Lectures and selected readings in etiological perspectives of functional and organic voices disorders; assessment, classification, and treatment designs for vocal pathologies in children.

CDS 485 Audiologic Evaluation. (3) II. Prerequisite: CDS 380. Fundamentals of audiometric assessment, immitance measurement, and electrophysiology via lecture and integrated lab simulations. Techniques for audiometric data collection, interpretation, and reporting. Lec/Lab.

CDS 487 Aural Rehabilitation. (3) I. Prerequisite: CDS 485. Fundamentals of aural habilitation/rehabilitation in the form of amplification (hearing aids, cochlear implants, assistive listening devices), speech reading, auditory-visual-kinesthetic perception, pediatric rehab techniques, educational management, counseling.

CDS 488 Practicum in Audiology. (1) I, II. Prerequisites: Overall 3.0 GPA or Clinic Director approval. Supervised clinical practice in audiology. May be retaken to a maximum of two credit hours.

CDS 520 Augmentative and Alternative Communication Systems. (3) A. An overview of various approaches to aided non-oral systems of communication. Various devices and symbol systems will be discussed.

CDS 541 School Services in Communication Disorders. (3) II. Prerequisites: admission to professional education, overall 2.8 GPA, and admission to CDS program; or instructor approval. Organization and management of speech-language therapy services in the schools. Lec/Lab.

CDS 571 Neural Bases of Communication. (3) I. Prerequisites: admission to the CDS program or instructor approval. A study of neuroanatomic and neurophysiologic bases of communication including developmental issues and neurologic deficits resulting in communication disorders.

CDS 572 Speech & Hearing Science. (3) II. Study of the physics of sound, acoustic characteristics and processes, perceptual correlates, production of speech, and psychophysical processes of communication.

CHE—Chemistry
Dr. Lori Wilson, Chair

CHE 100 Inquiry Chemistry for Teachers. (3) A. Prerequisite: completion of all developmental requirements; pre-teaching or teaching elementary and middle school education majors only. Activity-oriented chemistry; elements, molecules, solutions, acids and bases, reactions, energy and environmental topics. Credit will not be awarded to students who have credit for CHE 101 or CHE 105 or CHE 111. 2 Lec/2 Lab. Gen. Ed. E-4B [NS].

CHE 101 Introductory Chemistry I (3) I, II. Prerequisite: completion of all developmental requirements. Prerequisite or Corequisite: CHE 101L and MAT 098 or higher. For students who plan to take no more than one year of chemistry. Basic principles of structure and properties of matter, chemical nomenclature and reactivity. Relates chemistry concepts to everyday life phenomena. A withdrawal from CHE 101 must be matched by a withdrawal from CHE 101L. Gen. Ed. E-4B with CHE 101L.

CHE 101L Introductory Chemistry Lab I. (1) I, II. Prerequisite: completion of all developmental requirements. Prerequisite or Corequisite: CHE 101 and MAT 098 or higher. Laboratory component of CHE 101. Basic laboratory techniques, methods of separation, types of chemical reactions, solution preparation, titrations, household chemicals, molecular modeling. 2 Lab. Gen. Ed. E-4B with CHE 101. Credit will not be awarded for both CHE 101L and CHE 107.

CHE 102 Introductory Chemistry II. (3) I, II. Prerequisite: CHE 101 and 101L. Prerequisite or Corequisite: CHE 102L. Continuation of CHE 101. A survey of the classes of organic molecules including their common uses and physical and chemical properties. In addition, an introductory look at the structure and function of biological macromolecules. Withdrawal from CHE 102 must be matched by a withdrawal from CHE 102L.

CHE 102L Introductory Chemistry Lab II. (1) I, II. Prerequisite: CHE 101 and 101L. Prerequisite or Corequisite: CHE 102. Lab component of CHE 102. Perform basic organic reactions and laboratory procedures including melting point, distillation, and recrystallization. 2 Lab. Gen. Ed. VII (NS) with CHE 102.

CHE 105 Chemistry for the Health Sciences. (3) I, II. Prerequisite: completion of all developmental requirements. Prerequisite or Corequisite: CHE 105L. An introductory course for students in allied health. Principles of bonding, structure, and reactivity related to biological processes. A withdrawal from CHE 105 must be matched by a withdrawal from CHE 105L. Gen. Ed. E-5B with CHE 105L.

CHE 105L Health Science Chemistry Lab. (1) I, II. Prerequisite: completion of all developmental requirements. Prerequisite or Corequisite: CHE 105. Laboratory component of CHE 105. Laboratory experiments that demonstrate chemical concepts and laboratory techniques related to the health science profession. 2 Lab. Gen. Ed. E-4B with CHE 105.

CHE 111 General Chemistry I. (3) I, II. Prerequisite or Corequisite: CHE 111L and ACT math score of 22+ or SAT math score of 530+ or MAT 107 (C or better) or departmental approval. Principles of atomic and molecular structure and reactivity, stoichiometry, states of matter. Prepares students for further studies in chemistry. One year of high school chemistry is recommended. A withdrawal from CHE 111 must be matched by a withdrawal from CHE 111L. Gen. Ed. E-4B with CHE 111L. [NS].

CHE 111L General Chemistry Lab I. (1) I, II. Prerequisite or Corequisite: CHE 111. Laboratory component of CHE 111. Basic laboratory techniques, methods of separation, types of chemical reactions, solution preparation and standardization, titrations, molecular modeling, qualitative analysis, gases, virtual labs on computer. 3 Lab. Gen. Ed. IVB with CHE 111. [NS].

CHE 112 General Chemistry II. (3) I, II. Prerequisite: CHE 111 and 111L (C or better). Prerequisite or Corequisite: CHE 112L or CHE 112HL (C or better). Continuation of CHE 111. Kinetics and equilibrium, solution chemistry, energy changes in chemical reactions, descriptive inorganic chemistry. Prepares students for further studies in chemistry. A withdrawal from CHE 112 must be matched by a withdrawal from CHE 112L or CHE 112HL. Gen. Ed. E-4B with CHE 112L or CHE 112HL. [NS].

CHE 112L General Chemistry Lab II. (1) I, II. Prerequisites: CHE 111 and 111L (C or better). Prerequisite or Corequisite: CHE 112 (C or better). Laboratory component of CHE 112. Kinetics, equilibrium, UV-VIS spectroscopy, introductory qualitative and quantitative analysis, electrochemistry, virtual labs on computer. 3 Lab. Gen. Ed. E-4B with CHE 112. [NS].

CHE 325 Analytical Chemistry. (3) A. Prerequisite: CHE 112 and 112L (C or better). Prerequisite or Corequisite: CHE 325L Introduces chemical analysis (with statistical evaluations) focusing on the principles of stoichiometry, chemical equilibrium, titrimetric and spectrophotometric analysis, potentiometry, and analytical separation processes. A withdrawal from CHE 325 must be matched by a withdrawal from CHE 325L.

CHE 325L Analytical Chemistry Lab. (2) A. Prerequisite: CHE 112 and 112L (C or better). Prerequisite or Corequisite: CHE 325. Lab component of CHE 325. Lab course designed to introduce the principles of wet chemical techniques and basic instrumental analysis through experimentation. 4 Lab.

CHE 349 Applied Learning in Chemistry. (.5-8) A. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: sixteen, baccalaureate. A minimum of 80 hours of employment required for each semester hour of academic credit. May not be used to satisfy area, major or minor requirements.

CHE 349 A-N Cooperative Study: Chemistry. (.5-8) A. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: sixteen, baccalaureate. A minimum of 80 hours of employment required for each semester hour of academic credit. May not be used to satisfy area, major or minor requirements.

CHE 361 Organic Chemistry I. (3) I, II. Prerequisite: CHE 112 and 112L (C or above). Prerequisite or Corequisite: CHE 361L. Bonding; structure; reaction theory; aliphatic hydrocarbons; functional groups; stereochemistry; aromatic hydrocarbons; spectroscopy; substitution and elimination reactions. A withdrawal from CHE 361 must be matched by a withdrawal from CHE 361L.

CHE 361L Organic Chemistry Lab I. (1) I, II. Prerequisite or Corequisite: CHE 361. Laboratory component of CHE 361. Experimental work to illustrate principles of organic chemistry. Basic techniques including separation and spectroscopic methods; and selected syntheses. 3 Lab.

CHE 362 Organic Chemistry II. (3) I, II. Prerequisites: CHE 361 and CHE 361L (C or above). Prerequisite or Corequisite: CHE 362L. Alcohols and ethers; aldehydes and ketones; carboxylic acids and derivatives; carbanions; amines; phenols; carbohydrates and amino acids. A withdrawal from CHE 362 must be matched by a withdrawal from CHE 362L.

CHE 362L Organic Chemistry Lab II. (1) I, II. Prerequisites: CHE 361 and 361L (C or better). Prerequisite or Corequisite: CHE 362. Laboratory component of CHE 362. Experimental work to illustrate principles of organic chemistry. Selected chemical syntheses and advanced techniques such as separation and spectroscopic methods. 3 Lab.

CHE 385 Chemical Literature (2) I. Prerequisites: CHE 112(C). Course introduces professional tools and techniques necessary for scientists including chemical literature searching, methods for disseminating chemical data, chemical safety, and professional conduct. Credit will not be awarded for both CHE 385 and 480.

CHE 425 Instrumental Analysis (3) A. Cross-listed as FOR 411. Prerequisites: CHE 325, 325L, 362, 362L; PHY 132 (or 202); MAT 124 (C or better in each course). Prerequisite or Corequisite: CHE 425L. Fundamental principles of the operation and application of analytical instrumentation including spectroscopy, chromatography, electrochemistry, and mass spectrometry found throughout industrial, government, forensic, and/or research environments are presented. Credit will not be awarded to those who have received credit for FOR 411 or CHE 525. 3 Lec.

CHE 425L Instrumental Analysis Lab. (1) A. Prerequisite: CHE 385 (C or better). Prerequisite or Corequisite: CHE 425. Lab component of CHE 425. Lab course designed to provide hands-on experience with modern chemical instrumentation for qualitative and quantitative measurements found throughout industrial, government, and/or research environments. Credit will not be awarded for both CHE 425L and FOR 411L. 3 Lab.

CHE 430 Biochemistry of Macromolecules. (3) A. Prerequisites: CHE 362 and 362L. Structure, analysis, and organization of proteins, nucleic acids, and lipids; physical and organic mechanisms of enzyme action; chemistry of membrane action and the immune system. Credit will not be awarded for both CHE 430 and CHE 530.

CHE 431 Metabolic Biochemistry. (3) A. Prerequisites: CHE 362 and 362L. Continuation of CHE 430. Chemistry, catabolism, and biosynthesis of carbohydrates, lipids, amino acids, and nucleotides; analysis of nucleic acids and structure, function, and control of cellular genetic apparatus. Credit will not be awarded for both CHE 431 and CHE 531.

CHE 432 Biochemistry Laboratory. (1) A. Prerequisite or Corequisite: CHE 430 or 431 or departmental approval. Experimental techniques characteristic of biochemical research. Purification and characterization of proteins and nucleic acids; use of computers in modeling biochemistry data. 3 Lab. Credit will not be awarded for both CHE 432 and CHE 532.

CHE 450 Inorganic Chemistry. (3) I. Prerequisite: CHE 362 and MAT 124 (C or better). Principles of inorganic chemistry with emphasis on symmetry, chemical bonding, including atomic and molecular orbital theory, and reactivity. Application of these principles to acid-base, coordination, organometallic, bioinorganic and materials chemistry are included. Credit will not be awarded for both CHE 450 and CHE 550.

CHE 484 Chemistry Colloquium (1) I, II. Prerequisites: CHE 325 and 362. Lectures and presentations of chemical information by local or visiting scholars currently involved in chemical research. One weekly meeting. Cannot be taken concurrent with CHE 485. May be retaken for a maximum of two hours.

CHE 485 Chemistry Seminar. (1) I, II. Prerequisite: CHE 362(C) and 385(C). Presentation of specific chemical research from recent literature and/or performed experimentation to members of the chemistry faculty and departmental majors. One weekly meeting. Cannot be taken concurrent with CHE 484. Credit will not be awarded for both CHE 481 and 485.

CHE 495A Independent Chemical Research. (1) A. Prerequisite: CHE 112 and departmental approval. An introduction to research in all fields of chemistry. Literature-based assigned research project with a faculty mentor that will require a formal research report. May be retaken to a maximum of three hours. Student must have the independent study proposal form approved by faculty mentor and departmental chair prior to enrollment. 3 Lab. Credit will not be awarded for both CHE 495 and 495A.

CHE 495B Chemistry Laboratory Independent Research:_____ (1-3) A. Prerequisites: CHE 112 and departmental approval. Objectives and techniques of chemical research. Problems in all fields of chemistry. May be retaken to a maximum of nine hours. Student must have the independent study proposal form approved by faculty supervisor and departmental chair prior to enrollment. Credit will not be awarded for both CHE 495 and 495B.

CHE 501 A-E Chemtopics: _____. (1-3) A. Prerequisite: departmental approval. Topics to be chosen from current and/or specialized area of chemistry based on interests and/or need: A: Analytical, B: Biochemistry, C: Inorganic, D: Organic, or E: Physical. May be retaken to a maximum of six hours.

CHE 501L Chemtopics Lab: _____. (1) A. Prerequisite: departmental approval. Laboratory experiences chosen from specialized areas of chemistry including advanced chemical instrumentation / analysis, synthetic methods, computational chemistry, or molecular modeling. Topics vary according to student needs. May be retaken to a maximum of two hours. 3 Lab.

CHE 515 Synthetic & Analytical Methods. (5) A. Prerequisites: CHE 362, 362L, 425 (or FOR 411), 425L (or FOR 411L) (C or better in each course). Prerequisite or Corequisite: CHE 450 (C or better). Synthesis, isolation, purification, and characterization (including spectroscopy and other analytical methods) of inorganic and organic compounds and mixtures. Other methods include handling of air and moisture sensitive compounds and molecular computations. 3 Lec/6 Lab.

CHE 520 Mass Spectrometry. (3) A. Cross-listed with FOR 475. Prerequisite: CHE 362. Topics include types of mass spectrometers; qualitative and quantitative mass spectrometry, different ionization processes, sample inlet systems (including chromatography systems), and interpretation of mass spectral data. Credit will not be awarded for both CHE 520 and FOR 475.

CHE 570 Biophysical Chemistry I. (4) I, II. Prerequisite: CHE 361 (C or better), BIO 111 or higher (C or better), and either MAT 124 or MAT 261. Prerequisite or Corequisite: PHY 131 or 201. An introduction to physical and chemical explanations of biological phenomenon and physical chemistry theories and methodologies applied on biological systems. Topics include thermodynamics, chemical equilibrium, kinetics, quantum chemistry, spectroscopy, and selected topics. 6 Lec / Lab / Rec. Credit will not be awarded for both CHE 570 and CHE 770. Credit will not be awarded for both CHE 570 and CHE 470.

CHE 574 Physical Chemistry I. (3) A. Prerequisite: CHE 361 (C or better). Prerequisites or Corequisites: CHE 574L and MAT 224 and PHY 131 or 201 (C or better in each course). A study of thermodynamic properties in physical and chemical systems; electrochemical processes; rates and mechanisms of chemical reactions. Credit will not be awarded for both CHE 574 and CHE 471.

CHE 574L Physical Chemistry Lab I. (1) A. Prerequisite: CHE 325 and 325L (C or better in each course). Prerequisites or Corequisites: CHE 470 or 574 and CHE 385 (C or better in each course). Laboratory component of CHE 574. Experimental work to illustrate principles of physical chemistry that include thermochemistry, thermodynamics, equilibrium, and reaction kinetics. 3 Lab.

CHE 575 Physical Chemistry II. (3) A. Prerequisite: CHE 361 (C or better). Prerequisite or Corequisite: CHE 575L and MAT 225 and PHY 132 or 202 (C or better in each course). An introduction to quantum mechanics as applied to model, atomic, and molecular systems; applications of atomic and molecular spectroscopy; introduction to computational chemistry. Credit will not be awarded for both CHE 575 and CHE 472.

CHE 575L Physical Chemistry Lab II. (1) A. Prerequisite: CHE 325 and 325L (C or better in each course). Prerequisites or Corequisites: CHE 470 or 575 and CHE 385 (C or better in each course). Laboratory component of CHE 575. Experimental work to illustrate principles of physical chemistry including UV-visible, infrared, and fluorescence spectroscopic techniques, fundamentals of laser operation, statistical mechanics, and computational chemistry.

CHS—College of Health Sciences
Dr. Deborah Whitehouse, Dean

CHS 105 Survey of Medical Terminology. (1) I, II, A. Independent study, modular design paced by class meetings includes word roots, prefixes, suffixes, and general medical terms. Credit will not be awarded for both CHS 105 and EMC 105 or CHS 200 or MAS 200 or HSA 200.

CHS 207 Survey of Disease. (3) I. A. Prerequisites: BIO 171, 301. Prerequisite or Corequisite: CHS 105 or departmental approval. An introduction to disease process and management. Includes a survey of disease of the major body systems.

CHS 210 Special Problems in Health Sciences. (1-4) A. Prerequisite: departmental chair approval. For independent work, special workshops, or a special topic. May be retaken to a maximum of six hours.

CHS 342 Understanding AIDS (1) I, II. A seminar intended to inform students about risk factors and implications associated with acquiring AIDS (Acquired Immune Deficiency Syndrome).

CHS 349 Applied Learning in Health Sciences. (.5-8) A. Work, under faculty and field supervisors, in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. Minimum 80 hours work required for each academic credit.

CHS 349 A-N Cooperative Study: Health Sciences. (.5-8) A. Work, under faculty and field supervisors, in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. Minimum 80 hours work required for each academic credit.

CHS 410 Special Problems in Health Sciences. (1-4) A. Prerequisite: departmental chair approval. For independent work, special workshops, or a special topic. May be retaken to a maximum of six hours.

CHS 420 Special Topics for Health Professions. (1-2) A. Prerequisite: senior standing and/or departmental approval. Topics of current interest to students enrolled in health professions. May be retaken to a maximum of six hours.

CHS 570 Health Care of the Aged. (3) A. Theories of gerontology; common health problems of the aged; focus on quality health care.

CIS—Computer Information Systems
Dr. Oliver Feltus, Chair

CIS 212 Introduction to Computer Information Systems. (3) I, II. Introduction to computer hardware and software systems, the Internet, HTML, and microcomputer applications including spreadsheets, word processing, database, presentation graphics, electronic mail, and Web browsing. Credit will not be awarded for both CIS 212 and CSC 104. Gen. Ed. VII (QS).

CIS 215 Introduction to Business Programming. (3) I, II. Prerequisite: CIS 212 or CIS 240 or CSC 104 or equivalent with a grade of "C" or better. Introductory computer programming course using a structured programming language to solve business problems. This course will introduce: algorithm concepts and development; structured programming methodologies; language syntax; graphical interface design and event based programming.

CIS 230 Business Applications of Microcomputers. (3) A. Prerequisite: CIS 212 or CIS 240 or CSC 104 or equivalent with a grade of "C" or better. Advanced word processing, spreadsheets, database management, and presentation software.

CIS 240 Introduction to Web Information Systems. (3) A. Introduction to design and development of Web-based systems. Includes Internet and Web technology; Web development using design procedures, HTML and XML; and hands-on experience in website design and authoring. Gen. Ed. VII (QS).

CIS 250 Business Programming II. (3) I, II. Prerequisite: CIS 215 with a grade of "C" or better. Intermediate computer programming course introducing: data structures; file input-output using sequential and random techniques; database access; business report generation; advanced graphical interface design and event based programming.

CIS 300 Management Information Systems. (3) I, II. Prerequisites: ACC 201, 202, CIS 212 or CSC 104 and ECO 230 with a grade of "C" or better in each course; junior standing (a minimum of 60 hours) with an overall minimum of 2.0 GPA. Role of information systems in supporting managers, decision making and organizational goals; planning and managing e-business systems; global competition; social and ethical issues.

CIS 320 Forensic Computing: Investigations (3) A. Prerequisite: CIS 212 or CIS 240 or CSC 104 with a grade of "C" or better and junior standing. Provide students with an understanding of digital forensics as used in corporate investigations and criminal/civil litigation. Students learn basic tools and techniques to properly initiate a computer forensics investigation, then acquire and analyze that evidence.

CIS 325 Forensic Computing: Acquisitions (3) A. Prerequisite: CIS 212 or CIS 240 or CSC 104 with a grade of "C" or better and junior standing. Students will experience and understand the portion of the digital investigation beginning with digital evidence acquisition, then analysis of the evidence, and finally reporting results – implementing various forensic hardware and software including write-blockers and EnCase.

CIS 335 Data Base Management. (3) I, II. Prerequisites: Junior standing and CIS 240 or CIS 300 with a grade of "C" or better. Fundamental concepts of database processing; conceptual, logical, and physical design of databases; the use of SQL for data retrieval and relational database implementation; and data management for the enterprise.

CIS 340 Electronic Business Technologies and Tools. (3) II. Prerequisite: Junior standing and CIS 240 with a grade of "C" or better. The course provides an introduction to e-business infrastructure, tools, and the development of e-business applications with these tools. Topics include the Internet and World Wide Web; client-side. Web applications; HTML, XML, and scripting languages.

CIS 349 Applied Learning in Computer Information Systems. (.5-8) A. Prerequisites: minimum GPA of 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work for each credit hour. Three hours may be used as a major elective. May be repeated for a total of 16 credit hours.

CIS 349 A-N Cooperative Study: Computer Information Systems. (.5-8) A. Prerequisites: minimum GPA of 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work for each credit hour. Three hours may be used as a major elective. May be repeated for a total of 16 credit hours.

CIS 355 Advanced Business Programming. (3) A. Prerequisite: CIS 250 with a grade of "C" or better. An object-oriented computer programming course to solve business problems. This course will introduce: object oriented design; inheritance and composition; advanced interface and component reuse; integration techniques; server-side controls.

CIS 360 Computer Information Systems Internship. (2-4) A. Prerequisites: GPA of 2.25 and advisor/departmental approval. Practical experience in computer information systems.

CIS 370 Seminar in Computer Information Systems. (1-3) A. Prerequisite: instructor approval. Selected topics of special and contemporary interest to business students. May be retaken under different subtitles to a maximum of six hours.

CIS 375 Networks and Telecommunication. (3) A. Prerequisite: Junior standing and CIS 240 with a grade of "C" or better. The study of networking and telecommunications fundamentals including LANs, WANs, and the Internet. Data communication and telecommunication concepts, models, standards, and protocols are studied. Installation, configuration, and management of infrastructure technologies are practiced.

CIS 380 Information Systems Analysis and Design. (3) A. Prerequisite: Junior standing and (CIS 215 or 300 with a grade of "C" or better in each course). Systems development life cycle with the emphasis on analysis and design. Topics include requirements determination, logical design, physical design, and implementation planning; feasibility analysis; RAD, prototyping, and object-oriented modeling techniques; software package evaluation, acquisition, and integration.

CIS 400 Electronic Business Planning and Strategy. (3) I, II. Prerequisites: Junior standing and CIS 300 with a grade of "C" or better. Course covers the theory and practice of electronic business. Emphasizes e-business models and technology, assessing company performance and value; design, promotion, global and social issues.

CIS 410 Project Management and Practice. (3) I. Prerequisites: Junior standing and (CIS 300 or CIS 240 with a grade of "C" or better in each course. This course presents the theory and practice of modern project management. The technical and behavioral aspects of project management and change management are applied with the context of an information systems project.

CIS 420 Forensic Computing: Network Analysis. (3) I, II. Prerequisites: CIS 320 or CIS 325 with a grade of "C" or higher or departmental approval. This course provides students with an understanding of computer forensics, in the context of managing computer networking and wireless networks, as well as in the context of corporate investigations and business litigation. Students learn tools and techniques to investigate network logs, network traffic, and web sites to conduct a forensics investigation.

CIS 436 Advanced Data Base Management. (3) A. Prerequisite: CIS 335; CIS 215 or CIS 340 with a grade of "C" or better in each course. An in-depth study of modern data base management to include advanced and current database topics. Coverage includes advanced data modeling and relational database design and implementation to include current technologies and techniques; database programming; database applications development for electronic business.

CIS 475 Advanced Telecommunications. (3) A. Prerequisite: CIS 375 or permission of instructor. More in-depth coverage of telecommunications and networking to include installation and configuration, managing resources connectivity, running applications, monitoring and optimization, trouble shooting, and resources.

CIS 480 Information Systems Implementation. (3) I, II. Prerequisites: CIS 215, CIS 340, CIS 380 and CIS 335 with a grade of "C" or better in each class. An in-depth study of systems development life cycle with an emphasis on implementation of an IS project. Students develop program specifications, tests plans, code and test a mixed-language software application, and provide system documentation.

CIS 490 Special Problems in Computer Information Systems. (1-4) A. Prerequisite: advisor/departmental approval. Independent study in information systems. May be retaken under different sub-topics to a maximum of six hours. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

CMS—Communication Studies
Dr. Elizabeth Hansen, Chair

CMS 100 Introduction to Human Communication. (3) I, II. An introduction to the study of human communication. Overview of major topics in contemporary theories of intrapersonal, interpersonal, small group, and public communication. Practice in the development of skills in each of these areas. Credit will not be awarded for both CMS 100 and CMS 301. Gen. Ed. E-IC [OC].

CMS 200 Interpersonal Communication. (3) I, II. A theoretical and skills based approach to building communication competence in personal relationship development, maintenance, and dissolution.

CMS 205 Advocacy and Opposition. (3) I. The study of the techniques and principles of formal argumentative discourse. Emphasis on developing, presenting, and defending and opposing positions on controversial questions. Credit will not be awarded for both CMS 205 and 205W.

CMS 205W Advocacy and Opposition (3). I, II. Prerequisites: ENG 102, or ENG 105(B), or HON 102. The study of the techniques and principles of formal argumentative discourse. Emphasis on developing, presenting, defending, and opposing positions on controversial questions through intensive writing and oral communication. Credit will not be awarded for both CMS 205W and CMS 205.

CMS 210 Public Speaking. (3) I, II. Principles of and practice in the art of public speaking. Study of the invention, organization, style, delivery, and audience adaptation of informative, persuasive, and commemorative speeches. Gen. Ed. E-IC [OC].

CMS 220 Careers in Communication Studies (1-3) A. An exploration of career opportunities in communication studies. All students must take the class for one credit hour; students may elect to take the class for three credit hours, which involves onsite visits to organizations.

CMS 250 Interviewing. (3) I. Analysis and application of the communication skills necessary for becoming an effective interviewer and interviewee in organizational contexts. Learn and apply various interviewing techniques: informative, employment and persuasive interviews.

CMS 300 Business and Professional Speaking. (3) I, II. Prerequisites: CMS 205W and 210. An advanced speaking course, in which students organize and deliver business presentations, learn and practice professional electronic/telephonic communication protocols, and conduct business meetings.

CMS 305 Research Design in Communication Studies (3) I, II. Prerequisites: CMS 205W and MAT 105 or 106 or 107 or 108 or 109 or 124 or 124H or 211. An introduction to the techniques of experimental, survey, textual and ethnography research designs as each pertains to the study of human communication.

CMS 310 Small Group Communication. (3) I, II. Prerequisites: CMS 200 and 210. Introduction to theories of small group communication. Exposure to various types of groups with special emphasis on the role of communication in the development of group norms, roles, leadership styles, problem-solving techniques and decision-making techniques.

CMS 315 Communication Studies Practicum. (1-3) I, II. Prerequisite: instructor approval. Supervised practical experience in organizational, human service, or dispute resolution communication contexts. May be retaken for a

maximum of three hours.

CMS 320 Persuasion. (3) I, II. Prerequisites: CMS 205W or departmental approval. Study of contemporary research and theories of persuasion and social influence. Theoretical analysis of campaign strategies, citizen advocacy, and selected social movements. Practice in the design, analysis, and implementation of persuasive messages.

CMS 325 Communication in Conflict Management. (3) I, II. Prerequisites: CMS 205W or departmental approval. A study of the communication components that contribute to the initiation, perpetuation, and resolution of conflict. Emphasis on building appropriate communication skills for productive conflict management.

CMS 330 Communication & The Job Search. (1) I. Empowering the student for future employment by applying communication skills and career development methods in the job search process.

CMS 349 Applied Learning in Communication Studies. (.5-8) A. Prerequisite: departmental approval. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours employment required for each semester hour credit.

CMS 349 A-N Cooperative Study: Communication Studies. (.5-8) A. Prerequisite: departmental approval. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours employment required for each semester hour credit.

CMS 350 Organizational Communication. (3) I. Prerequisite: CMS 250. Survey of theoretical and empirical literature dealing with communication behavior as it occurs within the context of organizations. Students examine communicative behaviors through case study and field observation. Topics include communication networks, climate, and satisfaction.

CMS 353 Health Communication. (3) A. Prerequisites: CMS 200, 205W, and 210. A survey of recent development in the field of health communication. Emphasis is on the role of interpersonal communication and family narrative in the health care setting, patient provider interactions, and multicultural health awareness.

CMS 375 Intercultural Communication. (3) A. Prerequisites: CMS 200, 205W, and 210. A study of the communication process across cultures with emphasis on intercultural perceptions, values, and language problems as well as nonverbal expression in personal and professional settings.

CMS 400 Communication and Gender (3) A. Prerequisites: CMS 200, 205W, and 210. Focuses on relationships between communication and gender, race, and social class. Examines ways in which gender roles are created and recreated in society and in our personal and professional relationships.

CMS 410 Human Communication Theory. (3) A. A general overview of the theoretical approaches informing research or communication. The goals of the class include developing and understanding of the role of theory in the research process and the ability to critique theories.

CMS 415 Communication in the Legal Process. (3) A. Through the analysis of discourse in videotaped trials, students learn how communication shapes and recreates reality in the courtroom, and how discourse styles affect perceptions of witness credibility and believability.

CMS 420 Negotiation. (3) A. This course combines communication theory and practice in resolving conflicts using the negotiation process. Extensive role-playing activities will be utilized to develop these skills.

CMS 450 Mediation. (3) A. Prerequisites: CMS 200, 205, 210, 250, and senior standing. The study of mediation as an alternative dispute resolution technique. Involves the analysis and practice of communication skills applicable to the mediation process. Extensive mediation role-plays are an integral part of the course.

CMS 470 Communication Audits. (3) A. Prerequisite: Minimum of 90 hours, CMS 305, and CMS 350. Principles and practice of communication audits. Students will design, conduct and interpret a communication audit for an organization.

CMS 475 Senior Project. (3) A. Prerequisites: 90 hours completed, CMS 305. A synthesis experience where students write a senior thesis.

CMS 485S Communication Training and Development. (3) I, II. Prerequisite: CMS 200, 205W, 250, and 300. An introduction to the field of communication training and development for corporate, industrial, institutional, medical or educational settings. Students will practice training techniques in on-site situations.
Credit will not be awarded to students who have credit for CMS 406 or 485.

CMS 490 Special Topics in Communication. (1-3) A. Presentation of course material of a timely, specialized, or topical nature. Specific course orientation will appear beside title. May be retaken to a maximum of nine hours if subject matter is different each time.

CMS 495 Communication, Leadership and Change (3) I, II. Prerequisite: CMS 200, 205W, 250, 300 and senior standing. Study of relationships between communication and leadership skills and organizational/societal change. Focus on leadership roles, theories, and qualities. Additional emphasis on career exploration and leadership. Credit will not be awarded for both CMS 495 and CMS 490 Special Topics in Leadership.

CMS 499 Independent Study in Communication Studies. (1-6) I, II. Individual research and reading on a specified speech communication subject. Regular consultation and final paper or performance required. Students must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of six hours.

CNM—Arts and Sciences Interdisciplinary
Dr. John Wade, Dean

CNM 101 Cosmos and Evolution I: An Exploration of Nature. (3) I, II. This science course integrates the biological and physical sciences by exploring centrally significant ideas that attempt to explain major events that have transformed the universe, the earth, and life on earth. 2 Lec/2 Lab.

CNM 102 Cosmos and Evolution II: An Exploration of Nature. (3) I, II. This science course integrates the biological and physical sciences by exploring centrally significant ideas that attempt to explain major events that have transformed the universe, the earth, and life on earth. 2 Lec/2 Lab.

CNM 499 Independent Work. (3-6) A. Prerequisite: cumulative GPA 2.5 up to last semester of program in B.I.S. degree. Independent research and/or field work required for the program of B.I.S. degree. Student must have the independent study proposal form approved by the student's B.I.S. Advisory Committee.

CNM 599 Ecology and the Environment for Teachers. (3) A. Prerequisite: BIO 102 or CHE 100 or GLY 102 or PHY 102 or departmental approval. Introduces pre-service teachers to ecology and the environment through an interdisciplinary approach beginning with the physical environment, progressing to the whole ecosystems, and onto analyses of environmental issues. Classroom teaching strategies will be modeled.

COM—Communication
Dr. Elizabeth Hansen, Chair

COM 200 Mass Media and Society. (3) I, II. Introduction to mass media issues. Analyzes mass media impact on social, political and economic sectors of American and world societies. Considers issues and trends, including ethics, legal controls, violence and censorship. Gen. Ed. E-5B. Credit will not be awarded for both COM 200 and 200W.

COM 200W Mass Media and Society. (3). I, II. Prerequisites: ENG 102, or ENG 105(B), or HON 102. Introduction to mass media issues. Analyzes mass media impact on social, political and economic sectors of American and world societies. Considers issues/trends, including ethics, legal controls, violence and censorship. Gen. Ed. E-5B. Credit will not be awarded for both COM 200W and COM 200.

COM 201 Writing and Reporting News I. (3) I, II. Prerequisites: ENG (101 and 102) or 105 or HON 102. Study of the elements of news for print and electronic media; style, structure, sources, interviewing, story types, libel and ethics. Practice in gathering, writing and evaluating news.

COM 290 Topics in Communications: _____. (1-3) A. Prerequisite: department approval. Special topics beyond the scope of regularly offered courses. May be retaken to a maximum of nine hours provided the subject matter differs each time. Specific topics included in the schedule.

COM 300 International Media. (3) I, II. Development and operations of world mass communication channels and agencies. Comparative analysis of media, media practices, and flow of news and entertainment throughout the world. Print, public affairs, radio, and television systems will be studied in terms of relevant social, political, economic, geographic, and cultural factors.

COM 301 Writing and Reporting News II. (3) I, II. Prerequisite: COM 201. Advanced study of news for print and broadcast media. Includes source development, deadline reporting, visual reporting, electronic news sources, in-depth reporting. Introduction to court and government reporting.

COM 320 Desktop Video. (1) I, II. Study of skills and techniques allowing effective communication in the electronic media using desktop video tools. Examination of desktop video from an aesthetic perspective including television, film, art, multimedia, web video, digital still video.

COM 325 Advertising Copy and Production. (3) I, II. Prerequisites: ENG 102 or ENG 105. Introduction to copywriting and production for electronic, print and other advertising media. Emphasis on advertising strategy, motivation, appeals, visualization and layout. Applies research and communication theory to creation of advertising. Credit will not be awarded for both COM 325 and 325S.

COM 325S Advertising Copy and Production. (3) I, II. Prerequisites: ENG 102 or ENG 105. Using a service-learning-based approach, students learn copywriting and production for electronic, print and other advertising media. Topics include advertising strategy and practice, motivation, appeals, visualization and layout, applied research and communication theory. Credit will not be awarded for both COM 325 and 325S.

COM 330 Sportswriting and Reporting. (3) I, II. Writing and producing of game, feature and interview stories for print and broadcast. Includes play by play, sports commentary and analysis.

COM 345 Literature and Film. (3) A. Cross listed as ENG 345. Prerequisites: ENG 101 and 102 (or 105). Examination of the relationships between film and literature through a comparative study of the stylistic and technical elements of the two media. Credit will not be awarded for both COM 345 and ENG 345.

COM 349 Applied Learning in Multi-Media Studies. (.5-8) A. Prerequisites: junior standing, "B" average in all courses within the department, and departmental approval. Work under faculty and field supervisor in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen baccalaureate. A

minimum of 80 hours work required for each academic credit. May not satisfy major or minor requirements within the department.

COM 349 A-N Cooperative Study: Multi-Media Studies. (.5-8) A. Prerequisites: junior standing, "B" average in all courses within the department, and departmental approval. Work under faculty and field supervisor in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen baccalaureate. A minimum of 80 hours work required for each academic credit. May not satisfy major or minor requirements within the department.

COM 390 Fund raising. (3) I, II. An overview of fund raising, including planning, organization, management, marketing, and the common sense needed to raise money from private sources.

COM 400 Studies in Communications: _____. (1-3) A. Prerequisite: will vary with course offering. Study of specific areas of communications through workshops, short courses, institutes, or through the presentation of a specific course which examines timely, topical, or specialized concerns in the field. Specific topic included in schedule. May be retaken to a maximum of nine hours.

COM 405 Media Law. (3) A. Prerequisite: COM 200 or 200W or department approval. Examination of legal philosophies relating to the media, including press freedom, copyright, libel, slander, privacy, free press/fair trial, and regulation. Emphasizes the legal rights and responsibilities of the media.

COM 415 Media Ethics. (3) A. Prerequisite: COM 200 or 200W or department approval. Examination of ethical standards and practices of the mass media. Includes development of ethical decision-making skills.

COM 420 Mass Communications Research. (3) I, II. Introduction to the research process, research approaches, basic statistics, and applied research in the field of mass communications.

COM 425 Media Planning and Buying. (3) I, II. An introduction to the process of media planning and buying. Emphasis on basic measurements and calculations, reach and frequency, strategy, evaluation, and budgeting.

COM 430 Legislative Reporting. (3) A. Prerequisite: COM 201 or department approval. Reporting on the state legislature for print and broadcast media. Counts as JOU/BEM elective.

COM 445 Broadcast and Cable Promotion. (3) I, II. Study of broadcast and/or cable promotion in the areas of writing, production, marketing, and public relations. Includes exercises in promotions.

COM 471 Media Sales. (3) A. Problems and practices of both print and electronic media sales. Includes case studies in both print and broadcast sales development (local, regional, and national), pricing, production, promotion, and basic sales campaigns.

COM 490 Media Campaigns. (3) A. Prerequisites: COM 325 or 425. Design and execution of a complete advertising/media campaign based on an actual case study. Includes primary research, media planning, creative design/execution, and evaluation. Students produce professional quality advertising materials for national competition. Credit will not be awarded for both COM 490 and MKT 426.

COM 550 Readings in Mass Communications. (3) A. Prerequisites: instructor approval and senior standing. Critical reading of selected books and magazines relating directly or indirectly to mass communications. Features reviews and seminar discussions of readings chosen to reflect individual student's interests.

CON—Construction Management
Mr. Wayne Reynolds, Coordinator

CON 121 Introduction to Construction. (3) I, II. A survey of the construction industry. Nature, scope, and general characteristics of the industry with an emphasis on careers, safety, and typical contracting methods.

CON 201 Materials and Methods of Construction I. (3) I, II. Composition, manufacture and grades of construction materials and building products with emphasis on wood, metal, glass, roofing, finishing, and plastic materials. Methods, including safety, involved in the placement and installation of these materials.

CON 202 Materials and Methods of Construction II. (3) II. Composition, manufacture, and grades of construction materials and building products with an emphasis on concrete and masonry. Methods, including safety, involved in the placement and installation of these materials. 2 Lec/2 Lab.

CON 221 Plane Surveying. (3) I, II. Prerequisite: MAT 108 with a minimum grade of "C". Principles of surveying, including the measurement of distances, elevations, and angles. Calculations for the various operations, including traverse computations. Introduction to the use of surveying instruments and note keeping.
2 Lec/2 Lab.

CON 250 Structural Systems and Materials I. (3) I. Prerequisite: DES 122. Emphasis on building systems and materials for residential structures. An understanding of the properties of structural materials and their appropriate applications. Laws, codes, and standards will be addressed along with instruction in blueprint reading.

CON 294 Construction Graphics. (3) A. Basic principles of residential and small commercial planning; styles of architecture; a comparative study of structural systems and the preparation of working drawings. 2 Lec/2 Lab.

CON 303 Statics and Strength of Materials. (3) I, II. Prerequisites: MAT 108 or 124 with a minimum grade of "C", and PHY 131 or 201. Study of loads, forces and their effects on rigid bodies and structures at rest. Computation of equilibrium reactions, internal forces, shear, moments, couples, friction, stress, strain, and deformation. Finding centroids and moments of inertia.

CON 307 Soils and Foundations. (3) I. Prerequisite: CON 303. A study of soil mechanics as it relates to foundation construction. Topics include soil classification, engineering properties, compaction testing, types of foundation systems, and methods of foundation construction.

CON 320 Construction Surveying. (3) I, II. Prerequisite: CON 221. The application of surveying skills as they relate to horizontal and vertical control on construction projects. Activities include building layout, centerline staking, earthwork computations, and slope staking. The use of electronic instruments is emphasized. 2 Lec/2 Lab.

CON 321 Boundary Surveying. (3) I. Prerequisite: CON 221. This course introduces students to the principles of boundary surveying and provides them with the basic knowledge and skill to practice boundary surveying under the supervision of a registered professional surveyor.

CON 322 Construction Structural Design. (3) I, II. Prerequisites: CON 303 and MAT 124 or MAT 261 and MAT 117. A study of the design of beams and columns using steel and wood. Principles of structural design related to the design of temporary structures used in the construction process.

CON 323 Estimating I. (3) I, II. Prerequisites: CON 201, 202, and MAT 108 with a grade of "C". A study of the materials and labor required in the construction of commercial projects. Experience is gained in reading drawings, calculating material quantities, and listing work items in a standardized format.

CON 324 Mechanical/Electrical Systems. (3) II. Prerequisites: CON 201 and 21 additional hours of CON courses. A study of plumbing, heating, air-conditioning, electrical power distribution, and lighting for vertical and horizontal construction. Basic fundamentals of water supply, waste drainage, electrical circuits, and heat loss/gain calculations are studied. 2 Lec/2 Lab.

CON 349 Applied Learning in Construction Management. (.5-8) A. Prerequisites: 30 hours of credit including 9 credit hours of CON courses with a 2.0 GPA and departmental approval. Transfer students must have completed at least one semester of full-time work at EKU. Work under faculty and field supervisors in placements related to construction management.

CON 349 A-N Cooperative Study: Construction Management. (.5-8) A. Prerequisites: 30 hours of credit including 9 credit hours of CON courses with a 2.0 GPA and departmental approval. Transfer students must have completed at least one semester of full-time work at EKU. Work under faculty and field supervisors in placements related to construction management.

CON 368 Seminar in Construction. (1-4) A. Presentation of construction management topics of a timely or specialized nature in a seminar format. May be retaken provided the topics are different.

CON 401 Special Problems in Construction Management. (1-3) A. An independent study course for exceptional upper division undergraduate students. A study proposal will be developed by the student and approved by the faculty supervisor and department chair prior to enrollment. May be retaken provided the topic of study is different.

CON 420 Engineering Economy. (3) I, II. Junior Class Restriction. A systematic application of engineering economy to design, selection of construction materials, and construction methods. A study of first costs, operating and maintenance costs, service life, and replacement costs.

CON 421 Construction Contracts. (3) I. Prerequisite: CON 323. Contract documents, drawings, and specifications and their impact on the construction process. A study of the types and organization of construction contracts, and the roles and responsibilities of the parties involved.

CON 423 Estimating II. (3) I, II. Prerequisite: CON 323 and TEC 161. Construction projects of moderate complexity are divided by scope, then materials are quantified and costed. Cost databases are utilized for estimating labor, materials, equipment, and overhead. Emphasis is placed on the use of estimating software. 2 Lec/2 Lab.

CON 425 Project Organization and Supervision. (3) II. Prerequisites: MGT 300 or MGT 301 or AEM 408 and CON 421. A study of principles of construction project administration, systems for efficient operation of office and field personnel, and dispute avoidance and resolution procedures. The construction process is followed from project inception to closeout.

CON 426 Scheduling. (3) I, II. Prerequisites: ACC 201 or FIN 310 and CON 423. A study of the planning and control of construction activities and project costing. Topics include critical path method scheduling, metric based progress monitoring, cash flow analysis, and cost control. Standard scheduling software is used. 2 Lec/2 Lab.

CON 499 Construction Mgt. Capstone. (3) II. Co-requisites and/or prerequisites: CON 425, CON 426. A project-based capstone course in construction management for senior-level majors. This course will emphasize the integration of knowledge and skills acquired in previous undergraduate courses. 2 Lec/2 Lab.

COR—Correctional and Juvenile Justice Studies
Dr. Preston Elrod, Interim Chair

COR 106 Workshop: _____. (1-6) A. The workshop is designed primarily for in-service personnel and will focus on current problems, issues and strategies in providing effective services. May be retaken for a maximum of six hours provided the subject matter differs.

COR 201 Introduction to Corrections

(3) A. Introduction to historical, philosophical, and operational frameworks of US corrections. Debates the goals of punishment and explores institutional and community-based sentencing options.

COR 300W Careers and Competencies in Corrections and Juvenile Justice (3) A. Prerequisites: ENG 201 and 202. An intensive writing course that focuses on building critical thinking and communication comptencies through an exploration of career options and career-related issues in corrections and juvenile justice. Credit will not be awarded for both COR 300W and 300.

COR 302 Living and Working in Prison (3) A. Formerly COR 301. Cross-listed as CRJ 302. Examines inmate subcultures and violence in prisons. Analyzes prison environment for correctional officers. Explores life behind bars/offender difficulties in reentering society. Credit will not be awarded to students who have credit for COR 301 or CRJ 302.

COR 303 The Offender in the Community (3) A. Formerly COR 330. Cross-listed as CRJ 303. Explores impact offenders have on community. Examines formal correctional options and alternative methods of social control used to manage offenders in community. Credit will not be awarded to students who have credit for COR 330 or CRJ 303.

COR 310 Foundations of Correctional and Juvenile Justice Practice. (3) A. Cross-listed as CRJ 331 and 331W. Provides a basis for informed responses to delinquency and crime. Examines the conceptual foundations of correctional and juvenile justice practice from a multidisciplinary standpoint and implications for the effectiveness of these practices. Credit will not be awarded for both COR 310 and CRJ 331 or 331W.

COR 311 The Juvenile Justice System. (3) A. Cross-listed with CRJ 311. Examines the evolution of the juvenile justice system, police response to delinquency, and juvenile court's roles in protecting the public and serving children. Credit will not be awarded for both COR 311 and CRJ 311.

COR 321 Delinquency Interventions. (3) A. Provides in-depth analysis of risk factors for delinquency. Examines effectiveness of individual, school, and family-based interventions in both community and residential settings.

COR 322 School-Based Interventions for At-Risk Youth (3) A. Formerly COR 320. Examines school-based problems and interventions commonly experienced by at-risk youth. Discusses strategies for effective collaboration between schools and other youth-serving organizations. Credit will not be awarded for both COR 322 and COR 320 "School-Based Interventions for At-Risk Youth."

COR 323 Legal and Ethical Issues in Adult Corrections (3) A. Formerly COR 315. Cross-listed as CRJ 323. An overview of legal court decisions related to adult corrections. Analyzes ethical issues surrounding adult correctional contexts and practices. Credit will not be awarded to students who have credit for COR 315 or CRJ 323.

COR 340 Correctional and Juvenile Justice Administration. (3) A. Introduces students to organizational theory and managerial principles, and examines their application to the unique challenges of correctional and juvenile justice settings.

COR 349 Applied Learning in Corrections and Juvenile Justice. (.5-6) A. Prerequisites: 30 hours of college coursework and departmental approval. Work under faculty and field supervisors, in placements related to academic studies. Total hours: six, baccalaureate. A minimum of 80 hours work experience is required for each academic credit.

COR 349 A-N Cooperative Study: Corrections and Juvenile Justice. (.5-6) A. Prerequisites: 30 hours of college coursework and departmental approval. Work under faculty and field supervisors, in placements related to academic studies. Total hours: six, baccalaureate. A minimum of 80 hours work experience is required for each academic credit.

COR 360 Rehabilitation Strategies for Adult and Juvenile Offenders (3) A. Formerly COR 350. Cross-listed as CRJ 360. Debates the rehabilitative goal of corrections and juvenile justice. Examines contemporary strategies and their effectiveness in controlling/changing offender behavior. Credit will not be awarded to students who have credit for COR 350 or CRJ 360.

COR 375 Applied Skills Practicum. (1-6) A. Prerequisites: Departmental approval. Designed primarily for in-service personnel and others where COR 349 is inappropriate, this course provides the student with opportunity to integrate academic knowledge with a field experience.

COR 410 Female Offenders (3) A. Formerly COR 423. Analyzes how policy and practice has impacted female arrests and incarceration. Explores gendered pathways to crime and the importance of gender-specific programming. Credit will not be awarded for both COR 410 and COR 423: "Women in Corrections".

COR 412 Exploring the Death Penalty (3) A. Formerly COR 320. Introduction to the history and use of the death penalty in the US. Examines purpose, fairness, and efficacy of death penalty through balanced coverage of the debate. Credit will not be awarded to students who have credit for COR 320: "Exploring the Death Penalty."

COR 413 Addressing Mental Health and Substance Abuse Needs of Adult Offenders (3) A. Formerly COR 320. Cross-listed as CRJ 413. Examines etiology and effects of substance abuse/ mental health problems of adult offenders. Describes intervention strategies. Credit will not be awarded to students who have credit for COR 320: "Addressing Mental Health and Substance Abuse Needs of Adult Offenders" or CRJ 413.

COR 420 Diversity in Corrections (3) A. Formerly COR 423. Cross listed as AFA 346, CRJ 345, WGS 345. Focuses on issues, status, and special needs of "non-mainstream" sub-populations within the US correctional system, both inmates and personnel. Credit will not be awarded to students who have credit for COR 423 "Diversity in Corrections", WGS 345, CRJ 345, or AFA 346.

COR 421 Intervening with Juvenile Sex Offenders (3) A. Formerly COR 423. Provides comprehensive overview of field of juvenile sex offenders and the risk they pose. Focuses on etiology, evaluation, assessment, treatment, and management of juvenile sex offenders. Credit will not be awarded to students who have credit for COR 423: "Intervening with Juvenile Sex Offenders".

COR 423 Topical Seminar: _____. (1-3) A. Intensive study of selected topics related to corrections and juvenile justice. May be retaken to a maximum of twelve hours on different topics.

COR 450S Service Learning in Corrections: _____. (3) A. Prerequisites: Departmental approval. Intensive study of selected topics on corrections and juvenile justice. Students will engage in an experiential, or service, activity related to the topic. May be retaken for a maximum of six hours on different topics.

COR 460 Independent Study. (1-6) A. Prerequisites: Departmental approval. Individual study and/or research on a problem pertaining to corrections and/or juvenile justice. Student must have the independent study proposal form approved by the faculty supervisor and department chair prior to enrollment.

COR 470 Delinquency and Crime Prevention. (3) A. Prerequisites: COR 201 and 300 or departmental approval. Explores various strategies for prevention of adult and juvenile crime with particular attention to the theoretical and empirical bases for these approaches. Students will develop a crime prevention plan.

COR 475 Applied Research Practicum. (3) A. Prerequisite: departmental approval. Policy-relevant research designed to broaden program evaluation experience through assignments in evaluation planning, research design, data interpretation/analysis, and translation of findings to policy. Activities conducted in classroom, computer laboratory, and in the field. May be retaken for 6 hours in program.

CRE—Creative Thinking

CRE 101 Introduction to Applied Creativity (3) A. An introductory course establishing a foundation in creative thinking through instruction in basic theories and practices. Concentration on basic language and fundamental and powerful concepts in creativity studies.

CRE 400 Creativity Studies Project (3) A. Prerequisites: coordinator approval; CRE 101(C) and 12 hours of courses on CRE list. Requires portfolio, project, and presentation in the culminating creativity experience.

CRJ—Criminal Justice
Dr. Preston Elrod, Interim Chair

CRJ 101 Introduction to Criminal Justice. (3) A. A general overview of the criminal justice system including a description of the major agencies: police, prosecution, courts, and corrections, and an analysis of their interdependence in the criminal justice process.

CRJ 204 Foundations of Corrections (3) A. An overview of the evolution, structure, and functioning of corrections in the United States. Examines correctional processes, populations, and issues.

CRJ 301 Drugs, Crime and Society. (3) A. Prerequisites: CRJ 101 with a grade of "C" or better, sophomore standing or departmental approval. An examination of drug trafficking, the connection between drug use and other types of crime, and a review of drug control policies, including the impact of the media and politics.

CRJ 302 Living and Working in Prison (3) A. Cross-listed as COR 302. Prerequisite: Junior or Senior standing. Examines inmate subcultures and violence in prisons. Analyzes prison environment for correctional officers. Explores life behind bars/ offender difficulties in reentering society. Credit will not be awarded for both CRJ 302 and COR 302.

CRJ 303 The Offender in the Community (3) A. Cross-listed as COR 303. Prerequisite: Junior or Senior standing. Explores impact offenders have on community. Examines formal correctional options and alternative methods of social control used to manage offenders in community. Credit will not be awarded for both CRJ 303 and COR 303.

CRJ 305 Domestic Violence. (3) A. Cross listed as WGS 305. Prerequisites: CRJ 101 with a grade of "C" or better, sophomore standing, or departmental approval. Examination of the theoretical and empirical literature on violence against women, children, and elders. Addresses such issues as physical and sexual abuse of children, courtship violence, domestic violence, marital rape, and elder abuse. Credit will not be awarded for both CRJ 305 and WGS 305.

CRJ 311 Juvenile Justice System (3) A. Cross-listed as COR 311. Prerequisite: Junior or Senior standing. Examines the evolution of the juvenile justice system, police response to delinquency, and juvenile court's role in protecting the public and serving children. Credit will not be awarded for both CRJ 311 and COR 311.

CRJ 312 Judicial Processes. (3) A. Prerequisites: CRJ 101 with a grade of "C" or better, sophomore standing, or departmental approval. An in-depth study of law-making and the American judicial process. Includes a systematic and comprehensive analysis of American courts, their pivotal role in the criminal justice system, and the function and responsibilities of the key personnel within them.

CRJ 313 Criminal Justice Ethics. (3) A. Prerequisites: CRJ 101 with a grade of "C" or better, sophomore standing, or departmental approval. Examines the moral, legal and normative obligations of the state and criminal justice professionals. Surveys the philosophies and theories of ethics and deviance. Credit will not be awarded for both CRJ 313 and 313S.

CRJ 313S Criminal Justice Ethics. (3). A.

Prerequisites: CRJ 101 with a grade of "C" or better, sophomore standing, or departmental approval. Examines the moral, legal and normative obligations of the state and criminal justice professionals. Surveys the philosophies and theories of ethics and deviance enhanced with a service-learning component. Credit will not be awarded for both CRJ 313 and 313S.

CRJ 314 Law and Society (3) A. Prerequisite: Junior or Senior standing. Critically examines law in everyday life. Law infuses popular media, constructs (and constrains) identity, and pervades language. In turn, media, identity, and discourse construct our understandings of law. Particular attention is paid to the law's role in practices and discourses of resistance and in exerting social control.

CRJ 315 Administration of Justice. (3) A. Prerequisites: CRJ 101 with a grade of "C" or better, sophomore standing, or departmental approval. Examines theories of organization and management as they relate to criminal justice practice. Organizational life, leadership personnel management, bureaucracy, resource management, and other critical administration issues are addressed.

CRJ 323 Legal and Ethical Issues in Adult Corrections (3) A. Cross-listed as COR 323. Prerequisite: Junior or Senior standing. An overview of legal court decisions related to adult corrections. Analyzes ethical issues surrounding adult correctional contexts and practices. Credit will not be awarded for both CRJ 323 and COR 323.

CRJ 325 White Collar Crime. (3) A. Prerequisites: CRJ 101 with a grade of "C" or better, sophomore standing, or departmental approval. A review and analysis of the upper world crimes of business and government committed in the course of legitimate occupations and financial activities.

CRJ 331 Perspectives on Crime and Delinquency. (3) A. Prerequisite: Junior or Senior standing. Overview of crime and its control. Examines law making, law breaking, and the social response from theoretical perspectives including social, economic, cultural, symbolic, psychological and biological. Includes historical and contemporary developments. Credit will not be awarded for both CRJ 331 and CRJ 331W.

CRJ 331W Perspectives on Crime and Delinquency (3) A. Prerequisites: ENG 102 or ENG 105 or HON 102 and CRJ 101 with a grade of "C" or better, sophomore standing, or departmental approval. Overview of crime and its control. Examines law making, law breaking, and the social response from theoretical perspectives including social, economic, cultural, symbolic, psychological and biological. Includes historical and contemporary developments. Credit will not be awarded for both CRJ 331 and CRJ 331W.

CRJ 345 Diversity and Criminal Justice. (3) A. Cross listed as AFA 346 and WGS 345. Prerequisites: sophomore standing or departmental approval. Contemporary race, gender, and other diversity issues that affect offenders, victims, society, and the criminal justice system. Includes domestic and international human rights and social justice issues of protection and human development. (This course provides credit in Women and Gender Studies and in the African/African-American Program.) Credit will not be awarded to students who have credit for AFA 346 or WGS 345.

CRJ 350 International and Comparative Criminal Justice Systems. (3) A. Prerequisites: CRJ 101 with a grade of "C" or better, sophomore standing, or departmental approval. A survey of selected world criminal justice systems including police, courts, and corrections. Cross-national and cross-cultural criminality from several perspectives will be examined.

CRJ 355 Rural Crime and Justice. (3) A. Prerequisite: sophomore standing. Survey of rural crime and justice issues, crime trends, policing and control of rural crime with particular attention given to Kentucky and Appalachia. Credit will not be awarded for both CRJ 355 and APP 355.

CRJ 360 Rehabilitation Strategies for Adult and Juvenile Offenders (3) A. Cross-listed as COR 360. Prerequisite: Junior or Senior standing. Debates the rehabilitative goal of corrections and juvenile justice. Examines contemporary strategies and their effectiveness in controlling/changing offender behavior. Credit will not be awarded for both CRJ 360 and COR 360.

CRJ 388 Criminal Justice Research. (3) A. Prerequisite: Junior or Senior standing. Overview of the research process, with emphasis on finding, using, and evaluating criminal justice research. Examination of both quantitative and qualitative social science research methods and procedures appropriate to the study of crime policy and criminal justice. Credit will not be awarded to students who have credit for COR 388 or CRJ 388W.

CRJ 388W Criminal Justice Research (3) A. Prerequisite: ENG 102, or ENG 105, or HON 102 and CRJ 101 or COR 201 with a grade of C or better, sophomore standing, or departmental approval. Overview of the research process, with emphasis on finding, using and evaluating criminal justice research. Examination of both quantitative and qualitative social science research methods and procedures appropriate to the study of crime policy and criminal justice. Credit will not be awarded to students who have credit for COR 388 or CRJ 388.

CRJ 400 Applied Criminal Justice Analysis. (3) A. Prerequisite: Junior or Senior standing. Analytical and statistical concepts and procedures relevant to crime and criminal justice data. Includes quantitative and qualitative techniques.

CRJ 401 Organized Crime. (3) A. Prerequisites: CRJ 101 with a grade of "C" or better, sophomore standing, or departmental approval. History, scope, and methods of control of organized crime. Emphasis on local, regional, national and international control of organized crime. Cultural and social implications of the presence of organized crime are examined in depth.

CRJ 403 Crime Mapping. (3) A. Prerequisite: sophomore standing. The purpose of this class is to introduce the student to theoretical and practical aspects of crime mapping and the spatial analysis of crime. In addition the lab portion of the class will provide hands-on training in crime mapping practices. 3 Lec/2 Lab.

CRJ 406 Critical Issues in Criminal Justice. (3) I, II. Prerequisites: CRJ 101 with a grade of "C" or better, sophomore standing, or departmental approval. Examination of the criminal justice system and process with an emphasis on problems and trends. This course provides an analytical overview of justice and its response to the needs of society. May be retaken for a maximum of six hours on different topics.

CRJ 410 Alcohol and the Law. (3) A. Prerequisite: sophomore standing. This course is an overview of the history of alcohol and prohibition in the U.S. Subtopics include: the American temperance tradition, moderation vs. prohibition, government enforced morals, and the interconnection among religion, politics and the law.

CRJ 412 Gender, Class and Race. (3) A. Prerequisite: Junior or Senior standing. Critically examines gender, class and race and their intersections as they pertain to crime, offending, victimization, and punishment. This course will lead students to an understanding of how the criminal justice apparatus operates within larger social, political, and economic systems of oppression and domination over marginalized populations.

CRJ 413 Addressing Mental Health and Substance Abuse Needs of Adult Offenders (3) A. Formerly: COR 320. Prerequisite: Junior or Senior standing. Cross-listed as COR 413. Examines etiology and effects of substance abuse/ mental health problems of adult offenders. Describes intervention strategies. Credit will not be awarded to students who have credit for COR 413 or COR 320.

CRJ 415 Prostitution and Criminal Justice. (3) A. Prerequisite: sophomore standing. This course is an analytic overview of the history of prostitution in the United States. Subtopics that will be included are: the American reform tradition, deviance, social control, regulation vs. prohibition, feminism, and politics.

CRJ 422 Human Trafficking. (3) A. Prerequisite: Junior or Senior standing. Critically examines the global problem of human trafficking. Using a historical and comparative framework, this course reveals variation in human trafficking patterns in different regions of the world and efforts to combat human trafficking by means of prevention, protection, prosecution, and partnership.

CRJ 423 Topical Seminar: _____. (3) A. Prerequisites: departmental approval, sophomore standing. Intensive study of selected topics related to criminal justice. May be retaken for a maximum of six hours on different topics.

CRJ 424 Field Experience. (3) A. Prerequisites: instructor and departmental approval, sophomore standing. Designed to broaden the educational experience through appropriate observational work assignments. (Intended for pre-service students in non-sworn positions.) May be retaken 1 time for 6 total credit hours.

CRJ 425 Criminal Gangs. (3) A. Prerequisite: Junior or Senior standing. Course examines single purpose criminal gangs that commit crimes for profit for a short time period and organized criminal gangs that have extensive supporting networks and long histories of criminal activity such as adult street gangs, prison gangs, outlaw motorcycle gangs and drug trafficking organizations.

CRJ 460 Independent Study. (1-3) A. Prerequisites: departmental approval, sophomore standing. Individual study and/or research on a problem pertaining to criminal justice. Student must have the independent study proposal form approved by faculty supervisor and departmental chair prior to enrollment. May be retaken for a maximum of six hours.

CRJ 490 Senior Seminar. (3) A. Prerequisites: senior standing and completion of CRJ 331, CRJ 388 and at least 21 hours of CRJ coursework or departmental approval. Capstone course consisting of development and production of a senior level research paper grounded in relevant criminal justice literature. Emphasis on integration of knowledge acquired in previous courses.

CSC—Computer Science
Dr. Ka-Wing Wong, Chair

CSC 104 Computer Literacy with Software Applications. (3) I, II. A non-technical survey of computer history, hardware, and software. Implications of the use and misuse of computers. The effect of computers on society. Software applications such as word processors, spread sheets, databases, and graphics. Credit will not be awarded for both CSC 104 and CIS 212. 3 Lec (1 Lab when taught in large lecture sections.) Gen. Ed. VII (QS).

CSC 105 Software Applications Topics: ____. (1-3) A. Selected topics in software applications. Topics vary with offering. May be retaken with advisor approval to a maximum of nine hours provided the topics are different.

CSC 110 Introduction to the Internet. (1) I, II. Introduction to the Internet and the Internet processing tools. The course emphasizes the use of the World Wide Web as an information broadcasting and retrieval tool.

CSC 120 Introduction to Multimedia. (3) I, II. Introduction to multimedia technology and computerized visual communication. Topics include video editing, media file processing, video streaming, computer graphics, computer animation, and multimedia presentation.

CSC 123 Exploring Virtual Worlds. (3) A. Exploration of the technologies used in virtual

environments and their effects on society. Review of technology driving virtual environments with historical context. Emerging technology. Social/economic consequences. Possible future outcomes through new technologies and science fiction. GenEd VIII Option 3.

CSC 140 Introduction to Computer Game Design. (3) I, II. Introduction to computer game design, frame based animation, sound effects, program logic, game scripting, and object oriented programming.

CSC 160 Introduction to Programming: (3) A. Prerequisite: completion of all mathematics developmental requirements. Introduction to problem solving with computers and the Internet using an appropriate programming language. Basic concepts include data types, objects, control structures, functions, and input/output features. Gen. Ed. VII (QS).

CSC 174 Introduction to FORTRAN. (3) I, II. Prerequisite: completion of all mathematics developmental requirements. Introductory programming in FORTRAN, input/output, decision, loops, arrays, subroutines, functions, files. Gen. Ed. VII (QS).

CSC 177 Introduction to Visual Basic. (3) I, II. Prerequisite: completion of all mathematics developmental requirements. Introduction to programming in the event driven/graphical programming language Visual Basic. Topics include forms, common controls/objects, coding, procedures, file management and developing Windows applications. Gen. Ed. VII (QS).

CSC 178 Programming in _____. (1-3) A. Prerequisite: completion of all mathematics developmental requirements. Programming in selected languages, with appropriate applications. May be retaken to a maximum of six hours, provided the languages are different.

CSC 185 Intro to Computer Concepts. (3) I, II. Prerequisite: Completion of all developmental mathematics requirements. Fundamental concepts and skills needed to design computer programs using class diagrams, flowcharts, pseudo-code, and general purpose programming tools; analysis of target problems; object-oriented design; algorithm design and verification prior to implementation.

CSC 190 Object-Oriented Programming I. (3) I, II. Prerequisite: a minimum of 22 on the mathematics portion of the ACT or a minimum of 510 on the mathematics portion of the SAT or a minimum grade of "C" in CSC 160, 174, 177, 178 or 185. Introduction to problem solving with computers using an object-oriented programming language. Concepts include data types, input/output, classes, control structures, and arrays. 2 Lec/2 Lab. Gen. Ed. VII (QS).

CSC 191 Object-Oriented Programming II. (3) I, II. Prerequisite: a minimum grade of "C" in CSC 190 and a minimum of 25 on the mathematics portion of the ACT, a minimum of 590 on the mathematics portion of the SAT, or a minimum grade of "C" in CSC 185. Object-oriented programming, recursion, arrays, inheritance, file input/output, exception handling, multi-thread programming, GUI, object-oriented analysis and design. 2 Lec/2 Lab.

CSC 195 Intro to Discrete Structures. (3) I, II. Prerequisites: A minimum grade of "C" in CSC 190; and a minimum of 25 on the mathematics portion of the ACT, a minimum of 590 on the mathematics portion of the SAT, or a minimum grade of "C" in CSC 185. Topics to be covered include sets, relations, functions; logic; algorithm design/analysis, recursive algorithms, recurrence relations, mathematical induction, counting, probability.

CSC 200 Introduction to Computer Organization. (3) I, II. Prerequisite: CSC 191 with a minimum grade of "C." Computer structure, assembly language, instruction execution, addressing, data representation, macro definition and generation, utility programs, programming techniques.

CSC 250 Intro to Interactive Games/App. (3) A. Prerequisite: CSC 190 with a minimum grade "C." Introduction to multimedia programming and scripting. Topics include frame-based animation, video editing, sound effects, program logic, and object-oriented programming. Credit will not be awarded for both CSC 250 and 140.

CSC 300 Introduction to Numerical Methods. (3) A. Prerequisites: MAT 224 or 224H; an approved programming language. Error analysis, nonlinear equations, interpolation, numerical differentiation and integration, ordinary differential equations, direct and interactive methods of solving linear systems, approximation.

CSC 301 Current Topics for Non-Majors: _____. (3) A. Prerequisite: CSC 104 or equivalent. Introduction to contemporary topics in computer science for non-majors. May be retaken to a maximum of six hours provided the topics are different. May not be used to satisfy Computer Science major or minor requirements.

CSC 302 Introduction to System Environments. (3) I, II. Prerequisite: CSC 191 with a minimum of grade of "C". Introduction to computer system environments, utilities, system programming, system administration, networking and operating systems.

CSC 303 3-D Modeling and Simulation. (3) A. Introduction to 3-D modeling and computer simulation. Topics include nurb and polygon modeling, bone structures, frames, scenes, lights, textures, sound, dialogs, and simulation control.

CSC 304 3-D Animation. (3) A. Introduction to 3-D animation and programming. Topics include coordinate system, vertices, lines, polygons, geometric objects, 3D models, motion control, and interaction design.

CSC 306 Ethics for the Computer Professional. (3) A. Prerequisite: CSC 191 with a minimum grade of "C." Responsibilities of the computing professional, social implications of computing, privacy, crime and abuse, risk and liabilities, copyright, and patents.

CSC 307 Cyberspace Security and Ethics. (3) A. A non-technical survey of computing, including computers' effect on society, computer crime, viruses and other threats, and self protection in an online environment. Gen.Ed. VIII

CSC 310 Data Structures. (3) I, II. Prerequisites: CSC 191 and CSC 195 with a minimum grade of "C" in both. The application and implementation of data structures including arrays, stacks, queues, linked lists, and trees. Internal searching and sorting techniques. The analysis of algorithms.

CSC 312 File Processing. (3) I, II. Prerequisite: CSC 310 with a minimum grade of "C." File organization and file storage devices. Topics include external sorting, sequential file processing, hashing, B+ trees, and introduction to databases.

CSC 313 Database Systems. (3) A. Prerequisite: CSC 310 with a minimum grade of "C." Introduction to databases, storage and retrieval of data, report generation, interface and application development, online queries, XML, multimedia database, and database security.

CSC 314 MS Office & Data Analysis (3) A. Prerequisite: "C" or higher in CSC 104 or CSC 212. Designing advanced Excel spreadsheets and Access databases to manage data problems with an emphasis on data calculations, data analysis, and organization of data. Credit will not be awarded for both CSC 314 and CIS 230.

CSC 315 3D Modeling. (3) A. Prerequisite: CSC 191 and MAT 214 or MAT 214H. An introduction to geometric representations in 3D. Topics include polygon and spline modeling, texture mapping, materials, 3D scanning, and topics in animation including character rigging. Credit will not be awarded for both CSC 315 and CSC 303.

CSC 316 3D Game Engine Design. (3) A. Prerequisite: CSC 315 and CSC 310. Introduction to 3D animation and programming. Topics include coordinate systems, vertices, lines, polygons, geometric objects, 3D models, motion control, and interaction design. Credit will not be awarded for both CSC 316 and CSC 304.

CSC 318 Mobile Device Security & Privacy (3) A. Prerequisite: Sophomore standing. Introductory course on mobile device security and privacy. Topics include mobile devices including smart phones, tablets and others; mobile device threats; mobile device security including planning and implementation; mobile device privacy.

CSC 320 Introduction to Algorithms. (3) A. Prerequisites: CSC 310 with a minimum grade of "C" and MAT 124. Fundamental algorithms required in computer science; algorithm design/analysis methods, graph algorithms, probabilistic and parallel algorithms, and computational models.

CSC 330 System Environments & Networks. (3) A. Prerequisite: CSC 191 with a minimum grade of "C." Introduction to computer system environments, utilities, system administration, and networking.

CSC 332 Digital Storage Device Forensics. (3) A. Prerequisite: a minimum grade of "C" in CSC 310. Introduction to digital storage forensics. Topics include digital investigation fundamentals, fundamentals of storage devices (hard disk, optical, flash, consumer electronics devices, and mobile devices), disk volume analysis, and file systems analysis (FAT/NTFS, Ext2/3/4, UFS1/2, HFS/HFS+/HFSX).

CSC 340 Ethics & Software Engineering. (3) A. Prerequisite: CSC 310 with a minimum grade of "C." Responsibilities of software professionals, social implications of software such as privacy, crime and abuse, risk and liabilities, copyright, and patents, software project planning, software requirements analysis, software design, and software testing.

CSC 349 Applied Learning in Computer Science. (.5-8) I, II; (1-6) SUMMER ONLY. Prerequisite: students must have successfully completed 30 semester hours of course work including six hours of Computer Science major courses. In addition, transfer students must have completed at least one semester of full-time course work at EKU. Work in placements related to academic studies. A maximum of three hours may be applied toward the Computer Science technology option degree only. Credit does not apply to general Computer Science major or minor requirements. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours of employment is required for each semester hour of academic credit. Credit may only be awarded in the semester in which the work is completed.

CSC 349 A-N Cooperative Study: Computer Science. (.5-8) I, II; (1-6) SUMMER ONLY. Prerequisite: students must have successfully completed 30 semester hours of course work including six hours of Computer Science major courses. In addition, transfer students must have completed at least one semester of full-time course work at EKU. Work in placements related to academic studies. A maximum of three hours may be applied toward the Computer Science technology option degree only. Credit does not apply to general Computer Science major or minor requirements. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours of employment is required for each semester hour of academic credit. Credit may only be awarded in the semester in which the work is completed.

CSC 350 Principles of Programming Languages. (3) I, II. Prerequisites: CSC 200 and 310 with a minimum grade of "C" in both courses. The principles used in the design and implementation of programming languages. Language descriptions, structural implementations, and specialized features of languages.

CSC 370 Computer Architecture. (3) A. Prerequisite: CSC 200. Information representation, Boolean algebra and combinatorial logic, memory and storage, elementary machines, addressing

schemes, stack and parallel computers, overlap and pipeline processing, microprogramming, performance evaluation.

CSC 390 Advanced Programming Techniques with _____. (3) A. Prerequisite: CSC 312. Advanced programming with a selected programming language, with appropriate applications. May be taken to a maximum of six hours, provided the languages are different.

CSC 400 Operating Systems. (3) I, II. Prerequisites: CSC 320 and 370. Overall structure of multiprogramming systems, details of addressing techniques, memory-management, file system design and management, traffic control, interprocess communication, system module design, interfaces.

CSC 401 Network and System Programming. (3) A. Prerequisites: CSC 302, CSC 370 or EET 254. Technical programming in the UNIX and the Internet environments: shell scripts, TCP/IP, HTML, CGI, and JavaScript. Survey of Internet protocols.

CSC 425 Compiler Construction. (3) I, II. Prerequisites: CSC 320 and 350. Basic concepts of lexical analysis and syntax analysis. A programming team project will implement these concepts.

CSC 440 Applied Software Engineering. (3) A. Prerequisites: A minimum grade of "C" in CSC 340. Techniques and tools for software requirements, software design, software testing, and software project planning as a team project for majors in computer science.

CSC 460 Computer Network & System Administration. (3) A. Prerequisite: CSC 310, 400 or 401. Introduction to the subject of computer networks and layered protocols, architecture of data communication systems, point-to-point networks, local networks, end-to-end protocols and internetworking, and server-side technology to create interactive web pages.

CSC 490 Seminar in _____. (1-3) A. Prerequisite: departmental approval. For advanced students in computer science. Subject announced when offered. May be retaken to a maximum of 12 hours, provided that the topics are different.

CSC 491 Console Game Design. (3) A. Prerequisite: CSC 316 and senior status. Level design, storyboarding, character modeling, game scripting, game interface design, audio effects, marketing, and ethics. Students will work in groups to develop a computer game term project.

CSC 495 Independent Work. (1-3) I, II. Prerequisite: departmental approval. Directed study/research on a problem or area chosen in consultation with the instructor. Final paper required. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of six hours.

CSC 507 Seminar in Computer Science: _____. (1-3) A. Prerequisite: departmental approval. Topics vary with offering. May be retaken with advisor approval, provided the topics are different.

CSC 510 Web Design and Programming in Education. (3) A. Introduction to design and implementation of World Wide Web applications for teachers. Development of interactive on-line class notes and testing materials.

CSC 520 Multimedia System and Forensics. (3) A. Prerequisite: CSC 310. Integration of multimedia technologies, signal processing and compression of images, audio, and video, multimedia forensics and message hiding.

CSC 530 Concepts of Programming Systems. (3) A. Prerequisites: three hours of a programming language or department approval. The top-down design of algorithms, structured programming, control structures, subprograms, files and lists. Programs will be written in a high level language. Credit does not apply to the B.S. degree in Computer Science.

CSC 535 Discrete Structure. (3) A. Prerequisite: MAT 107 or equivalent. Corequisite: CSC 530. Logic, sets, functions, Boolean algebra, probability and their applications, number theory, recursion, math induction proofs with application of these topics to computer science.

CSC 538 Computer Crime and Forensics. (3) A. Introductory course on computer crime and forensics. Computer criminal evidence collection, analysis and handling; computer forensics tools; data acquisition; digital evidence control; Windows and Linux systems investigation; email investigation; network forensics; computer forensic report writing.

CSC 540 Integrated DB Applications. (3). Prerequisite: CSC 310 with a minimum grade of "C." Techniques and tools for creating an integrated database application. Topics include architecture of a client/server database, creation of named program units stored in the database and in the workstation file system, developer utilities and domain integrity.

CSC 544 Database Admin and Security. (3) A. Prerequisite: CSC 310 with a minimum grade of "C." This course covers database management system concepts, database system architecture, installation and setup, data management, performance monitoring and tuning, backup and recovery, database security models and management, database auditing.

CSC 545 Theory of Database Systems. (3) A. Prerequisite: a minimum grade of "C" in CSC 310. Models and principles of information systems. Database languages. The logical and physical design as well as the implementation and use of database systems.

CSC 546 Artificial Intelligence. (3) A. Prerequisite: CSC 310 with a minimum grade of "C" or CSC 530. The use of programming languages to model concepts selected from artificial intelligence. The application of heuristics to problem solving. Perception and pattern recognition.

CSC 547 Network Forensics and Investigation (3) A. Prerequisite: CSC 460. Introduction to Windows network forensics. Topics include: Windows network structure; Windows password/authentication mechanisms; Windows ports and services; Liveanalysis techniques; Windows registry structure and evidence; Forensic analysis of events logs; Network forensics tools and reporting.

CSC 548 Personal Electronic Device Forensics. (3) A. Prerequisite: CSC332. Introduction to personal electronic device forensics. Topics include architecture, functionality, operating systems and implementation of PEDs (cell phones, PDAs, iPod, MP3 music players, GPS devices), recovering evidence from PEDs, and hostile forensic and booby-trapping techniques.

CSC 549 Computer Forensics Capstone. (3) A. Prerequisite: CSC 332. Project course. Students apply learned digital forensic knowledge, techniques, and software and hardware tools to work on a team project on a case for digital evidence collection, handling, analysis, and reporting.

CSC 550 Graphics Programming. (3) A. Prerequisites: CSC 316. 3-D geometry, model transformation, matrices, computer algorithms and protocols, texture mapping, camera control, and collision detection.

CSC 555 Topics in Multimedia:____ (3) A. Prerequisite: departmental approval. For advanced students in computer science. Subject announced when offered. May be retaken to a maximum of six hours, provided the topics are different.

CTE—Career and Technical Education
Dr. Charles Gagel, Coordinator

CTE 164 Orientation to Career and Technical Education. (3) A. Instruction to new technical teachers in areas of principles of instruction, lesson planning, oral instruction, instructional media, demonstrations, evaluation and follow-up. Satisfactory-unsatisfactory grading.

CTE 303 Career and Technical Education Staff Exchange. (2-9) A. Prerequisite: departmental approval. For in-service career and technical teachers enrolled in an approved staff exchange program designed to update technical skills and knowledge in an occupational setting. Assignments include verifying contact hours, site visit, narrative summary, and lesson development. First week of exchange is equal to two semester hours of credit with one additional hour of credit for each additional week. Satisfactory-unsatisfactory grading.

CTE 204 Related Science, Mathematics, and Technology in Occupations I. (3) A. Offered only through written examination; applicant must be eligible for vocational teaching certificate.

CTE 205 Manipulative Skills in Occupations I. (3) A. Offered only through technical competence examination; applicant must be eligible for vocational/teaching certificate.

CTE 206 Related Knowledge: Occupations I. (3) A. Offered only through written examination; applicant must be eligible for vocational teaching certificate.

CTE 261 Foundations of Career and Technical Education. (3) A. For in-service career and technical teachers. A study of the historical, philosophical, economical, sociological, and psychological foundations of career and technical education related to elementary, secondary, and post-secondary education. Credit will not be awarded for both CTE 261 and 262.

CTE 262 Foundations of Career and Technical Education (Pre-Service). (3) A. Co-Requisite: EDF 310 (1)—Enrollment in a late term section is preferred. For pre-service career and technical teachers. A study of the historical, philosophical, economical, sociological, and psychological foundations of career and technical education related to elementary, secondary, and postsecondary education. Credit will not be awarded for both CTE 262 and 261.

CTE 302 New Developments in Industry. (1-6) A. Concurrent enrollment in approved industry sponsored course. One hour credit for each week of enrollment (minimum of 20 class hours per week). Student required to present proof of completion and to develop a teaching unit on the new development. May be retaken provided the industry sponsored school is different. Graded on a satisfactory-unsatisfactory basis. Only in-service vocational education teachers may enroll.

CTE 304 Related Science, Mathematics, and Technology in Occupations II. (3) A. Offered only through written examination; applicant must be eligible for vocational teaching certificate.

CTE 305 Manipulative Skills in Occupations II. (3) A. Offered only through technical competence examination; applicant must be eligible for vocational/teaching certificate.

CTE 306 Related Knowledge: Occupations II. (3) A. Offered only through written examinations; applicant must be eligible for vocational teaching certificate.

CTE 361 Course Materials in Career and Technical Education. (3) A. The preparation of instructional materials and instructional techniques, including the development and use of instructional media. The content will include the development of curricula at appropriate levels of education and appropriate laboratory activities.

CTE 363 Evaluation in Career and Technical Education. (3) A. Methods of evaluation, preparation of measuring devices; methods of assessing technical competency; interpretation of standardized test results; statistical analysis of test data and the improvement of instruction.

CTE 364 Methods in Career and Technical Education. (3) A. Presentation and application of instructional materials, methods, techniques, and devices relevant to teaching technical subjects.

CTE 463 Practicum in Career and Technical Education. (4-12) A. Prerequisites:

CTE 361, 363, 364. Observation, participation and supervised teaching in vocational and technical education. Includes experiences in lesson planning, classroom management, record keeping, development and use of instructional materials and directed teaching in approved centers. Students are graded on a satisfactory-unsatisfactory basis.

DES—Design
Mr. Herb Goodman, Chair

DES 121 The Interior Environment. (3) A. An orientation to the profession: relationship to allied fields, contemporary developments, professional organizations, career options and philosophical approaches. Introduction to the principles and elements of design, programming, space planning, and decorative ornamentation. Open only to non-Interior Design majors.

DES 122 Graphic Communication in ID. (3) I. Emphasis on graphic communication as part of the design process for interior designers. Integration of drawing skills employed in graphic representational methods used to analyze and describe interiors and conceptual ideas. Studio.

DES 126 Computers and Interior Design. (3) I. Focuses on instruction in CAD software (AutoCAD) with brief introductions to word processing, spreadsheet, database, presentation, and rendering software as well as an examination of the role of e-mail and the Internet in the profession of interior design. Studio.

DES 222 Interior Design Studio I. (3) I. Prerequisites: ART 100, 152, 153; DES 122. A study of two and three-dimensional design theories including color theory and spatial organization and their application to interior design. Both graphic and model making techniques utilized. Studio meets for 3 hours twice a week.

DES 225 Interior Materials. (3) II. An investigation of the interior finish materials and component systems used in the design profession; their properties, performances, sustainability, application and installation techniques, as well as health and life safety issues and the appropriate trade sources.

DES 226 Interior Design Studio II. (3) II. Prerequisite: DES 222. The study of the concepts and requirements in residential interior design. Programming, human factors, space planning, and study of functional and aesthetic aspects of residential environments will be explored. Studio meets for 3 hours twice a week.

DES 250 Introduction to Graphic Design. (3) I, II. Prerequisites: ART 100 and 152. Introduction to the field of professional graphic design and its conceptual and technical makeup. A portfolio review will be conducted during exam week of DES 250 to determine enrollment for DES 350 and 351.

DES 317 Interior Design Study Tour I. (1-3) A. Prerequisite: 30 hours in the Interior design major or approval. A tour planned for interior design students to observe the operation of establishments involved in production, sales, and/or display of items such as furniture and accessories. Special project required.

DES 319 Seminar in Interior Design. (1-3) A. A study of technical information relevant to interior design. Course content to be determined by student interest and needs. May be retaken to a maximum of six hours provided the content is different.

DES 322 Interior Design Studio III. (3) I. Prerequisites: DES 226 and 330. Major GPA 3.0, and admission to the BFA program. Corequisites: DES 325. Research analysis, programming, space planning, and human factors in residential and/or small-scale commercial design. Laptops and CAD software required. Studio meets for 3 hours twice a week.

DES 325 Professional Practice in ID. (3) I. Corequisite: DES 322. An examination of the profession of interior design including history, procedures, documents, organizations, trade resources, certification, management, and ethics.

DES 326 Interior Design Studio IV. (3) II. Prerequisite: DES 322, Major GPA 3.0, and admission to the BFA program. Research, analysis, organization, advance programming in large-scale commercial and/or residential design, emphasizing special populations, and resulting in functional and aesthetic design solutions. Studio meets for 3 hours twice a week.

DES 327 History of Interior Design I. (3) I. Prerequisite or Corequisite: ARH 390 and 391. The study of the history and theory of architecture, interiors, and decorative arts from the Renaissance through the nineteenth century. An examination of the significance and application to current design problems.

DES 328 History of Interior Design II. (3) II. Prerequisite: DES 327. The study of the history and theory of architecture, interiors, and decorative arts from the nineteenth century through the present day. An examination of the significance and application to current design problems.

DES 330 Lighting Design. (3) II. Prerequisite: CON 250. Introduction to lighting with an emphasis on theory, codes, and practical application/selection of lighting to enhance interior space. Integration of lighting issues that are essential and specific to the industry and profession of interior design.

DES 332 Housing Alternatives for Elderly. (3) A. Examination of the housing options and alternatives for the elderly population resulting in an awareness of and responsiveness to the needs of the user.

DES 349 Applied Learning in Art & Design (.5-8) A. Work in a professional environment related to academic studies. One to eight hours credit per semester or summer. A minimum of 80 hours employment required for each semester hour credit. Students must have successfully completed 30 semester hours of course work and transfer students must have completed at least one semester of full-time course work at EKU with a GPA of 3.0.

DES 349 a-n Cooperative Study: Art & Design (.5-8) A. Work in a professional environment related to academic studies. One to eight hours credit per semester or summer. A minimum of 80 hours employment required for each semester hour credit. Students must have successfully completed 30 semester hours of course work and transfer students must have completed at least one semester of full-time course work at EKU with a GPA of 3.0.

DES 350 Typography I. (3) II. Prerequisite: DES 250. Corequisite: DES 351. Departmental approval and 3.0 GPA in ART, ARH, and DES courses. Introduction to the use of letterforms in graphic design and visual culture. Students will research typographic terms and history and will develop an understanding of visual hierarchy in graphic design.

DES 351 Sophomore Studio. (3) I, II. Prerequisite: DES 250. Corequisite: DES 350. Departmental approval and 3.0 GPA in ART, ARH, and DES courses. An exploration of visual communication issues and applications in graphic design. The relationship of visual form to meaning, type and image relationships will be examined.

DES 352 Image Making. (3) II. Prerequisites: DES 350, 351, Major GPA 3.0, and admission to the BFA program. Corequisite: DES 353. An advanced integration of various techniques and materials, both traditional and contemporary, to promote understanding of the importance of imagery within the field of graphic design.

DES 353 Production for Graphic Design. (3) II. Prerequisites: DES 350, 351, Major GPA 3.0, and admission to the BFA program. Corequisite: DES 352. Exploration of materials, surface graphics, marketing, and production problems as the refinement and integration of many design principles.

DES 354 Typography II. (3) A. Prerequisites: DES 352, 353, Major GPA 3.0, and admission to the BFA program. Corequisite: DES 451. Advanced study of typography as an expressive medium. Special attention to multi-page document work, advanced issues of typography in scale as well as its usage in new media and alternative situations.

DES 421 Supervised Field Experience in ID. (6) SUMMER ONLY. Prerequisites: open to Interior Design BFA students only, DES 325 and 326, minimum 2.25 overall GPA, and 3.0 major GPA. Observation of an interior design firm's operation, with performance in assigned tasks. Students are placed with an architecture or interior design firm for a continuous full time ten-week experience.

DES 422 Interior Design Studio V. (3) I. Prerequisites: DES 326 and 328, Major GPA 3.0, and admission to the BFA program. Advanced studio experience in interior design with emphasis on one or more of the following: residential, exhibit/retail, hospitality, office, historic preservation and adaptive-use. Studio meets for 3 hours twice a week.

DES 424 Issues in Interior Design. (3) A. Prerequisite: junior standing or departmental approval. Individual and group investigation of current responsibilities and issues relevant to the field of interior design.

DES 426 Interior Design Studio VI. (3) II. Prerequisites: DES 421 and 422, Major GPA 3.0, and admission to the BFA program. Corequisite: ART 499. Advanced studio experiences in interior design requiring students to design a comprehensive large-scale project. Studio meets for 3 hours twice a week.

DES 450 Professional Practices in Graphic Design. (3) I, II. Prerequisites: DES 354, 451, Major GPA 3.0, and admission to the BFA program. Corequisite: DES 453. This course examines the professional standards and practices specific to the field of graphic design.

DES 451 New Media. (3) A. Prerequisites: DES 352 and 353, Major GPA 3.0, and admission to the BFA program. Corequisite: DES 354. Introduction to the artistic and technical issues of multimedia through website creation and animation.

DES 453 Senior Workshop in Design. (3) I, II. Prerequisite: DES 354, 451, Major GPA 3.0, and admission to the BFA program. Corequisite: DES 450. Exploration of current issues, technical procedures, and design products.

DES 454 BFA Graphic Design. (3) I, II. Prerequisites: DES 453, Major GPA 3.0, and admission to the BFA program. Corequisite: ART 499. Final phases of the student designer's transition into the profession. Additional guidance towards portfolio and senior thesis development.

DES 463 Problems in Design:_____ . (3) I, II. Prerequisites: DES 354 and 451 or Department Approval. Individualized instruction in design builds on creative skills and techniques learned in prior design courses. This course stresses the development of a specialized study of techniques and concepts for a design portfolio. May be retaken with different topics to earn a maximum of nine hours.

DES 517 Interior Design Study Tour II. (1-3) A. Prerequisite: Interior Design major who has completed 90 hours or departmental approval. Tour of interior design resources, wholesale and retail showrooms. Study in museums, libraries, and interior design centers when possible. Special study projects.

ECO—Economics
Dr. Gyan Pradhan, Chair

ECO 110 The Individual and the Economy. (3) A. Prerequisite: MAT 095 or ACT math score of 18 or SAT math score of 490 or higher. An examination of the nature and role of individual decision making in the economy; the economic environment and the individual's decisions; public policies and the decisions of the individual. Credit will not be awarded to students who have credit for ECO 230 or 231.

ECO 120 Economic Reasoning and Issues.

(3) I, II. Prerequisite: MAT 095 or ACT math score of 18 or SAT math score of 490 or higher. Basic concepts of a market-based economy, including scarcity, opportunity cost, comparative advantage, demand and supply, marginal analysis, market failures, economic growth, unemployment, inflation, and international trade and finance. Gen. Ed. E-5B. Students who have completed or are enrolled in ECO 230 or 231 will not receive credit for ECO 120.

ECO 130 Contemporary Economic Problems. (3) I, II. Prerequisite: completion of developmental math requirements. A general education economics course dealing with such contemporary economic problems as unemployment, inflation, national debt, energy, health, pollution, education, crime, poverty, discrimination, and protectionism. Does not count toward the economics major. Gen. Ed. E-5B.

ECO 220 Statistical Methods for Economics I. (3) A. Prerequisite: MAT 107. Business and economic applications of frequency distributions, measures of location, variation; probability, sampling, estimation, test of hypothesis, linear regression, index numbers, and time series analysis. Credit will not be awarded to students who have credit for CRJ 400 or EPY 842 or HEA 450 or PSY 310 or QMB 200 or STA 208 or STA 215 or STA 270.

ECO 230 Principles of Microeconomics. (3) I, II. Prerequisite: ENG 095, ENR 095, and MAT 095; or equivalent. Microeconomic principles, including the study of opportunity cost, consumer and producer choices, market demand and supply, pricing and resource allocation, comparative advantage and international trade. Gen. Ed. E-5B.

ECO 231 Principles of Macroeconomics. (3) I, II. Prerequisite: ENG 095, ENR 095, and MAT 095; or equivalent. Macroeconomic principles, including the study of measures of national economic performance, determinants of aggregate production, employment and prices, monetary and fiscal policy, balance of payments, economic growth and development. Gen. Ed. E-5B.

ECO 233 Experiments in Microeconomic Principles. (1) A. Pre or Corequisite: ECO 230. Classroom experiments that demonstrate the major principles of microeconomics. 2 Lab.

ECO 300 Managerial Economics. (3) A. Prerequisite: ECO 230. Economic concepts that are directly applicable to business decision making including cost and production, profits, demand and pricing, capital budgeting and investment, and forecasting.

ECO 314 Sports Economics. (3) A. Prerequisite: ECO 230 or departmental approval. Economics applied to sports. Topics include collusive versus competitive behavior, pricing strategies, government subsidies of sports ventures and venues and sports labor markets.

ECO 315 Economic Policy Analysis. (3) A. Prerequisite: ECO 230. Foundations and rationale for economic policy, including market failure and income inequality. Objectives, evaluation and analysis of selected policies in areas such as international trade, environment, education, health care, welfare, social security, and economic development.

ECO 320 Research Methods in Economics I. (3) I. Prerequisite: ECO 220, STA 270 or QMB 200; ECO 230 and 231; or departmental approval. Combining economic theory and statistical models in empirical work in economics; the linear statistical model and its extensions, application to production and cost, demand, and economic growth, forecasting, and policy analysis; classical time series analysis.

ECO 324 Money and Banking. (3) A. Prerequisite: ECO 231. Functions of money, monetary systems, history of banking, functions of the commercial bank, bank assets and reserves, loans and discounts, bank supervision, the Federal Reserve System, central banking policies, monetary and fiscal policies.

ECO 330W Intermediate Microeconomics. (3) I. Prerequisite: ECO 230 or departmental approval; ENG 102 or ENG 105(B) or HON 102. A writing-intensive intermediate course in economics. Analysis of consumer and producer behavior, market equilibrium, pricing and resource allocation under alternative market structures, risk aversion and information. Credit will not be awarded for both ECO 330W and ECO 330.

ECO 331 Intermediate Macroeconomics. (3) II. Prerequisite: ECO 231. Analysis of aggregate economic activity; consumption, investment, employment, output, money and prices, exports and imports; stabilization policy.

ECO 333 Human Resource Economics. (3) A. Prerequisite: ECO 230. Economics of human resource markets, including the demand for and supply of labor, human capital formation, household production, unions, discrimination, unemployment, and associated public policy issues.

ECO 340 Environmental Economics. (3) A. Cross listed as APP 340. Prerequisite: ECO 230. Applications of basic economic analysis to a study of the environment and environmental problems. Major topics include benefit-cost analysis for environmental decision making, the potential for market-based solutions to environmental problems, and the role and development of environmental policy. Credit will not be awarded for both ECO 340 and APP 340.

ECO 345 Topics in Economics: _____. (1-3) A. Prerequisite: to be announced. Selected topics for study. Variable topics across semesters. May be retaken to a maximum of six hours, provided the subject matter differs each time.

ECO 349 Applied Learning in Economics. (.5-3) A. Prerequisite: minimum GPA 2.25. Co-curricular work experience under faculty and field supervisors. Training plan required. May be retaken to a maximum of six hours. Minimum 80 hours work required for each academic credit hour. May not count towards major.

ECO 349 A-N Cooperative Study: Economics. (.5-3) A. Prerequisite: minimum GPA 2.25. Co-curricular work experience under faculty and field supervisors. Training plan required. May be retaken to a maximum of six hours. Minimum 80 hours work required for each academic credit hour. May not count towards major.

ECO 360 Industrial Organization. (3) A. Prerequisite: ECO 230 or equivalent. Studies the strategic interactions of firms in imperfectly competitive markets, market performance, and public policy.

ECO 365 Public Finance. (3) A. Prerequisite: ECO 230. Economics of the public sector, including the scope of and rationale for government, public goods and externalities, voting schemes and public choice, taxes and subsidies, and transfer payments.

ECO 370 Health Care Economics. (3) II. Prerequisite: ECO 230 or departmental approval. Introduction to health economics, including the study of the demand for and production of medical care, health care planning, regulation, finance and evaluation.

ECO 394 International Economics. (3) A. Prerequisites: three hours ECO. An introduction to international trade and investment theory emphasizing international business, international trade theory, trade and investment patterns, payments system, balance of payments, international companies, and international issues.

ECO 395 Economics of Developing Countries (3) A. Prerequisite: three hours ECO. Economics of development including: theories of growth, income distribution, investment in human capital, alleviation of poverty, strategies for growth; study of selected countries.

ECO 410 History of Economic Thought. (3) A. Prerequisites: three hours of ECO. The history of economic ideas from Adam Smith through J. M. Keynes.

ECO 420 Research Methods II. (3) II. Prerequisite: ECO 320 or departmental approval. Problems of heteroscedeasticity, serial correlation, and endogeneity in the linear statistical model; nonlinear models and modern time series analysis. Formulation and execution of empirical research project.

ECO 430 Mathematical Economics. (3) A. Prerequisites: three hours of ECO and MAT 124, 211, or 261. Mathematical formulations of economic theories. Models of the consumer, the firm, markets, economic growth, and business cycles.

ECO 490 Senior Seminar in Economics. (3) A. Prerequisites: ECO 330, 331, and senior standing, or departmental approval. Reading, analysis and discussion of selected economics topics. Preparation of student research paper.

ECO 492 Business Cycles. (3) A. Prerequisite: ECO 231. Growth, instability, inflation, business cycle theories, spending and saving decisions, government expenditures and tax patterns, prices, output, and employment, historical cyclical patterns, economic forecasting.

ECO 560 Special Problems in Economics. (1-4) A. Prerequisite: advisor/departmental approval. Independent work, special workshop, special topics or seminar. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

ECO 590 Regional Economics. (3) A. Prerequisite: three hours of ECO. Analysis of patterns of regional growth and development. Use of economic models for regional forecasting and policy evaluation; the problems of marginal areas in developed economies.

EDF—Educational Studies
Dr. Dorie Combs, Chair

EDF 103 Introduction to Education. (1) I, II. An exploration of the professional qualities and expectations of a teacher/educator. Roles, responsibilities and challenges in the field of education will be reviewed. Eight hours of field experiences in schools are required. For pre-education and non-education majors.

EDF 200 Schools and Our Society. (3) I, II. Prerequisite: Score accepted by the Kentucky Education Professional Standards Board on one of the approved tests: ACT, PPST, SAT, GRE. An introduction to social and cultural influences on schools, the purposes of schooling, the governance, financing, and administration of schools, and the role of the individual as an educator. 15 hours of field experience required.

EDF 203 Philosophical & Historical Foundation of Education. (3) I, II. Prerequisite: **Background check per Teacher Education Services approved procedure, must be ordered and paid for by the first day of class.** Prerequisite or Corequisite: EDF 103 with a minimum grade of "C" or enrolled in EDF 103. Corequisite: EDF 349Q. An introduction to social and cultural influences on schools, the purposes of schooling, the governance, financing, and administration of schools, and the role of the individual as an educator. Minimum 12 hours of field experience required. 2 Lec/2 Lab.

EDF 204 Emerging Instructional Technologies. (3) I, II. Technological applications to education, training, and instruction within educational and human services settings. Students examine, develop, and/or evaluate emerging instructional technologies. For individuals interested in exploring technological applications in teaching and learning.

EDF 310 Transition to Education. (1-3) I, II. Prerequisite: **Background check, per Teacher Education Services approved procedure, must be ordered and paid for by the first day of class.** . Corequisite: EDF 349Q. Transition to professional education at EKU. Required of students who have an equivalent transfer course for EDF 203. 12 hours of field experience required.

EDF 319 Human Development and

Learning. (3) I, II. Prerequisite: admission to professional education. Corequisite: EDF 349. The study of theories and principles of human development and learning as applied to the classroom. Fifteen hours of field laboratory experiences. Credit will not be awarded to students who have credit for EDF 320 or EDF 319W.

EDF 319W Human Development and Learning. (3) I, II. Prerequisite: ENG 101 and 102, or HON 105 with a minimum grade of "C", or ENG 105 with a minimum grade of "B"; admission to professional education. The study of theories and principles of human development and learning as applied to the classroom. Fifteen hours of field laboratory experiences. Credit not awarded to students with credit for EDF 320 or EDF 319.

EDF 320 Human Development and Learning for Vocational Education. (3) I, II. The study of theories and principles of human development and learning as applied within vocational-industrial technical education classrooms. Credit will not be awarded for both EDF 320 and EDF 319.

EDF 330 U.S. South and Black Education. (3). A. Cross listed as AFA 330. This course introduces the major themes of Black populations pursuing educational opportunities in Southern States. Students will acquire knowledge about historical events, people and policies shaping the evolution of Blacks in education. Credit will not be awarded for both EDF 330 and AFA 330. Gen. Ed. VIII.

EDF 349Q Applied Learning in Education I. (.5) I, II. Corequisites: EDF 203 or EDF 310. Collaborate with educators to observe and analyze education practices and theories of teaching and learning within various settings. Minimum of 40 hours field experience required.

EDF 349R Applied Learning in Education II. (.5) (I, II). Corequisite EDF 319. Collaborate with educators to observe and analyze education practices and theories of teaching and learning within various settings. Minimum of 40 hours field experience required.

EDF 413 Assessment in Education. (3) I, II. Prerequisite: admission to teacher education. Corequisite: EMS 349Q. Principles and procedures in assessing and evaluating pupil growth in skills, attitudes, aptitudes, and understandings. Assessment construction, analysis, item analysis. Marking systems, and authentic assessment systems will be addressed.

EDO— Education Orientation
Dr. William Phillips, Dean

EDO 100 Academic Orientation. (1) I. Designed to orient the student to university academic life and afford background for career choice and preparation. Included are University regulations and calendar, catalog details, registration and preregistration, various career opportunities, and program requirements. Open to all students during their first two semesters of enrollment at EKU; beyond that open to students with fewer than 30 semester hours earned.

EES—Essential Elements of Success

EES 250 Basic Social Intelligence Skills (3) I. II. This is a course on human relationships and the knowledge and skills necessary to manage them. Social intelligence could be defined as one's Sociability to be in a society. Sociability refers to a person's ability to be with other persons in professional and personal relationships.

EES 300 Advanced Social Intelligence Skills (3) I, II. Prerequisite: Junior standing. Prerequisite or Corequisite: EES 250 or departmental approval. This is an advanced course that builds on the core skills presented in Basic Social Intelligence Skills. It provides additional knowledge and skills for successfully engaging in more complex social and professional interactions and relationships.

EES 310 Applied Critical Thinking (3) A. Prerequisite: Junior or Senior standing. This course will address the application of critical thinking skills within various fields of study. Students will learn critical thinking skills and how to integrate them into a successful career.

EET—Electricity and Electronics Technology
Dr. Vigyan Chandra, Coordinator

EET 251 Electricity and Electronics. (3) I, II. Prerequisite: Grade of at least "C" in MAT 095 or a minimum math ACT score of 18 or a minimum SAT math score of 490. Principles of basic electricity, circuit operation, and electronics. Topics include electrical components, measurements, power, characteristics of AC-DC, basic circuit laws, circuit simulation, magnetism, energy conversion, and sources. 2 Lec/2 Lab.

EET 252 Digital Electronics. (3) I, II. Prerequisite: grade of at least "C" in MAT 090 or equivalent. A survey of digital electronics fundamentals and applications. Topics include number systems, digital mathematics, logic families, logic gates, multiplexers, demultiplexers, comparators, counters, decoders, displays, and converters. 2 Lec/2 Lab.

EET 253 Microprocessor Control Systems. (3) A. Prerequisite: EET 251 and 252. The operation and application of microprocessor-based control systems in electro-mechanical project environments. Topics include data, address, and control signals; memory; software; interfacing digital and analog devices; ports; and data communications. 2 Lec/2 Lab.

EET 254 Machine Language for Microcontrollers. (3) A. Prerequisite/Corequisite: EET 252. Machine language programming for ROM based microprocessor based industrial controllers. Emphasis on software manipulation of I/O control devices in real-time, interrupt driven, process control environments. 2 Lec/2 Lab.

EET 257 Electronic Devices and Circuits. (3) A. Prerequisite: EET 251. An analysis of the characteristics of solid state devices and the common circuits that utilize these devices. Emphasis on problem solving supplemented by laboratory activities and demonstration of electronic circuits and devices. 2 Lec/2 Lab.

EET 349 Applied Learning in CET/CEN (1-8) II. Prerequisite: departmental approval, sophomore (30-59 hours) or higher standing and minimum of 2.0 GPA. Work under faculty and field supervisors in placements related to academic studies in Computer Electronics Technology (CET) or Computer Electronic Networking (CEN). Transfer students must have completed at least 12 hours of coursework at EKU. A minimum of 80 hours work required for each academic credit.

EET 349 A-N Cooperative Study: CET/CEN. (1-8) I, II. Prerequisite: departmental approval, sophomore (30-59 hours) or higher standing and minimum of 2.0 GPA. Work under faculty and field supervisors in placements related to academic studies in Computer Electronics Technology (CET) or Computer Electronic Networking (CEN). 1-8 credit hours per semester or summer. Transfer students must have completed at least 12 hours of coursework at EKU. A minimum of 80 hours work required for each academic credit.

EET 350 Industrial Electronics I. (3) A. Prerequisite: EET 257. Principles of timing, power control circuitry, transducers, and programmable controllers in commercial and industrial applications. 2 Lec/2 Lab.

EET 351 Programmable Logic Controllers. (3) A. Prerequisite: EET 251 or 252. The study of programmable logic controllers (PLCs). PLC functioning theory, selection, wiring, and programming. 2 Lec/2 Lab.

EET 452 Electrical Power & Drives. (3) A. Prerequisites: (MAT 108 or higher), (PHY 101), and EET 257. Principles of electromagnetic induction as applied to the generation, distribution, conversion, control, and measurement of electrical power. Analysis of the electronics used for electrical drives. Installation, programming and maintenance of digital drives. 2 Lec/2 Lab.

EHS—Environmental Health Science
Dr. Carolyn Harvey, Interim Chair

EHS 225 African/African-American Health Issues. (3) I. Cross listed as AFA 225. Provides the student with an understanding of the medical and public health issues relevant to the maintenance of health conditions both in the United States and Africa. Credit will not be awarded for both EHS 225 and AFA 225.

EHS 230 EHS Diseases and Hazards of Leisure. (3) II. Provides the student with an understanding of the biological, chemical and physical threats to health and life from the recreational, amusement, travel and tourist environments.

EHS 280 Introduction to Environmental Health Science. (3) A. Elements of environmental health, including water and waste treatment, air pollution, food sanitation, vector control, solid waste disposal, and general sanitation problems.

EHS 285 EHS Professional Standards. (1) A. Corequisite: EHS 335. Provides the student with the personal and professional tools to succeed as an environmental health professional. Information related to required professional certifications, ethical demands, and professional standards and practices will be provided.

EHS 290 Seminar in Environmental Health. (2) II. A. Prerequisite: departmental approval. Discussion and analysis of literature related to selected current environmental health problems.

EHS 300 Water Supplies and Waste Disposal. (4) I, II. Prerequisite: EHS 280, BIO 320 or MLT 209 and MLT 211. Drinking water safety in both individual private systems and larger public systems. Maintenance of raw water quality, water purification, delivery systems, and surveillance. Techniques for collection, treatment, and disposal of sewerage also discussed.

EHS 330 Environmental Control of Disease Vectors. (3) II. Prerequisite: BIO 111. The identification and control of arthropods, arachnids, rodents, and other vectors of disease. Review of significant vector borne diseases. Safe use of pesticides will also be discussed.

EHS 335 Hazardous and Solid Waste Management. (3) II. Prerequisites: CHE 111, 111L and EHS 280; or departmental approval. Corequisite: EHS 285. Nature of toxic and hazardous wastes and methods for their disposal to protect health and the environment and to prevent contamination of groundwater. The environmental health and safety aspects of solid waste collection, treatment and disposal, and regulations governing waste management are also discussed.

EHS 340 Industrial Hygiene. (3) I, II. Prerequisites: BIO 111, CHE 111, 111L and EHS 280; or departmental approval. The impact of the workplace on safety and health, and methods for avoiding work-related illnesses. Emphasis will be on the evaluation and the control of the work environment to protect worker health.

EHS 345 Advanced Industrial Hygiene. (3) II. Prerequisite: EHS 340 or departmental approval. In-depth discussion of the chemical and physical hazards of the workplace and their evaluation and to provide hands-on experience in industrial hygiene sampling and analysis.

EHS 349 Applied Learning in Environmental Health Science. (.5-6) A. Prerequisite: departmental approval. Work in placements related to academic studies. One to six hours credit per semester or summer. A minimum of 80 hours work required for academic credit.

EHS 349 A-N Cooperative Study: Environmental Health Science. (.5-6) A. Prerequisite: departmental approval. Work in placements related to academic studies. One to six hours credit per semester or summer. A minimum of 80 hours work required for academic credit.

EHS 355 CBR Terrorism & Environmental Health. (3) II. This course will provide students with environmental health principles required to protect individuals and communities in times of war, general emergencies and disaster, both natural and human, due to chemical, biological and radioactive threats.

EHS 360 Air Pollution and Health. (4) A. Prerequisites: CHE 112, 112L and EHS 280; or departmental approval. Health effects of air pollution, including a discussion of the primary sources of airborne pollutants, their transport and transformation, the control of air pollution, state and national standards.

EHS 370 Risk Assessment and Environmental Epidemiology. (3) I, II. Prerequisites: EHS 280 and STA 215; or departmental approval. The use of data to define the health effects of exposed individuals or populations to hazardous materials and situations.

EHS 380 Food Hygiene. (3) I, II. Prerequisites: EHS 280 or departmental approval. A study of the health effects of food-borne disease, including an in-depth discussion of the physical, chemical, and biological contaminants that cause an estimated 76 million cases of food-borne illnesses annually in the U.S. An examination of the food processing and food service industry's failings and efforts to prevent food-borne illness will be the primary focus.

EHS 390 EHS Special Problems in Environmental Health. (1-4) A. Prerequisite: departmental approval. For independent work, or special workshops, or special topics as they relate to environmental health issues and problems. May be retaken for maximum of eight hours.

EHS 395 Environmental Problem Analysis. (3) II. Prerequisites: EHS 335, 340, and MAT 107 or 109; or departmental approval. Application of the student's knowledge gained from technical course work to analyze environmental problems. Emphasis is on logically solving environmental health issues that the student can expect when working in the field.

EHS 425 Environmental Health Program Planning. (3) A. Prerequisites: EHS 280 and 335. Administration, planning, implementation, and evaluation of environmental health programs. Discussion of resources and promotional techniques, and the role of the environmental health specialist dealing with community, state, and regional agencies.

EHS 440 Environmental and Industrial Toxicology. (3) II. Prerequisites: CHE 112, 112L and EHS 280; or departmental approval. Health effects and nature of toxic substances with discussion of dose-response relationships, latency, target organs, and potential exposures in the environment.

EHS 460 Housing and Institutional Environments. (3) A. Prerequisite: EHS 280 or departmental approval. Corequisite: EHS 485. Discusses the requirements for healthful housing means of attaining and maintaining these requirements. Reviews environmental health concerns relating to day-care centers, schools, hospitals, nursing homes, and prisons. Describes surveillance, evaluative, and corrective methods.

EHS 463 Field Experience in Environmental Health. (6) A. Prerequisites: EHS 300, 335, 380, and departmental approval. Supervised and directed field experience in local, state, regional environmental health agencies, or with appropriate industries. Eight to twelve weeks full-time required depending on work place.

EHS 485 EHS Professional Practice Seminar. (1) A. Prerequisite: 90 hours. Corequisite: EHS 460. Provides the graduating student a certification and licensure review for their required state and national exams. The student will also be taught how to develop professional success strategies and long range career plans.

EHS 498 Independent Study in Environmental Health. (1-3) A. Prerequisite: student must have the independent study proposal form approved by faculty supervisor and department coordinator prior to enrollment. Opportunity for individual work on an environmental health research problem in a supervised situation.

EHS 510 Radiological Health (3) A. Provides the student with the principles of health effects from ionizing radiation, including radiation sources, detection, measurement, control, and safety devices. Student will be able to identify, evaluate and control radiation in the work environment; implement a radiation monitoring program; establish emergency plans for actions to be taken in event of radiological accident; develop risk assessment and communication program. Credit will not be awarded for both EHS 510 and 410.

ELE— Elementary Education
Dr. Dorie Combs, Chair

ELE 322 Physical Education in the Elementary School. (2) I, II. Prerequisite: EDF 310; admission to professional education. The study of the role of movement for the elementary school child; philosophy, principles, purposes, and programs of elementary physical education. Educational dance, educational gymnastics, and educational games are emphasized.

ELE 349 Applied Learning: Elementary School Teaching. (1). I, II. Co-requisites: ELE 446 or 446W and ELE 491, 492, and 493. Collaborate with teachers in elementary level classroom(s) and assist with instructional planning and teaching. Minimum of 80 hours field experience required.

ELE 361 Art in the Elementary Grades P-5. (3) I, II. Prerequisite: EDF 310; admission to professional education. Fundamental concepts of art education and those found in KERA. Exploration of art materials, processes, and activities for children in the elementary grades including those with special needs. Ten field/clinical hours.

ELE 362 Music Education for the Classroom Teacher. (3) I, II. Prerequisite: EDF 310; admission to professional education. Study and appraisal of teaching techniques, music literature, learning activities, curricular plans, and materials essential to the sequential development of musical learning in the elementary school. Ten field/clinical hours.

ELE 365 Health Education P-5. (2) I, II. Prerequisite: EDF 310; admission to professional education. A study of curriculum design, teaching/learning strategies, resources, and evaluation procedures in elementary school health education. Topics include drugs, mental health, family living, nutrition, fitness, consumerism, environment, disease, and personal health. Ten field/clinical hours.

ELE 445 Foundations of Reading/Language Arts. (3) I, II. Cross listed as EMG 445. Prerequisites: junior standing; 2.75 GPA; and admission to professional education. Corequisite or Prerequisite: EDF 319. An overview of reading/language arts components P-5, teacher competencies, organization and planning for instruction. Twenty field/clinical hours. Credit will not be awarded to students who have credit for EMG 445, EMG 445W or ELE 445W.

ELE 445W Foundations of Reading/Language Arts. (3) I, II. Crosslisted as EMG 445W. Prerequisites: junior standing; 2.75 GPA; ENG 101 and 102, or HON 105 with a minimum grade of "C"; or ENG 105 with a minimum grade of "B", admission to professional education. Corequisite or Prerequisite: EDF 319. An overview of reading/language arts components P-5, teacher competencies, organization and planning for instruction. Twenty hours of field/clinical experiences. Credit will not be awarded to students who have credit for EMG 445 or ELE 445.

ELE 446 Reading and Language Arts P-5. (3) I, II. Prerequisites: EDF 319, EDF 413; ELE 445 or 445W with a grade of "C" or higher and admission to professional education. Prerequisite or Corequisite: SED 401. Corequisite: ELE 349. Emphasis on theory, curriculum, teaching techniques and materials, instructional planning, assessment and use of results. Twenty field/clinical hours. Credit will not be awarded to students who have received credit for ELE 446S and/or ELE 446W.

ELE 446S Reading and Language Arts P-5. (3) I, II. Prerequisites: EDF 319, EDF 413, ELE 445 with a grade of "C" or higher and admission to professional education. Prerequisite or Corequisite: SED 401. Emphasis on theory, curriculum, teaching techniques and materials, instructional planning, assessment and use of results. Twenty field/clinical hours and a minimum of 15 service learning hours. Credit will not be awarded for both ELE 446S and ELE 446.

ELE 446W Reading and Language Arts P-5. (3) I, II. Prerequisites: EDF 319, EDF 413; ELE 445 or 445W with a grade of "C" or higher and admission to professional education. Prerequisite or Corequisite: SED 401. Corequisite: ELE 349. Emphasis on theory, curriculum, teaching techniques and materials, instructional planning, assessment and use of results. Twenty field/clinical hours. Credit will not be awarded to students who have received credit for ELE 446 and/or ELE 446S.

ELE 490 Classroom Management in the Elementary Grades P-5. (3) I, II. Prerequisite: EDF 319, EDF 413 and admission to professional education. Prerequisite or Corequisite: SED 401. Corequisite: EMS 349R. Critical examination of effective classroom management in grades P-5. Emphasis on theories, strategies, and applications through study, discussion, observation, and participation. Twenty field/clinical hours.

ELE 491 Mathematics in Elementary Grades P-5. (3) I, II. Prerequisites: EDF 319, EDF 413, MAT 202 with a minimum grade of "C"; admission to professional education. Prerequisite or Corequisite: SED 401. Corequisite: ELE 349. Methods and materials of teaching P-5 mathematics; emphasis on discovering and developing fundamental concepts as a foundation for problem solving. Twenty field/clinical hours.

ELE 492 Science in the Elementary Grades P-5. (3) I, II. Prerequisites: EDF 319, EDF 413 and admission to professional education. Prerequisite or Corequisite: SED 401. Corequisite: ELE 349. Modern materials and methods for teaching science in primary through grade five. Five discussion- laboratory hours per week. Twenty field/clinical hours. Credit will not be awarded for both ELE 492 and 492S.

ELE 492S Science in the Elementary Grades P-5. (3) I, II. Prerequisites: EDF 319, EDF 413 and admission to professional education. Prerequisite or Corequisite: SED 401. Modern materials and methods for teaching science in primary through grade five. Twenty field/clinical hours and a minimum of 15 service-learning hours. Credit will not be awarded for both ELE 492S and ELE 492.

ELE 493 Social Studies in Elementary Grades P-5. (3) I, II. Prerequisites: EDF 319, EDF 413 and admission to professional education. Prerequisite or Corequisite: SED 401. Corequisite: ELE 349. Theory, content, and practice of teaching Social Studies in grades P-5. Twenty field/clinical hours.

ELE 499 Supervised Student Teaching in Primary Through Fifth Grade. (6-12) I, II. Prerequisites: methods courses and area of specialization. Observation, participation, responsible classroom teaching, and related professional activities including students from two non-consecutive levels in the P-5 range.

ELE 507 Problems in Elementary Education. (1-3) A. Prerequisite: advisor/

departmental approval. Independent work, special workshops, special topics, or seminar.

ELE 519 Teaching in the Kindergarten. (3) I, II. Focuses upon the kindergarten movement, organization, equipment, curriculum, and procedures; leaders and literature of kindergarten education. Opportunity for observing and participating in kindergarten.

ELE 541 Survey of Elementary Curriculum Programs. (3) I, II. For selected majors seeking twelve-grade certification. Explores elementary curriculum, the role of special teachers, problems of individual learners, functions of the entire school-community. Not open to elementary education majors.

EMC—Emergency Medical Care
Ms. Nancye Davis, Coordinator

EMC 100 Basics of Prehospital Medication Administration. (1) I, II. Presentation of basic principles of prehospital emergency pharmacological administration, fundamentals of relationships between units of measure. Typical emergency medicine dosages practices.

EMC 102 First Response Emergency Care. (2) I, II, A. Prerequisite or Corequisite: EMC 104. Emergency medical care techniques adhere to U.S. Department of Transportation curriculum for Emergency Medical Responder. Credit will not be awarded to students who have credit for HEA 202 or HEA 203. 2 Lec/2 Lab.

EMC 104 Healthcare Basic Life Support. (1) I, II, A. Basic cardiac life support skills for healthcare student or professional in accord with peer-reviewed American Heart Association (AHA) scientific guidelines. Course completion documentation when AHA requirements met. Maximum 6 enrollments for renewal. 0.25 Lec/0.75 Lab.

EMC 105 Survey of Medical Terminology. (1) A. Cross-listed with CHS 105. Independent study, modular design paced by class meetings includes work roots, prefixes, suffixes, and general medical terms. Credit will not be awarded to students who have previously taken CHS 105 and MAS 200.

EMC 110 Introduction to Emergency Medical Care. (6) I, II, A. Prerequisite or Corequisite: EMC 104. Prehospital basic life support concepts, skills, and field clinical experience for entry level Emergency Medical Technician-Basic adhering to national curricula. Meets eligibility requirements for state certification and national registration examinations. 3 Lec/6 Lab.

EMC 115 Basic Clinical/Field Experience. (2) I, II, A. Prerequisite: departmental approval and Certified EMT-Basic. Minimum of 64 hours supervised hospital emergency department and prehospital emergency care ambulance clinical experience. Preceptor evaluates basic life support knowledge and skills.

EMC 130 Human Systems for Assessment. (3) A. Overview of human body and its systems as applied to rapid patient assessment and problem identification. Limited to certified paramedic students only.

EMC 200 Introduction To Prehospital Advanced Life Support. (2) II, A. Role and responsibilities of EMT-Paramedic, components of EMS systems, medical/legal considerations, and communications in advanced and basic life support settings.

EMC 205 Prehospital Management of OB/GYN Emergencies. (1) I, A. Pathophysiology and advanced level prehospital management of antepartum, parturition, postpartum, and gynecological emergencies. Assessment, care, and transportation of the neonate.

EMC 212 Crash Victim Auto Extrication. (1) I, A. Survey of vehicle extrication procedures for emergency medical personnel. Adheres to U.S. Department of Transportation content and objectives. 1 Lec/1 Lab.

EMC 215 Prehospital Management of Behavioral Emergencies. (1) I, A. Concepts and management of emotional and psychological emergencies applied to prehospital crisis intervention.

EMC 225 Introduction to Pharmacology. (3) I, II, A. Introduction to classification, nature, and uses of medications. Pharmacological agents utilized in prehospital health care setting emphasized.

EMC 240 Introduction to Electrocardiography. (3) I, II, A. Cardiac anatomy, physiology, and electrophysiology related to ECG. Proficient ECG interpretation skills emphasized.

EMC 270 EMTP: Theory/Practicum I. (6) A. Prerequisites: EMC 130 and departmental approval. Introduction to prehospital advanced life support delivery systems, medical-legal implications, and prehospital environment. Preparatory theoretical foundation with advanced life support skills progressing to application in hospital clinical settings. Pathophysiology and management of respiratory medical emergencies.

EMC 275 EMTP: Theory/Practicum II. (6) A. Prerequisite: EMC 270. Continued patient skills development through hospital assignments with emphasis on emergent medical etiologies involving cardiovascular, endocrine, CNS, gastrointestinal, anaphylaxis, toxicology, infectious diseases, environmental exposure, and obstetrics. Emergencies of special populations include gerontology and pediatrics.

EMC 280 EMTP: Theory/Practicum III. (6) A. Prerequisite: EMC 275. Corequisite: EMC 310. Theory and hospital clinical\focus on management of mass casualty including vehicular extrication techniques. Final synthesis of theory and practice through minimum of 500 hours field internship with ALS ambulance as assigned by the department.

EMC 310 Advanced Cardiology. (2) II, A. Prerequisites and/or corequisites: EMC 240, EMC 225, and 335; or departmental approval. Advanced diagnostics, interventions, and management of cardiovascular emergencies to include cardiac resuscitation adhering to the standards of the American Heart Association. AHA ACLS Provider required for course completion. 1 Lec/ 2 Lab.

EMC 315 Pediatric Advance Life Support. (1) A. Assessment, recognition, and intervention for infant or child with cardiopulmonary arrest or shock. Adheres to American Heart Association and Academy of Pediatrics cognitive and performance standards. AHA PALS Provider evidence of course completion available.

EMC 320 Advanced Life Support: Trauma. (3) II, A. Prerequisites: EMC 115, 240, BIO 171, 301. Prehospital management of complex patients with multiple systems failure secondary to trauma related pathologies.

EMC 335 Advanced Life Support: Medical Emergencies I. (3) I, A. Prerequisites: EMC 240, BIO 171, 301, EMC 115, 225, and department approval. Pathophysiology and advanced level prehospital management of emergencies of the respiratory, cardiovascular, endocrine, nervous, gastrointestinal, genitourinary, and reproductive systems.

EMC 336 Case Management I. (1) I, II, A. Prerequisite or Corequisite: EMC 335 and 342 or department approval. Hands-on advanced case management of medical and trauma emergencies using low and high-fidelity patient care simulation.

EMC 340 Advanced Life Support: Medical Emergencies II. (3) II, A. Prerequisite: EMC 335. Pathophysiology and advanced level prehospital management of emergencies involving anaphylaxis, toxicology, alcoholism, drug abuse, infectious diseases, environmental hazards, and pediatric and geriatric patients.

EMC 341 Case Management 2. (1) I, II, A. Corequisite: EMC 340 and 352 or department approval. Advanced case management of medical and trauma emergencies requiring critical thinking, oral critical thinking, practical and didactic assessment. May be retaken up to two hours.

EMC 342 Advanced Clinical I. (3) I, A. Corequisite: EMC 335. Integration of basic and advanced life support concepts and psychomotor skills in patient care situations developed through supervised assignments in various hospital settings.

EMC 349 Applied Learning in Emergency Medical Care. (.5-8) I, II, A. Work in placements related to academic studies. A minimum of 80 hours of employment is required for each semester credit hour.

EMC 349 A-N Cooperative Study: Emergency Medical Care. (.5-8) I, II, A. Work in placements related to academic studies. A minimum of 80 hours of employment is required for each semester credit hour.

EMC 352 Advanced Clinical II. (3) II, A. Prerequisite: EMC 342. Corequisites: EMC 320 and 340. Hospital assignments allow continued development and application of cognitive and psychomotor skills in critical situations. Autonomous decision-making skills developed under supervision through increased participation in patient care.

EMC 360 Advanced Field Internship. (2) A. Prerequisites: EMC 205, 212, 215, 310, 320, and 352. Minimum 120 hours supervised experience on paramedic ambulance. Progresses from advanced emergency care delivery observation to beginning team member responsibilities.

EMC 362 Advanced Field Internship II. (4) A. Prerequisite or Corequisite: EMC 360. Continuation of supervised experience on advanced life support ambulance. Assumes team member role with progression to team leader. Minimum advanced internship experience requires 500 hours.

EMC 380 Advanced Prehospital Theory Medical. (4) A. Prerequisites: Kentucky Certified EMT-Paramedic and admission to EMC major. Foundation course for paramedic students which focuses on pathophysiological basis for prehospital interventions and management. Includes in-depth history and assessment skills.

EMC 382 Advanced Prehospital Theory: Trauma. (4) A. Prerequisites: Kentucky Certified EMT-Paramedic and admission to EMC major. Foundation course for paramedic students which focuses on pathophysiological basis for prehospital interventions and management in trauma settings. Includes in-depth history and assessment skills.

EMC 389 Special Topics:_____ (1 – 3) I, II, A. Prerequisite or Corequisite: EMC 320, 335 and 342 or departmental approval. Development and presentation of research in contemporary methods, techniques, practices, and devices in the field. May be retaken under different topics to a maximum of 12 hours.

EMC 400 Emergency Care Systems Management. (3) I, II, A. EMS systems design and typical agency divisions, including operations, communications, training and customer service. Projects focus on system design, training and efficiency.

EMC 420 Emergency Services Design and Budget. (3) A. Prerequisite: departmental approval. Identify and compare issues with staffing, operations, communications, training and mission with various EMS systems models. Develop and revise sample budgets for EMS systems.

EMC 430 Legal and Ethical Aspects of Emergency Services. (3) A. Prerequisite: departmental approval. Examine and apply moral and ethical decisions made in emergency services. Issues of diversity, expanded health care settings, aging population, and others will be explored.

EMC 440 EMS Instruction. (3) A. Prerequisite: departmental approval. Introduction to the principles involved in EMS adult learning. Roles issues, domains of learning, and instruction models will be emphasized. Organization and planning for the EMS community including diverse learning populations and

regulations.

EMC 450 Disaster Medical Operations. (3) A. Emergency medical communications, cooperation and support in response to a natural or human-made disaster. Planning, delivery and recovery of medical systems by various local, state and federal agencies and the private sector.

EMC 480 Topics in Emergency Medicine. (3) I, II, A. Investigation into the pathophysiology of traumatic and medical emergencies which applies to the latest trends in recognition and management.

EMC 489 Introduction to Research Methods. (3) A. Introduction to basic research methods for professionals in emergency services and public agency practitioners and educators. This includes foundational principles of statistical analyses and application, as well as human subjects protections.

EME— Elementary and Middle Grade
Dr. Dorie Combs, Chair

EME 361 Teaching Art P-8. (3) I. Prerequisites: Major in art; admission to professional education. Developmentally appropriate curriculum, materials, and methods for the P-8 Art program. Minimum of 20 field/clinical hours.

EME 378 Teaching Music in Grades P-8. (3) I. Prerequisites: admission to professional education, major in music. Developmentally appropriate materials and methods for teaching P-8 music. Minimum of 20 field/clinical hours.

EME 442 Teaching Foreign Language in Grades P-8. (3) I. Prerequisites: admission to professional education, major in foreign language. Developmentally appropriate curriculum, materials, and methods for the P-8 foreign language program. Minimum of 20 field/clinical hours.

EME 465 Teaching Physical Education in P-8. (3) A. Prerequisites: admission to professional education, PHE 323, major in physical education. Developmentally appropriate materials and methods for teaching P-8 physical education. Minimum of 20 field/clinical hours.

EME 510 Art in the Curriculum. (3) A. Elements of the discipline, creativity, aesthetics, theory, philosophy, and instructional facilities. Individual explorations into theory and media.

EME 551 Linguistics in the Curriculum. (3) A. Prerequisite: ELE/EMG 445; admission to professional education. Investigation of elements in the science of linguistics and their application to communication of students.

EME 586 Health Education P-8. (3) A. Prerequisites: admission to professional education, major in school health. Developmentally appropriate curriculum, materials, and methods for the health P-8 program. Minimum of 20 field/clinical hours.

EME 596 Physical Education for Children and Youth. (3) A. Comprehensive review of techniques used in teaching physical education in the early elementary and middle grades. Emphasis placed on health evaluation, fitness testing, tumbling, rhythmical, game, and self-testing activities.

EMG—Middle Grade Education
Dr. Dorie Combs, Chair

EMG 349 Applied Learning: Middle School Teaching. (1). I. Corequisite: EMG 447. Collaborate with teachers in middle level classroom(s) and assist with instructional planning and teaching. Minimum of 80 hours field experience required.

EMG 430 Middle Grade Curriculum. (3) I. Prerequisites: admission to professional education, professional education core, EMG 445. Corequisite: EMS 349R. An examination of the curriculum and the responsibilities of teaching in the middle grade. Twenty hours field/clinical experience.

EMG 445 Foundations of Reading/ Language Arts. (3) I, II. Cross listed as ELE 445. Prerequisites: junior standing, 2.75 GPA; admission to professional education program. Prerequisite/ Corequisite: EDF 319. An overview of reading/ language arts components 5-9, teacher competencies, organization and planning for instruction. Twenty hours of field/clinical experiences. Credit will not be awarded to students who have credit for ELE 445, EMG 445W or ELE 445W.

EMG 445W Foundations of Reading/ Language Arts. (3) I, II. Cross listed as ELE 445W. Prerequisites: junior standing, 2.75 GPA, ENG 101 and 102, or HON 105 with a minimum grade of "C"; or ENG 105 with a minimum grade of "B"; admission to professional education program. An overview of reading/language arts components 5-9, teacher competencies, organization and planning for instruction. Twenty hours of field/clinical experiences. Credit will not be awarded to students who have credit for ELE 445W, ELE 445 or EMG 445.

EMG 447 Reading/Language Arts in the Middle Grades. (3) I. Prerequisites: EMG 445, EDF 319 and admission to professional education. Prerequisite or Corequisite: EDF 413. Corequisite: EMG 349. The theory, content and practice of teaching reading and language arts in the middle grades utilizing content area materials. Twenty hours field/clinical experiences.

EMG 491 Mathematics in the Middle Grades. (3) I, A. Prerequisites: EDF 319 and admission to professional education and mathematics emphasis. Prerequisite or Corequisite: EDF 413. Appropriate materials and methods for teaching mathematics in the middle grades. Twenty hours field/ clinical experiences.

EMG 492 Science in the Middle Grades. (3) I, A. Prerequisites: EDF 319 and admission to professional education and science emphasis. Prerequisite or Corequisite: EDF 413. Introduces prospective teachers to the modern materials and methods of teaching science in the middle grades. Twenty hours field/clinical experiences.

EMG 493 Social Studies in the Middle Grades. (3) I, A. Prerequisites: EDF 319 and admission to professional education and social studies emphasis. Prerequisite or Corequisite: EDF 413. Appropriate materials and methods for teaching social studies in the middle grades. Twenty hours field/ clinical experiences.

EMG 494 English and Communication in the Middle Grades. (3) I, A. Prerequisites: EDF 319 and admission to professional education and English emphasis. Prerequisite or Corequisite: EDF 413. Study of effective teaching techniques, strategies and materials for middle grade English/communication skills. Twenty hours field/clinical experiences.

EMG 494W English and Communication in the Middle Grades. (3) I, A. Prerequisites: EDF 319 and admission to professional education and English emphasis; Grade of "C" or higher in ENG 101 and 102, or HON 105; or ENG 105 with a grade of "B" or higher. Prerequisite or Corequisite: EDF 413. Study of effective teaching techniques, strategies and materials for middle grade English/communication skills. Twenty hours field/clinical experiences. Credit will not be awarded for both EMG 494 and 494W.

EMG 499 Supervised Student Teaching in the Middle Grades. (6-12) I, II. Prerequisites: required professional education courses, areas of emphasis. Observation, participation, responsible classroom teaching, and related professional activities including students at two non-consecutive levels in the middle grades.

EMG 507 Problems in Middle Grade Education: _____. (1-3) A. Prerequisite: advisor approval. Independent work, workshops, special topics, or seminar. May be retaken to a maximum of six hours under different subtitles.

EMG 567 Curriculum and Instructional Strategies for Home Economics in the Middle Grades. (3) A. Prerequisite: certification in home economics. Study of curriculum content, instructional materials, and strategies appropriate for home economics instruction in the middle grades.

EMG 568 Curriculum and Instructional Strategies for Industrial Education in the Middle Grades. (3) A. Prerequisite: certification in industrial education. Study of curriculum content, instructional materials, and strategies appropriate for industrial arts education instruction in the middle grades.

EMS— Elementary, Middle Grade, and Secondary Education
Dr. Dorie Combs, Chair

EMS 349Q Applied Learning I: Educational Assessment. (.5). I. II. Co-requisite: EDF 413, SED 375, or PHE 575. Collaborate with teachers in educational settings. Assist with formative and summative assessment and classroom management. Minimum of 40 hours field experience required.

EMS 349R Applied Learning II: Educational Curriculum (.5) I, II. Co-requisite: EDF 413, SED 375, or PHE 575. Collaborate with teachers in educational settings. Assist with formative and summative assessment and classroom management. Minimum of 40 hours field experience required.

EMS 499 Supervised Student Teaching P-12. (12) I, II. Prerequisites: admission to student teaching, EME and ESE special methods classes. Corequisite: ESE 490. Observation, participation and responsible classroom teaching with related professional activities to be demonstrated in two of the following school levels: elementary, middle and high.

EMS 575 Methods and Materials for Teaching English as a Second Language. (3) A. The study of effective methods of Teaching English as a Second Language (TESL). Thirty hours of field experiences are required.

ENG—English and Theatre
Dr. James Keller, Chair

ENG 080 Academic Reading and Writing I. (3) A. This course emphasizes integration of skills and strategies for academic reading and writing, including comprehension, vocabulary, fluency and development, and the conventions of academic texts. Taken by referral only. 3 Lec/2 Lab.

ENG 085 Academic Reading and Writing II. (3) A. This course emphasizes integration of skills and strategies for academic reading and writing, including reading critically, writing analytically, and reading and writing to learn. Taken by referral only. 3 Lec/2 Lab.

ENG 090 Basic Writing. (3) I, II. Focuses on academic writing. Provides strategies for improving content, organization, voice, reading to write, and editing from sentences to essays. Exit exam required. ACT English subscore 14 or lower.

ENG 095 Developmental Composition. (3) I, II. Prerequisite: ENG 090 or ACT English subscore of 15-17. Focuses on academic writing. Provides strategies for improving content, organization, voice, reading to write, and editing in analytical essays and reports. Exit exam required.

ENG 099 Intensive Writing Review. (3) A. An intensive review of writing skills with special emphasis on audience analysis, invention of ideas, composing, writing, and editing strategies for the production of a substantial portfolio. Taken only by recommendation of college dean. Institutional credit when exit level attained; cannot be used for graduation.

ENG 100 English for Non-Native Speakers. (3) A. Review and practice of English for non-native speakers. Review of English grammar with intensive practice of academic language skills in listening, speaking, reading, and writing. Required of non-native speakers on basis of department placement exam. 2 Lec/2 Lab.

ENG 101 English Composition I. (3) I, II. A writing course reviewing sentence basics and methods of development; emphasizing style, organization, coherence, and persuasion in written discourse; extensive practice in composition for different purposes and audiences; study and practice to improve reading. Entrance exam required. Gen. Ed. IA [WC].

ENG 102 English Composition II. (3) I, II. Prerequisite: ENG 101 (or equivalent). A writing

course reviewing components of ENG 101 and refining general composition skills; emphasis on expository and argumentative writing, including researched, documented papers and reports; study of research sources and methods, with emphasis on analytical reading. Gen. Ed. IB [WC].

ENG 105 First Year Writing Seminar. (3, 6) I, II. Prerequisite: ACT English subscore of 28 or SAT verbal score of 660 or above. Advanced writing course, reviewing fundamentals and emphasizing practice writing essays and reports, including researched, documented writing; practice to improve reading and speaking. Proficiency exam required. Students graded "A" or "B" will receive six hours credit for ENG 105; students with "C" or "D" will receive three hours credit for ENG 105 and must take ENG 102. Gen. Ed. IA (IB) [WC].

ENG 106 Writing Workshop: _____. (1) I, II. Prerequisite: ENG 101, 105, or departmental approval. A course intended to develop writing abilities through practice in writing processes for varied topics; reading and discussion of rhetoric, grammar, etc. appropriate for the selected topic. Primarily individualized instruction in workshop conditions. May be retaken with different topics to a maximum of three credit hours.

ENG 200 Topics in English: _____. (1-3) A. Prerequisite: ENG 102 or 105 or HON 102. Introduction to areas of literature, writing, and language use through selected topics. Designed primarily for non-English majors; may be retaken with different topics to a maximum of six hours.

ENG 210 Enjoying Literature. (3) I, II. Prerequisite: ENG 102 or 105 or HON 102. Understanding and enjoying the distinctive aesthetic qualities, forms and meanings of literary works within ethical and cultural contexts. Gen. Ed. E-3B. Credit will not be awarded for both ENG 210 and 210W. [AH].

ENG 210W Enjoying Literature. (3) I, II. Prerequisite: ENG 102 or 105 (B) or HON 102. Understanding and enjoying the distinctive aesthetic qualities, forms and meanings of literary works within ethical and cultural contexts. Gen. Ed. E-3B. Credit will not be awarded for both ENG 210 and 210W.

ENG 211 Survey of World Literature I. (3) I, II. Prerequisite: ENG 102 or 105 or HON 102. Selected readings from masterpieces of world literature from ancient times through the Renaissance. Gen. Ed. E-3B. Credit will not be awarded for both ENG 211 and 211W.

ENG 211W Survey of World Literature I. (3) I, II. Prerequisite: ENG 102 or 105(B) or HON 102. Selected readings from masterpieces of world literature from ancient times through the Renaissance. Gen. Ed. E-3B. [AH]. Credit will not be awarded for both ENG 211 and 211W.

ENG 212 Survey of World Literature II. (3) I, II. Prerequisite: ENG 102 or 105 or HON 102. Selected readings from masterpieces of world literature from the 17th century to the present. Gen. Ed. E-3B. Credit will not be awarded for both ENG 212 and 212W.

ENG 212W World Literature II. (3) I, II. Prerequisite: ENG 102 or 105 (B) or HON 102. Selected readings from masterpieces of world literature from the 17th century to the present. Gen. Ed. E-3B. Credit will not be awarded for both ENG 212 and 212W.

ENG 242 Introduction to a Genre: _____. (2) A. Prerequisite: ENG 102 or 105 or HON 102. Readings in either the novel, poetry, or short story; special emphasis on understanding and enjoying the literature. Designed primarily for non-English majors; may be retaken with different topics to a maximum of six hours.

ENG 300 Introduction to Technical and Professional Writing. (3) A. Prerequisite: ENG 102 or 105 or HON 102. Introductory course in principles of effective writing for professions and technical fields. Experience in writing with technology for various purposes and audiences relevant to students' career interests. Special sections arranged in cooperation with professional programs. Credit will not be awarded for both ENG 300 and 300S.

ENG 300S Intro to Tech/Prof Writing. (3) A. Prerequisite: ENG 102 or 105 (B) or HON 102. Introductory course in principles of effective writing for professions and technical fields. Experience in writing with technology for various purposes and audiences relevant to students' career interests. Students will work on writing projects with schools or other non-profit organizations. Credit will not be awarded for both ENG 300 and ENG 300S.

ENG 301 Advanced Composition. (3) I, II. Prerequisites: ENG 102 or 105 or HON 102. Refinement of writing skills; application of rhetoric in expository and argumentative writings; planning and writing a research paper.

ENG 302 Principles of Literary Study. (3) I, II. Prerequisite: ENG 102 or 105 or HON 102. Introduction to the genres of poetry, short fiction, and drama, as well as to the traditional literary devices, the major critical approaches, and several bibliographical tools.

ENG 303 Advanced Composition for Teachers. (3) I, II. Prerequisites: ENG 101 and 102 (or 105). Develops students as writers and as teachers of writing through experiences in writing workshop, portfolio assessment, teaching strategies for writing, and career-oriented inquiry in theoretical context. Credit will not be awarded for both ENG 303 and ENG 301.

ENG 306 Introduction to Creative Writing. (3) A. Prerequisite: ENG 102 or 105 or HON 102. Introduction to fundamentals of short story, poetry, play, or personal essay writing.

ENG 308 Autobiographical Literature. (3) A. Prerequisite: ENG 102 or 105 or HON 102. Discussion of American, British, Continental, and non-Western autobiographies and modern theories of autobiographical writing.

ENG 334 Modern Poetry. (3) A. Prerequisite: ENG 102 or 105 or HON 102. Survey of representative British and American poets from Hopkins and Dickinson to the present.

ENG 335 Modern Drama. (3) A. Prerequisite: ENG 102 or 105(B) or HON 102. Study of representative modern plays from Ibsen to the present. Gen. Ed. IIIA or VII (AH) [AH]. Credit will not be awarded for both ENG 335W and ENG 335.

ENG 335W Modern Drama (3) A. Prerequisite: ENG 102 or 105 (B) or HON 102. Study of representative modern plays from Ibsen to the present. Gen. Ed. IA or VII (AH) [AH]. Credit will not be awarded for both ENG 335W and ENG 335.

ENG 337 Biblical Narrative and Verse. (3) A. Prerequisite: ENG 102 or 105 or HON 102. Study of selected narratives and verse from the Old Testament, Apocrypha, and New Testament from distinctly literary perspectives.

ENG 340 Mythology. (3) A. Prerequisite: ENG 102 or 105 or HON 102. Study of selected myths through historical, psychological, and literary approaches.

ENG 343 Science Fiction. (3) A. Prerequisite: ENG 102 or 105 or HON 102. A survey of science fiction from Mary Shelley to the present.

ENG 344 Mystery and Detective Fiction. (3) A. Prerequisite: ENG 102 or 105 or HON 102. History of mystery and detective fiction. Study of the genre's basic characteristics as well as its cultural ramifications.

ENG 345 Literature and Film. (3) A. Cross listed as COM 345. Prerequisite: ENG 102 or 105 or HON 102. An examination of the relationship between film and literature through a comparative study of the stylistic and technical elements of the two media. Credit will not be awarded for both ENG 345 and COM 345.

ENG 347 Special Studies in English: _____. (3) A. Prerequisite: ENG 102 or 105 or HON 102. Specialized study of selected topics not available in more traditional course offerings. Designed primarily for English majors/minors. May be retaken with different topics to a maximum of six hours.

ENG 349 Applied Learning in English. (.5-8) A. Prerequisite: departmental approval. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours employment required for each semester hour credit.

ENG 349 A-N Cooperative Study: English. (.5-8) A. Prerequisite: departmental approval. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours employment required for each semester hour credit.

ENG 350 American Literature I. (3) I, II. Prerequisite: ENG 102 or 105 or HON 102. A study of selected works by representative authors reflecting the chronological development of American literature from its beginnings to 1865.

ENG 351 American Literature II. (3) I, II. Prerequisite: ENG 102 or 105 or HON 102. A study of selected works by representative authors reflecting the chronological development of American literature from 1865 to the present. Credit will not be awarded for both ENG 351 and ENG 351W.

ENG 351W American Literature II. (3) I, II. Prerequisite: ENG 102 or 105 (B) or HON 102. A study of selected works by representative authors reflecting the chronological development of American literature from 1865 to the present. Credit will not be awarded for both ENG 351W and ENG 351.

ENG 352 English Literature I. (3) I. Prerequisite: ENG 102 or 105 or HON 102. A study of selected works by representative authors reflecting the chronological development of English literature from its beginnings through the eighteenth century.

ENG 353 English Literature II. (3) II. Prerequisite: ENG 102 or 105(B) or HON 102. A study of selected works by representative authors reflecting the chronological development of English literature from the Romantic period to the present. Credit will not be awarded for both ENG 353 and 353W.

ENG 353W English Literature II. (3) I, II. Prerequisite: ENG 102 or 105(B) or HON 102. A study of selected works by representative authors reflecting the chronological development of English literature from the Romantic period to the present. Credit will not be awarded for both ENG 353W and ENG 353.

ENG 359 Kentucky Literature. (3) A. Prerequisite: ENG 102 or 105 or HON 102. Study of Kentucky's literary tradition from its beginning to the present; emphasis on Elizabeth Madox Roberts, Allen Tate, Harriet Arnow, and Robert Penn Warren.

ENG 360 Literatures of Africa. (3) A. Cross listed as AFA 360. Prerequisite: ENG 102, 105 (B), or HON 102. Survey of the genres and components of African literature, oral and written; study of how key concepts in African thought, culture and experiences are reflected in the literatures composed by writers from Africa or of African origin. Credit will not be awarded for both ENG 360 and AFA 360.

ENG 361 African-American Literature. (3) A. Cross listed as AFA 361. Prerequisite: ENG 102, 105 (B), or HON 102. Survey of selected works of African-American literary traditions. Credit will not be awarded to students who have credit for AFA 361 or ENG 342.

ENG 362 North American Native Literature. (3) A. Prerequisite: ENG 102, 105 (B), or HON 102. A study of representative literature written by North American Native authors.

ENG 363 Latin American/Latino Literature. (3) A. Prerequisites: ENG 102 or 105 (B) or HON 102. Survey of Latin American literature in translation and selected works by Latina/o writers.

ENG 364 Women's Literature. (3) A. Cross listed as WGS 364. Prerequisite: ENG 102 or 105 (B) or HON 102. Study of selected literature by women writers from varying cultures, genres, and periods. Credits will not be awarded to students who have credit for WGS 364 or ENG 535.

ENG 365 Appalachian Literature. (3) I. Cross listed as APP 365. Prerequisite: ENG 102 or 105 or HON 102. Study of selected major Appalachian literature, with emphasis on twentieth-century writers such as Agee, Arnow, Chappell, Dykeman, Miller, Norman, Roberts, Smith, Still, and Wolfe. Credit will not be awarded for both ENG 365 and APP 365.

ENG 366 Queer Theory and Literatures. (3) A. Prerequisite: ENG 102 or 105 (B) or HON 102. Examination of trends in Queer Theory; study of major contributors to the field such as Foucault, Butler, and Sedgwick; application of theoretical models to literary and cinematic texts.

ENG 367 African Caribbean Literatures. (3) A. Cross listed as AFA 367. A study of selected literatures written by Caribbean writers of African descent. Credit will not be awarded for both AFA 367 and ENG 367.

ENG 374 Shakespeare at War. (3) A. Prerequisite: ENG 102 or 105 (B) or HON 102. An exploration of the causes and consequences of war in a selection of Shakespeare's plays. Students will also examine how political power is gained, kept, and lost through warfare in these plays.

ENG 375 Shakespeare at War. (3) A. Prerequisite: ENG 102 or 105 (B) or HON 102. An exploration of the causes and consequences of war in a selection of Shakespeare's plays. Students will also examine how political power is gained, kept, and lost through warfare in these plays.

ENG 386W War & Peace in Lit Since 1900. (3) A. Prerequisite: ENG 102 or ENG 105(B) or HON 102. An exploration of themes of war and peace in literature since 1900, structured chronologically, beginning with World War I and moving into the contemporary world.

ENG 400 Advanced Technical Writing and Document Production. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 300. Advanced in technical communication. Emphasis on theories of technical writing and writing with technology, document development using electronic literacies.

ENG 402 Critical Theory & Research Methods. (3) A. Prerequisites: ENG 301, 302. Introduction to literary/critical theory with an historical framework, and to research methods for the academic professional. Particularly recommended for students planning to go on to graduate school.

ENG 405 Introduction to Composition Studies. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301. An introductory course surveying theories of composition and applying these theories to the instruction of composition.

ENG 406 Topics in Creative Writing: ____. (3) A. Prerequisites: ENG 301, 306. Specialized study of a selected genre (e.g., poetry, short story, screenplay) or approach to creative writing. Theory and practice. May be retaken to a maximum of nine hours provided each topic is different.

ENG 407 Poetry Writing Workshop. (3) A. Prerequisite: ENG 306. Advanced study in the techniques of writing poetry.

ENG 408 Advanced Fiction Workshop. (3) A. Prerequisite: ENG 306. Advanced writing workshop in fiction, with supplementary reading in genre. Weekly writing and critiques of student work. Analysis of the writing market.

ENG 409 Creative Nonfiction Workshop. (3) A. Prerequisite: ENG 306 or departmental approval. Theory, models, and advanced practice in such areas as autobiographical writing, the personal essay, "on assignment" research projects, and interviewing techniques.

ENG 410 Grammar, Traditional and Modern. (3) A. Prerequisite: ENG 102 or 105 or HON 102. Grammatical structure of American English and present-day terminology used to describe that structure; analysis of the linguistic and grammatical theories underlying contemporary grammar texts.

ENG 420 Stylistics, Editing, Publishing. (3) A. Prerequisite: ENG 301. Development of prose style through analysis, practice, and editing. Fundamentals of online and hard-copy publishing, including surveying the markets, and preparing and submitting manuscripts.

ENG 430 Dramatic Literature. (3) A. Cross listed as THE 430. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302; or departmental approval. Survey of the major periods and genres of world dramatic literature, from the Greeks to the present; selected readings from the major playwrights, critics, and theorists. Credit will not be awarded for both ENG 430 and THE 430.

ENG 440 Young Adult Literature. (3) A. Prerequisites: ENG 301, 302; or departmental approval. A survey of literature for young adults intended for Secondary English Teaching majors. Critical approaches will be applied to contemporary and significant early texts. Pedagogical approaches will be modeled.

ENG 452 American Romanticism. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302; or departmental approval. A study of the 19th century Romantic movement, concentrating on selected major authors through Whitman.

ENG 454 American Realism. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302; or departmental approval. A study of the American Realistic movement from the late nineteenth century through the 20th century, concentrating upon selected major authors from Twain to the present.

ENG 455 American Fiction Since 1900. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302; or departmental approval. Survey of representative American novels and short stories of the twentieth and twenty-first centuries.

ENG 470 Chaucer and His Age. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302; or departmental approval. A study of selections from Chaucer, the Pearl poet, Langland, Malory, medieval drama, and lyrics.

ENG 472 Renaissance Literature. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302; or departmental approval. A study of Tudor poetry and prose and Elizabethan and early Stuart drama, exclusive of Shakespeare.

ENG 474 Shakespeare. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302; or departmental approval. Study of Elizabethan England as a background for Shakespeare's works; extensive reading of several plays; intensive reading of selected drama and poetry.

ENG 476 Milton and His Age. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302; or departmental approval. A study of Milton's works, Cavalier and Metaphysical Poetry, the masque, and prose of the period.

ENG 478 Literature of the Restoration and Eighteenth Century. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302; or departmental approval. British poetry, prose, and drama of the Restoration and 18th century with emphasis on Dryden, Swift, Pope, and Johnson.

ENG 480 Romantic Literature. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302; or departmental approval. Survey of British poetry, essays, and fiction of the Romantic period.

ENG 482 Victorian Literature. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302; or departmental approval. Survey of British poetry, essays, and fiction of the Victorian period.

ENG 485 British Fiction Since 1900. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302; or departmental approval. Survey of representative British novels and short stories of the twentieth and twenty-first centuries.

ENG 490 Creative Writing Capstone. (3) I, II. Prerequisite: departmental approval. Portfolio creation, assessment, and career guidance.

ENG 491 Technical Writing Capstone. (3) I, II. Prerequisites: ENG 300 and junior status. Provides professional technical writing experience by placing students in appropriate positions with area businesses and industries.

ENG 492 English Literature Capstone. (3) A. Prerequisites: senior status. A review of literary figures, periods, and concepts. Study of techniques of literary criticism and/or theory, major revision of an analytical paper. Discussion of graduate school and career options in the major.

ENG 495 Independent Study. (1-3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302; or departmental approval. Individual study and/or research on a problem pertaining to literature or language. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

ENG 499 Senior Capstone Experience (1) A. Prerequisites: senior status and departmental approval. A service learning project within the University community for all English majors, involving planning and participating in the Association of English Majors Annual Conference, and reflecting on that professional experience.

ENG 500 Topics in Professional Writing: _____. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302, and one additional ENG course; or departmental approval. Study and practice in selected areas of professional writing. May be retaken with different topics to a maximum of six hours. If subtopic is "Writing for the Popular Media," no credit to students with JOU 480.

ENG 502 Advanced Creative Writing. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, and departmental approval. Open to students who desire to have their manuscripts criticized; fiction, drama, poetry, biography, or the informal essay accepted; guest lectures and discussion with writers in residence.

ENG 503 Creative Writing Workshop. (1) A. Prerequisites: ENG 101 and 102 (or 105), 301, and departmental approval. One week course of lectures and discussions by faculty and visiting lecturers. Each student must submit a short story, a one-act play, four poems, or equivalent. May be retaken for a maximum of three hours.

ENG 504 Creative Writing Mentorship. (2) SUMMER ONLY. Prerequisite/Corequisite: ENG 503. Corresponding with instructor online and in conference, students will continue to develop projects begun in ENG 503.

ENG 510 Introduction to Linguistic Theory. (3) A. Prerequisites: ENG 102 or 105 or HON 102, and one additional ENG course. An introduction to current linguistic theory and practice.

ENG 515 English as a Second Language. (3) A. Prerequisites: ENG 102 or 105 or HON 102; and ENG 510 or departmental approval. Study of theories advanced to explain the learning of English as a second language.

ENG 520 History of the English Language. (3) A. Prerequisites: ENG 102 or 105 or HON 102, and one additional ENG course. Study of the history of the English language in terms of social, historical, and linguistic forces from which it developed into modern English.

ENG 530 Topics in a Genre: _____. (3) A. Prerequisites: ENG 102 or 105 or HON 102; ENG 301, 302, and one additional literature course; or departmental approval. Study of a designated literary genre, such as the novel, epic poetry, classical drama, or a popular literature genre. May be retaken with

different topics to a maximum of six hours.

ENG 550 Topics in Literature: _____. (3) A. Prerequisites: ENG 102 or 105 or HON 102, ENG 301, 302, and one additional literature course. An intensive study of a particular aspect of literature such as a theme, a movement, or contemporary directions/ experiments. May be retaken with a different topic to a maximum of six hours.

ENR—Learning Skills
Dr. James Keller, Chair

ENR 090 Developmental Reading I. (3) I, II. Focuses on improving reading skills by developing vocabulary and active reading strategies such as previewing, organizing information, and identifying main ideas and supporting details. ACT reading subscore 14 or lower.

ENR 095 Developmental Reading II. (3) I, II. Prerequisite: ENR 090 or ACT reading subscore 15-17. Focuses on developing comprehension skills. Systematic methods for learning college-level vocabulary, analyzing structure and ideas of written materials, and developing critical reading skills.

ENR 112 Academic Literacy and Learning. (3) I, II. Prerequisite: completion of all ENR developmental requirements and 59 hours or fewer. Provides practice in critical reading of arts and humanities texts. Students examine ways that writers express culturally relevant themes and concepts in various genres. Emphasis on strategic reading, writing, and learning practices. Gen. Ed. VII (AH).

ENR 115 Learning Dynamics. (1) I, II. Five-week course concentrates on learning techniques for efficient and effective study of college reading materials. Emphasis on learning, storing, and retrieving information. Credit will not be awarded for both ENR 115 and ENR 112.

ENR 116 Strategies for College Reading. (1) I, II. Prerequisites: ACT reading sub-score 18 or higher or ENR 095 or equivalent. Registration restricted to Freshmen and Sophomores. Five-week course concentrates on developing reading comprehension, analysis, rate, and vocabulary in various disciplines.

ENR 201 Vocabulary Development. (2) I, II. Mastery of wide range college-level vocabulary for reading, writing, speaking, and listening. Instructions in using context and Greek and Latin elements to unlock meaning. Includes practice in solving verbal analogies.

ENR 205 Topics in Reading: _____. (1-3) A. Instruction focused on specific areas of reading and studying through selected topics.

ENV—Environmental Sustainability and Stewardship

ENV 349 Applied Learning: Sustainability. (0.5-8) A. Prerequisite: 2.25 GPA and departmental approval. Work experience directly related to ENV minor. Minimum 80 hours work for each credit hour. Repeatable to 16 credit hours, only 3 of which can count toward minor.

ENV 349 A-N Applied Sustainability Co-op. (0.5-8) A. Prerequisite: 2.25 GPA and departmental approval required. Work experience directly related to ENV minor. Minimum 80 hours work for each credit hour. Repeatable to 16 credit hours, only 3 of which can count toward minor.

ENV 350 Special Topics in ENV: ____ (3) A. Prerequisite: ENG 102 or ENG 105(B) or HON 102 and departmental approval. Specialized study in selected topics related to environmental sustainability and stewardship. May be taken for a maximum of 12 credit hours provided subject matter differs each time.

ENV 450 Advanced Topics in ENV: ____ (3) A. Prerequisite: ENG 102 or ENG 105(B) or HON 102 and departmental approval. Specialized advanced study in selected topics related to environmental sustainability and stewardship. May be retaken for a maximum of 6 credit hours provided subject matter differs each time.

ENV 498 Independent Study (1-3) A. Prerequisite: ENG 102 or ENG 105(B) or HON 102 and 6 hours completed towards minor. Supervised study in environmental sustainability and stewardship. Independent Study proposal must be approved by faculty supervisor and ENV coordinator prior to enrollment. Repeatable to 6 hours.

ESE—Secondary Education
Dr. Dorie Combs, Chair

ESE 307 Clinical Experiences for Teachers. (1-3) A. Prerequisite: departmental approval. Provides clinical experiences such as observations, participation, and tutoring for prospective teachers in locations such as the learning lab. May be retaken to a maximum of six hours.

ESE 349 Applied Learning: Secondary Teaching. (1). I. Corequisite: one of the following courses: ESE 540, 543, 549, 552, 553, 561, 566, 573, 579, 587, ESE 550, MAE 550. Collaborate with faculty and field supervisors in secondary classroom(s) and assist with instructional planning and teaching. Minimum of 80 hours field experience required.

ESE 378 Teaching Music in Grades P-8. (3) I. Prerequisites: admission to professional education, major in music. Developmentally appropriate materials and methods for teaching P-8 music. Minimum of 20 field/clinical hours.

ESE 490 Secondary Curriculum, Classroom Organization, and Management. (3) II. Prerequisites: education core, special methods course, admission to professional education. Corequisite: EMS 349R. Emphasis on questions and problems encountered in secondary teaching including classroom management, state and national curriculum trends, and legal issues. Minimum 10 field/clinical hours.

ESE 499 Supervised Student Teaching in the Secondary School. (12) I, II. Prerequisites: education core, appropriate special methods course, admission to student teaching. Corequisite: ESE 490. Observation, participation, responsible classroom teaching including related professional activities.

ESE 507 Problems in Secondary Education. (1-3) A. Prerequisite: advisor/ departmental approval. Independent work, special workshops, special topics, or seminars.

ESE 540 Teaching Art in the Secondary P-12 Schools. (3) I. Cross-listed as AED 540. Prerequisites: EDF 319, admission to professional education. Pre/Corequisites: EDF 413, SED 401. Corequisite: ESE 349. Developmentally appropriate materials and methods for teaching art in the secondary schools grades P-12. Minimum of 40 field/clinical hours. Credit will not be awarded for both ESE 540 and AED 540.

ESE 543 Teaching of Language Arts in the Secondary School. (3) I. Prerequisites: EDF 319, admission to professional education. Pre/Corequisites: EDF 413, SED 401. Corequisite: ESE 349. Developmentally appropriate materials and methods for teaching language arts in secondary schools. Minimum of 40 field/clinical hours.

ESE 549 Teaching Social Studies in the Secondary School. (3) I. Prerequisites: EDF 319 with a minimum grade of "C", admission to professional education. Pre/Corequisites: EDF 413, SED 401. Corequisite: ESE 349. Developmentally appropriate materials and methods for teaching social sciences in the secondary school. Minimum of 40 field/clinical hours.

ESE 550 Teaching Mathematics in the Secondary School. (3) I. Cross-listed as MAE 550. Prerequisites: EDF 319 with a minimum grade of "C", admission to professional education. Pre/Corequisites: EDF 413, SED 401. Corequisite: ESE 349. Developmentally appropriate materials and methods for teaching mathematics and computer science in secondary schools. Minimum of 40 field/clinical hours. Credit will not be awarded for both ESE 550 and MAE 550.

ESE 552 Teaching of Career and Technical Education in Middle and Secondary Schools. (3) I. Prerequisites: EDF 319, admission to professional education. Pre/Corequisites: CTE 363, EDF 413, SED 401. Corequisite: ESE 349. Developmentally appropriate materials and methods for teaching technology and career and technical education in the middle and secondary schools. Minimum of 40 field/ clinical hours.

ESE 553 Family and Consumer Sciences Education Curriculum. (4) I. Prerequisites: Family and Consumer Science Education major, education core, and admission to professional education program. Corequisite: ESE 349. Current curricular trends and methodology for teaching FCS in middle/secondary grades. Program philosophy, legislation, curriculum and assessment. Minimum of 40 field/clinical hours.

ESE 561 Teaching Science in the Secondary School. (3) I. Prerequisites: EDF 319, admission to professional education. Pre/Corequisites: EDF 413 and SED 401. Corequisite: ESE 349. Developmental appropriate materials and methods for teaching science in secondary schools. Minimum of 40 field/clinical hours.

ESE 566 Teaching of Physical Education in the Secondary School. (3) I, II. Prerequisites: EDF 319, admission to professional education. Pre/Corequisites: PHE 575, PHE 562. Corequisite: ESE 349. Developmentally appropriate materials and methods for teaching physical education in secondary schools. Minimum of 40 field/clinical hours.

ESE 573 Teaching Business in Middle and Secondary Schools. (3) I. Prerequisites: EDF 319, admission to professional education. Pre/ Corequisites: EDF 413, SED 401. Corequisite: ESE 349. Developmentally appropriate materials and methods for teaching business education. Minimum of 40 field/clinical hours.

ESE 574 Teaching Reading in the Secondary School. (3) A. Prerequisites: education core and admission to professional education. Emphasis on developmental and content area reading skills, appraisal of reading abilities, appropriate materials, assessment, and organization of secondary reading programs.

ESE 579 Music Education: Principles and Practices. (3) I. Prerequisite: EDF 319, admission to professional education. Corequisite: ESE 349. Acquaints students with a balanced vocal and instrumental music education curriculum in the secondary school. Emphasis on understanding and planning a developmental sequence to assure the musical growth of students 8-12. Minimum of 20 field/clinical hours.

ESE 587 Teaching of Health Education in the Secondary School. (3) I. Prerequisites: EDF 319 with a minimum grade of "C", admission to professional education. Pre/Corequisites: EDF 413, SED 401. Corequisite: ESE 349. Developmentally appropriate materials and methods for teaching health education in secondary schools. Minimum of 40 field/clinical hours.

FCC—Foreign Culture and Civilization
Dr. Abbey Poffenberger, Chair

FCC 210 Topics in Culture: _____ . (3) A. May be retaken to a maximum of 6 hours if topic is different. Introduction to the unique values and traditions of a major African, Asian, Hispanic, or European culture as reflected in its aesthetic, intellectual, and other cultural achievements. Taught in English. Gen. Ed. E-3B.

FCC 220 French Culture and Civilization. (3) A. Introduction to the unique values and traditions of the French nation and of French-speaking peoples as reflected in their aesthetic, intellectual, and other cultural achievements. Taught in English. Gen. Ed. E-3B.

FCC 222 German Culture and Civilization. (3) A. Introduction to the unique values and traditions of the German peoples as reflected in their aesthetic, intellectual, and other cultural achievements. Taught in English. Gen. Ed. E-3B.

FCC 226 Hispanic Culture and Civilization (3) A. Introduction to the unique values and traditions of the Hispanic nations as reflected in their aesthetic, intellectual, and other cultural achievements. Taught in English. Gen. Ed. E-3B.

FCC 227 Japanese Culture and Civilization. (3) A. Introduction to the unique values and traditions of the Japanese as reflected in their aesthetic, intellectual, and other cultural achievements. Taught in English. Gen. Ed. E-3B.

FCS—Family and Consumer Sciences
Dr. Diane Leggett, Chair

FCS 303 Dissemination of Family and Consumer Sciences Information. (3) A. Prerequisite: NFA 201. Dissemination of information for clientele in the field of family and consumer sciences. Selection and utilization of resource materials including electronic information technology.

FCS 320 Family Housing and Design. (3) I. Introduction to housing and its relationship to human needs. Historical, governmental and current issues influencing housing consumption of individuals and families. Design considerations emphasized include principles and elements, architecture, furniture, and space planning.

FCS 330 Field Experience. (1-8) A. Prerequisites: department approval and 2.0 cumulative GPA. Supervised work experience in department approved organization. A minimum of 80 hours work required for each academic credit. Options may be taken to a maximum of 8 hours.

330A Field Experience in ADM
330B Field Experience in CDF
330C Field Experience in FCS
330D Field Experience in NFA

FCS 349 Applied Learning in Family and Consumer Sciences. (.5-8) A. Prerequisite: department approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours work required for each academic credit.

FCS 349 A-N Cooperative Study: Family and Consumer Sciences. (.5-8) A. Prerequisite: department approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours work required for each academic credit.

FCS 400W Ethics and Advocacy in Family and Consumer Sciences. (3) I, II. Prerequisites: CDF 132 and 12 additional hours in the department. History and principles of the profession of Family and Consumer Sciences. Course emphasizes the interdisciplinary nature of the field and its commitment to public policy activism to benefit individuals and families.

FCS 550 Family and Consumer Sciences Topics. (1-3) A. Selected topics in Family and Consumer Sciences. May be retaken to a maximum of six hours provided topics vary.

FIN—Finance
Dr. Oliver Feltus, Chair

FIN 201 Personal Money Management. (3) I, II. A consumer approach to insurance, family budgeting, income taxes, elementary investment principles, and estate planning. Credit will not be awarded for both FIN 201 and FRM 352.

FIN 300 Business Finance I. (3) I, II. Prerequisites: ACC 201, 202, ECO 230, QMB 200, with a grade of "C" or better in each course; junior standing (a minimum of 60 hours) and an overall minimum 2.0 GPA. Financial principles with applications to business organizations. Includes firm financial motives, time value of money, risk analysis, elementary capital budgeting, residual dividend policy, elementary capital structure decisions, analysis of financial statements, and international financial considerations.

FIN 301 Corporate Finance. (3) I, II. Prerequisites: FIN 300 with a "C" or better. An in-depth exploration of capital structure (including dividend policy) decisions, working capital management, financial forecasting and planning, the agency problem and its implication for security markets and firm valuation, financial market efficiency.

FIN 302 Small Business Finance. (3) A. Prerequisite or Corequisite: FIN 301. Equity, debt and venture capital markets for small businesses are examined. Also systems for financial statement generation and internal controls, sources and uses of funds forecasting, short-term asset and liability management, and capital structure decisions are explored. A small firm valuation project will be completed.

FIN 304 Financial Institutions. (3) I, II. Prerequisite: FIN 300. A survey of the evolution of financial institutions, including the impact of regulation and deregulation.

FIN 310 Entrepreneurial Finance. (3) I, II. Selection of business form, tax planning, financing and cash flow planning; motivating and retaining employees; compensation planning; debt and equity financing; legal, tax and behavioral considerations.

FIN 311 Personal Financial Planning. (3) I, II. Prerequisite: FIN 201 or 300 or 310, or FRM 352. Time value of money applications; personal financial statements development and assessment; cash flow and debt management; asset acquisition; education planning; planning elements of risk management; investment planning; and retirement planning.

FIN 324 Principles of Investments. (3) A. Prerequisite: FIN 300 or FIN 201 or FIN 310 with a "C" or better. Analysis of the characteristics, valuation, and tax implications of various investments such as common and preferred stock; corporate, federal and municipal debt; mutual funds; money market accounts; options and futures. Explores methods of trading securities.

FIN 330 Principles of International Finance. (3) A. Prerequisite: FIN 300 with a "C" or better. Financial decision-making processes of multinational corporations; flow of funds; exchange rate determination and forecasting; currency futures and options; international arbitrage; measurement and management of exchange rate exposure; multinational capital budgeting; analysis of country risk.

FIN 349 Applied Learning in Finance. (.5-8) A. Prerequisites: minimum GPA of 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work for each credit hour. May be repeated for a total of 16 credit hours.

FIN 349 A-N Cooperative Study: Finance. (.5-8) A. Prerequisites: minimum GPA of 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work for each credit hour. May be repeated for a total of 16 credit hours.

FIN 390S Community Financial Literacy. (3) A. Prerequisites: FIN 201, 310, and 311 with a grade of C or better in each course. Application of financial planning for community members; teaching financial literacy to EKU's service areas and surrounding communities.

FIN 410 Financial Analysis and Valuation. (3) A. Prerequisites: CCT 300W and FIN 300 with "C" or better; or ACC 302 with "B" or better and departmental approval. Exploration of discounted residual earnings as basis for valuation; sources of value creation; methods of forecasting future financial statements. Students are required to produce analyst report for a public company.

FIN 420 Investment and Portfolio Theory. (3) II. Prerequisites: FIN 301 and 324 with a "C" or better. Investment analysis including efficient market theory and empirical investigations, security valuation, risk free borrowing and lending; portfolio selection and performance evaluation are examined. Also included are derivatives' valuation and their role in a diversified portfolio.

FIN 424 Derivatives Valuation and Accounting. (3) A. Prerequisites: FIN 301 with "C" or better; or ACC 302 with "B" or better and departmental approval. General valuation principles for derivatives, numerical methods of derivative valuation, regulations covering executive stock options, accounting of derivatives. Also covered are special purpose vehicles.

FIN 450 Project in Finance. (1-3) I, II. Prerequisite: departmental approval. Selected topics of special contemporary interest to finance students. Students are required, under supervision of finance faculty, to write a paper on any finance topic of their choice.

FIN 490 Special Problems in Finance. (1-4) A. Prerequisite: advisor/departmental approval. May be retaken under different sub-topics to a maximum of six hours. Independent work, special workshops, special topics, or seminars. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

FLS—Foreign Language Studies
Dr. Abbey Poffenberger, Chair

FLS 100 Adventures in Language: _____. (1-3) A. This course introduces students to a language and culture through a variety of possible topics such as French cinema, German folklore, or Spanish dance. May be retaken to a maximum of six hours if topic is different.

FLS 101 Language Topics: _____. (3) A. Entry level study of a less frequently taught language such as Arabic, Chinese, Greek, Swahili, or other. May be retaken to a maximum of six hours if topic is different. Gen. Ed. Block VIII and Gen. Ed. E-6.

FLS 102 Language Topics: _____. (3) A. Continuing study of a less frequently taught language such as Arabic, Chinese, Greek, Swahili, or other. May be retaken to a maximum of six hours if topic is different. Gen. Ed. Block VIII and Gen. Ed. E-6.

FLS 210 Language Topics: _____. (3) A. Prerequisite: Basic proficiency in the language and departmental approval. Intermediate level study of a less frequently taught language such as Arabic, Chinese, Greek, Swahili, or other. May be retaken to a maximum of six hours if topic is different.

FLS 230 Language Studies Abroad: _____. (1-12) A. Prerequisite: Departmental approval prior to study abroad. Intensive intermediate level coursework in study abroad programs. May be retaken to a maximum of 12 hours per semester for duration of study abroad program(s).

FLS 295 Independent Work in Language. (1-3) A. For students with previous language study. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of nine hours if topic is different.

FLS 300 Elements of Foreign Language: _____. (3) A. Prerequisites: departmental approval and the student's major departmental approval. Introduces basic linguistic structures of major European languages, including pronunciation and intonation patterns; sharpens awareness of linguistic differences.

FLS 310 Topics in Foreign Languages:_____. (1-3) A. May be retaken to a maximum of 6 hours if topic is different. Examination of problems and issues in foreign languages, literatures, or cultures.

FLS 330 Language Studies Abroad: _____. (1-12) A. Prerequisite: Departmental approval prior to study abroad. Intensive intermediate/advanced level coursework in study abroad programs. May be retaken to a maximum of 12 hours per semester for duration of study abroad program(s).

FLS 349 Applied Learning: _____. (.5-8) A. Prerequisite: departmental approval. Work in placements related to foreign language study. One to eight hours credit per semester or summer. Total hours: 16. A minimum of 80 hours employment required for each semester hour credit.

FLS 349 A-N Cooperative Study: _____. (.5-8) A. Prerequisite: departmental approval. Work in placements related to foreign language study. One to eight hours credit per semester or summer. Total hours: 16. A minimum of 80 hours employment required for each semester hour credit.

FOR—Forensic Science
Dr. Lori Wilson, Chair
Dr. Diane Vance, Director

FOR 301 Introduction to Forensic Science. (3) A. Introduction to the application of scientific methods for the examination of physical evidence in the criminal justice system; an overview of the forensic analysis of firearms, fingerprints, drugs, blood, hair, fibers, paint, glass, arson debris, etc.

FOR 401 Forensic Professional Practice. (3) I. Prerequisite or Corequisite: FOR 411. Introduces professional practices and expectations for the forensic scientist. Includes discussion of professional organizations, certification, ethics, QA/QC, accreditation, technical writing, data treatment and interpretation.

FOR 411 Instrumental Analysis (3) A. Cross-listed with CHE 425. Prerequisites: CHE 325, 325L, 362, 362L; PHY132 (or 202); MAT 124(C or better in each course). Prerequisite or Corequisite: CHE 411L. Fundamental principles of the operation and application of analytical instrumentation including spectroscopy, chromatography, electrochemistry, and mass spectrometry found throughout industrial, government, forensic, and/or research environments are presented. Credit will not be awarded for both FOR 411 and CHE 425.

FOR 411L Forensic Instrumental Lab (1) A. Prerequisite: BIO 111 (C or better); Prerequisite or Corequisite: FOR 411. Lab component of FOR 411. Lab providing hands-on experience operating instrumentation most commonly used in forensic science analytical laboratories, including UV-visible, infrared, Raman, X-ray fluorescence, and atomic absorption spectrophotometric techniques plus thin-layer, gas, and liquid chromatographic separation techniques. Credit will not be awarded for both FOR 411L and CHE 425L. 3 Lab.

FOR 412 Forensic Trace Evidence. (2) II. Prerequisites: FOR 411, 411L, 451, and 451L (C or better in each course). Prerequisites or Corequisite: FOR 412L. Introduction to forensic trace evidence and the instruments and techniques used for the analysis of paint, glass, fibers, fire debris, and other materials commonly encountered in the trace section of a crime laboratory.

FOR 412L Forensic Trace Evidence Lab. (1) II. Prerequisites: FOR 411, 411L, 451, and 451L. Prerequisite or Corequisite: FOR 412. Lab component of FOR 412. Use of microscopes and various instruments for examination of forensic trace evidence materials. 3 Lab.

FOR 420 Forensic DNA Analysis. (1) I. Prerequisite: BIO 111 and CHE 362 (C or better). Introduction to Forensic DNA analysis including DNA structure and function, methods for extraction, quantitation, amplification, separation, and profile creation; statistical basis for matching; information on CODIS.

FOR 430 Forensic Analytical Toxicology. (3) II. Prerequisites: FOR 411 and 411L or CHE 425 and 425L (C or better for each course) or departmental approval. Study of the chemistry, biochemical activity, isolation and identification of drugs of forensic interest in biological materials.

FOR 440 Drug Chemistry. (3) I. Prerequisite: CHE 362 (C or better). Discusses aspects of drug chemistry relevant to understanding the properties, physiological effects, and techniques used for the separation, analysis, and identification of drugs. Emphasis is on controlled substances.

FOR 442L Drugs and Toxicology Lab. (1) II. Prerequisites: FOR 411 and 411L or CHE 425 and 425L (C or better); Prerequisites or Corequisite: FOR 430 or 440 (C or better). Introduces techniques and instrumentation used for the chemical separation and analysis of drugs in both solid dosage and toxicological samples. 3 Lab.

FOR 451 Forensic Microscopic Analysis. (2) I. Prerequisite or Corequisite: FOR 411, 411L, and 451L (C or better). Introduction to concepts of forensic microscopic analysis; identification and characterization of trace evidence, such as glass, hair, fiber, and soil.

FOR 451L Forensic Microscopy Lab. (1) I. Prerequisite or Corequisite: FOR 451. Laboratory component of FOR 451. Use of stereoscopes and polarizing light microscopes for examination of forensic materials. 3 Lab.

FOR 460 Selected Topics in Forensic Science. (1-3) A. Prerequisite: instructor approval. Topics will be chosen from areas of current interest and may be retaken for credit when new topics are offered. Topics and credit will be announced prior to each offering.

FOR 465 Expert Witness Testimony. (2) A. Prerequisite: FOR 411 with a "C" or better or departmental approval. Topics include the underlying theory and purpose for expert witness testimony, qualifications of scientific experts, ethical issues relating to expert witness testimony, and elements of expert witness discovery and courtroom testimony. Videotaping of testifying in mock testifying situations is also included. Credit will not be awarded for both FOR 465 and 465W. 4 Lab.

FOR 465W Expert Witness Testimony. (3) A. Prerequisites: ENG 102 or ENG 105 or HON 102 and FOR 411(C) and FOR 411L(C) or departmental approval. Theory and purpose for expert witness testimony, qualifications of scientific experts, ethical issues, and practical aspects of expert witness discovery and courtroom testimony. Videotaping of testifying in mock testifying situations is also included. 2 Lec/2 Lab. Credit will not be awarded for both FOR 465W and 465.

FOR 475 Mass Spectrometry. (3) A. Cross-listed with CHE 520. Prerequisite: CHE 362. Topics include types of mass spectrometers; qualitative and quantitative mass spectrometry, different ionization processes, sample inlet systems, (including chromatography systems), and interpretation of mass spectral data. Credit will not be awarded for both FOR 475 and CHE 520.

FOR 490 Introduction to Research. (1-3) A. Prerequisite: FOR 411 or departmental approval. Instruction to laboratory research in one of the areas of forensic science. May be retaken to a maximum of six hours, but only three hours may be counted toward the major requirements. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

FOR 495 Internship. (3, 6, 9, 12) A. Prerequisites: FOR 411, 411L, and 465W and 6 hours of 400-level or above FOR or CHE or BIO courses from within the student's option, (C or better in each course) and departmental approval. Independent laboratory work and study in a laboratory setting. May be taken for a maximum of 12 hours, but only six hours may be counted toward the major requirements. Four to 16 weeks.

FOR 499 Forensic Science Capstone (3) A. Prerequisites: FOR 411, 411L, and 465W and 6 hours of 400 level or above FOR or CHE or BIO courses from within the student's option (C or better in each course). Capstone experience that provides overview of the investigative process from collection of evidence at a mock crime scene, through analysis, data interpretation, and presentation of results in a mock courtroom setting. 2 Lec / 3 Lab.

FRE—French
Dr. Abbey Poffenberger, Chair

FRE 101 Conversational French I. (3) I, II. Prerequisite: all required developmental reading and writing courses. Beginning French conversation, grammar, and language skills. Emphasis on speaking and listening comprehension, with introduction to basic written forms. Taught in context of French and francophone cultures. Laboratory work required. Gen. Ed. Block VIII and Gen. Ed. E-6.

FRE 102 Conversational French II. (3) I, II. Recommended: FRE 101 or equivalent proficiency. (Students entering FRE 102 by referral or placement, with two years high school French or equivalent, receive three hours credit for FRE 101 if they make an "A" in 102.) Continuing work on communicative skills and correct usage, with introduction to reading short passages on relevant French and francophone cultural topics. Laboratory work required. Gen. Ed. Block VIII and Gen. Ed. E-6.

FRE 201 Intermediate Conversational French I. (3) I, II. Recommended: FRE 102 or equivalent proficiency (e.g. with two or three years of successful high school French). French conversation, grammar, and communicative language skills, with increased emphasis on developing basic writing and reading skills. Taught in a context of French and francophone cultures. Laboratory work required. Students entering FRE 201 by referral or placement receive six hours credit for FRE 101 and 102 if they make an "A" or "B" in 201. Gen. Ed. Block VIII and Gen. Ed. E-6.

FRE 202 Intermediate Conversational French II. (3) I, II. Recommended: FRE 201 or equivalent proficiency (e.g. with three or four years of successful high school French.) French conversation, grammar, and communicative language skills, with continuing emphasis on writing skills and on reading authentic texts. Taught in context of French and francophone cultures. Laboratory work required. Students entering FRE 202 by referral or placement receive nine hours credit for FRE 101, 102, and 201 if they make an "A" or "B" in 202. Gen. Ed. Block VIII and Gen. Ed. E-6.

FRE 204 Review of French Grammar. (3) A. Recommended: FRE 202 or equivalent proficiency. Integrative approach to French grammatical forms and usage in communicative context, with emphasis on spoken and written expression, within the framework of French and francophone cultures. Gen. Ed. Block VIII and Gen. Ed. E-6.

FRE 210 Reading and Conversation. (3) I, II. Recommended: FRE 204 or equivalent proficiency. Reading of basic literary texts with interactive discussion and writing practice. Emphasis is on building skills necessary for literature courses.

FRE 295 Independent Work in French. (1-3) A. Prerequisite: FRE 204 or FRE 210. May be retaken to a maximum of 9 hours if content is different. Prior to enrollment, student must have the independent study proposal approved by faculty supervisor and department chair.

FRE 301 Survey of French Literature I. (3) A. Prerequisite: FRE 204 or FRE 210 or equivalent proficiency with departmental approval. Selected readings from masterpieces of French literature, through the eighteenth century, with an introduction to the techniques of French literary analysis. Taught in French.

FRE 302 Survey of French Literature II. (3) A. Prerequisite: FRE 204 or FRE 210 or equivalent proficiency with departmental approval. Selected

readings from masterpieces of French literature of the nineteenth and twentieth centuries, with an introduction to the techniques of French literary analysis. Taught in French.

FRE 310 Topics in Culture:_____. (1-3) A. Prerequisite: FRE 204 or FRE 210 or equivalent proficiency with departmental approval. Emphasis on communicative proficiency in context of topics selected from French or francophone cultural heritage, such as cinema, news media, cuisine, or the arts. Taught in French. May be retaken to a maximum of 12 hours provided the topic is different.

FRE 312 French Literary Studies: _____ . (3) A. Prerequisite: FRE 204 or FRE 210 or equivalent proficiency with department chair approval. A selected topic from the major French authors and literary movements. Taught in French. May be retaken to a maximum of nine hours, if content is different.

FRE 313 French Narrative Fiction. (3) A. Prerequisite: FRE 204 or FRE 210 or equivalent proficiency with department chair approval. A selection of the best French prose from various periods of French literature. Taught in French.

FRE 314 Masterpieces of French Theater. (3) A. Prerequisite: FRE 204 or FRE 210 or equivalent proficiency with department chair approval. Selected works from the masterpieces of French theater. Taught in French.

FRE 315 French Lyric Poetry. (3) A. Prerequisite: FRE 204 or FRE 210 or equivalent proficiency with department chair approval. Survey of French lyric poetry, with emphasis on the 16th and 19th centuries. Taught in French.

FRE 320 French for Work and Travel. (3) A. Prerequisite: FRE 204 or FRE 210 or equivalent proficiency with departmental approval. Develops oral and written communication skills for application in diverse careers, international travel, and interaction with the French-speaking peoples of the world. Taught in French.

FRE 340 French Phonetics. (3) A. Prerequisite: FRE 204 or FRE 210 or equivalent proficiency with department chair approval. Intensive practice in the spoken language with emphasis on improving pronunciation and aural comprehension. The sound system of French is taught through phonetic exercises.

FRE 350 French Conversation. (3) A. Prerequisite: FRE 204 or FRE 210 or equivalent proficiency with department chair approval. Intensive practice in conversation with emphasis on vocabulary building and improving fluency in the language.

FRE 360 French Grammar in Context. (3) A. Prerequisite: FRE 204 or FRE 210 or equivalent proficiency with department chair approval. A communicative approach to French grammar in meaningful context, using authentic spoken and written language, within the framework of French and francophone cultures.

FRE 370 French Language Studies: _____. (3) A. Prerequisite: FRE 204 or FRE 360 or equivalent proficiency with departmental approval. Emphasis on applied language skills with designated topics in oral or written French such as composition, stylistics, or linguistics. Taught in French. May be retaken to a maximum of 9 hours provided the topic is different.

FRE 495 Independent Work in French. (1-3) A. Prerequisite: departmental approval. May be counted toward major or minor only with permission of department chair. May be retaken to a maximum of six hours if content is different. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

FRM—Family Resource Management
Dr. Diane Leggett, Chair

FRM 352 The Family as Consumers. (3) I, II. Family resource management across the life course. Resource allocation and decision-making to attain family goals and financial wellbeing; time, money, housing, work-family balance. Role of family economics in marital/family satisfaction and multiple family forms. Credit will not be awarded for both FRM 352 and FIN 201.

FRM 453 Balancing Work and Family Resources. (3) A. Prerequisites: NFA 321 and FRM 352. Concentration on value identification/ clarification, the decision making process, family resource management and the management process by individuals and families. Group projects and supervised field experiences with community programs.

FRM 456 Special Problems in Family Economics and Management. (1-3) A. Prerequisite: departmental approval. The student chooses a problem and works under the supervision of the instructor. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of six hours provided topics vary.

FSE—Fire and Safety Engineering Technology
Mr. Paul English, Coordinator

FSE 100 Introduction to Fire and Safety Engineering Technology. (1) A. Historical and philosophical discussion with review of the life and property conservation functions of federal, state, municipal, and private agencies. Study of legislation, contemporary, and future problems, career opportunities, and public fire safety education programs.

FSE 101 Fire Prevention. (3) A. An introduction to fire and safety related codes; fire prevention methods; mechanical systems; and engineering solutions for hazards. An in-depth look at the Life Safety Code, the function and testing of fire related building components.

FSE 120 Fire Behavior and Combustion. (3) A. Introduction to the chemistry and dynamics of fire; including basic terminology and concepts that are applied to the physical and chemical properties of the development and spread of fire in a structure; hazardous materials and the Computer Fire Analysis.

FSE 200 Applied Fire and Safety Analysis (3) A. Cross listed as OSH 200. Analytical and statistical concepts and procedures for the treatment of fire and safety related data. Includes quantitative and qualitative techniques, descriptive and inferential statistics. Credit will not be awarded for both FSE 200 and OSH 200.

FSE 201 Building Construction. (3) A. A review of the analysis of building construction methods and terminology. A systems approach to designing building fire safety; the Life Safety Code; the function of and testing of rated building components, evaluating plans for code compliance.

FSE 201S Building Construction. (3) A. A review of the analysis of building construction methods and terminology using a service learning approach. A systems approach to designing building fire safety; the Life Safety Code; the function of and testing of building components, evaluating plans for code compliance. Credit will not be awarded for both FSE 201 and FSE 201S.

FSE 221 Fire Protection Systems. (3) A. Prerequisites: FSE 101, FSE 120. Introduction to fire detection, protection, control systems and extinguishment. Fixed and portable systems of the following types will be studied: automatic sprinklers, standpipes, dry chemical, foam, halogenated agents, fire alarm systems and diction.

FSE 223 Fire and Emergency Scene Operations (3) A. Prerequisite: FSE 201 or FSE 201S. Principles of Incident Management including emergency scene decisions, strategies, and tactics. Utilizing emergency control resources such as personnel, apparatus, and equipment.

FSE 224 Human Behavior In Fire.(3) Prerequisites: FSE 101 and FSE 120. Examine current and past research on human behavior, systems models, life safety education and building design to determine interactions emergency situations. Develop a best practice building life safety system.

FSE 225 Legal Aspects of Fire Protection and Safety. (3) A. Cross listed as OSH 225. A study of legislative and legal decisions relating to personnel practices, employee safety, and public protection. Emphasizes the legal responsibilities, liabilities, and authority of the fire service practitioner. Credit will not be awarded for both FSE 225 and OSH 225.

FSE 230 Fire Prevention Organization and Management. (3) A. Prerequisite: FSE 101. An introduction to management issues related to fire prevention systems. Overview of the requirements for fire prevention codes, managing inspections, relations with public and officials and implementation of fire education programs.

FSE 250 Introduction to Fire Arson and Explosion Investigations. (3) A. An introductions to fire, arson, and explosion investigation. Topics include a historical overview of arson and terrorism statues, sources of information, the federal role in fire and explosion investigation, explosives and improvised explosive devices.

FSE 260 Proving Criminal Acts. (3) A. A study of crimes and the methodical steps in the investigation and proving of criminal acts. Explore defenses/legal remedies to enable the student to understand the obligations of managing an investigation.

FSE 280 Constitutional Criminal Procedure. (3) A. Examines the legal implications of obtaining evidence directly from the suspect. Fourth, Fifth, and Sixth Amendments, and rules of evidence are discussed as they relate to the investigation of criminal acts.

FSE 300W Technical Report Writing for Emergency Services (3). A. Prerequisite: ENG 102 and FSE 200. Develop oral and written communication skills specific to the public emergency service sector's needs. Focusing on the technical aspects involved in supporting public initiatives operating within the legal system and learning the specific requirements for submitting documentation to various technical committees. Credit will not be awarded for both FSE 300 and 300W.

FSE 301 Emergency Medical Treatment I. (6) A. Effective emergency medical care in a variety of traumatic and medical emergencies. Content developed by the Committee on Injuries of the American Medical Association. Credit will not be awarded for both FSE 301 and EMC 110.

FSE 305 Hazardous Materials. (3) A. Prerequisite: FSE 120. Cross listed with OSH 305. Study of hazardous material problems in transportation, storage, and use. Chemical properties relating to specific reactions, engineering controls, and control in an emergency situation. Emphasis on the role of pre-emergency planning, combating, coordinating, and controlling a hazardous materials incident. Credit will not be awarded for both FSE 305 and OSH 305.

FSE 310 WMD/Hazardous Materials. (3) A. Study of different Weapons of Mass Destruction (WMD) materials, deployment, and use. Evaluation of hazardous materials, usage, storage, and transportation. Preventing and controlling WMD/Hazardous Materials incidents.

FSE 320 Principles of Emergency Services. (3) A. An overview of organizational and management practices in the fire and safety fields. Emphasis on supervision and leadership styles, motivation, morale, and organizational behavior.

FSE 322 Fire Protection Structures and System Design (3) A. Prerequisite: FSE 221. Analysis and evaluation of specific code requirements related to the design, inspection, testing and maintenance of fire protection systems. Design projects will be included.

FSE 330 Principles of Criminal Investigation. (3) A. Prerequisites: FSE 300 or FSE

300W, FSE 260, and FSE 280. A detailed study of the investigative procedure as it applies to fire, arson, explosion and other personal property crimes.

FSE 349 Applied Learning in Fire and Safety Engineering. (.5-8) A. Cross listed with OSH 349. Prerequisite: departmental approval. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours employment required for each semester hour credit. Credit will not be awarded for both FSE 349 and OSH 349.

FSE 349 A-N Cooperative Study: Fire and Safety Engineering. (.5-8) A. Cross listed with OSH 349 A-N. Prerequisite: departmental approval. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours employment required for each semester hour credit. Credit will not be awarded for both FSE 349 A-N and OSH 349 A-N.

FSE 350 Fire Arson and Explosion Investigation I. (3) A. Prerequisite: FSE 120. An in-depth study in the analysis of fire, arson, and explosion scenes. Emphasis will be placed on the principles and techniques of scene preservation and analysis, management of investigative functions, documentation of the scene, and determination of the cause and origin of fire.

FSE 355 Fire Dynamics. (3) A. Prerequisites: CHE 101(or higher), FSE 120, and MAT 107(or higher). An introduction to fire-related measurement techniques, advanced fire and combustion concepts and associated terminology. This courses includes basic numerical methods for understanding fire dynamics.

FSE 360 Fire Protection Hydraulics and Water Supply (3) A. Prerequisites: FSE 120 and MAT 107 or higher. A study of water at rest and in motion, Bernoulli's and Pascal's theorems; water distribution systems, velocity, friction loss, pump and nozzle pressures required for fire protection.

FSE 365 Instructional Methodology for Emergency Service. (3) A. Course provides students with opportunities to develop presentation skills used in classroom instruction. Develop lesson plans, prepare audio-visual aids and props for the class. Prepare evaluation methodologies that competently assure learning objectives during delivery of presentations.

FSE 370 Electrical and Mechanical Systems Failure Analysis. (3) A. Overview of design criteria for electrical and mechanical systems and components relative to fire safety via laboratory experiments, exemplar components and photographs that depict system and component failures that result in fire. Learning opportunities include engaging in destructive and non-destructive analysis of components and systems.

FSE 375 Emergency Service Resource Management. (3) A. Introduction to management issues related to obtaining and accounting for resources. Included are financial management processes, acquisition strategies, strategies for maintenance of effort and resource prioritization, resource replacement planning and processes to audit program success.

FSE 380 Fire and Explosion Scene Analysis. (3) A. Prerequisite: FSE 350. An in-depth study of fire, arson, and explosive investigations. Emphasis will be placed on the principles and techniques of scene preservation, analysis, management of investigations, documentation of the scene and determination of cause and origin.

FSE 400 Advanced Emergency Services. (3) A. Prerequisites: FSE 300 or FSE 300W, and FSE 320. A study of environmental management including the identification and analysis of key managerial issues confronting contemporary fire services managers. Application in current methods and planning, organizing, developing and evaluating public fire/emergency services organizations.

FSE 420 Environmental Law and Management. (3) I, II. Prerequisite: FSE 225. Review/analysis of laws affecting workplaces, including the Clean Water Act, Clean Air Act, RCRA and CERCLA. Additionally, study of these laws and related policies/practices will be covered as related to safety. Credit will not be awarded for both FSE 420 and EHS 425.

FSE 425 Disaster & Community Fire Defense Planning. (3) A. Prerequisite: FSE 300 or FSE 300W. Overview of the ever changing demographics of the departmental jurisdictions and response during community service master planning, identifying hazards then assessing risks associated with those hazards. Analysis of potential disaster and recovery methods.

FSE 445 Advanced Structural Fire Protection. (3) A. Prerequisite: FSE 355. Examines principles involved in structural fire protection: behavior of materials and design considerations for each material in regards to a structure's design under fire attack and resistive protection methods.

FSE 450 Advanced Explosion and Bombing Investigation. (3) A. Prerequisite: FSE 380. An in-depth study of explosion scene investigation. Emphasis will be placed on the principles and techniques of scene preservation analysis, management of investigative functions, documentation of scene, and determination of the cause of explosions.

FSE 480 Industrial Fire Safety. (3) A. Prerequisites: FSE 101 and FSE 120. Fire scenario analyses for industrial installations using test data, loss experience and simplified theoretical modeling focusing on warehousing, storage of flammable liquids and safety of electrical equipment and computers.

FSE 481 Fire Protection Design. (2). Comprehensive project emphasizing a team approach to the design process. Problem formulation; project management; drawings and specifications; cost estimating; and various project components.

FSE 489 Topical Seminar: _____. (1-3) A. Prerequisite: FSE 200 or departmental approval. Development and presentation of research in contemporary methods, techniques, and devices in the field. May be retaken under different topics to a maximum of 12 hours.

FSE 490 Fire and Safety Research and Evaluation (3) A. Prerequisite: senior standing. Development of competency relating to concepts of fire and safety research analysis. Each student develops a research design and carries out a study project. Individual studies are culminated with project paper and presentation.

FSE 495 Fire Arson and Explosion Case Preparation. (3) A. Prerequisite: FSE 450. Preparation of the fire, arson, and explosion case for trial, including preparation of demonstrative evidence, scene documentation for presentation, rules of evidence, case review and analysis, and testimony.

FSE 498 Independent Study. (1- 3) A. Prerequisite: Departmental approval. Individual reading and research on a problem or area within the field of Fire and Safety, after student consultation with the instructor. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of six hours providing the project title differs.

FSE 499 Practicum. (1-12) A. Prerequisite: departmental approval. Supervised field observation, research, and/or experience.

GBU—General Business
Dr. Lana Carnes, Chair

GBU 101 Introduction to Business. (3) I, II. A survey of modern business practices. The course explores business areas including management, marketing, accounting, and finance. The course is designed to help prepare students for future business courses and assist students in deciding whether to choose business as a career.

GBU 201 International Business. (3) I. An overview of international business, including international business law, international business customs, and international business functional operations, examining the effectiveness of U.S. business ventures abroad and in competition with international companies at home.

GBU 204 Legal and Ethical Environments of Business. (3) I, II. Prerequisite: minimum 45 hours. Law and the legal system. Topics include discussion on ethical and socially responsible business decision; business forms, contracts and torts; governmental regulations and regulatory agencies that impact businesses.

GBU 301 e-Commerce Fundamentals. (3) A. Prerequisite: minimum 45 hours completed. Survey, analysis, evaluation of current issues and trends in e-commerce; examination of how e-commerce and electronic mediated environments are changing business and society.

GBU 310 Law of Contracts, Property, and Business Organizations. (3) I. Principles of the law of contracts, property and the formation, relationship and implications of partnership, corporations and agencies.

GBU 311 Law of Commercial Transactions. (3) II. Principles for law of personal property transfers, negotiable instruments, secured transactions, the application of the Uniform Commercial Code and business transactions, bankruptcy, and governmental regulation.

GBU 349 Applied Learning in General Business. (.5-8) A. Prerequisites: minimum GPA 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work required for each credit hour. May be used as upper division business electives and/or free electives as approved. General Business Majors, depending on option, are limited to a maximum of nine co-op hours counting toward degree. Co-op hours may be repeated up to nine hours.

GBU 349 A-H Cooperative Study: General Business. (.5-8) A. Prerequisites: minimum GPA 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work required for each credit hour. May be used as upper division business electives and/or free electives as approved. General Business Majors, depending on option, are limited to a maximum of nine co-op hours counting toward degree. Co-op hours may be repeated up to nine hours.

GBU 350 Seminar in Business. (1-3) A. A carefully selected topic of special and contemporary interest to business students. May be retaken under different subtitles to a cumulative maximum of nine hours.

GBU 480 Business Strategy. (3) I, II. Prerequisites: CCT 300 or 300W, CIS 300, FIN 300, MGT 300, 370, and MKT 300 with a grade of "C" or better in each prerequisite course; senior standing (A minimum of 90 hours) with an overall minimum 2.0 GPA. A capstone study of administrative processes under conditions of uncertainty including integrative analysis and formulation of strategy and supporting policy at administrative/executive levels. Students must complete all business core courses prior to taking GBU 480.

GCM—Graphic Communications Management
Drs. David Dailey and Marlow Marchant

GCM 211 Graphic Communications. (3) I, II. An overview of the market segments using the technologies of printing, publishing, packaging, electronic imaging, and their allied industries. 2 Lec/2 Lab.

GCM 217 Electronic Publishing. (3) A.

Basic course in desktop publishing and preparing appropriately designed documents for Graphic Communications. Emphasis is on the use of professional level computer application programs for working with images, type and page layouts. 2 Lec/2 Lab.

GCM 255 Web Publishing. (3) I. Formerly TEC 255. A basic course in using current Web standards to prepare content for the World Wide Web that includes HyperText Markup Language (HTML) and Cascading Style Sheets (CSS). 2 Lec/2 Lab.

GCM 313 Digital Photography. (3) A. Formerly TEC 313. A study of current technology used to capture, manage, enhance and process photographic images for use with various computer applications. 2 Lec/2 Lab.

GCM 316 Graphic Communications II. (3) I. Prerequisites: GCM 211. Advanced study of the imaging processes with particular attention given to prepress, press and post press operations related to offset presswork. 2 Lec/2 Lab.

GCM 317 Electronic Publishing II. (3) II. Prerequisite: GCM 217. Advanced desktop publishing course in the design, creation, and assembling of text and graphical images. In depth study of color theory, color management and color separation. 2 Lec/2 Lab.

GCM 318 Flexographic Printing (3) I. Prerequisite: GCM 211. An overview of the flexographic printing process. Emphasis will be given to products, image carriers, imaging and finishing operations in the label and corrugated packaging industry. 2 Lec/2 Lab.

GCM 319 Specialty Graphic Imaging. (3) I. Prerequisite: GCM 211. An overview of specialty imaging processes including screen, pad, and wide format printing. Emphasis will be given to the printed product, image carrier preparation, press systems and mechanics, inks and substrates. 2 Lec/2 Lab.

GCM 349 Applied Learning in Graphic Communication Management. (1-8) I, II. Prerequisite: departmental approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate, sixteen, baccalaureate. A minimum of 80 hours work required for each academic credit.

GCM 349 A-N Cooperative Study: Graphic Communications Management. (1-8) I, II. Prerequisite: departmental approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate, sixteen, baccalaureate. A minimum of 80 hours work required for each academic credit.

GCM 355 Web Animation. (3) II. Formerly TEC 355. Prerequisite: GCM 255 and 313. Web animation with advanced Web programming. 2 Lec/2 Lab.

GCM 410 Finishing and Packaging. (3) A. Prerequisite: GCM 319. A study of post-press finishing and binding operations in the printing and publishing industries. Packaging operations will also be studied, including design, layout, printing and assembly.

GCM 412 Color Process Printing. (3) A. Prerequisites: GCM 317 and 319. The advanced study and practical application of reproducing process color images by offset lithography. 2 Lec/2 Lab.

GCM 414 Printing Estimating and Costs. (3) II. Prerequisites: GCM 316 and 319. Methods and procedures of predetermining costs of printed products. The determination of equipment hourly rates and depreciation, cost centers, and equipment purchase decisions will be discussed with emphasis on computer related operations.

GCM 455 Web Publishing II. (3) I. Prerequisite: GCM 255. An advanced course in preparing content for the World Wide Web that includes HTML, PHP and MySQL. Students will work with both client-side and server-side technologies to integrate databases into web sites. 2 Lec/2 Lab

GCS—Interpersonal Skills and Career Counseling
Dr. Sara Zeigler, Dean of University Programs

GCS 198 Interpersonal Effectiveness Seminar. (1) I, II. The course is designed to assist students in gaining confidence in themselves and in relating more effectively with others. Attention is given to assertiveness, values clarification, and effective life management.

GCS 199 Career Counseling Seminar. (1) I, II. Prerequisite: Degree Seeking Only. The eight-week course helps students make effective career decisions. Self-awareness, values clarification, an awareness of career alternatives, and decision-making skills are promoted in the course. Pertinent career facts are learned; i.e. salary, training, outlook, and working conditions.

GEO—Geography & Geology
Dr. John White, Chair

GEO 100 Regions and Nations of the World. (3) A. Survey of the physical, cultural, and economic geography of the world's major regions, with an emphasis on regions undergoing change and currently of international concern. Credit will not be awarded for both GEO 100 and GEO 200. Gen. Ed. E-5B.

GEO 115 Hollywood Weather. (3) A. This non-technical introduction to atmospheric processes examines how meteorological events are portrayed in popular movies. Topics may include severe weather events, climate change, and weather's impact on human systems.

GEO 205 World Travel. (3) A. Examines the development of travel and tourism through the history of global exploration, the formation of popular tourism destinations around the world, and the emerging structure of the international tourism industry.

GEO 210 Introduction to Physical Geography. (3) A. Study of natural processes operating at the earth's surface with special emphasis on weather and climate and landforms as explanations for how and why physical and human phenomena vary from place to place. 2 Lec/2 Lab. Gen. Ed. IVB or VII (NS). [NS].

GEO 220 Human Geography. (3) A. Introduction to geographic study of human occupance of the earth, including patterns and processes of human activity and human/land interaction. Gen. Ed. VB, VC, or VII (SBS). [SB].

GEO 300 Geography: _____. (3) A. Designed for study of special topics. The specific orientation (cultural, physical, field studies, etc.) will follow course title. May be retaken to a maximum of nine hours provided subject matter differs each time.

GEO 302 Global Environmental Problems. (3) A. Examination of environmental problems and conservation strategies in the context of global change, with case studies from exemplary world regions, including rainforest, mountain, desert, and island biomes.

GEO 304 Travel and Tourism Industry. (3) A. Prerequisite: GEO 205 or departmental approval. Examination of the industry as a system: the suppliers, the intermediaries, and the market. Theoretical underpinnings of the tourism system are included along with principal publications and practices.

GEO 305 Tourism Development. (3) A. An in-depth study of the planning process, the determination of marketing strategies, and the economic impact of tourism development.

GEO 315 Meteorology. (3) I, II. Prerequisite: MAT 107 or higher. This course focuses on important phenomena and physical processes that occur in Earth's atmosphere, including atmospheric dynamics, radiation, stability, moisture, wind systems and severe storms.

GEO 321 Urban Geography. (3) A. Study of city functions, patterns, and past and current problems confronting the city, including the problems of planning, zoning, community housing, shopping centers, and urban renewal.

GEO 322 World Geopolitics. (3) A. Study of world political structures and events organized by territorial and regional frameworks. Specific attention to forces of global political change, including globalization processes, conflict and peace, ethnic separatism, and international mediation.

GEO 325 Environmental Land Use Planning. (3) A. Prerequisites: ENG 102 or ENG 105(B) or HON 102, and MAT 105. Examines how principles of landscape ecology, resource conservation, and environmental impact analysis are incorporated into land use decisions and public policy. Emphasizes practical application at the site and regional scales. Credit will not be awarded for both GEO 325 and GEO 325S.

GEO 325S Environmental Land Use Planning. (3) A. Prerequisites: ENG 102 or ENG 105(B) or HON 102, and MAT 105. Examines how principles of landscape ecology, resource conservation, and environmental impact analysis are incorporated into land use decisions and public policy. Emphasizes practical application at the site and regional scale. Credit will not be awarded for both GEO 325 and GEO 325S.

GEO 330 Economic Geography. (3) A. Geographic patterns and processes of production, trade, finance, and other services at local, regional, and global scales.

GEO 343 Geography of Kentucky. (3) A. Topical-regional approach to the physical characteristics, cultural complexity, and economic aspects of Kentucky with an emphasis on understanding the state's historical development and current environmental, political, and economic issues from a geographic perspective.

GEO 347 Regional Geography: _____. (3) A. Physical, cultural, and economic geography of a selected region (e.g., Africa, North America, Oceania) with emphasis on the region's current problems. May be retaken to a maximum of 12 hours provided subject matter differs each time.

GEO 349 Applied Learning in Geography. (.5-8) A. Prerequisite: departmental approval. Work in placement related to academic studies. One to eight hours credit per semester or summer. Total hours for baccalaureate, 16. A minimum of 80 hours employment required for each semester hour credit. No more than six hours may count toward the major.

GEO 349 A-N Cooperative Study: Geography. (.5-8) A. Prerequisite: departmental approval. Work in placement related to academic studies. One to eight hours credit per semester or summer. Total hours for baccalaureate, 16. A minimum of 80 hours employment required for each semester hour credit. No more than six hours may count toward the major.

GEO 351 Geographic Techniques. (3) A. Introduction to the range of techniques used in geographic research and applications, including mapping, image interpretation, GIS, GPS, field work, quantitative analysis, library and Internet research, and others. Practical experience focus. 2 Lec/2 Lab.

GEO 353 Geographic Information Systems. (3) A. Prerequisite: GEO 210, GLY 102, GLY 107, GLY 108, GLY 109, GLY 172, or GLY 304. Introduction to GIS principles, methods, operations, mapping, and applications. Topics include spatial data, databases, GIS analysis, models, site suitability, environmental and social applications, and more. Hands-on emphasis using ArcGis. 2 Lec/2 Lab.

GEO 405 Issues in Travel and Tourism. (3) A. Prerequisites: A comprehensive study of current issues, trends, problems, and opportunities in the travel and tourism industry. Research paper required.

GEO 425 Land Use Decisions and Controls. (3) A. Examines social and economic influences on land values, and how zoning and other controls are used to balance public needs with private landowners'

rights. Emphasizes legal framework governing the practice of community and regional planning.

GEO 430 Sustainability in Appalachia. (3) A. Cross listed as APP 430. Examination of Appalachia's ecological, social, and economic patterns, and the processes through which residents can ensure their social, economic and ecological sustainability in the future. Credit will not be awarded for both GEO 430 and APP 430.

GEO 435 Biogeography. (3) A. Study of plant and animal distributions and the nature of earth's major terrestrial biomes, with an emphasis on formulating sound hypotheses to explain the variety and ever-changing geographic ranges of living organisms.

GEO 450 Field Studies. (3) A. Field techniques and applied case studies of geographic topics in local and regional environs.

GEO 453 Advanced GIS. (3) II. Prerequisite: GEO 353 or departmental approval. Advanced concepts, operations, and applications of raster and vector GIS. Spatial analysis using scanning, imagery, GPS, global data sets, and derived data for natural and social applications. Use of standards, metadata, open GIS, and other advances.

GEO 455 GIS Cartography. (3) A. Prerequisite: Prerequisite: GEO 210, GLY 102, GLY 107, GLY 108, GLY 109, GLY 172, or GLY 304. Principles of cartographic design for GIS applications. Hands-on emphasis using ArcGIS. 2 Lec/2 Lab.

GEO 456 Remote Sensing. (3) I. Prerequisite: GEO 210, GLY 102, GLY 107, GLY 108, GLY 109, GLY 172, or GLY 304. Principles, data sources, acquisition, interpretation, analysis, and application of geographic imagery, including maps, air photos, shuttle photography, and satellite digital data. Hands-on emphasis using ERDAS software. 2 Lec/2 Lab.

GEO 458 Advanced Geographic Imagery. (3) II. Prerequisite: GEO 456. Characteristics, interpretation, integration and applications of advanced geographic imagery, including remote sensing and GIS digital data. Attention on satellite and multispectral imagery, including image processing. Hands-on emphasis. 2 Lec/2 Lab.

GEO 490 Senior Seminar. (3) A. Prerequisite: senior standing or departmental approval. A capstone course for majors that integrates students' academic experiences with their career development options.

GEO 495 Practicum. (3-6) A. Prerequisite: GEO major. Students will work under departmental supervision in governmental, corporate, or private enterprises which are engaged in applied geography. Determination of the number of hours will be made by the department, depending upon the range and depth of activities to be engaged in. May not be retaken.

GEO 498 Independent Study. (1-3) A. Student must have the independent study proposal form approved by faculty supervisor and departmental chair prior to enrollment. May be retaken to a maximum of six hours.

GEO 501 Advanced Geography: _____. (3) A. Prerequisite: departmental approval. In-depth study of physical, cultural, economic, geographic technique (GIS) themes. May be retaken to a maximum of six hours if subject matter differs each time.

GEO 525 Seminar in Planning: _____. (3) A. In-depth study of urban or regional planning topics, such as growth management and land use. May be retaken to a maximum of six hours provided subject matter differs each time.

GEO 597 Special Studies in Geography. (1-3) A. Prerequisite: departmental approval. Directed work in geography. Students must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

GER—German

Dr. Abbey Poffenberger, Chair

GER 101 Conversational German I. (3) I, II. Prerequisite: all required developmental reading and writing courses. Beginning German conversation, grammar, and language skills. Emphasis on speaking and listening comprehension, with introduction to basic written forms. Taught within the context of Germanic cultures. Laboratory work required. Gen. Ed. Block VIII and Gen. Ed. E-6.

GER 102 Conversational German II. (3) I, II. Recommended: GER 101 or equivalent proficiency. Continuation of GER 101. (Students entering GER 102 by referral or placement receive three hours credit for GER 101 if they make an "A" in 102.) Continuing work on basic communicative skills. Taught within the context of Germanic cultures. Laboratory work required. Gen. Ed. Block VIII and Gen. Ed. E-6.

GER 201 Intermediate Conversational German I. (3) I, II. Recommended: GER 102 or equivalent proficiency. German conversation, grammar, and other language skills with increased emphasis on developing basic writing and reading skills. Taught in a cultural context. Laboratory work required. Students entering GER 201 by referral or placement receive six hours credit for GER 101 and 102 if they make an "A" or "B" in 201. Gen. Ed. Block VIII and Gen. Ed. E-6.

GER 202 Intermediate Conversational German II. (3) I, II. Recommended: GER 201 or equivalent proficiency. German conversation, grammar, and other language skills with continuing emphasis on reading and writing skills. Taught in a cultural context. Laboratory work required. Students entering GER 202 by referral or placement receive nine hours credit for GER 101, 102, and 201 if they make an "A" or "B" in 202. Gen. Ed. Block VIII and Gen. Ed. E-6.

GER 240 Beginning Conversation. (3) A. Recommended: GER 201 or equivalent proficiency with department chair approval. Topics for conversation drawn from everyday situations. (Waived in case of demonstrable oral proficiency, but not open to native speakers.)

GER 295 Independent Work in German. (1-3) A. Prerequisite: GER 202 or equivalent proficiency. May be retaken to a maximum of 9 hours if content is different. Prior to enrollment, student must have the independent study proposal approved by faculty supervisor and department chair.

GER 310 Topics in German:_____ (1-3) A. Prerequisite: GER 202 or equivalent proficiency with department chair approval. May be retaken to a maximum of 6 hours if topic is different. Selected topics in German language, literature, or culture.

GER 340 Intermediate Conversation. (3) A. Prerequisite: GER 240 or equivalent proficiency with department chair approval. Topics for conversation drawn from contemporary German life.

GER 495 Independent Work in German. (1-3) A. Prerequisite: departmental approval. May be counted toward major or minor only with permission of department chair. May be retaken to a maximum of six hours if content is different. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

GLO—Globalization and International Affairs
Dr. Gyan Pradhan, Chair

GLO 201 Introduction to Globalization. (3) A. Prerequisites: Completion of all developmental requirements. An introduction to the multi-faceted dimensions of globalization, including positive and negative aspects of globalization and some of the many cultural, economic, geographical, historical, political, ideological and social forces affecting globalization.

GLO 490 Globalization Senior Seminar. (3) A. Prerequisites: Senior standing and departmental approval. Reading, analysis and discussion of current globalization topics, with heavy emphasis on class participation and student presentations.

GLY—Geography & Geology
Dr. John White, Chair

GLY 102 Earth Science for Teachers. (3) I, II. Prerequisite: pre-teaching and teaching elementary and middle school education majors only or departmental approval. This inquiry-based course for teachers integrates content, pedagogy and technology to explore Earth as an integrated set of systems and as part of the Solar System. Credit will not be awarded for both GLY 102 and GLY 302. 1 Lec/4 Lab. Gen. Ed. E-4B.

GLY 107 Gold and Diamonds. (3) I, II. The geology of gold and diamonds, including mineralogy, natural occurrence, exploration, and mining. The impact of gold, diamonds, and other important earth materials on the environment, history, and society will also be discussed. 2 Lec/2 Lab. Gen. Ed. E-4B.

GLY 108 Plate Tectonics: The Active Earth. (3) I, II. Investigation of the Earth as it exists and functions today, the materials that compose the Earth, the processes that act upon and within the Earth, and the interrelationship of both materials and processes with human activity. 2 Lec/2 Lab. Gen. Ed. E-4B.

GLY 109 Great Moments in Earth History. (3) I, II. Investigation of the origin of the Earth as a planet and its evolutionary development of physical and biological systems through time. Important turning points in the Earth's history will be emphasized. 2 Lec/2 Lab. Gen. Ed. E-4B.

GLY 172 Geology and Human Health. (3) I, II. This course is designed to help students understand how their interaction with the physical environment can impact their health, and to use this information to make informed, intelligent decisions about their behavior and choices related in everyday life. 2 Lec/2 Lab. Gen. Ed. E-4B.

GLY 210 Introduction to Geochemistry. (3) I. Prerequisite or Corequisite: ACT math score of 22, or SAT math score of 530, or MAT 107, or departmental approval. An introduction to the application of fundamental concepts and skills in chemistry (nomenclature, stoichiometry, bonding, chemical change) to geology, including the distribution of the elements, mineral chemistry, and radiometric dating.

GLY 302 Earth Science. (3) A. Introduction to the universe and our solar system, the Earth's atmospheric and climatic elements, its physical processes and features, organic development, and natural resources. Credit will not be awarded for both GLY 302 and GLY 102. Gen Ed. VII (NS).

GLY 303 Environmental Geoscience. (3) A. Prerequisite: any general education geology course or departmental approval. Investigation of the Earth as a complex set of interconnected systems that cycle elements, water, and earth materials over geologic and human time scales. The course emphasizes global environmental changes that occur on the planet because of human actions.

GLY 304 The World Ocean. (3) I, II. Investigation of the geologic, physical, biogeochemical, and biologic processes that occur within the oceans of the world. The course emphasizes connections between these processes, and how those connections interact with our planet's life. 2 Lec/ 2 Lab. Gen Ed. E-4B.

GLY 305Dinosaurs. (3) A. The rise, diversification, and extinction of this prominent group of organisms. This course attempts to explore how scientists make inferences about the past, including the use and limitations of physical evidence and the nature of science. Credit will not be awarded for both GLY 305 and NAT 305. Gen. Ed. VII (NS).

GLY 309 Mineralogy. (4) I. Prerequisite: any general education geology course or departmental approval. Study of minerals commonly encountered in rocks and soils with minor emphasis on ore deposits: mineral geochemistry, crystal structure, classification, physical properties, optical properties, and geologic environment. Laboratory develops the ability to identify minerals in hand specimens and thin sections. 3 Lec/2 Lab.

GLY 315 Hydrology. (3) I, II. Interrelationships between Earth's systems and the occurrence and character of water in streams, lakes, and groundwater. Focuses on fundamental understanding of hydrologic processes and reservoirs, interaction between surface waters and groundwater and relationships between human activity and these reservoirs.

GLY 349 Applied Learning in Geology. (.5-8) I, II; (1-6) SUMMER ONLY. Work in placements related to academic studies. Total hours for baccalaureate, sixteen. A minimum of 80 hours of employment required for each semester hour of academic credit. May not be used to satisfy area, major, or minor requirements.

GLY 349 A-N Cooperative Study: Geology. (.5-8) I, II; (1-6) SUMMER ONLY. Work in placements related to academic studies. Total hours for baccalaureate, sixteen. A minimum of 80 hours of employment required for each semester hour of academic credit. May not be used to satisfy area, major, or minor requirements.

GLY 351 Field Methods. (3) A. Prerequisites: any general education geology course or departmental approval. Methods of field geology including description and measurement of rock sequences, introduction to geological mapping and writing geological reports. 1 Lec/4 Field (Saturdays).

GLY 398 Independent Studies in Geology. (1-6) I, II. Prerequisite: departmental approval. Topic determined by student and instructor. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of six hours provided topic is different each time.

GLY 408 Process Geomorphology. (3) II. Prerequisite: any general education geology course or departmental approval. An in-depth study of the geologic processes involved in landform development.

GLY 409 Petrology. (4) II. Prerequisite: GLY 309. Nature and origin of common rocks (igneous, sedimentary and metamorphic), with emphasis on crystalline rocks. Lab develops the ability to analyze and classify rocks in hand sample and in thin section using a petrographic microscope. 3 Lec/2 Lab.

GLY 410 Structural Geology - Tectonics. (4) I. Prerequisite: any general education geology course or departmental approval. Deformation of Earth's crust across a wide range of scale with emphasis on plate tectonics and its consequences. Lab develops the ability to analyze the geometry of deformed rock bodies and solve common structural problems. 3 Lec/2 Lab.

GLY 415 Sedimentary Geology. (4) I. Prerequisite: any general education geology course or departmental approval. Examination of sedimentary processes and products, the characteristics and origins of sedimentary rocks and their related depositional environments, and application of these principles to solving geological problems. Laboratory develops techniques for describing and interpreting sedimentary rocks, structures, and stratigraphy. 3 Lec/2 Lab.

GLY 420 Stratigraphy and Paleontology. (4) II. Prerequisite: GLY 415. Description, correlation, and interpretation of stratified seminentary sequences; identification and interpretation of the fossils they contain. Emphases: rock-vs. time-stratigraphy, facies relationships, sequence stratigraphy, event stratigraphy, biostratigraphy, well log correlation. 3 Lec/2 Lab.

GLY 451 Field Camp. (6) SUMMER ONLY. Prerequisites: GLY 409 and 410. Field-training course in the northern and central Rocky Mountains (6 weeks). Analysis of rock sequences; geologic mapping of sedimentary, metamorphic, and igneous terrains; interpretation of complex rock deformation; regional geological synthesis with emphasis on tectonics; and visits to many instructive geologic localities, including national parks and monuments.

GLY 460 Aqueous Geochemistry. (3) II. Prerequisite: GLY 210 or CHE 111 and 111L. Reactions between natural waters, atmospheric gases and earth materials in surface and near surface environments. Emphasis is placed on consequences of chemical weathering, composition of surface and near surface water, geochemical cycles, and natural and anthropogenic geochemical events. 2 Lec/2 Lab.

GLY 480 Petroleum Geology. (3) II. Pre/Corequisites: GLY 410 and GLY 420. Use of the petroleum systems paradigm to explore characteristics of economically-viable petroleum accumulations. Examines fundamental activities such as electric logging, mudlogging, and drilling. Exercises and projects model industry practices in recognizing and understanding petroleum accumulations.

GLY 482 Paleoclimate. (3) A. How the interaction of ocean and atmosphere creates climate in the planet today and leaves its record in geologically accessible Earth materials, with an emphasis on the interpretation of the geological record and how we learn how the Earth's climate has changed in the past.

GLY 490 Applied Geology: Case Studies. (3) A. Prerequisite: any general education geology course or departmental approval. Detailed analysis of the environmental implications of human use of earth materials and interaction with geologic processes.

GLY 499 Senior Thesis. (3) A. Prerequisites: senior standing and department approval. Supervised, independent thesis project for majors in geology. Thesis project must be approved by faculty supervisor and department committee prior to enrollment in the course.

GLY 500 Earth Science Problems for Teachers: _____. (1-3) I, II. Prerequisite: departmental approval. Designed to fit needs of individual students majoring in education (general science) who need special instruction in the earth sciences. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of nine hours provided topic is different each time.

GLY 503 Earth Materials. (3) I. Prerequisite: any general education geology course or departmental approval. Survey of natural materials: minerals, rocks, soils and natural resources presented in the compositional structure of the Earth. Emphasis on the interaction between these materials and human activity, and on analytical techniques. Does not count toward B.A./B.S. in geology. 2 Lec/2 Lab.

GLY 504 Earth Processes. (3) II. Prerequisite: any general education geology course or departmental approval. Survey of natural processes: weathering and erosion; transportation, deposition and consolidation of sediment; deformation and uplift of the Earth's crust. Emphasis on the interaction between these processes and human activity, and on analytical techniques. Does not count toward B.A./B.S. in geology. 2 Lec/2 Lab.

GLY 512 Geology of Soils. (3) A. Prerequisite: any general education geology course or departmental approval. Composition, classification, and evolution of soils, role of climate, living organisms, physiography, and underlying geology in soil formation. Emphasis on clay mineralogy, soil analytical techniques, soil mapping, paleosols in the rock record, human interaction with soils, and the economic importance of soils. 2 Lec/2 Lab.

GLY 535 Hydrogeology. (3) I. Prerequisite: any general education geology course or departmental approval. Origin, occurrence, movement, utilization, and conservation of groundwater. Qualitative and quantitative presentation of geological, physical, and geochemical aspects of groundwater hydrology. 2 Lec/2 Lab.

GLY 540 Biogeochemical Treatment Processes. (3) A. Prerequisite: departmental approval. Survey of remediation processes for polluted waters and soils; emphasis on understanding the science of and application for various treatment processes.

GLY 550 Evolution of the Earth. (3) A. Prerequisite: senior standing or departmental approval. Capstone course: overview of geological principles from the perspective of the Earth's history, physical and biological. Emphasis on critical thinking and expressive writing.

GLY 580 Selected Topics: _____. (1-3) A. Prerequisite: senior standing or departmental approval. Designed to explore specific aspects of geology. May be retaken to a maximum of six hours provided topic is different each time.

GSD—Student Development
Dr. Sara Zeigler, Dean of University Programs

GSD 101 Foundations of Learning. (3). I, II. A course to promote student success and lay the foundation for critical and creative thinking across the curriculum. Open to all first year students with fewer than 30 semester hours earned. Credit will not be awarded to students who have credit for ASO 100, BTO 100, EDO 100, GSO 100, HSO 100, or JSO 100.

GSD 220 Prior Learning Seminar. (2) A. Prerequisites: ENG 102 or departmental approval. This course is designed to help students identify and document learning gained through life experience or employment that will be assessed for possible college level credit.

GSD 225 Leadership Dynamics. (1-3). II. The course is designed to introduce current and emerging leaders to leadership theory and development. Attention is given to self awareness, leadership styles, conflict resolution, communication skills, ethics and values and real world experience. Information is provided through class discussion, speakers, group work, journals and case studies. May be retaken to a maximum of three hours provided the subject matter differs.

GSD 225S Leadership Dynamics: Service Learning. (1). II. The course is designed to introduce current and emerging leaders to leadership theory and development through a dynamic service learning component including reflective activities, practice in teamwork, and engaging in service for a community partner. Credit will not be awarded for both GSD 225S and GSD 225. May be repeated up to three hours.

GSD 349 Applied Learning (.5 - 8) A. Prerequisite: 2.0 GPA and Program approval. Work under field supervisors in placements related to academic studies. Minimum 80 hours work for each credit hour. Repeatable up to 16 credit hours.

GSD 349 a-n Cooperative Study. (.5 - 8) A. Prerequisite: 2.0 GPA and Program approval. Work under field supervisors in placements related to academic studies. Minimum 80 hours work for each credit hour. Repeatable up to 16 credit hours.

GSD 401 McNair Research Symposium. (2) A. Prerequisites: ENG 101 and 102 or ENG 105; MAT 105 or any course above MAT 105. Introduction to research, writing, and expectations concerning research in academic settings. Provides essential information regarding research and writing expectations of graduate students. For McNair scholars only.

GSO—Orientation for Undeclared Students
Dr. Sara Zeigler, Dean of University Programs

GSO 100 Academic Orientation. (1) I, II. An orientation to university academic life and career planning and preparation. Topics include university policies and procedures, program requirements, career

opportunities, and introductory study skills. Open to all students during their first two semesters of enrollment at EKU; beyond that open to students with fewer than 30 semester hours earned.

GSO 101 Cultural Orientation for International Students. (1) A. An orientation to American customs and the American education system for undergraduate international students attending an American university for the first time. Students are also required to take GSO 100.

GSO 102 Transition to College. (3) A. Prerequisite: taken by referral or placement. The course is an intensive introduction to the university, including study skills, cultural and learning resources, academic life, university policies and procedures, self-exploratory activities and growth.

GSO 149 Co-op Professional Seminar. (1) I, II. Prepare students for the job market prior to co-oping. Topics include: self-assessment, communication, resumes and cover letters, interviewing techniques, business etiquette. Credit will not be awarded for both GSO 149 and CMS 330.

GST—General Studies Tutoring
Dr. Sara Zeigler, Dean of University Programs

GST 300 Principles of Peer Mentoring/ Tutoring. (1-3) I. Prerequisite: Department approval. Students will receive instruction and training in tutoring and mentoring skills and techniques. Students will serve as a peer tutor or mentor and assist with teaching in an assigned section of Academic Orientation for freshmen. The peer tutors and mentors will record, reflect upon and evaluate their associated experiences. May be retaken up to six credit hours.

HEA—Health Education
Dr. Michael Ballard, Chair

HEA 202 Community First Aid and CPR. (3) I, II. Instruction and practice in first aid and safety procedures. Includes assessment and first aid procedures regarding life-threatening emergencies, injuries, medical emergencies, and rescues. Focus on prevention, as well as first aid. Includes American Red Cross certification in First Aid, Adult CPR with AED, Child CPR, and Infant CPR. Credit will not be awarded for both HEA 202 and EMC 102.

HEA 285 Health Across the Lifespan. (3) I, II. Consideration of the various conditions and factors affecting individual and community health; special emphasis is on responsible decision-making, formulating philosophies, attitudes, and a behavioral understanding necessary to establish health living practices. Gen. Ed. VI.

HEA 290 Foundations of Health Education. (3) II. The history, foundational disciplines, and principles that led to the establishment of health education. The role of health education in the present health care system.

HEA 310 Introduction To Global Health. (3) A. Prerequisite: ENG 102 or 105 or HON 102. Exploration of epidemiological, economic, political, sociological and cultural factors that impact global health with special emphasis on applying public health principles in developing as well as developed countries. Gen. Ed. Element 6.

HEA 315 Issues in Health and Disease. (3) II. Etiology, effects, remediation, and prevention of disease. Nature of health and environmental issues and forces which shape them.

HEA 316 Introduction to Public Health. (3) I, A. An introduction to the organization and functions of public health at local, state, and national levels. Identifies relationship between human ecology and the public's health. Includes projection of future public health direction. Credit will not be awarded for both HEA 316 and HEA 416.

HEA 320 Introduction to Behavior Change Theory (3) I, II. Examine theories and models of health behavior relevant to health education in individuals and communities. Students analyze influences on behavior, and evaluate strategies for health education.

HEA 345 Drugs, the Individual, and Society. (3) I, II. Effect of drug use and abuse on the individual and society. Personal and community approaches for promoting intelligent decision making regarding drugs.

HEA 349 Applied Learning in Public Health. (.5-8) A. Prerequisite: departmental approval. Work under faculty and field supervisors in a cooperative placement related to a student's academic studies. Credit varies with hours of employment; one to eight hours per semester or summer. May be retaken to a maximum of 12 hours. Minimum 80 hours employment required for each semester hour credit.

HEA 349 A-N Cooperative Study: Public Health. (.5-8) A. Prerequisite: departmental approval. Work under faculty and field supervisors in a cooperative placement related to a student's academic studies. Credit varies with hours of employment; one to eight hours per semester or summer. May be retaken to a maximum of 12 hours. Minimum 80 hours employment required for each semester hour credit.

HEA 350 Interpretation of Health Data. (3) I. Understanding graphical, statistical, and research techniques used in health. Developing competencies in analyzing and interpreting research results. Credit will not be awarded to students who have credit for ECO 220 or EPY 842 or HEA 450 or PSY 291 or QMB 200 or STA 215 or STA 270.

HEA 375 Family Life Education. (3) I. Biophysical and psycho social aspects of sexuality and relationships, with emphasis on choices affecting health and well-being. Focuses on developing skills in teaching and facilitating positive behavior changes for people working in schools and communities. Credit will not be awarded to students who have credit for CDF 232 or WGS 232.

HEA 380 Mental Health Education. (3) I. Basic needs for mental and emotional wellness. Emphasis in the selection of appropriate activities for promoting mental health through community agencies.

HEA 420 Senior Seminar in Health Education. (1) II. Students will draw together skills and knowledge needed to enter the workforce, and will review core competencies required of the health education specialist. Students will prepare to become certified in the field of health education.

HEA 455 Introduction to Epidemiology. (3) I, A. Factors that affect the occurrence and courses of diseases—causative agents, susceptible hosts, favorable environments, and the effective use of statistical epidemiological methods.

HEA 458 AIDS and the Social Response. (2) A. Cross listed as SWK 458. Prerequisites: SOC 131, PSY 200, and junior standing or departmental approval. Psychosocial aspects of HIV infection. Exploration of methods of responding to and serving people with HIV. Development of population specific prevention strategies. Credit will not be awarded to students who have credit for CHS 342 or SWK 458.

HEA 460 Community Health Education Process. (3) II. Prerequisite: CSC 104 or CIS 212 or department chair approval. Planning, organizing, delivering, and evaluating the community health education program. Credit will not be awarded for both HEA 460 and HEA 360.

HEA 463 Internship in Health Promotion and Administration. (1-6) A. Supervised experiences for seniors in the directing of Health Promotion and Administration activities in various settings. May be retaken to a maximum of six hours.

HEA 480 Health Promotion Program Planning. (3) I. An introduction to principles, strategies, and skills which are necessary for the planning and implementation of health education and health promotion programs in a diversity of settings. Credit will not be awarded for both HEA 480 and HEA 598.

HEA 490 Evaluation of Health Promotion Programs. (3) I, II. This course will provide an introduction to principles, strategies, and skills for the evaluation of health promotion programs in a variety of settings. Credit will not be awarded for both HEA 490 and HEA 580.

HEA 498 Independent Study. (1-3) I, II. Opportunity for individual work on a health problem in a supervised situation. Restricted to students who have demonstrated ability to complete individual endeavors. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of three hours.

HEA 590 Health Education: _____. (1-3) A. Study of pertinent problems in health and health education. Includes topics such as: health care delivery, child abuse, teenage pregnancy, community health organizations, elementary school health curriculum, drug education, school health services, health deviations among students, sexually transmitted diseases, etc. May be retaken with advisor approval provided subtitle is different.

HEA 591 Women's Health. (3) A. Cross listed as WGS 591. Analysis of the major health problems of contemporary women with a special emphasis on health promotion, disease prevention, and consumer health concerns. Credit will not be awarded for both HEA 591 and WGS 591.

HEA 592 Human Sexuality. (3) A. Cross listed as WGS 592. Study of the biological, social, and psychological aspects of human sexuality. Directed primarily toward those individuals in situations which require them to assist others in understanding the broad impact of one's sexuality. Emphasis is placed upon student development of logical and reasoned justifications for their own value system. Credit will not be awarded for both HEA 592 and WGS 592.

HEA 593 Death and Grief. (3) A. Cross listed as WGS 593. A study of attitudes, behaviors, and issues concerning death and grief. Topics include responses to death and grief throughout the life cycle; process of grief and bereavement; theology and death; legal aspects of dying; care of the dying; suicide; post-mortem care; death education. Credit will not be awarded for both HEA 593 and WGS 593.

HEA 595 Alcohol Abuse and Dependency. (3) A. Study of the impact of alcohol related attitudes and behaviors on individuals and society. Includes study of influences on choices about alcohol, behavior change strategies, prevention, intervention, and treatment.

HIS—History
Dr. Christiane Taylor, Chair

HIS 098 Introduction to World Civilizations. (3) A. A course to meet the PCC deficiency in Social Sciences. This course will emphasize the way in which history is researched and written and will foster an understanding of how other related disciplines assist in historical analysis. This course does not count toward graduation.

HIS 202 American Civilization to 1877. (3) A. Transition from colonial to independent republic; social, cultural, and economic institutions derived from agrarian conditions; the influence of European foundations. Required of all majors and minors in history. Gen. Ed. E-5A.

HIS 203 American Civilization since 1877. (3) A. Conflicts between demands of an industrial society and agrarian values; interrelationships between world expressions and American experience. Required of all majors and minors in history. Gen. Ed. E-5A.

HIS 204W Historical Inquiry: _____. Writing Intensive. (3) A. Prerequisites: ENG 102 or 105 (B) or HON 105 (B). Introductory exploration of a particular historical problem or theme. Satisfies university's sophomore writing-intensive requirement. Gen. Ed. E-5A.

HIS 231 Western Civilization to 1687. (3) A. Ancient Greece to the industrial revolution;

institutions, ideas, and social and economic relationships basic to the modern world. Credit will not be awarded for both HIS 231 and HIS 246. Gen. Ed. E-5A.

HIS 232 Western Civilization Since 1687. (3) A. Industrial revolution to present; transformation of cultural background through ideas, science, and industry, development of current western civilization. Credit will not be awarded for both HIS 232 and HIS 247. Gen. Ed.E-5A.

HIS 246 World Civilizations to 1500. (3) I, II. Analyzes patterns of historical change and interaction in various world civilizations before the modern period. Credit will not be awarded for both HIS 246 and HIS 231. Gen. Ed. E-5A.

HIS 247 World Civilizations Since 1500. (3) I, II. Analyzes patterns of historical change and interaction in various world civilizations during the modern period. Credit will not be awarded for both HIS 247 and HIS 232. Gen Ed. E-5A.

HIS 290 Historical Research and Methods. (3) I, II. HIS majors only. A comprehensive introduction to historical research, writing, and methodologies. Credit will not be awarded for both HIS 201 and HIS 290.

HIS 300A Topics in U.S. History: _____. (1-3) A. Movements in U.S. history that have influenced and continue to influence the course of American culture and civilization. May be retaken to a maximum of six hours provided topics vary.

HIS 300B Topics in European History:____. (1-3) A. Movements in European history that have influenced and continue to influence the course of European culture and civilization. May be retaken to a maximum of six hours provided topics vary.

HIS 300C Topics in Non-Western History: _____. (1-3) A. Movements in non-Western history that have influenced and continue to influence the course of non-Western cultures and civilization. May be retaken to a maximum of six hours provided topics vary.

HIS 302A Research Topics in History: _____. (3) I, II. Prerequisite or Corequisite: HIS 290. Historical research and methodologies using case studies of specific movements in U.S. history that have influenced and continue to influence the course of cultures and civilizations.

HIS 302B Research Topics in History: _____. (3) I, II. Prerequisite or Corequisite: HIS 290. Historical research and methodologies using case studies of specific movements in European history that have influenced and continue to influence the course of cultures and civilizations.

HIS 302C Research Topics in History: _____. (3) I, II. Prerequisite or Corequisite: HIS 290. Historical research and methodologies using case studies of specific movements in Non-Western history that have influenced and continue to influence the course of cultures and civilizations.

HIS 303 Women in American History. (3) A. Cross listed as WGS 303. Prerequisite: three hours HIS or department approval. Social, economic, and cultural role of women in America. Women's work; social position and status; women in reform movements; feminism and the suffrage movements; the new feminism. Credit will not be awarded for both HIS 303 and WGS 303.

HIS 304 Slavery in the Americas. (3) A. Cross listed as AFA 304. Prerequisite: three hours HIS or departmental approval. The history of slavery, bound labor, and freedom in the Western Hemisphere. Special attention will be given to anti-slavery and abolitionist movements. Credit will not be awarded for both HIS 304 and AFA 304.

HIS 305 African-American History. (3) A. Cross listed as AFA 305. Prerequisite: three hours HIS or department approval. African history to 1500; Europe, Africa, and the Americas; trans-Atlantic and domestic slave trades; American slavery; emancipation; post-emancipation experiences and initiatives; persistence of black nationalism. Credit will not be awarded for both HIS 305 and AFA 305.

HIS 308 Native Americans to 1830. (3) A. Prerequisite: three hours HIS or departmental approval. Native American history from pre-contact to the Indian Removal Act of 1830. Emphasis placed on the nature and impact of encounters with Europeans.

HIS 309 Native Americans Since 1830. (3) A. Prerequisite: three hours HIS or departmental approval. Native American history from the Indian Removal Era to the present. Emphasis placed on both native perspectives and federal policies.

HIS 310 History of Science. (3) A. The development of scientific concepts through the ages, contribution of science to civilization, philosophy of science, and biographical sketches. Credit will not be awarded for both HIS 310 and SCI 310.

HIS 312A Independent Study in History: _____. (3) A. Individual research and/or reading on a problem area in U.S. history. Regular reports and final research paper required. Students must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

HIS 312B Independent Study in History:_ _____. (3) A. Individual research and/or reading on a problem area in European history. Regular reports and final research paper required. Students must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

HIS 312C Independent Study in History:_____. (3) A. Individual research and/or reading on a problem area in Non-Western history. Regular reports and final research paper required. Students must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

HIS 320 History of the Arab World. (3) A. Prerequisite: three hours HIS or department approval. A historical survey of the Arabs, with special attention to the Arab role in the development and spread of Islam, the interaction of the Arabs with other Middle Eastern peoples, and the Arab reaction to the challenge posed by the modern West, all significant factors in the political and cultural shaping of the contemporary Middle East.

HIS 322 History of the Modern Middle East. (3) A. Prerequisite: three hours HIS or departmental approval. Study of the history of the modern Middle East from the close of the 18th century to the present, with emphasis on the religious, social, cultural, and political dimensions of societies in the region.

HIS 330 Ancient Egypt. (3) A. A survey of Egyptian history from the earliest human activity to the Islamic conquest, considering political, religious, and socio-economic shifts and discussing sources for the study of the ancient past (archaeology, texts, and monuments).

HIS 336 Greco-Roman Civilization. (3) A. Prerequisite: three hours HIS or department approval. Greek society and culture; emergence of the Roman Republic; the Roman Empire.

HIS 337 Christianity East & West to 1500. (3) A. Prerequisite: three hours HIS or department approval. Exploration of the emergence and spread of both eastern and western Christianity. Examination of the historical context, including social and cultural influences on the development of Christian communities and perspectives.

HIS 339 Medieval Civilization. (3) A. Prerequisite: three hours HIS or department approval. The collapse of the Classical world; the Germanic migrations; early Byzantine and Islamic civilizations; the Carolingians; the church and society; feudalism; commercial and urban revival; the rise of territorial states and the beginnings of European expansion.

HIS 341 Europe, 1689-1815. (3) A. Prerequisite: three hours HIS or department approval. The Age of Reason; French, German, and British philosophies; 18th-century European politics and economic development; early industrialization; emergence of European dominance; the French Revolution.

HIS 342 Europe from 1815 to 1914. (3) A. Prerequisite: three hours HIS or department approval. Congress of Vienna; revolutionary reform; liberalism; realism and nationalism; worldwide impact of Europe prior to World War I; industrialism; imperialism.

HIS 343 Europe in the Renaissance Era. (3) A. Prerequisite: three hours or department approval. Society, culture, economy and politics in Europe, 1348-1533. The "Black Death" and its impact; Italian Renaissance humanism and art; Christian humanism, European expansion and colonialism in the age of Columbus.

HIS 344 Europe in the Reformation Era. (3) A. Prerequisite: three hours HIS or department approval. Religion, society and politics in Europe, 1517-1689. The medieval and Renaissance legacies; the development of Protestant and Catholic reform movements; the age of religious wars.

HIS 345 English History to 1603. (3) A. Prerequisite: three hours HIS or department approval. Roman Britain; Feudalism; rise of Parliament; Hundred Years' War; Reformation; Elizabethan Age.

HIS 346 English History from 1603 to present. (3) A. Prerequisite: three hours HIS or department approval. Civil War; imperial expansion; beginnings of industrialization; Victorian Liberalism; two world wars and beyond.

HIS 347 Recent and Current World History, 1914 to present. (3) A. Prerequisite: three hours HIS or department approval. World War I; peace settlement of 1919; problems of security; war debts and reparations; disintegration of peace settlement; World War II; the Cold War.

HIS 348 Elizabeth I – Life and Legacy. (3) A. Prerequisite: three hours HIS or departmental approval. An examination of the life and reign of Elizabeth I, Queen of England from 1558-1603. Topics will include her rule, image, and historical legacy.

HIS 349 Applied Learning in History. (.5-8) A. Prerequisite: departmental approval. Does not apply toward a major or minor in history. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours employment required for each semester hour credit.

HIS 349 A-N Cooperative Study: History. (.5-8) A. Prerequisite: departmental approval. Does not apply toward a major or minor in history. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours employment required for each semester hour credit.

HIS 350 Modern Germany since 1848. (3) A. Prerequisite: three hours HIS or department approval. Nationalism, liberalism, and the German problem; Bismarck and unification; industrialization and socialism; World War I; Weimar Republic and Depression; Hitler and the Third Reich; World War II and the Holocaust; Federal Republic and GDR; Cold War and beyond.

HIS 363 History of Russia to 1855. (3) A. Prerequisite: three hours HIS or department approval. Survey of Russian History from 860 to 1855. Cultural, economic, social, political and diplomatic development of Russia to the end of the Crimean War.

HIS 365 History of Russia since 1855. (3) A. Prerequisite: three hours HIS or department approval. Cultural, social, economic and political events leading to the 1917 Revolution. The history of the Soviet Union including its recent Break-up into independent states.

HIS 374 East Asian History to 1600. (3) A. Prerequisite: three hours HIS or department approval. China and Japan from the beginnings of East Asian civilization in Neolithic times to the early modern period; the development of key social, economic, and political institutions; the Confucian tradition and the introduction of Buddhism; the Mongol era; the late

imperial order in China and the emergence of Japanese feudalism.

HIS 375 East Asian History since 1600. (3) A. Prerequisite: three hours HIS or department approval. China and Japan from early modern times to the present; the formation of the Ch'ing order in China and Tokugawa Japan; foreign encroachments and internal revolt; the Meiji Restoration; late Ch'ing reform; the Revolution of 1911; warlordism; the Pacific War; Civil War; Japan as superpower and Communist China.

HIS 380 Mexico: Colony and Nation. (3) A. Prerequisite: 3 hours HIS or departmental approval. Mexico as a Spanish colony; wars of independence; the Mexican Revolution; modern Mexico. Themes include politics, culture, religion, and United States-Mexican relations.

HIS 383 Colonial Latin America. (3) A. Prerequisite: three hours HIS or department approval. The colonial and independence years in Latin America, with emphasis on the conquest and settlement experiences, and the administrative, cultural, and socioeconomic trends in the colonies.

HIS 384 Modern Latin America. (3) A. Prerequisite: three hours HIS or department approval. The national period in Latin American history, with emphasis on dependency theory, Roman Catholicism in the region, and United States-Latin American relations.

HIS 385 Early African History. (3) A. Cross listed as AFA 385. Prerequisite: three hours HIS or departmental approval. History of Africa from earliest times to 1860. Emphasis on social, political, economic, and cultural change in states and societies; oral tradition; the environmental and human activities; slavery and the slave trades. Credit will not be awarded for both HIS 385 and AFA 385.

HIS 386 Modern African History. (3) A. Cross listed as AFA 386. Prerequisite: three hours HIS or departmental approval. History of Africa from the 19th century to the present. Themes include: trade and politics; European conquest and African resistance; rural survival and urban popular culture; race, class, gender, ethnicity, and age; African nationalism and independence. Credit will not be awarded for both HIS 386 and AFA 386.

HIS 388 Islam in West Africa. (3) A. Cross listed as AFA 388. Prerequisite: three hours of HIS or departmental approval. History of Islam and politics in West Africa from 1000 C.E. to the present. Emphasis on the role of Islam in major socio-economic, political, and cultural transformations of West African states and societies. Credit will not be awarded for both HIS 388 and AFA 388.

HIS 401 American Colonial Period. (3) A. Prerequisite: three hours HIS or department approval. Political and social history of the 13 colonies and their neighbors; European background; settlement; westward expansion; intercolonial conflicts; beginnings of culture; colonial opposition to imperial authority.

HIS 402 Revolutionary America. (3) A. Prerequisite: three hours HIS or department approval. Colonial background of Revolution; internal and external nature of Revolution; problems associated with Confederation; events leading to the American Constitution.

HIS 403 Age of Jefferson and Jackson. (3) A. Prerequisite: three hours HIS or department approval. Political, economic, and cultural changes in American society during the first half of the nineteenth century.

HIS 404 Life in Industrializing America. (3) A. Prerequisite three hours of HIS or departmental approval. Early industrialization and its effects on everyday life, economically, socially, and politically, 1830-1870.

HIS 405 America's Westward Expansion. (3) A. Prerequisite: three hours HIS or department approval. Colonial frontier; trans-mountain movements; Indian problems; Manifest Destiny; the sectional struggle; mining; railroads; cattle; agriculture.

HIS 406 Nineteenth-Century South. (3) A. Prerequisite: three hours HIS or department approval. Emphasis on slavery and emancipation in the American South, on plantations and farms, through war and reconstruction, and into the industrial transformation of the New South.

HIS 407 American South in the 20th Century. (3) A. Prerequisite: three hours HIS or department approval. The American South in a modernizing and industrial age; racial capitalism and labor activism; perceptions of Southern "backwardness" and governmental modernization efforts; the Black liberation movement.

HIS 411 America, 1877-1920. (3) A. Prerequisite: three hours HIS or department approval. Western expansion; industrialization; America's becoming a world power; reform movements; immigrants', African-Americans', and women's lives; World War I; popular culture.

HIS 412 U.S. in Peace and War, 1920-1945. (3) A. Prerequisite: three hours HIS or department approval. The 1920's; the New Deal; the changing role of government; America's role in world affairs; World War II; popular culture.

HIS 413 America Since 1945. (3) A. Prerequisite: three hours HIS or department approval. Cold War; problems of world leadership; Korea, Vietnam, the Gulf; affluence and recession; the reality and conflicts of pluralism; crises in political, social, and economic life.

HIS 414 The Modern American Presidency. (3) A. Prerequisite or Corequisite: 3 hours of HIS or departmental approval. Evolution of presidency from early twentieth century, examining myriad roles of the chief executive—as newsmaker, agenda setter, party leader, and celebrity—from William McKinley to today.

HIS 420 Appalachia in America History. (3) A. Cross listed as APP 420. Prerequisite: three hours HIS or department approval. The relationship between Appalachia and the rest of the United States. Topics include the "yeoman" myth, coal industrialization, settlement houses, company towns, and the identification of the region with poverty. Credit will not be awarded to students who have credit for APP 420.

HIS 424 Civil War and Reconstruction. (3) A. Prerequisite: three hours HIS or department approval. Intellectual, social, and political roots of the sectional crisis; military and social perspectives on the war years; the continuation of the sectional crisis in Reconstruction.

HIS 435 U.S. Civil Rights Movement. (3) A. Cross listed as AFA 435. Prerequisites: three hours HIS or departmental approval. Examination through primary and secondary sources of the origins, course, ideologies, and legacy of the mid-twentieth century American movement for racial justice and equality. Discussion of the central scholarly issues in civil rights studies. Credit will not be awarded for both HIS 435 and AFA 435.

HIS 450W Senior Seminar in History. (3) A. Prerequisites: ENG 102 or 105 (B) or HON 102. HIS major and six hours upper division HIS, HIS 302(A) or 302(B) or 302(C); HIS 200, 201 or 290. Research and writing in History. Credit will not be awarded for both HIS 450 and HIS 450W.

HIS 474 Transformation of China. (3) A. Prerequisite: three hours HIS or department approval. The transformation of China from the Qing dynasty (1644-1911) to the People's Republic; the impact of the West; the Nationalist government, the rise of the Chinese Communist party, and the Cultural Revolution.

HIS 475 History of Modern Japan. (3) A. Prerequisite: three hours HIS or department approval. Japan from 1600 to the present. Included will be the arrival of the West, industrialization, militarism, World War II, and Japan as economic superpower.

HIS 516 Kentucky History. (3) A. Prerequisite: three hours HIS or department approval. Social, economic, and political survey; Kentucky's role in national developments.

HLS—Homeland Security
Dr. Michael Collier, Coordinator

HLS 101 Introduction to Homeland Security. (3) A. Principles and practices associated with the emerging discipline of homeland security. Policies, directives, national plans, and legislation that shape and define the ongoing evolution of homeland security. Key issues including civil liberties and diversity. Relationship to public safety, private security, and national security.

HLS 201 Emergency Management. (3) A. Emergency planning and response for various risks, threats, and hazards. Integration and coordination of different public safety disciplines; federal, state, and local responsibilities; role of private sector.

HLS 225 Legal & Ethical Issues in Homeland Security. (3) A. Survey of American constitutional and national security law, homeland security legislation and executive orders, and judicial opinions. Review of international law, conventions, and declarations. Examination of conduct codes, ethical decision-making, ethical leadership, and moral courage.

HLS 301 Critical Infrastructure Protection. (3) A. Prerequisite: HLS 101 or departmental approval. Identification, prioritization, and protection of critical infrastructure including information technology, telecommunications, chemical, transportation, energy, water, medical, emergency services, postal and shipping. Impact on personal safety and economic performance.

HLS 321 Critical Problem Analysis. (3) A. Critical analysis of various risks, threats, and hazards. Critical thinking and analytical techniques for identifying, describing, disaggregating, and explaining different types of homeland security problems.

HLS 321W Critical Problem Analysis. (3) A. Prerequisite: ENG 102 (C) or HON 102 (C) or ENG 105 (B). Develop research, critical and creative thinking and communication skills for the security profession. Credit will not be awarded for both HLS 321 and HLS 321W.

HLS 341 Cyber Security. (3) A. Overview of the national computer and networked infrastructure that supports national security, including system protection, Global and financial implications of cyber terrorism. Impact of cyber security on privacy and civil liberties.

HLS 349 Applied Learning in HLS. (.5-12) A. Prerequisites: Department Chair approval, a minimum GPA of 2.0, a minimum of 30 hours completed. The student works under faculty and field supervisors in placements related to the student's academic studies. A minimum of 80 hours work required for each academic credit. May be retaken to a maximum of twelve hours.

HLS 349 A-N HLS Cooperative Study. (.5-12) A. Prerequisites: Department Chair approval, a minimum GPA of 2.0, a minimum of 30 hours completed. The student works under faculty and field supervisors in placements related to the student's academic studies. A minimum of 80 hours work required for each academic credit. May be retaken to a maximum of twelve hours.

HLS 391 Vulnerability & Risk Assessment. (3) A. History and process of vulnerability and risk assessment (VRA) as it relates to the protection of critical assets and infrastructure. Instruction in common VRA techniques used in both the public and private sectors.

HLS 401 Intelligence Process. (3) A. Key questions facing the U.S. intelligence community and its role in homeland security, national defense, and international affairs, with a focus on policy, oversight and intelligence support. Collection, analysis, sharing and dissemination of information within and between local, state, and federal government agencies and the private sector.

HLS 402 Counterintelligence. (3)

A. History, structure and operations of the US counterintelligence community. Includes legal foundations of counterintelligence and critiques of recommended changes to the community.

HLS 430 Domestic Terrorism (3) A. Coverage of politically-motivated extremist violence in the United States. Includes discussion of definitional issues, radicalization, major attacks, current threats, and principal extremist groups and their ideologies.

HLS 435 HLS Special Topics. (1-12) A. Study of contemporary issues and special topics in homeland security. May be retaken to a maximum of twelve hours under different subtitles.

HLS 441 Homeland Security Technology. (3) A. Broad overview of homeland security technology. Technology as a tool to support homeland security regardless of functional specialty. Contribution of technology to deterrence, preemption, prevention, protection, and response.

HLS 445 HLS Field Experience. (1-12) A. Prerequisites: Department Chair approval, a minimum GPA of 2.0, and a minimum of 30 hours completed. This course is designed to broaden the educational experience through appropriate observational work assignments in cooperating agencies. A minimum of 80 hours of observation is required for each academic credit. May be retaken to a maximum of twelve hours.

HLS 451 Disaster Preparedness & Response. (3) A. Concepts, theories, principles, programs and requirements of emergency preparedness, governmental planning, practice, exercises, hazard and risk assessment, and team building. Overview of the relationship of preparedness to response, emergency operations and incident command systems.

HLS 455 HLS Independent Study. (1-6) A. Prerequisites: Department Chair approval, a minimum GPA of 2.0, a minimum of 30 hours completed. Individual reading and research on a problem within the field of homeland security. Students must have independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of six hours.

HLS 461 Mitigation & Disaster Recovery. (3) A. Concepts, theories, principles, programs, and requirements of pre- and post-disaster hazard mitigation; governmental programs, planning and practice; hazard and threat modeling and analysis; team building; case studies; project development.

HLS 491 Emergency Planning. (3) A. Emergency planning requirements, methods and applications for all levels of government and business, including hazard mitigation and emergency operations planning; also considers planning for universities, colleges and secondary schools.

HLS 495 Homeland Security Colloquium. (3) A. Prerequisite: HLS senior standing or departmental approval. Senior capstone course requiring synthesis and application of prior course work in homeland security. Students complete senior project within a strategic planning framework.

HON—Honors Program Courses
Dr. Linda Frost, Director

HON 100 Honors Seminar. (1) I. This course is designed to be an introduction to the Honors Program and will include selected readings and discussions, guest speakers, and enrichment experiences.

HON 102 Honors Rhetoric. (6) I. Prerequisite: Admission to the Honors Program or instructor approval. Corequisite: HON 103. Designed, with HON 103, to improve skills in writing, reasoning, oral presentation, and research. Each student will do a research paper that requires both significant use of library resources and the development of a cogent line of argument. Gen. Ed. Element 1A and 2B [WC].

HON 103 Honors Communication. (3) I. Prerequisite: Admission to the Honors Program or program approval. Corequisite: HON 102. Designed, with HON 102, to improve skills in writing, reasoning, oral presentation, and research. Each student will learn the principles and practice of the art of public speaking including the invention, organization, style, and delivery of informative and persuasive speeches. Gen. Ed. Element 1C. [OC].

HON 205W Honors Humanities I. (3) II. Prerequisite: Admission to the Honors Program or instructor approval and ENG 102 or 105(B) or HON 102. This course (together with HON 306W) provides a survey of great works in the humanities from ancient times to the twentieth century. Gen. Ed. E-3A.

HON 210W Honors Civilization I. (3) II. Prerequisite: Admission to the Honors Program or instructor approval and ENG 102 or 105(B) or HON 102. Analyzes the historical development of Western and other major civilizations to the eve (c. 1700) of the Industrial Revolution with emphasis on: Ancient Greece, the historical setting for an Asian Religion, Europe c. 1300, and Europe c. 1650. Credit will not be awarded for both HON 210W and HON 210. Gen. Ed. E-5A.

HON 216 Honors Integrated Science: SEEing Science in Appalachia. (6) A. Prerequisite: Admission to the Honors Program or departmental approval and ENG 102 or 105(B) or HON 102. An integrated laboratory course that investigates fundamental concepts of the life and physical sciences using aspects of the natural history of Kentucky as a basis for exploration. Field and laboratory work will involve students in all facets of investigative science and will include a service component benefitting the surrounding community. Additional out-of-class field work and field trips will be required. Honors Core. Gen Ed. E-4A/B.

HON 304 Special Topics. (3) A. A topics course meeting the goals of the Honors Program. A service-learning version of HON 304 may also be offered. Students may earn up to six hours from any combination of HON 304/304S, providing the topics differ. Gen. Ed. VII (QS). Effective Fall 2010 (CAA approved 12/17/09).

HON 304S Special Topics. (3) A. A service-learning topics course meeting the goals of the Honors Program. A non-service-learning version of HON 304S may also be offered. Students may earn up to six hours from any combination of HON 304/304S, providing the topics differ. Gen. Ed. VII (QS).

HON 304W Honors Seminar in the Mathematical Sciences: _____. (3) A. Prerequisite: ENG 102 or 105(B) or HON 102 and Admission to the Honors Program; or departmental approval. A topics course in the mathematical sciences meeting the goals of the Honors Program. A service-learning version of HON 304W may also be offered. Students may earn up to six hours from any combination of HON 304W/304S, providing the topics differ. Honors Core. Gen Ed. E-2.

HON 306W Honors Humanities II. (3) II. Prerequisite: Admission to the Honors Program or instructor approval and ENG 102 or 105(B) or HON 102. This course (together with HON 205W) provides a survey of great works in the humanities from ancient times to the twentieth century. Credit will not be awarded for both HON 306W and HON 306. Gen. Ed. E-3B.

HON 307W Honors Seminar in the Arts:_____. (3) A. Prerequisite: ENG 102 or 105(B) or HON 102 and Admission to the Honors Program; or departmental approval. A topics course in the arts meeting the goals of the Honors Program. May be retaken with different topics to a maximum of six hours. Honors Core. Gen. Ed. E-3A.

HON 308 Special Topics. (3) A. A topics course meeting the goals of the Honors Program. May be retaken with different topics to a maximum of six hours. Gen. Ed. VII (AH).

HON 308W Honors Seminar in the Humanities:_____. (3) A. Prerequisite: ENG 102 or 105(B) or HON 102 and Admission to the Honors Program; or departmental approval. A topics course in the humanities meeting the goals of the Honors Program. May be retaken with different topics to a maximum of six hours. Honors Core. Gen. Ed. E-3B.

HON 310W Honors Seminar in History:_____. (3) A. Prerequisite: ENG 102 or 105(B) or HON 102 and admission to the Honors Program; or departmental approval. A topics course in history meeting the goals of the Honors Program. May be retaken with different topics to a maximum of six hours. Honors Core. Gen Ed. E-5A.

HON 311W Honors Civilization II. (3) I. Prerequisite: Admission to the Honors Program or instructor approval and ENG 102 or 105(B) or HON 102. Analyzes the economic, political, and intellectual forces that have changed the world since c. 1700 A.D. with emphasis on the French Revolution, the Industrial Revolution, Imperialism, the World Wars and the Emergence of the Third World. Gen. Ed. VC. [SB].

HON 312 Special Topics. (3) A. A topics course meeting the goals of the Honors Program. A service-learning version of HON 312 may also be offered. Students may earn up to six hours from any combination of HON 312/312S, providing the topics differ. Gen. Ed. VII (SBS). Effective Fall 2010 (CAA approved 12/17/09).

HON 312S Special Topics. (3) A. A service-learning topics course meeting the goals of the Honors Program. A non-service-learning version of HON 312S may also be offered. Student may earn up to six hours from any combination of HON 312/312S, providing the topics differ. Gen. Ed. VII (QS).

HON 312W Honors Seminar in the Social and Behavioral Sciences:_____. (3) A. Prerequisite: ENG 102 or 105(B) or HON 102 and Admission to the Honors Program; or departmental approval. A topics course in the social and behavioral sciences meeting the goals of the Honors Program. A service-learning version of HON 312W may also be offered. Students may earn up to six hours from any combination of HON 312W/312S, providing the topics differ. Honors Core. Gen Ed. E-5B.

HON 316 Special Topics. (3) A. A topics course meeting the goals of the Honors Program. May be retaken with different topics to a maximum of six hours. Gen. Ed. VII (NS).

HON 316W Honors Seminar in the Natural Sciences:_____. (3) A. Prerequisite: ENG 102 or 105(B) or HON 102 and Admission to the Honors Program; or departmental approval. A topics course in the natural sciences meeting the goals of the Honors Program. May be retaken with different topics to a maximum of six hours. Honors Core.

HON 320 Special Topics. (3) A. A topics course meeting the goals of the Honors Program. May be retaken with different topics to a maximum of six hours.

HON 320W Honors Seminar in Diversity of Perspectives and Experiences:_____. (3) A. Prerequisite: Admission to the Honors Program or departmental approval and ENG 102 or 105(B) or HON 102. A topics course in the diversity of perspectives and experiences meeting the goals of the Honors Program. May be retaken with different topics to a maximum of six hours. Honors Core. Gen. Ed. E-6.

HON 390 Directed Topics in Honors. (1-3) A. Prerequisite: approval of honors program director. Specialized study of selected topics usually culminating in an official presentation at a conference such as the National Collegiate Honors Conference. Student must have the special topics proposal form approved by a faculty mentor prior to enrollment. May be retaken with different topics to a maximum of six hours.

HON 420 Thesis Project and Seminar. (3-6) I, II. An in-depth thesis or major project, approved by the honors director, and presented in a suitable format within the seminar.

HSA—Health Services Administration
Dr. Michael Ballard, Chair

HSA 100 Introduction to the Health Science Field. (3) I, II. Overview of U.S. health care: history, factors influencing health and health care, identification and organization of health facilities and professionals, health economics, health trends, and ethics.

HSA 200 Medical Terminology I. (3) I, II. Basic medical vocabulary consisting of prefixes, suffixes, roots; anatomical, symptomatic, and common disease terms of the body systems.

HSA 201 Medical Terminology II. (3) I, II. Prerequisite: MAS 200 or HSA 200. Includes surgical instruments and procedures, diseases, laboratory tests, clinical procedures, and abbreviations for each system. Terms related to oncology, radiology, nuclear medicine, pharmacology, psychiatry, systemic disorders, and autopsy procedures.

HSA 302 Organization and Management of Health Services. (3) I, II. Prerequisite: HSA 100 (minimum grade of "C"). Analysis of structure, function, and internal and external forces impacting healthcare services. Identification of management topics and trends.

HSA 303 Fundamentals of Medical Science. (4) I, II. Prerequisites: HSA 200, BIO 171, and 301 (minimum grade of "C"). An introduction to the study of disease—its causes, symptoms, and treatment. 3 Lec/2 Lab.

HSA 306 Medical Nosology. (4) I, II. Prerequisite: HSA 302 and 303 with a minimum grade of "C" or departmental approval. HCPCS and ICD-9-CM coding and reimbursement systems for physician services and hospital inpatient and outpatient services. 3 Lec/2 Lab.

HSA 370 Health Information Management Systems. (4) I, II. Prerequisites: HSA 100, 302, CCT 290 or CIS 230 or CIS 300 (minimum grade of "C"). Health information systems, systems analysis, and health data base management.

HSA 372 Health Care Reimbursement Systems. (3) I, II. Prerequisite: HSA 302 and 306 (minimum grade of "C"). An in-depth analysis of health care reimbursement systems; health insurance fraud and abuse; and procedures for patient accounting and cash flow forecasting.

HSA 375 Health Services Administration. (3) I, II. Prerequisites: MGT 301 or 300, MGT 320; HSA 302 (minimum grade of "C"). Application of financial principles, strategic planning, marketing, and leadership skills to selected health care organizations.

HSA 401 Legal Issues in Health Care. (3) I, II. Prerequisite: HSA 100 with a minimum grade of "C". Legal status, documentation requirements, and liability related to medical records and health care issues.

HSA 405 Clinical Information Management. (3) I, II. Prerequisites: HSA 370, HSA 401, HSA 406 (minimum grade of "C"). Review of health trends related to the management of clinical information systems. Course format will include mock committee meetings and role playing.

HSA 406 Health Care Quality Management. (3) I, II. Prerequisites: HSA 302, 303, STA 215 or 270 (minimum grade of "C"). A study of total quality management, utilization review, and risk management functions in a health care setting.

HSA 407 Advanced Health Services Administration. (3) I, II. Prerequisite: HSA 375 (minimum grade of "C"). Advanced study in trends relating to the management of health care organizations and the leadership role of health services administrators.

HSA 409 Health Services Research Methods. (3) I, II. Prerequisites: HSA 302, 303, STA 215 or 270 (minimum grade of "C"). Introduction to the process of research, related terminology and statistical techniques, significance to health care, critique of published research articles, and development of a protocol.

HSA 411 Professional Practice Experience II. (1) I, II. Prerequisite: department approval. Internship assignment to health care organization for observation of its functions and management.

HSA 412S Professional Practice Experience II. (1) I, II. Prerequisite: department approval. Internship assignment to health care organizations for observation and practice of supervisory functions.

HSA 413 Professional Practice Experience III. (4) I, II. Prerequisite: department approval. Internship assignment to health care organizations for observation and practice of management functions.

HSA 498 Independent Study in Health Services Administration. (1-6) A. Prerequisite: student must have the independent study proposal approved by faculty supervisor and department chair prior to enrollment. Directed study or research on an issue or area of interest to the field of health services administration. May be retaken to a maximum of six hours.

HSO—Health Sciences Orientation
Dr. Deborah Whitehouse, Dean

HSO 100 Academic Orientation. (1) A. Orientation to the academic life and career preparation with emphasis on University regulations, catalog details, registration, career opportunities, and program requirements. Open to all students during their first two semesters of enrollment at EKU; beyond that open to students with fewer than 30 semester hours earned.

HUM—Humanities
Dr. Abbey Poffenberger, Chair

HUM 124 Humanities and the Search for Meaning. (3) I, II. An introduction to the comparative and interdisciplinary study of culture. Gen. Ed. E-3A/B.

HUM 226 The Search for Meaning: The Ancient World. (3) I, II. Comparative and interdisciplinary approaches to the study of culture in the ancient world. Gen. Ed. E-3A/B.

HUM 228 The Search for Meaning: The Modern World. (3) I, II. Comparative and interdisciplinary approaches to the study of culture in the modern world. Gen. Ed. E-3A/B.

HUM 300 Humanity in the Postmodern Age. (3) A. Prerequisites: HUM 226 or ENG 211; HUM 228 or ENG 212. Comparative and interdisciplinary approaches to the study of culture since 1945. Credit will not be awarded for both HUM 300 and 300W. Gen. Ed. E-3A/B.

HUM 300W Humanity in the Postmodern Age: Writing Intensive. (3) A. Prerequisites: ENG 102 or 105 (B) or HON 102; HUM 226 or ENG 211; HUM 228 or ENG 212. Comparative and interdisciplinary approaches to the study of culture since 1945. Credit will not be awarded for both HUM 300 and 300W. Gen. Ed. E-3A/B.

HUM 302 Comparative Humanities. (3) A. An introduction to classic, formalist, structuralist, and post-structuralist approaches to the analysis of literature, visual culture, music, the dramatic arts, and design. Emphasis on integrative thinking.

HUM 304 Comparative Humanities. (3) A. An introduction to classic, formalist, structuralist, and post-structuralist approaches to the analysis of literature, visual culture, music, the dramatic arts, and design. Emphasis on integrative thinking.

HUM 320 Classical Humanities. (3) A. Critical analysis of visual culture, literature, architecture, and thought from prehistory, archaic and classical cultures: Egypt, Greece, Rome reflecting the achievements and values of the ancient Mediterranean civilizations.

HUM 330 Medieval Humanities, (3) A. Critical analysis of art, music, and literature from the Judaic, Christian and Islamic traditions emphasizing the confluence of these traditions in the European Middle Ages.

HUM 340 Renaissance and Enlightenment. (3) A. Critical analysis of art, music, and literature from the Renaissance, Baroque, and the Enlightenment reflecting the religious and secular energies of Western culture and the colonial world.

HUM 350 Modern Humanities. (3) A. Science, globalization, and cultural diversity in the Modern World; critical analysis of art, music, and literature reflecting the modernization of culture and the human condition since the Enlightenment.

HUM 360 Non-Western Traditions. (3) A. Studies in the literature, visual and dramatic arts, music, and design of non-Western cultures. This course may focus on a single or on multiple non-Western traditions in a given semester. Repeatable up to six hours with permission of department chair.

HUM 395 Independent Work in Humanities. (1-3) A. Prerequisite: HUM 226 or 228. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of six hours if topic is different.

HUM 490 Topics in Humanities: _____. (3) A. Selected topics in Interdisciplinary Humanities. May be repeated with permission of the department for up to six hours.

HUM 499 Humanities Thesis. (3) A. An in-depth thesis project, approved by the department chair, directed by a Humanities faculty member, and presented in the form of a research paper with appropriate visual or audio materials.

IES—Foreign Exchange Studies
Dr. Neil Wright, Director

IES 300 Foreign Exchange Study. (1-12) I, II. Prerequisites: sophomore standing, and approval from the International Director as an appointed exchange student. This course may be repeated for each semester spent studying abroad and is a Satisfactory/Unsatisfactory course. For students who engage in a full Fall/Spring semester foreign exchange experience, grading is only CR credit.

INS—Insurance
Dr. Oliver Feltus, Chair

INS 349 Applied Learning in Insurance. (.5-8) A. Prerequisites: minimum GPA of 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work required per credit hour. Six hours may be used as a major elective. May be repeated for a total of 16 credit hours.

INS 349 A-N Cooperative Study: Insurance. (.5-8) A. Prerequisites: minimum GPA of 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work required per credit hour. Six hours may be used as a major elective. May be repeated for a total of 16 credit hours.

INS 370 Principles of Risk and Insurance. (3) I, II. Theory and practice of insurance and its economic and social significance; basic life, health, and property-liability insurance for organizations and families; review of the major lines of insurance.

INS 372 Fundamentals of Property-Liability Insurance. (3) A. Prerequisite: INS 370 or instructor approval. Planning and evaluating non-personal property-liability insurance; analysis of insurance coverage against pure risk related to property-liability insurance exposure.

INS 374 Fundamentals of Life and Health Insurance. (3) A. Prerequisite: INS 370 or instructor approval. Analysis of life and health insurance and annuity products available in the individual market. Includes a discussion of systems for determining the individual's life and health insurance needs.

INS 378 Risk Management. (3) A. Risk Management as used by organizations; basic functions of risk management with emphasis placed on risk management decision making.

INS 380 Personal Risk Management. (3) A. Prerequisite: INS 370 or instructor approval. An intensive examination of personal loss exposures and their treatment. Emphasized is the use of risk management techniques. Topics include property and liability loss exposures for personal automobile, homeowners, premature death, illness, accidental injury, superannuation, investment risks, and estate planning.

INS 400 Seminar in Insurance. (1-3) A. Prerequisite: instructor approval. Selected topics of special and contemporary interest to insurance majors. May be retaken under different subtitles to a maximum of six hours.

INS 460 Insurance Agency Operations (3) A. This course examines the unique operations of an equally unique small business, the insurance agency. It will apply material used in other courses such as management, marketing, accounting, finance, and insurance. These business administration principles will be distilled into components that may be applied to the operation of an insurance agency. This course will prepare the student for one part of the Accredited Advisor in Insurance (AAI) specialty designation awarded by the Insurance Institute of America.

INS 474 Life Insurance and Estate Planning. (3) A. Prerequisite: INS 374 or instructor approval. Role of life insurance, gifting and trusts in estate planning; considerations of developing an estate plan for the individual or the family.

INS 476 Employee Benefit Planning. (3) A. Prerequisite: INS 370 or instructor approval. Employee benefit plans including taxation, costs, and choices of funding. Includes an analysis of the role of employee benefit plans in meeting the risks of death, sickness, disability and superannuation.

INS 486 Insurance Company Operations. (3) A. This course examines unique insurance functions including underwriting, reinsurance, ratemaking, claims adjusting, loss control and other insurer activities. It will prepare the student for an examination administered by the American Institute for CPCU. Capstone course.

INS 490 Special Problems in Insurance. (1-6) A. Prerequisite: advisor/departmental approval. May be retaken under different sub-topics to a maximum of six hours. Independent work, special workshops, special topics, or seminars. Student must have the independent study course proposal form approved by faculty supervisor and department chair prior to enrollment.

INS 520 Survey of Risk Management and Insurance. (3) A. Prerequisite: Instructor approval. The examination of risk management and insurance concepts and principles with an emphasis on application. Coverage will include a broad base of current topics and tools used in this dynamic area and provide the student the background for improved decision making in dealing with risk.

ITP—Interpreter Training Program
Dr. Laurence Hayes, Chair

ITP 215 Professional Issues in Interpreting. (3) A. Prerequisites: ASL 201 and ITP 115 or ASL 225 with a minimum grade of "C" or departmental permission. Relevant professional terminology, procedures and ethical considerations explored. Topics include historical developments and current trends in professional organizations, ethical standards, and settings. Credit will not be awarded for both ITP 215 and 215W.

ITP 215W Professional Issues in Interpreting (3) A. Prerequisites: ASL 201 and ITP 115 or ASL 225 and ENG 102 with minimum grade of "C" or departmental permission. Relevant professional terminology, procedures, and ethical considerations explored. Topics include historical developments, and current trends in professional organizations, ethical standards, and settings. Credit will not be awarded for both ITP 215 and ITP 215W.

ITP 220 Processing Skills for Interpreters. (3) II. Prerequisite: ASL 201 with a minimum grade of "C" or departmental permission. Practice of cognitive skills used in the process of interpreting. Skills include visualization, prediction, listening, memory, abstracting, closure, dual tasking, and processing time.

ITP 310 Professional Relationship Ethics. (1) I. Prerequisite: admission in the interpreting program or departmental permission. Introduction to business ethics and decision making. Detailed analysis of first and lasting impressions, building rapport and working in the interpreting profession. Critical thinking skills in the decision making process of working with diverse groups.

ITP 320 English-to-ASL Interpreting I. (3) A. Prerequisites: admission in the interpreting program, ASL 202, ITP 215, 220 with minimum grades of "C" or departmental permission. Development of English-to-ASL interpreting skills using consecutive and simultaneous modes with a variety of source materials. Clinical hours required.

ITP 325 ASL-to-English Interpreting I. (3) I. Prerequisites: admission to the interpreting program, ASL 202, ITP 215, 220 with a minimum grade of "C" or departmental permission. Development of interpreting skills progressing from written translation to consecutive interpreting/ transliterating in a variety of settings. Clinical hours required.

ITP 330 Ethics and Special Settings I. (3) II. Formerly ITP 370. Prerequisite: admission to the interpreting program or departmental permission. Critical analysis of interpreting in various settings. Development of communication and ethical decision-making skills. Clinical hours required.

ITP 350 Historical Perspectives on the Deaf Community. (3) II. Prerequisite: ASL 301 with a minimum grade of "C" or departmental permission. This course examines the Deaf Community and its historical events. The course is organized to focus on the historical, sociopolitical, sociolinguistic and psychosocial forces that influence Deaf People's experience in both the United States and other countries.

ITP 380 Special Topics in Interpreting: _____. (1-3) A. Prerequisite: departmental approval. For independent work, special workshops, or special topics related to the field of interpreting beyond the scope of regularly offered courses. May be taken to a maximum of 9 hours provided subtitle/topics vary.

ITP 385 Independent Work Interpretation. (1-3) A. Prerequisite: Departmental approval. For independent work related to the field of interpretation beyond the scope of regularly offered courses. May be taken to a maximum of 6 hours provided subtitle/topics vary. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

ITP 390 Linguistics and ASL I. (3) II. Prerequisites: admission in the Interpreter Training program, ASL 301 with a minimum grade of "C" or departmental permission. Overview of linguistics; phonology, morphology and language change in a variety of languages and American Sign Language. Analysis of ASL and spoken languages. Clinical hours required.

ITP 410 Professional Relationship Ethics II. (3) Prerequisites: ITP 310 and admission to the interpreting program or departmental permission. Discussion of best business practices in managing human and fiscal resources, work environment, market trends and relevant legislation. Portfolio development and considerations discussed.

ITP 420 English-to-ASL Interpreting II. (3) I. Prerequisites: admission in the interpreting program, ASL 302, ITP 320, 325 with a minimum grade of "C" or departmental permission. Continued development of English-to-ASL interpreting skills with added focus on registers, settings, and audience preferences. Clinical hours required.

ITP 425 ASL-to-English Interpreting II. (3) I, II. Prerequisites: admission to the interpreting program; ASL 302, ITP 320, 325 with a minimum grade of "C" or departmental permission. Continued development of ASL-to-English interpreting skills in a variety of settings. Clinical hours required.

ITP 430 Ethics & Special Settings II. (3) I. Prerequisites: admission in the interpreting program, ASL 302, ITP 320 and 325 with minimum grades of "C" or departmental permission. Continued critical analysis of interpreting in various multicultural and specialized settings. Continued development of ethical and culturally competent decision-making skills. Clinical hours required.

ITP 470 Practicum in Interpreting I. (3) I. Prerequisites: admission in the Interpreter Training program, ASL 302, ITP 320, 325, 370 with minimum grades of "C" or departmental permission. Observation and interpreting experience under the supervision of a mentor(s) in a variety of settings. Clinical hours required.

ITP 480 Interactive Interpreting (3) I. Prerequisites: Admission to the interpreting program, ASL 302, ITP 320, 325 with a minimum grade of "C" or departmental permission. Students will integrate, broaden, and apply skills and knowledge developed in interpreting courses by experiential practice in interactive interpreting. Students will develop skills in interpreting conversations, discussions, explanations, interviews, and other types of dialogue genres.

ITP 490 Linguistics and ASL II. (3) I. Prerequisites: admission in the Interpreter Training program, ITP 390 with a minimum grade of "C" or departmental permission. Overview of syntax, discourse, and sociolinguistics. Analysis of American Sign Language and spoken languages. Clinical hours required.

ITP 495 Practicum in Interpreting II. (12) I, II. Prerequisites: admission in the Interpreter Training program, ITP faculty approval, completion of all other ASL/ITP classes with minimum grades of "C". A structured full time practicum interpreting experience under the direct supervision of a mentor(s) in an educational, public or private setting. Students will interpret, participate in professional growth activities, keep professional journals and adhere to all guidelines and requirements in the ITP 495 student practicum handbook. Potential practicum sites may be local, state wide, regional or national.

JOU—Journalism
Dr. Elizabeth Hansen, Chair

JOU 302 Journalism Practicum. (1-3) I, II. Supervised practical experience in a journalistic operation. May be taken to a maximum of three hours.

JOU 305 Feature Writing. (3) I, II. Prerequisites: COM 201 or permission of instructor. Writing and submitting articles for publication in newspapers and magazines. Involves studying requirements of periodicals to which sale is attempted and free-lancing methods in general. Credit will not be awarded for both JOU 305 and 305W.

JOU 305W Feature Writing. (3) I, II. Prerequisites: ENG 101 and 102 (or ENG 105) and COM 201 or permission of instructor. Writing and submitting articles for publication in newspapers and magazines. Involves studying requirements of periodicals to which sale is attempted and free-lancing methods in general. Credit will not be awarded for both JOU 305 and 305W.

JOU 307 Editorial and Opinion Writing. (3) A. Prerequisite: COM 201. Study of editorials, editorial columns, commentary pieces, reviews and criticism. Examines editorial boards, generating ideas for columns, and writing book, theater and film criticism. Provides practice in writing opinion pieces for publication.

JOU 310 News Editing. (3) I, II. Prerequisite: COM 201. Understanding the editing process in newspapers and magazines. Examines content and style editing, headline writing and

publication design. Explores new technology as an editing tool. Provides both theory and practice in editing.

JOU 320 Design for Newspapers and Magazines (3) I, II. Introductory desktop publishing and image-processing for non-designers. Examines principles and techniques central to publishing newspapers, magazines, brochures, and newsletters within a journalism context.

JOU 325 Photojournalism. (3) I, II. Examines principles of digital photography, stressing hands-on skills in producing professional quality images. Looks at role the photojournalist serves in newspaper and magazine production. Provides an introduction to color correction in Photoshop.

JOU 349 Applied Learning in Journalism. (.5-8) A. Prerequisites: junior standing, "B" average in all courses within the department, and departmental approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours of academic credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours work required for each hour of academic credit. May not satisfy major or minor requirements within the department.

JOU 349 A-N Cooperative Study: Journalism. (.5-8) A. Prerequisites: junior standing, "B" average in all courses within the department, and departmental approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours of academic credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours work required for each hour of academic credit. May not satisfy major or minor requirements within the department.

JOU 400 Studies in Journalism (1-3) A. Prerequisite: departmental approval. Study of specific areas of journalism through a course examining timely or topical concerns in the field. Specific topic included in schedule. May be retaken to maximum of nine hours.

JOU 401 Public Affairs Reporting. (3) A. Prerequisite: COM 201. Writing and reporting about national, state, and local government and specialized fields of labor, science, research and business. Includes writing and reporting for wire services and daily newspapers.

JOU 410 Advanced Photojournalism. (3) A. Prerequisite: JOU 325. Study of newspaper and magazine photojournalism with emphasis on the photographic essay, the role of the photojournalist and the photo editor, and digital technologies. Provides experience in black and white and color photography.

JOU 412 Multimedia Web Development. (3) I, II. Prerequisite: PUB 320 or JOU 320. An introduction to the communication theory, strategies, tools and techniques of multimedia Web development. Emphasis on interactivity theory, interactive applications and functionality, graphics, and use of HTML, CSS and Flash. Credit will not be awarded for both JOU 412 and PUB 412.

JOU 415 Advanced Editing. (3) A. Prerequisite: JOU 310. Intensive study of newspaper design. Emphasizes practice in electronic editing, headline writing, and layout.

JOU 425 Community Journalism. (4) A. Prerequisites: COM 201 and JOU 310. Intensive study of community newspapers and their relationship to their communities, including methods of assessment.

JOU 450 Media Management. (3) A. Prerequisites: COM 201 and JOU 310. Problems of organization, finance, production, and distribution of media. Examines factors involved in publishing, staffing, and policy formulation.

JOU 480 Freelance Writing. (3) A. Prerequisites: ENG (101 and 102) or 105 or HON 102. How to write and sell freelance articles for online media or other publication outlets. Credit will not be awarded for ENG 500/700 taught as "Writing for the Popular Media."

JOU 491 Senior Seminar. (1) I, II. Prerequisites: JOU 302 or 349. Evaluates student's progress toward a career in mass media, especially the development of a portfolio, and develops job-search strategies and skills. Includes assessment of instruction and curriculum.

JOU 499 Independent Study in Journalism. (1-3) A. Prerequisite: Student must consult with the faculty supervisor and have the independent study proposal form approved by the faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of three hours.

JPN—Japanese
Dr. Abbey Poffenberger, Chair

JPN 101 Conversational Japanese I. (3) I, II. An introduction to the grammar and structure of Japanese taught in cultural context. Practice in pronunciation, reading, and writing systems with an emphasis on conversation. Gen. Ed. Block VIII and Gen. Ed. E-6.

JPN 102 Conversational Japanese II. (3) A. Recommended: JPN 101 or equivalent proficiency. Continuation of JPN 101. Emphasis on conversation. Students entering JPN 102 by referral or placement will receive three hours credit for JPN 101 if they make an "A" in 102. Laboratory work required. Gen. Ed. Block VIII and Gen. Ed. E-6.

JPN 201 Intermediate Japanese I. (3) A. Recommended: JPN 102 or equivalent proficiency. Continuation of JPN 102. Practice in writing kanji, reading, and speaking on cultural topics for diverse social settings requiring increasingly complex structural patterns. Students entering JPN 201 by referral or placement receive six hours credit for JPN 101 and 102 if they make an "A" or "B" in 201. Gen. Ed. Block VIII and Gen. Ed. E-6.

JPN 202 Intermediate Japanese II. (3) A. Recommended: JPN 201 or equivalent proficiency. Continuation of JPN 201 to strengthen student's ability to interact in more diverse social settings requiring increasingly complex structural patterns. Students entering JPN 202 by referral or placement receive nine hours credit for JPN 101, 102, and 201 if they make an "A" or "B" in 202. Gen. Ed. Block VIII and Gen. Ed. E-6.

JPN 295 Independent Work in Japanese. (1-3) A. Prerequisite: departmental approval. May be retaken to a maximum of six hours if content is different. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

JPN 495 Independent Work in Japanese. (1-3) A. Prerequisite: departmental approval. May be retaken to a maximum of six hours if content is different. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

JSO—Justice & Safety Orientation
Dr. Allen Ault, Dean

JSO 100 Academic Orientation. (1) I. An orientation to university academic life and career planning and preparation. Topics include University policies and procedures, program requirements, career opportunities and introductory study skills. Open to all students during their first two semesters of enrollment at EKU; beyond that open to students with fewer than 30 semester hours earned.

LAS—Paralegal
Dr. Lynnette Noblitt, Chair/Director

LAS 210 Introduction to Law. (3) I, II. General study of the purpose, function, and history of law; law-related occupations; court systems; case law analysis; professional ethics; the adversary system; and the major areas of law.

LAS 220 Legal Research and Writing I. (3) I, II. Prerequisite: LAS 210 or director approval. The sources and techniques of legal research; their application to specific legal problems and the use of legal authority to construct a written legal argument.

LAS 300 Legal Research and Writing II. (3) I, II. Prerequisite: LAS 220. The sources and techniques of advanced legal research and writing, the use of computer-assisted legal research methods and their application. Credit will not be awarded for both LAS 300 and LAS 300W.

LAS 300W Legal Research and Writing II. (3) A. Prerequisite: LAS 220. The sources and techniques of advanced legal research and writing, the use of computer-assisted legal research methods and their application. Credit will not be awarded for both LAS 300 and LAS 300W.

LAS 304 Your Legal Rights, Remedies, and Responsibilities. (3) A. Practical law to assist the individual in anticipating and dealing with typical legal needs. Topics will include landlord-tenant problems, consumer rights, personal liability, wills, arrest, divorce, and others. Does not count toward the paralegal major requirements.

LAS 305 Special Topics in the Law. (1-3) A. Prerequisite: director approval. A course offered periodically covering topics and issues of current or special interest concerning the law. May be retaken to a maximum of six hours provided topics vary.

LAS 306 Animals and the Law. (3) A. The study of topics that relate to the status of animals under the law. The course focuses upon cases, legislation, and cultural values toward animals world-wide. Course does not count toward paralegal requirements.

LAS 325 Real Estate/Bankruptcy Practice. (3) I, II. Prerequisite: LAS 220. Paralegal practice and procedure for general law office; real estate transactions and documents, title searches, title insurance, loan closings, leases, wills, affidavits of descent, foreclosures, and bankruptcy.

LAS 330 Family Law Practice. (3) A. Prerequisite: LAS 220. Paralegal practice in family law including forms, documents, and procedures for: marriage, divorce, separation, annulment, alimony, legitimacy of children, custody, adoption, community property, and juvenile law. Credit will not be awarded for both LAS 330 and LAS 330S.

LAS 330S Family Law Practice. (3) A. Prerequisite: LAS 220. Paralegal Practice in family law including forms, documents, and procedures for: marriage, divorce, separation, annulment, alimony, legitimacy of children, custody, adoption, community property, and juvenile law. This is a Service-Learning Course. Credit will not be awarded for both LAS 330 and LAS 330S.

LAS 340 Criminal Law Practice and Procedure. (3) A. Prerequisite: LAS 220 or director approval. An introduction to criminal law and procedure; criminal law forms and documents, and preparation for criminal litigation using the systems approach.

LAS 350 Litigation: Evidence to Discovery. (3) A. Prerequisites: LAS 220 or director approval. Study of legal principles and paralegal practice in substantive civil law. Incorporates procedural aspects of the early stages of civil litigation including evidence and investigation, pleadings, and the discovery/disclosure process.

LAS 355 Litigation: Trial to Appeal. (3) I, II. Prerequisite: LAS 220 or Director Approval. Study of legal principles and paralegal practice in substantive civil law. Incorporates procedural aspects of the latter stages of civil litigation including settlement and ADR, trial preparation, trial, post-trial practice, and appeal.

LAS 360 Probate Practice and Procedure. (3) I, II. Prerequisite: LAS 220 or director approval. Paralegal probate practice including initial steps, asset accumulation, debt management, court procedure, estate-related tax issues and forms. A systems approach will be emphasized.

LAS 365 Trial and Era: A Legal Heritage. (3) A. A study of famous and significant court trials and the dynamic and dramatic way in which the trial

brings together the legal philosophies and social attitudes of the times. Does not count toward the paralegal major requirements.

LAS 370 Corporations and Business Organization Practice. (3) A. Prerequisite: LAS 220. Documents, forms, and procedures essential to the corporate paralegal. Development of skills concerning business formations, incorporation, corporate finance, employees, corporate operation, securities, regulatory compliance, merger, acquisitions, sales and terminations.

LAS 380 Administrative Agency Practice. (3) A. Prerequisite: LAS 220. Practical paralegal skill development in administrative law and procedure. Forms, documents, pleadings, and techniques for administrative regulatory compliance; case processing; informal and formal administrative advocacy, emphasizing the systems approach.

LAS 385 Legal Administration and Computer Applications. (3) I, II. Prerequisites: LAS 220 and CIS 212 or CSC 104 or equivalent. The study of law office administration and the utilization of specific law office computer applications.

LAS 399 Paralegal Internship. (4) I, II. Prerequisites: completion of 18 hours of major (LAS) courses including LAS 300 or director approval (prior written application is required).

LAS 410 Paralegal Seminar. (3) A. Prerequisite: completion of 18 hours of major (LAS) courses or director approval. Professional ethics, analysis of the internship experience, transition to the law office and current issues facing the paralegal profession.

LAS 460 Estate Planning and Procedure. (3) A. Prerequisite: LAS 360 or director approval. The study of law, forms, documents, and procedures essential to the paralegal involved in the drafting of wills, trusts, and estate plans. The systems approach will be emphasized.

LAS 490 Independent Study of Law. (1-3) A. Prerequisite: director approval. Individual research, skill development, and study in an area of law or paralegal practice. Student must have independent study proposal form approved by faculty supervisor and departmental chair prior to enrollment. May be retaken to a maximum of six hours.

LAS 535 Municipal Law. (3) A. Prerequisite: LAS 220 or director approval. Practical legal problems confronting municipal officials including: government and public official liability, ordinances, tax levies, bonding, zoning, soliciting, licensing, open meetings, personnel, cutback management, elections, and other issues.

LAT—Latin
Dr. Abbey Poffenberger, Chair

LAT 101 Beginning Latin I. (3) A. Study of basic inflections, syntax, pronunciation, and vocabulary necessary for the reading and progressive understanding of the Latin language. Particular attention is given to cultural topics and to the relationship of Latin to English. Gen. Ed. Block VIII and Gen. Ed. E-6.

LAT 102 Beginning Latin II. (3) A. Recommended: one unit of high school Latin or LAT 101. A continuation of the study of the elements of Latin grammar with additional work in translation of selections from Latin writers of appropriate complexity. Some composition on cultural topics included. Students entering LAT 102 by referral or placement receive three hours credit for LAT 101 if they make an "A" in 102. Gen. Ed. Block VIII and Gen. Ed. E-6.

LGS — Legal Studies
Dr. Lynnette Noblitt, Chair

LGS 300 Introduction to Legal Studies (3) A. Prerequisite: ENG 102, ENG 105, or HON 102. Examination of foundations and liberal arts perspectives of legal studies. Topics include comparative and historical introduction to forms, institutions, processes, and systems of law along with research methods for understanding questions of law and justice.

LGS 305 Special Topics: _____ (3) A. Prerequisite: LGS 300. Exploration of topics not covered in the existing LGS curriculum. May be taken for a maximum of six hours provided that subject matter is different each time.

LGS 349 Applied Learning for Legal Studies (.5-8) A. Prerequisite: LGS 300. Work or volunteer in an area related to Legal Studies. A minimum of 80 hours employment required for each semester hour credit. No more than 3 hours may count toward LGS program.

LGS 400 Legal Studies Senior Seminar (3) A. Prerequisite: LGS 300 and at least six hours of LGS electives. Conduct research in an area related to Legal Studies, write a research paper, and present an oral presentation on research conducted. No more than 3 hours may count toward LGS program.

LIB—Library Science
Dr. Dorie Combs, Chair

LIB 107 Topics in Library Science: _____. (1-3) A. Prerequisite: departmental approval. A course addressing topics of special concern for librarians. May be retaken to a maximum of 9 hours. Not applicable to school librarian certification programs.

LIB 301 Children's Literature and Related Materials. (3) I, II. Prerequisites: junior standing; 2.75 GPA; admission to Professional Education. Survey course designed to acquaint P-5 teachers with print and non-print media for the school curriculum and with techniques to encourage lifelong readers. Credit will not be awarded for both LIB 301 and 301S.

LIB 301S Children's Literature and Related Materials. (3) I, II. Prerequisites: junior standing; 2.75 GPA; admission to Professional Education. Survey course designed to acquaint P-5 teachers with print and non-print media for the school curriculum and with techniques to encourage lifelong readers. Students in LIB 301S will be required to complete 15 hours of community service by choosing to read to students in Madison County, County Hospital, or the public library. Or students may choose to assist in a reading day at a local school. Credit will not be awarded for both LIB 301 and 301S.

LIB 401 Adolescent Literature and Resources. (3) A. Formerly LIB 501. A course designed with inquiry-based methodologies to future teachers' knowledge of adolescences, adolescent literature, and resources. Topics include genres, censorship, diverse authors, assessment, and multiple literacies to increase motivation, understanding and appreciation of adolescent literature. Credit will not be awarded for both LIB 401 and 501.

MAE—Mathematics Education
Dr. Daniel Mundfrom, Chair

MAE 301 Mathematics for Elementary Teachers III (3) A. Prerequisites: MAT 201 and one of MAT 107, 108, 109, 124, 211 or 261, with a C or better in each. Prerequisite/corequisite: MAT 202. The course emphasizes conceptual understanding and communication of mathematical topics in the K – 5 Kentucky Core Academic Standards through problem solving and technology. Credit does not apply toward Middle Grades Mathematics Teaching degree content requirements.

MAE 305 Problem Solving and Technology. (3) A. Prerequisite: MAT 201. Pre/Corequisite: MAT 202. The course will enable students to use technology effectively in the mathematics classroom and explore topics to deepen mathematical understanding.

MAE 480 Math Ed Seminar: ____. (1 - 3) A. Prerequisite: departmental approval. Advanced undergraduate topics in mathematics education. May be retaken to a maximum of nine hours, provided the topics are different.

MAE 550 Teaching Mathematics in the Secondary School. (3) I. Cross-listed as ESE 550. Prerequisites: EDF 319, admission to professional education. Pre/Corequisites: EDF 413, SED 401. Corequisite: ESE 349. Developmentally appropriate materials and methods for teaching mathematics and computer science in secondary schools. Credit will not be awarded for both ESE 550 and MAE 550.

MAT—Mathematics
Dr. Daniel Mundfrom, Chair

MAT 090A Prealgebra A (1) Institutional Credit. I, II. Corequisites: MAT 090B, MAT 090C. Whole number and integer arithmetic, order of operations, introduction to solving equations, and a strong strand of geometry. 1 Lec/1 Lab.

MAT 090B Prealgebra B (1) Institutional Credit. I, II. Corequisite and/or Prerequisite: MAT 090A. Corequisite: MAT 090C. Fraction and decimal arithmetic, ratio and proportion, basic percent concepts, measurement, and radicals. 1 Lec/1 Lab.

MAT 090C Prealgebra C (1) Institutional Credit. I, II. Co-requisite and/or Prerequisites: MAT 090A, 090B. Basic algebraic concepts such as solving linear equations, graphing equations in two variables, understanding algebraic expressions, polynomials and exponents. 1 Lec/1 Lab.

MAT 095A Introductory Algebra A (1) Institutional Credit. I, II. Prerequisite: MAT 090C or MAT 090 or placement into MAT 095A; ACT mathematics subscore of 17 or 18. Corequisites: MAT 095B, MAT 095C. Real number system, algebraic expressions, linear equations and inequalities, integer exponents, polynomials, and basic descriptive geometry. 1 Lec/1 Lab.

MAT 095B Introductory Algebra B (1) Institutional Credit. I, II. Co-requisite and/or Prerequisite: MAT 095A Co-requisite: MAT 095C. Factoring polynomials, quadratic equations, and radical expressions. 1 Lec/1 Lab.

MAT 095C Introductory Algebra C (1) Institutional Credit. I, II. Corequisite and/or Prerequisites: MAT 095A, 095B. Linear equations and inequalities, systems of equations, graphing quadratic equations, and an introduction to relations and functions. 1 Lec/1 Lab.

MAT 098 Algebra II. (3) Institutional Credit. I, II. Prerequisite: Completion of all developmental mathematics requirements. Real number system, algebraic expressions and sentences, linear, quadratic, polynomial, rational, inequalities, operations with exponents, systems of equations, relations and functions, graphing linear and quadratic functions. MAT 098 is the designated course to prepare for MAT 107, and may also be used to meet the PCC mathematics deficiency. MAT 098 IS NOT REQUIRED OF STUDENTS NEEDING TO MEET DEVELOPMENTAL MATHEMATICS REQUIREMENTS.

MAT 105 Mathematics with Applications. (3) I, II. Prerequisite: completion of all University developmental requirements. This course is designed to strengthen computational skills, mathematical reasoning, problems-solving skills, and mathematical reading/communication skills while focusing on real-world problems. The mathematical topics may include the mathematics of finance, statistics, geometry, combinatorics, mathematical modeling, and algorithms. Use of calculators. Gen. Ed. E-2.

MAT 106 Applied Finite Mathematics. (3) I, II. Prerequisite: completion of all University developmental requirements. The introduction to the application of mathematics to real-world problems. Topics are from various branches of discrete mathematics such as graph theory and game theory. Probability, geometry, and problems from the social

sciences. 3 Lec (1 Lab when taught in large lecture sections.) Gen. Ed. E-2.

MAT 107 College Algebra. (3) I, II. Prerequisite: MAT 098 with a minimum grade of "C" or a minimum score of 22 on the mathematics portion of the ACT or a minimum score of 510 on the math portion of the SAT or a passing score on an EKU MAT 107 Prerequisite Skills Test. Real and complex numbers, integer and rational exponents, polynomial and rational equations and inequalities, graphs of functions and relations, exponential and logarithmic functions, systems of equations, matrices. Use of graphing calculators. 3 Lec (1 Lab when taught in large lecture sections.) Gen. Ed. E-2.

MAT 108 Trigonometry. (3) I, II. Prerequisite: MAT 107 with a minimum grade of "C" or a minimum score of 22 on the mathematics portion of the ACT or a minimum score of 530 on the math portion of the SAT. Radians and degrees, properties of trigonometric functions, multiple angle expressions, triangle solutions, inverse functions, complex numbers. Use of graphing calculators. Credit will not be awarded for both MAT 108 and 109. Gen. Ed. E-2.

MAT 109 Precalculus Mathematics. (5) I, II. Prerequisite: MAT 107 with a minimum grade of "C" or a minimum score of 23 on the mathematics portion of the ACT or a minimum score of 550 on the math portion of the SAT. Polynomial, rational, exponential, logarithmic, and trigonometric functions and inverses. Sequences and series, systems of linear and nonlinear equations and inequalities, the complex number system, vectors, the binomial theorem, mathematical induction, and conic sections. Use of graphing calculators. Three hours of credit will not be awarded to students who have completed MAT 108. Three hours of credit count toward Gen. Ed. E-2.

MAT 115 Introduction to *Mathematica*. (1) I, II. Prerequisite: MAT 107 with a minimum grade of "C" or a minimum score of 23 on the mathematics portion of the ACT or a minimum score of 550 on the mathematics portion of the SAT. Use of *Mathematica*. Numeric, algebraic, and symbolic capabilities, two dimensional and three dimensional graphics with animation, decisions, looping, and list manipulation.

MAT 116 Problem Solving with *Mathematica*. (2) A. Prerequisite: MAT 115. Basic concepts include functional programming, procedural programming, rule-based programming, recursion, numerics, and graphics programming.

MAT 117 MathExcel Lab for Calculus I (1-2) I, II. Prerequisite/Corequisite: MAT 124 or 124H or 211 or 261. This lab is to accompany a regular lecture class in Calculus I. 4 Lab.

MAT 124 Calculus I. (4) I, II. Prerequisite: MAT 109 with minimum grade of "C" or a minimum score of 25 on the mathematics portion of the ACT or a minimum score of 590 on the math portion of the SAT. Functions, limits and continuity, derivatives and applications, integration, and introduction to and use of the computer package *Mathematica* or other appropriate technology. Gen. Ed. E-2.

MAT 124H Honors Calculus I. (4) A. Prerequisites: score of 27 on the ACT mathematics test or score of 640 on the SAT math test and the equivalent of MAT 109; or departmental approval. Functions, limits and continuity, derivatives and applications, integration, and introduction to and use of the computer package *Mathematica* or other appropriate technology. The material is treated in greater depth and with more rigor than in MAT 124. Challenging problems and special projects will be assigned. Credit will not be awarded to students who have credit for MAT 121 or MAT 121H or MAT 124. Gen. Ed. E-2.

MAT 201 Mathematical Concepts for Middle and Elementary School Teachers I. (3) I, II. Prerequisites: MAT 107 or 108 or 109 or 124 or 211 or 261 with a minimum grade of "C"; a score accepted by the Kentucky Education Professional Standards Board on one of the approved tests: ACT, PPST, SAT, GRE, MAT, and a passing score on a Mastery Exam. (The MAT 107 course requirement can be met by a college course in precalculus or calculus, or by a combination of MAT 106 and a 23 or higher on the mathematics portion of the ACT.) Concepts stressed over manipulation. Sets and functions, whole numbers, integers, rational numbers, decimals and real numbers, numeration, and elementary number theory.

MAT 202 Mathematical Concepts for Middle and Elementary School Teachers II. (3) I, II. Prerequisites: MAT 107 or 108 or 109 or 124 or 211 or 261 and MAT 201 with a C or better in each; and a passing score on a mastery test. (The MAT 107 course requirement can be met by a college course in precalculus or calculus, or by a combination of MAT 106 and a 23 or higher on the mathematics portion of the ACT.) Concepts stressed over manipulation. Geometry, measurement, metric system, probability and basic statistics.

MAT 203 Geometry for Middle and Elementary School Teachers. (3) I, II. Prerequisites: admission to a certification program in elementary or middle school and MAT 201 and 202 with a combined grade point of 2.5 in the two courses. Angles and their measurement, right triangle trigonometry, perpendicular lines, congruent triangles, circles, arcs, and angles, constructions and loci, area and volume, similarity, graphing, selected topics from analytic geometry.

MAT 211 Calculus with Applications for Business and Economics. (3) A. Prerequisite: MAT 107 with a minimum grade of "C" or MAT 108 with a minimum grade of "C" or a minimum score of 23 on the mathematics portion of the ACT or a minimum score of 550 on the math portion of the SAT. Functions and graphs, differentiation, marginal costs, revenue and profit, integration, exponential and logarithmic functions, other applications. Credit will not be awarded to students who have credit for MAT 124 or MAT 124H or MAT 261. Gen. Ed. E-2.

MAT 214 Linear Algebra and Matrices. (3) I, II. Prerequisite: MAT 124 (or MAT 124H) with a minimum grade of "C." Real and complex vector spaces, linear transformations, matrix theory, with applications, through the introduction of eigenvalues and eigenvectors, determinants, inner product spaces, the use of technology.

MAT 218 MathExcel Lab for Calculus II. (1-2) I, II. Prerequisite/Corequisite: MAT 224 or 224H. This lab is to accompany a regular lecture class in Calculus II. 4 Lab.

MAT 219 MathExcel Lab for Calculus III. (1-2) I, II. Prerequisite/Corequisite: MAT 225 or 225H. This lab is to accompany a regular lecture class in Calculus III. No more than four credit hours of MAT 117, MAT 218 and MAT 219 will count toward the baccalaureate degree. 4 Lab.

MAT 224 Calculus II. (4) I, II. Prerequisite: MAT 124 (or MAT 124H) with minimum grade of "C." Fundamental integration techniques, numerical integration, applications of integration, improper integrals, differential equations, infinite series, polar and parametric equations, and use of *Mathematica* or other appropriate technology. Credit will not be awarded to students who have credit for MAT 122 or MAT 122H. Gen. Ed. E-2.

MAT 224H Honors Calculus II. (4) A. Prerequisite: MAT 124H with a minimum grade of "C" (2.0). Fundamental integration techniques, numerical integration, applications of integration, improper integrals, differential equations, infinite series, polar and parametric equations, and use of *Mathematica* or other appropriate technology. The material is treated in greater depth and with more rigor than in MAT 224. Challenging problems and special projects will be assigned. Credit will not be awarded to students who have credit for MAT 122, MAT 122H, or MAT 224. Gen. Ed. E-2.

MAT 225 Calculus III. (4) I, II. Prerequisite: MAT 224 or (MAT 224H) with a minimum grade of "C." Functions of several variables, limits and continuity, partial derivatives, multiple integrals, vector calculus including Green's, Divergence, and Stoke's theorems, cylindrical and spherical coordinates and use of *Mathematica*. Credit will not be awarded for both MAT 225 and 225H.

MAT 225H Honors Calculus III. (4) II. Prerequisite: MAT 224H with minimum grade of "C." Functions of several variables, limits and continuity, partial derivatives, multiple integrals, vector calculus including Green's, Divergence, and Stoke's theorems, cylindrical and spherical coordinates, and use of *Mathematica*. The material is treated in greater depth and with more rigor than in MAT 225. Challenging problems and special projects will be assigned. Credit will not be awarded for both MAT 225 and 225H.

MAT 261 Calculus with Applications for Science I. (3) A. Prerequisite: MAT 107 with a minimum grade of "C" or MAT 108 with a minimum grade of "C" OR a minimum score of 23 on the mathematics portion of the ACT or a minimum score of 550 on the math portion of the SAT. Functions and graphs, differentiation, integration, and exponential and logarithmic functions. Credit will not be awarded to students who have credit for MAT 121 or MAT 124 or MAT 124H or MAT 211. Gen. Ed. E-2.

MAT 262 Calculus with Applications for Science II. (3) A. Prerequisite: MAT 261 or 211. Integral calculus with applications, introduction to differential equations, functions of several variables. Credit will not be awarded to students who have credit for MAT 122 or MAT 224 or MAT 224H.

MAT 301 Logic and Set Theory. (3) A. Prerequisites: MAT 214, 224 or 224H with minimum grades of "C" and a grade point average of at least 2.5 in MAT 124, 214, and 224, or departmental approval. Logic, proof techniques, set theory, relations, functions, cardinality, introduction to advanced mathematics.

MAT 303 Mathematical Models and Applications. (3) A. Prerequisites: MAT 107, MAT 203, and STA 270. The course emphasizes conceptual understanding and communication of mathematical topics through modeling, problem solving, and technology. Topics include algebra, geometry, probability, statistics, and real-world situations. Credit does not count toward the B.S. in mathematics nor the B.S. in mathematics teaching nor the mathematics minor.

MAT 306 Discrete Mathematics. (3) II. Prerequisites: MAT 214, MAT 224, STA 270 with minimum grades of "C" and at least 2.5 GPA in all mathematics courses. Counting principles, permutations, combinations, recurrence relations, graphs, representations of graphs as matrices, trees, networks, difference equations, and linear programming.

MAT 308 Modern Algebra I. (3) I. Prerequisite: MAT 301 with a minimum grade of "C" (2.0). Groups, cyclic and permutation groups, homomorphisms, subgroups and factor groups, Fundamental Theorem of Finite Abelian Groups, rings, fields, integral domains, and ideals.

MAT 315 Introduction to Analysis. (3) II. Prerequisite: MAT 301, 225 or MAT 225H with a minimum grade of "C." Real number system, sets and functions, limits, continuity, uniform continuity, Taylor's theorem, laws of the mean, the Riemann integral, allied topics.

MAT 334 Modern College Geometry I. (3) A. Prerequisite or Corequisite: MAT 301 with a minimum grade of "C." Euclid's parallel postulate, axiom systems, finite geometries.

MAT 349 Applied Learning in Mathematics. (.5-8) I, II; (1-6) SUMMER ONLY. Prerequisite: departmental approval. Work in placements related to academic studies. Credit does not apply to major or minor requirements. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours of employment are required for each semester hour of academic credit.

MAT 349 A-N Cooperative Study: Mathematics. (.5-8) I, II; (1-6) SUMMER ONLY. Prerequisite: departmental approval. Work in

placements related to academic studies. Credit does not apply to major or minor requirements. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours of employment are required for each semester hour of academic credit.

MAT 353 Differential Equations. (3) A. Prerequisite: MAT 224 or 224H with a minimum grade of "C." Differential equations of first order, applications, singular solutions, linear equations with constant coefficients, miscellaneous methods for equations of higher order, solution in series, total differential equations, qualitative methods, systems of linear differential equations, the computer algebra systems.

MAT 380 Mathematics in a Historical Setting. (4) A. Prerequisite or Corequisite: MAT 301 or departmental approval. The history of mathematics from ancient beginnings until modern times is studied through problems and through the lives and times of mathematicians. Throughout the course, examples of study skills and literacy enhancement techniques relevant to mathematics will be demonstrated.

MAT 408 Modern Algebra II. (3) A. Prerequisite: MAT 308 with a minimum grade of "C." Ring homomorphisms, polynomial rings, unique factorization domains, principal ideal domains, finite fields, field extensions, algebraic extensions, Galois theory, and geometric construction.

MAT 415 Analysis. (3) A. Prerequisite: MAT 315 with a minimum grade of "C." The Riemann integral, the Lebesgue integral, metric spaces, differentiation, sequences and series of functions, allied topics.

MAT 475 Math Teaching Senior Seminar. (3) I. Prerequisites: at least 2.5 GPA in major and supporting course requirements for MAT teaching major and admission to teacher education program. Emphasis on the interrelationship between mathematical topics. Problem solving with technology. Oral presentation on a topic selected jointly with the instructor.

MAT 480 Seminar in: _____. (1-3) A. Prerequisite: departmental approval. Advanced topics in undergraduate mathematics. May be retaken to a maximum of nine hours, provided the topics are different.

MAT 495 Independent Work. (1-3) A. Prerequisite: departmental approval. Directed study/research on a problem or area chosen in consultation with instructor. Final paper required. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to maximum of six hours.

MAT 498 Mathematics Capstone. (1) A. Cross listed as STA 498. Prerequisite: senior status as either a Mathematics or Statistics major. Designed to enable students to synthesize and integrate their mathematical and statistical knowledge. Students will learn how to conduct research and present the results. Credit will not be awarded for both MAT 498 and STA 498.

MAT 501 Applications of Mathematics for P-9 Teachers. (3) A. Prerequisite: MAT 303. Topics in the application of mathematical models appropriate for teachers of grades P-9. Credit does not apply toward B.S. or B.S. (teaching) degree requirements for programs offered within this department.

MAT 502 Geometry with Technology for P-9 Teachers. (3) A. Prerequisites: MAT 203, 205. Topics in geometry appropriate for teachers of grades P-9. Credit does not apply toward neither B.S. or B.S. (teaching) degree requirements for programs offered within this department.

MAT 505 Foundations of Mathematics. (3) A. Prerequisite: MAT 308 with a minimum grade of "C." The nature of mathematical thought; logical systems; axiomatic concepts and methods; consideration of the work of Hilbert, Peano, Whitehead, Russell, and others.

MAT 506 Number Theory. (3) A. Prerequisite: MAT 301 with a minimum grade of at least "C." Fundamental properties of integers, linear Diophantine equations, linear and quadratic congruences, famous problems of number theory.

MAT 507 Seminar in Mathematics: _____. (1-3) A. Prerequisite: departmental approval. Topics vary with offering. May be retaken with advisor approval, provided the topics are different. Credit towards degree requirements will depend on course content.

MAT 520 Mathematical Statistics I. (3) I. Cross listed as STA 520. Prerequisite: MAT 224 or 224H or 225 or 225H; and STA 215 or 270 or 370 or CRJ 400 or ECO 220 or ECO 848 or EPY 842 or HEA 450 or PSY 309 or QMB 200. Descriptive statistics, discrete and continuous probability distributions for one and two variables, functions of random variables, sampling distributions, expectations and generating functions. Credit will not be awarded for both MAT 520 and STA 520.

MAT 525 Vector Analysis with Applications. (3) A. Prerequisite: MAT 225 or 225H with a minimum grade of "C." Algebra and geometry of vectors; vector functions of a single variable; line, surface, and volume integrals; Divergence Theorem, Stokes' Theorem, Green's Theorem; generalized orthogonal coordinates; Fourier Series; solutions to boundary value problems.

MAT 535 Modern College Geometry II. (3) A. Prerequisite: MAT 334 with a minimum grade of "C." The major influence of the axioms of parallelism or geometry, development from axioms and models, Euclidean geometry, absolute geometry, hyperbolic geometry, consistency of postulates.

MAT 540 Introductory Applied Mathematics. (3) A. Prerequisite: MAT 353 with a minimum grade of "C." Techniques and applications of: vector analysis, matrix theory, linear and autonomous systems of differential equations, special functions, operational methods, Sturm-Liouville theory, Fourier series.

MAT 550 Applications of Complex Analysis. (3) A. Prerequisite: MAT 225 or 225H or 353 with a minimum grade of "C." Continuity, differentiation, integration, series, residues, and applications to the evaluation of real integrals. Applications of conformal mappings to boundary value problems in heat, electrostatic potential, and fluid flow. Emphasis throughout on computational techniques and applications.

MAT 555 Graph Theory. (3) A. Prerequisite: MAT 308 or CSC 320 with a minimum grade of "C." Introduction to the theory and applications of graph theory. Topics will include trees, planarity, connectivity, flows, matching, and coloring.

MAT 560 Point Set Topology. (3) A. Prerequisite: MAT 301 with a minimum grade of "C." An introduction to topology with emphasis on Euclidean and other metric spaces. Mappings, connectivity, compactness, formation of new spaces, relationship to analysis.

MGT—Management
Dr. Lana Carnes, Chair

MGT 201 Introduction to Golf Management. (3) I, II. Prerequisite (Effective Spring 2012): Admission to PGM program, and successful completion of the PGA Qualifying Exam. Introduces PGM students to the elements of the industry in which a PGA professional must be competent, the value of business planning in the golf industry, the key elements of a business plan and the elements that make a model golf shop, and the PGA Customer Relations Model.

MGT 202 Introduction to Golf Instruction. (3) I, II. Prerequisite: admission to the PGM program, MGT 201 and PGA tests accompanying MGT 201. Introduction to human learning, the teaching process, and the elements of the game. Topics include laws, principles, and preferences of the golf swing, biomechanics, and teaching technologies. The course also addresses golf club performance variables.

MGT 203 Golf Operations I. (3) I, II. Prerequisite (Effective Spring 2012): admission to PGM, MGT 201, MGT 202 and PGA tests that accompany each class. The fundamental concepts of operations, maintenance, planning and financing of the golf car fleet; the concepts involved in developing a facility's tournament business. Budget projecting, tournament promotion, and tournament software programs will also be presented.

MGT 204 Golf Operations II. (3) I, II. Prerequisite (Effective Spring 2012): admission to PGM program, MGT 201, 202, 203, and successful completion of all level 1 PGA exams. The introduction of golf operations; policies and procedures; effectively managing staff resources; and measuring overall performance. The course will also introduce merchandising and inventory management concepts.

MGT 205 Analysis of the Golf Swing. (3) I, II. Prerequisite (Effective Spring 2012): admission to the PGM program, MGT 201, 202, 203, and PGA tests accompanying each class. A focus on techniques that help the student improve his/her golf skills; describes drills, warm-ups, and shot techniques for intermediate students. The course also discusses golf club repair.

MGT 206 Golf Operations and Administration. (3) I, II. Prerequisite (Effective Spring 2012): admission to the PGM program, MGT 201, 202, 203, 204, 205, and the PGA tests that accompany each class. The recruitment and management of employees; human resource issues a PGA Professional faces; a performance system for supervising employees and delegating responsbilities; and career development strategies and examples of career-enhancing actions will be presented.

MGT 207 Advance Golf Instruction & Special Programs. (3) I, II. Prerequisite (Effective Spring 2012): admission to the PGM program, MGT 201, 202, 203, 204, 205, 206 and the PGA tests that accompany each class. Emphasizes the integration of learning, teaching, and game elements. Covers elements of the mental game and more advanced shot-making. Club-fitting procedures will be covered and the development of instructional programs will be introduced.

MGT 300 Principles of Management. (3) I, II. Prerequisites: ACC 201, 202, and ECO 230 with a grade of "C" or better in each course; junior standing (a minimum of 60 hours) with an overall minimum 2.0 GPA. Management principles with emphasis on organization theory and behavior, human resources and diversity, communications, production/operations management and quality issues, business ethics, development of management thought, management in the global arena, and management careers.

MGT 301 Principles of Management (NB). (3) A. Prerequisite: junior standing (at least 60 hours) with an overall GPA 2.0. Not for students majoring or minoring in business. Management principles with emphasis on organization theory and behavior, human resources and diversity, communications, production/operations management and quality issues, business ethics, development of management thought, management in the global arena, and management careers. Credit will not be awarded for both MGT 301 and 300.

MGT 320 Human Resource Management. (3) I, II. Prerequisite: MGT 300 or MGT 301. Survey of principles and practices in the areas of human resource planning, job analysis, recruitment, selection, training and development, performance appraisal, compensation, labor relations, safety and health, equal employment opportunity, and personnel research.

MGT 330 Small Business Management. (3) A. Prerequisite: MGT 300 or MGT 301. Small business organization, location, financial planning, records, unit costs, merchandising, credit, and personnel policies.

MGT 340 Management Science. (3) I, II. Prerequisite: QMB 200. Business decision making approaches and quantitative techniques with an emphasis on the formulation and application of models

and the practical solution methods available.

MGT 349 Applied Learning in Management. (.5-8) A. Prerequisites: minimum GPA 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work required for each credit hour. May be used as upper division business electives and/or free electives as approved. Will not count as Management elective. Management Majors (all options) are limited to a maximum of nine co-op hours counting toward degree. Co-op hours may be repeated up to nine hours.

MGT 349 A-N Cooperative Study: Management. (.5-8) A. Prerequisites: minimum GPA 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work required for each credit hour. May be used for upper division business electives and/or free electives as approved. Will not count as Management elective. Management Majors (all options) are limited to a maximum of nine co-op hours counting toward degree. Co-op hours may be repeated up to nine hours.

MGT 370 Operations Management. (3) I, II. Prerequisite: MGT 300. Practical approaches for improving productivity of operations using methods designed for quality management, sales forecasting, facility layout and location, human resource planning and scheduling, and inventory control.

MGT 375 Supply Chain Management (3) A. Prerequisite: MGT 340. The integration of key business processes from end-user through original suppliers that add value for customers and other stakeholders. Topics include: integration and strategic partnering, procurement and outsourcing strategies, value-added services and international challenges.

MGT 400 Organization Theory. (3) I, II. Prerequisite: MGT 300 or MGT 301. Principles of organization design as they relate to goals and strategy formulation, environmental conditions, technology, job design, control systems, and decision making.

MGT 406 Continuous Improvement in Organizations. (3) A. Prerequisites: MGT 300 and QMB 200 or MGT 301. Advanced methods and techniques used to analyze change, monitor, and analyze organizational performances, control resources, and otherwise direct the management of complex organizations.

MGT 410 Labor Relations. (3) I. Prerequisite: MGT 320. Study of labor-management relationships including union organization campaigns, contract negotiations, grievance and arbitration procedures, labor-management cooperation, and union-free environments.

MGT 425 Compensation Management. (3) II. Prerequisite: MGT 320. Advanced study of the human resource function of employee compensation. Topics include job analysis and evaluation, compensation surveys, pay structures, budgeting, pay for performance systems, benefits administration, and federal regulation of compensation management.

MGT 430 International Management. (3) A. Prerequisite: MGT 300 or MGT 301. The study of management of international organizations with emphasis on techniques, processes and structures. Topics include organizational culture, leadership, ethics, decision-making, and human resource management.

MGT 440 Human Resource Development. (3) I. Prerequisite: MGT 320. Advanced study of human resource management functions aimed directly at enhancing organizational effectiveness. Topics include training needs analysis; training program design, implementation, and evaluation; performance management and appraisal; and costing human resource development programs.

MGT 445 Employee Recruitment and Selection. (3) II. Prerequisite: MGT 320. Advanced study of the human resource function of staffing. Topics include: recruitment, the design and implementation of effective selection procedures which comply with federal/state requirements; analysis and reporting of employee data.

MGT 450 Management Seminar. (1-3) A. May be retaken under different sub-topics to a cumulative maximum of nine hours. Selected topics in contemporary management literature.

MGT 465 Innovation and Entrepreneurship. (3) A. Prerequisite: MGT 300 or MGT 301. An emphasis on the role of innovation and entrepreneurship in the creation and management of new ideas, concepts, techniques, processes, methods, ventures, and knowledge.

MGT 470 Integrated Resource Management. (3) A. Prerequisite: MGT 370. Advanced management models and computer techniques, international operations and interfunctional aspects of decision making from the perspective of controlling operations.

MGT 480 Organization Behavior. (3) I, II. Prerequisite: MGT 300 or MGT 301. Determinants and consequences of behavior in business organizations are analyzed in the contemporary language of administrative social systems and models. Interdependence of economic, social, and behavioral factors is emphasized.

MGT 490 Special Problems In Management. (1-4) A. Prerequisite: advisor/departmental approval. May be retaken under different sub-topics to a cumulative maximum of six hours. Independent work, special workshop, special topics, or seminars. Students must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

MKT—Marketing
Dr. Lana Carnes, Chair

MKT 300 Principles of Marketing. (3) I, II. Prerequisites: ACC 201, 202, and ECO 230 with a grade of "C" or better in each course; junior standing (a minimum of 60 hours) with an overall minimum 2.0 GPA. Overview of strategic processes involved in marketing goods and services to global markets; study of behavioral, organizational, and consumer variables in decision processes; use of the marketing mix and marketing information to affect buyer decisions.

MKT 301 Principles of Marketing (NB) (3) A. Prerequisite: junior standing (at least 60 hours) with an overall GPA of 2.0. Not for students majoring or minoring in business. Overview of strategic processes involved in marketing goods and services to global markets; study of behavioral, organizational, and consumer variables in decision processes; use of the marketing mix and marketing information to affect buyer decisions. Credit will not be awarded for both MKT 300 and 301.

MKT 304 Retailing. (3) A. Prerequisite: MKT 300 or MKT 301. Principles of retailing from the marketing perspective; types of retail businesses; organizations; location; layout; management of operations, inventory, personnel, promotion, and control.

MKT 306 Services Marketing. (3) A. Prerequisite: MKT 300 or MKT 301. Understanding the customer from the services and non-profit marketing perspectives. Examination of marketing in service industries with emphasis on the unique aspects of services marketing, the service marketing mix and the implementation of services strategies.

MKT 309 Integrated Marketing Communications. (3) A. A course covering the theories, strategies, and skills of Integrated Marketing Communication, with a special emphasis on applying IMC to the Internet and World Wide Web (WWW).

MKT 310 Personal Selling. (3) A. Prerequisite: MKT 300 or MKT 301. Personal selling in marketing; the selling process, stressing the modern, international sales/marketing approach to customer society oriented problem solving.

MKT 312 Principles of Transportation. (3) A. Prerequisite: MKT 300. Various forms of transportation and institutional factors influencing transportation decisions. Regulations, public policy, rate making, services, and the integration of transportation with other elements of business.

MKT 315 Physical Distribution Management. (3) A. Prerequisite: MKT 300. Movement and storage of goods, coordination and control of inventory, customer service, packaging, materials handling, facilities location, flow of information, and transportation.

MKT 320 Advertising. (3) A. Prerequisite: MKT 300 or MKT 301. How advertising is organized; economic and social aspects; advertising research; basic media strategy; consumer behavior; legal and other restraints; careers in advertising.

MKT 349 Applied Learning in Marketing. (.5-8) A. Prerequisites: minimum GPA 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work required for each credit hour. Three hours may be used as an upper division business elective in the Marketing option. Three hours are required in the Music Marketing option. May be repeated for a total of 16 credit hours.

MKT 349 A-N Cooperative Study: Marketing. (.5-8) A. Prerequisites: minimum GPA 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work required for each credit hour. Three hours may be used as an upper division business elective in the Marketing option. Three hours are required in the Music Marketing option. May be repeated for a total of 16 credit hours

MKT 350 Consumer Behavior in Marketing. (3) I, II. Prerequisite: MKT 300 or MKT 301. Role of consumer decision-making as it affects the marketing firm; basic concepts of consumer behavior and interrelationships that exist between marketing and the behavioral sciences.

MKT 370 Sports Marketing. (3) A. Prerequisite: MKT 300 or 301. The strategic application of marketing theories and perspectives to the sports industry. Topics include sports franchise promotion, sports identification, consumer loyalty to teams and participation sports, and marketing with the assistance of sports figures.

MKT 380 Seminar in Marketing. (3) A. Prerequisite: MKT 300 or MKT 301. May be retaken under different sub-topics to a cumulative maximum of six hours. Selected topics in contemporary marketing literature.

MKT 400 International Marketing. (3) I, II. Prerequisite: MKT 300. Determination of marketing strategy by United States firms and multinational corporations for serving foreign markets and for adapting to variations in cultural and economic factors affecting foreign marketing efforts.

MKT 401 Internet Marketing. (3) A. Prerequisite: MKT 300 or 301. Survey, analysis, and evaluation of current trends and issues in marketing in computer mediated environments, including how the marketing mix is adapted strategically to the Internet and World Wide Web, intranets, and other electronic forms.

MKT 404 Retailing Management. (3) A. Prerequisite: MKT 300 or 301. Investigation of current problems faced by retailers in store operations, management, retail buying, and inventory control. Outside readings, oral and written case studies, and field trip experiences are required.

MKT 405 Retail Management for PGM (3) I, II. Prerequisite: MKT 300; junior/senior standing (a minimum of 60 hours). Investigation of current problems facing retail operations in the golf industry to include buying, vendor selection, merchandise planning, pricing, promotion, and display, inventory control, and performance management. Students will be required to complete case studies and a field project.

MKT 408 Sales Management. (3) A. Prerequisite: MKT 310. Sales function in modern organizations with emphasis on current management techniques: time management, on-the-job coaching, directing the sales force to sell key accounts, situational analysis, and decision-making.

MKT 420 Marketing for the Arts. (3) A. Prerequisite: MKT 300 or MKT 301. Essentials of marketing and marketing strategies for the arts organizations and individual artists to reach diverse arts audiences.

MKT 426 Advertising Campaigns. (3) A. Prerequisite: MKT 320. Planning and execution of a direct marketing and advertising campaign as a part of the overall marketing strategy. Students will originate a direct marketing campaign for a client. Includes all aspects of direct marketing and advertising. Credit will not be awarded for both MKT 426 and COM 450.

MKT 431 Purchasing and Materials Management. (3) A. Prerequisite: MKT 300. The purchasing process as it focuses on supply efficiency and effectiveness relating to the fit between purchasing objectives and strategies and organizational objectives and strategies.

MKT 440 Industrial Marketing. (3) A. Prerequisite: MKT 300. An analysis of the marketing structure for industrial products. Product lines, channels of distribution, selling, pricing, and wholesaling problems.

MKT 455 Marketing Research and Analysis. (3) I, II. Prerequisites: MKT 300 and QMB 200. The role of research in marketing decision- making; the research process, with emphasis on collection, analysis, and interpretation of data as applied to solving marketing problems. Students are required to do a research project.

MKT 460 Marketing Management. (3) I, II. Prerequisites: MKT 300, Marketing Majors with Marketing Option and Senior Standing. The strategic marketing planning process involving analysis of the changing market place; analysis of alternative strategies to meet the needs of target markets; and the profitable execution of the marketing plan.

MKT 481 Internship in Marketing. (3 or 6) A. Prerequisites: minimum 2.25 GPA, MKT 300, MGT 300, and consent of instructor. Provides student with half-time or full-time relevant work experience in marketing. Written assignments and a project are required. May be taken only once for three (3) or six (6) hours of credit and not concurrently with Cooperative Study.

MKT 490 Special Problems in Marketing. (1-4) A. Prerequisite: advisor/departmental approval. May be retaken under different sub-topics to a cumulative maximum of six hours. Independent work, special workshop, social topics, or seminars. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

MLS—Medical Laboratory Science
Dr. Carolyn Harvey, Interim Chair

MLS 201 Introduction to Clinical Pathology. (3) II. Formerly CLS 201. Open to all students. Techniques common to clinical laboratories. Stresses basic physical and chemical principles of disease process. 3 Lec. Credit will not be awarded for both CLS 201 and MLS 201.

MLS 290 Medical Biochemistry. (3) A. Formerly CLS 290. Prerequisite: CHE 112, 112L, and BIO 121 or BIO 111. The study of biochemical systems of the body with emphasis on medical consequences when these systems are disrupted. Topics: proteins, carbohydrates, lipids, DNA/RNA and liver functions. 3 Lec. Credit will not be awarded for both CLS 290 and MLS 290.

MLS 300 Clinical Laboratory Administration. (2) I. Formerly CLS 300. Prerequisite: enrollment in upper division MLS program or departmental approval. Lab calculations, instrumentation, and quality assurance. 2 Lec. Credit will not be awarded for both CLS 300 and MLS 300.

MLS 303 Clinical Laboratory Skills. (1) I, II. Formerly CLS 303. Prerequisite: enrollment in upper division MLS program or departmental permission. Skills for clinical laboratory practitioners, including laboratory safety, phlebotomy, microscopy, pipetting, universal precautions, and principles of quality assurance. Credit will not be awarded for both CLS 303 and MLS 303.

MLS 305 Analysis of Body Fluids. (2) I. Formerly CLS 305. Prerequisite: enrollment in upper division MLS program or departmental approval. Principles, procedures, and significance of analysis of urine, spinal fluid, and other fluids commonly examined in the clinical laboratory. 3 Lec/Lab. Credit will not be awarded for both CLS 305 and MLS 305.

MLS 308 Clinical Serology. (2) I. Formerly CLS 308. Prerequisite: enrollment in upper division MLS program or departmental approval. Principles, procedures, sources of error, and clinical application of serological tests, immune mechanisms, specimen collection; procedures include ASO, VDRL, RA, LE, IM, Rubella, Cold Agglutinins, fluorescent antibodies, and others. 4 Lec/Lab. Credit will not be awarded for both CLS 308 and MLS 308.

MLS 309 Clinical Immunology. (1) I, II. Formerly CLS 309. Prerequisite: enrollment in upper division MLS program or departmental approval. Principles and techniques of antigen- antibody reactions of the human immune system and their relationship to the clinical laboratory. Credit will not be awarded for both CLS 309 and MLS 309.

MLS 310 Hematology and Coagulation. (5) I. Formerly CLS 310. Prerequisite: enrollment in upper division MLS program or departmental approval. Morphology of blood cells, determination of blood parameters and disorders/diseases associated with blood cells; biochemistry, procedures and disorders/ diseases in coagulation. 3 Lec/4 Lab. Credit will not be awarded for both CLS 310 and MLS 310.

MLS 320 Immunohematology. (3) II. Formerly CLS 320. Prerequisite: enrollment in upper division MLS program or departmental approval. Blood banking, blood grouping, phenotyping, cell panels, compatibility testing, and transfusion practices. 2 Lec/2 Lab. Credit will not be awarded for both CLS 320 and MLS 320.

MLS 346 Clinical Chemistry. (5) II. Formerly CLS 346. Prerequisite: enrollment in upper division MLS program or departmental approval. Introduction to theory and lab procedures, measurement of constituents of body fluids, instrumentation, and clinical interpretation of results in relation to biochemistry of human systems. 3 Lec/3 Lab. Credit will not be awarded for both CLS 346 and MLS 346.

MLS 350 Bacteriology and Virology. (5) I. Formerly CLS 350. Prerequisite: enrollment in the upper division MLS program or departmental approval. Study of medically important bacteria with emphasis on the clinical laboratory methods of microscopy, cultivation, identification, antimicrobial susceptibility testing, and quality control. Includes study of rickettsiae, mycoplasms, chlamydiae, and fundamentals of clinical virology. 3 Lec/4 Lab. Credit will not be awarded for both CLS 350 and MLS 350.

MLS 355 Mycology and Parasitology. (4) II. Formerly CLS 355. Prerequisites: enrollment in the upper division MLS program or departmental approval. Study of fungi and parasites as agents of human disease, with emphasis on the clinical laboratory methods of microscopy, in vitro cultivation, identification, and quality control. 3 Lec/1 Lab. Credit will not be awarded for both CLS 355 and MLS 355.

MLS 431 Clinical Correlations. (3) I, A. Formerly CLS 431. Prerequisites: enrollment in upper division MLS program and completion of all 300-level MLS courses. Correlates the sub-disciplines of clinical laboratory science. Reviews all areas and stresses laboratory medicine in the health professions. 3 Lec. Credit will not be awarded for both CLS 431 and MLS 431.

MLS 432 Clinical Chemistry Practicum. (5) II, A. Formerly CLS 432. Prerequisites: enrollment in upper division MLS program and completion of all 300-level MLS courses. Diagnostic chemical procedures in an affiliated laboratory. Credit will not be awarded for both CLS 432 and MLS 432.

MLS 434 Clinical Microbiology Practicum. (4) I, II. Formerly CLS 434. Prerequisites: enrollment in upper division MLS program and completion of all 300-level MLS courses. Clinical bacteriology, parasitology, and mycology in an affiliated laboratory. Credit will not be awarded for both CLS 434 and MLS 434.

MLS 436 Lab Management Practicum. (1) I, II. Formerly CLS 436. Prerequisites: enrollment in upper division MLS program and completion of all 300-level MLS courses. Principles of managing a medical laboratory presented in an affiliated laboratory. Credit will not be awarded for both CLS 436 and MLS 436.

MLS 437 Clinical Laboratory Seminar. (3) I, II. Formerly CLS 437. Prerequisites: enrollment in upper division MLS program and completion of all 300-level MLS courses. Case studies, advanced procedures, and problem solving in the clinical laboratory. Credit will not be awarded for both CLS 437 and MLS 437.

MLS 438 Hematology Practicum. (4) I, A. Formerly CLS 438. Prerequisites: enrollment in upper division MLS program and completion of all 300-level MLS courses. Diagnostic blood parameters and morphology studies in an affiliated laboratory. Credit will not be awarded for both CLS 438 and MLS 438.

MLS 439 Urinalysis Practicum. (1) I, A. Formerly CLS 439. Prerequisites: enrollment in upper division MLS program and completion of all 300-level MLS courses. Diagnostic urine and body fluid procedures in an affiliated laboratory. Credit will not be awarded for both CLS 439 and MLS 439.

MLS 440 Blood Bank Practicum. (2) II, A. Formerly CLS 440. Prerequisites: enrollment in upper division MLS program and completion of all 300-level MLS courses. Practical blood banking in an affiliated laboratory. Credit will not be awarded for both CLS 440 and MLS 440.

MLS 441 Immunology Practicum. (1) I, II, A. Formerly CLS 441. Prerequisites: enrollment in upper division MLS program and completion of all 300-level MLS courses. Practical immunology in an affiliated laboratory. Credit will not be awarded for both CLS 441 and MLS 441.

MLT — Medical Laboratory Technician
Dr. Carolyn Harvey, Interim Chair

MLT 201 Urinalysis. (1) I, II. Formerly CLT 201. Prerequisite: admission to MLT program or departmental approval. 1 Lec/Lab. Credit will not be awarded for both CLT 201 and MLT 201.

MLT 202 Hematology. (3) II. Formerly CLT 202. Prerequisite: admission to MLT program. Morphology of blood cells, determination of blood parameters and disorders/diseases associated with blood cells; biochemistry, procedures and disorders/ diseases in coagulation. 3 Lec/Lab. Credit will not be awarded for both CLT 202 and MLT 202.

MLT 203 Clinical Chemistry. (3) I. Formerly CLT 203. Prerequisite: admission to MLT program. Introduction to theory and lab procedures, measurement of constituents of body fluids, instrumentation, and clinical interpretation of results in relation to biochemistry of human systems. 3 Lec/Lab. Credit will not be awarded for both CLT 203 and MLT 203.

MLT 204 Immunology/Blood Banking. (2) I. Formerly CLT 204. Prerequisite: admission to MLT program or departmental approval. A study of the immune system, clinical serology, and blood banking and the lab techniques associated with each area. 4 Lec/Lab. Credit will not be awarded for both CLT 204

and MLT 204.

MLT 205 Practicum I. (7) I, II. Formerly CLT 205. Corequisite: MLT 206. Prerequisites: MLT 201, 202, 203, 204, 208, 209 and 211. Administrative policies, hematology, serology, and blood banking in an affiliated hospital. Credit will not be awarded for both CLT 205 and MLT 205.

MLT 206 Practicum II. (6) I, II. Formerly CLT 206. Corequisite: MLT 205. Prerequisites: MLT 201, 202, 203, 204, 208, 209 and 211. Clinical chemistry and microbiology in an affiliated hospital. Credit will not be awarded for both CLT 206 and MLT 206.

MLT 207 Technical Correlations. (2) I, II. Formerly CLT 207. Prerequisites: MLT 201, 202, 203, 204, 208, 209 and 211. Review of MLT subject areas with emphasis on clinical significance, and interpretation of lab requests. 2 Lec. Credit will not be awarded for both CLT 207 and MLT 207.

MLT 208 Clinical Techniques. (1) I, II. Formerly CLT 208. Prequisite: admission to MLT program or departmental approval. Skills for clinical laboratory practitioners, including laboratory safety, phlebotomy, microscopy, pipetting, universal precautions, and principles of quality assurance. Credit will not be awarded for both CLT 208 and MLT 208.

MLT 209 Medical Microbiology. (3) A. Formerly CLT 209. Study of bacteria, fungi, viruses, and parasites as agents of human disease with emphasis on the pathogenesis, epidemiology, and diagnosis of infectious diseases. 3 Lec. Credit will not be awarded for both CLT 209 and MLT 209.

MLT 211 Medical Microbiology Laboratory. (2) I, II. Formerly CLT 211. Prerequisite or Corequisite: MLT 209. Laboratory methods in the diagnosis and management of infectious diseases. 4 Lab. Credit will not be awarded for both CLT 211 and MLT 211.

MSL—Military Science and Leadership
LTC. Ralph Hudnall, Chair

MSL 100 Introduction to Leadership. (1) A. Introduction of leadership styles, comparison of civilian and military leadership; and analysis of the constitutional and historical basis for officership in the U.S. Army. 1 Lec.

MSL 101 Foundations of Officership (2) I. Introduces students to issues and competencies that are central to a Commissioned Officer's responsibilities. Establish framework for understanding officership, leadership, and Army values and "life skills" such as fitness and time management. 1 Lec/1 Lab.

MSL 102 Basic Leadership (2) II. Establishes foundation of basic leadership fundamentals such as problem solving, communications, briefings and effective writing, goal setting, techniques for improving listening and speaking skills and an introduction to counseling. 1 Lec/1 Lab.

MSL 201 Individual Leadership Studies (2) I. Students identify successful leadership characteristics through observation of others and self through experiential learning exercises. Students record observed traits (good and bad) in a dimensional leadership journal and discuss observations in small group settings. 2 Lec/1 Lab.

MSL 202 Leadership & Teamwork (3) II. Study examines how to build successful teams, various methods for influencing action, effective communication in setting and achieving goals, timing the decision, creativity in the problem solving process, and obtaining team buy-in through immediate feedback. 2.5 Lec/2.5 Lab.

MSL 210 Leaders Training Course (5) Summer Only. A comprehensive leader training course which can be taken in lieu of 201 and 202. This course emphasizes an experiential, hands-on approach to leader development. Held at Fort Knox, Kentucky. Students are paid to attend.

MSL 298 Independent Leadership Studies (2-3) A. Prerequisite: departmental approval; may be taken once in lieu of MSL 201 or 202. Students record observed traits in a dimensional leadership journal and discuss observations with instructor. Independent examination of effective leadership, communications, goal setting, decision-making, problem solving, and quality improvement techniques. 2.5 Ind Stu/2.5 Lab.

MSL 301 Leadership & Problem Solving (3) I. Prerequisites: 54 hours, MSL 201 and 202 or MSL 210; or Departmental approval. Students conduct self-assessment of leadership style, develop personal fitness regimen, and learn to plan and conduct individual/small unit tactical training while testing reasoning and problem-solving techniques. Students receive direct feedback on leadership abilities. 2.5 Lec/2.5 Lab.

MSL 302 Leadership & Ethics (3) II. Prerequisite: MSL 301 or departmental approval. Examines the role communications, values, and ethics play in effective leadership. Topics include ethical decision-making, consideration of others, spirituality in the military, and survey of Army leadership doctrine. Emphasis on improving oral/written communication abilities. 2.5 Lec/2.5 Lab.

MSL 303 American Military History (3) I. ENG 102 or ENG 105(B) or HON 102. Examines U.S. Military History from pre-revolutionary times to Global War on Terrorism. Applies the Threads of Continuity model, defines the (9) principles of war; (5) forms of maneuver, analyzes the political-economic-technological-social impacts on the military. Develops leadership through individual/group contribution participation in case studies, classroom presentations, book report, battle analysis, and battlefield staff ride/museum tour. Gen. Ed. E-5A—History.

MSL 310 Leadership Development and Assessment Course. (6) Summer Only. Prerequisite: MSL 302. Refines student leadership and teamwork building skills through intensive practical application, rotating leader/command experience involving problem analysis, decision-making, and troop leading in both garrison and field environments. Held at Fort Lewis, Washington.

MSL 311 Internship in Leadership (3) Summer Only. Pre and Corequisites: MSL 301, MSL 302 and enrolled in MSL 310. Students assigned to leadership positions with active army units for 3-4 weeks. Students are paid and receive a written evaluation of their leadership performance and potential and must complete an after action report upon returning. May only be taken once.

MSL 401 Leadership and Management (3) I. Prerequisite: MSL 302 or departmental approval. Develops student proficiency in planning and executing complex operations, functioning as a member of a staff, and mentoring subordinates. Students explore training management, methods of effective staff collaboration, and developing counseling techniques. 2.5 Lec/2.5 Lab.

MSL 402 Officership (3) II. Prerequisite: MSL 401 or departmental approval. Study includes case study of military law and practical exercises on ethical command climates. Students complete a semester long Senior Leadership Project that requires them to plan, organize, collaborate, analyze, and demonstrate their leadership skills. 2.5 Lec/2.5 Lab.

MSL 403 Topics in Military Leadership (1) A. Prerequisite: MSL 402. Study of current issues relevant to the professional development and commissioning of Second Lieutenants in the United States Army. May repeat with different topics for a maximum of 4 hours. 1 Lec/1 Lab.

MSL 498 Advanced Independent Leadership Studies (3) A. Prerequisite: departmental approval; may be taken twice in lieu of MSL 301, 302, 401, or 402. Equivalent study of the materials covered in the course being replaced. 2.5 Ind Stu/2.5 Lab.

MUH—Music History
Rob James, Chair

MUH 171 Music Appreciation. (3) I, II. May not count toward a music major or minor. Provides the general college student with a cultural background in music. Masterpieces of music, composers, and techniques presented through listening materials and concert attendance. Gen. Ed. E-3A.

MUH 271 Jazz History. (3) I, II. A listening survey course tracing the development of jazz from its roots in the music of West Africa, African American folk music, and European music styles to the present. Gen. Ed. E-3A.

MUH 272 Music Literature. (3) I, II. Critical listening and scorereading of the standard repertory of music in Western Civilization from Gregorian plainchant to the Contemporary era. Gen. Ed. E-3A.

MUH 273 Survey of American Popular Music. (3) I, II. Survey of American popular music establishing its origins and tracing its development to the present time. Gen. Ed. E-3A.

MUH 371 Survey of Music History I. (3) I. Prerequisite: MUH 171 or MUH 272 or departmental approval. This survey of music history covers two in depth areas of study: The first eight weeks includes an introduction to world music and ancient music through Medieval Western Music. The second eight weeks continues with the Renaissance and Baroque periods. Gen. Ed. VII (AH).

MUH 372 Survey of Music History II. (3) II. Prerequisite: MUH 371 or departmental approval. Survey of music history from the Classical era to the present. Gen. Ed. VII (AH).

MUS—Music APPLIED MUSIC
Rob James, Chair

Applied music courses are only open to music majors and minors. Enrollment in applied music courses requires participation in a music ensemble.

MUS 101A,B,C Performance Class. (0) A. Required of all music majors for three semesters. Passing grade achieved when students have attended a minimum total of 16 concert events per semester.

MUS 107 Class Guitar for Nonmajors. (1) I, II. Instruction in guitar for non-music majors. May be retaken to a maximum of 4 hours.

MUS 108 Class Voice for Nonmajors. (1) I, II. Instruction in singing for non-music majors. May be retaken to a maximum of 4 hours.

MUS 109 Introductory Class Piano. (1) I. For students enrolled in MUS 102. Elementary keyboard techniques and reading drill. Credit does not count toward a music major or minor.

MUS 110 Beginning Class Piano I. (1) I, II. Prepares non-piano majors to meet Level I Piano Proficiency Examination requirements. Basic keyboard skills, elementary repertoire, and technique. Some music reading ability required. May be retaken to a maximum of two hours.

MUS 111 Beginning Class Piano II. (1) I, II. Prerequisite: MUS 110 or departmental approval. Continuation of MUS 110. May be retaken to a maximum of two hours.

MUS 112 Piano I. (1-2) I, II. Corequisite: MUS 225 or 226 or 313; course open to music majors or minors only. One or two lessons per week. May be retaken to a maximum of four hours.

MUS 114 Keyboard Skills I. (2) I, II. Prepares piano majors and other music majors with advanced keyboard background to meet Level II Piano Proficiency Examination requirements. Emphasis is functional skills, such as reading, transposing, playing by ear, harmonizing and improvising, combined with keyboard harmony, technique and memorization skills.

MUS 115 Keyboard Skills II. (2) I, II. Prerequisite: MUS 114 or departmental approval. Continued development of skills begun in MUS 114 to prepare piano majors and other music majors with advanced keyboard background to meet Level IV Piano Proficiency Examination Requirements.

MUS 122 Voice I. (1-2) I, II. Corequisite: MUS 225 or 226; course open to music majors or minors only. One or two lessons per week. May be retaken to a maximum of four hours.

MUS 132a Violin I. (1-2) I, II. Corequisite: MUS 235 or 236; course open to music majors or minors only. One or two lessons per week. Instruction available in violin. May be retaken to a maximum of four hours.

MUS 132b Viola I. (1-2) I, II. Corequisite: MUS 235 or 236; course open to music majors or minors only. One or two lessons per week. Instruction available in viola. May be retaken to a maximum of four hours.

MUS 132c 'Cello I. (1-2) I, II. Corequisite: MUS 235 or 236; course open to music majors or minors only. One or two lessons per week. Instruction available in violin 'cello. May be retaken to a maximum of four hours.

MUS 132d String Bass I. (1-2) I, II. Corequisite: MUS 235 or 236 or 255A; course open to music majors or minors only. One or two lessons per week. Instruction available in string bass. May be retaken to a maximum of four hours.

MUS 132f Guitar I. (1-2) I, II. Corequisite: MUS 257; course open to music majors or minors only. One or two lessons per week. Instruction available in guitar. May be retaken to a maximum of four hours.

MUS 142 Organ I. (1-2) I, II. One or two lessons per week. May be retaken to a maximum of four hours.

MUS 145a Cornet and Trumpet I. (1-2) I, II. Corequisite: MUS 250 and 255A or 255B or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in cornet and trumpet. May be retaken to a maximum of four hours.

MUS 145b French Horn I. (1-2) I, II. Corequisite: MUS 250 and 255A or 255B or 256 ; course open to music majors or minors only. One or two lessons per week. Instruction available in French horn. May be retaken to a maximum of four hours.

MUS 145c Euphonium I. (1-2) I, II. Corequisite: MUS 250 and 255A or 255B or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in euphonium. May be retaken to a maximum of four hours.

MUS 145d Trombone I. (1-2) I, II. Corequisite: MUS 250 and 255A or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in trombone. May be retaken to a maximum of four hours.

MUS 145e Tuba I. (1-2) I, II. Corequisite: MUS 250 and 255A or 255B or 235 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in tuba. May be retaken to a maximum of four hours.

MUS 146a Flute I. (1-2) I, II. Corequisite: MUS 250 and 255A or 255B or 235 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in flute. May be retaken to a maximum of four hours.

MUS 146b Oboe I. (1-2) I, II. Corequisite: MUS 250 and 255A or 255B or 235 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in oboe. May be retaken to a maximum of four hours.

MUS 146c Clarinet I. (1-2) I, II. Corequisite: MUS 250 and 255A or 255B or 235 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in clarinet. May be retaken to a maximum of four hours.

MUS 146d Bassoon I. (1-2) I, II. Corequisite: MUS 250 and 255A or 255B or 235 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in bassoon. May be retaken to a maximum of four hours.

MUS 146e Saxophone I. (1-2) I, II. Corequisite: MUS 250 and 255A or 255B or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in saxophone. May be retaken to a maximum of four hours.

MUS 147 Percussion I. (1-2) I, II. Corequisite: MUS 253 and 255A or 255B or 235 or 256; course open to music majors or minors only. One or two lessons per week. May be retaken to a maximum of four hours.

MUS 210 Intermediate Class Piano I. (1) I, II. Prerequisite: MUS 111 or departmental approval. Second year course for non-piano majors to meet Level II Piano Proficiency Examination requirements. Continuation of skill development listed under MUS 110; more complex materials, intermediate repertoire, and technique. May be retaken to a maximum of two hours.

MUS 211 Intermediate Class Piano II. (1) I, II. Prerequisite: MUS 210 or departmental approval. Continuation of MUS 210. May be retaken to a maximum of two hours.

MUS 212 Piano II. (1-2) I, II. Prerequisite: MUS 112. Corequisite: MUS 225 or 226 or 313; course open to music majors or minors only. One or two lessons per week. May be retaken to a maximum of four hours.

MUS 222 Voice II. (1-2) I, II. Prerequisite: MUS 122. Corequisite: MUS 225 or 226; course open to music majors or minors only. One or two lessons per week. May be retaken to a maximum of four hours.

MUS 230 String Instruments I. (1) I, II. Fingering, care of instruments and tone production. Group instruction to prepare for teaching strings in class and for training string section of school orchestra; survey of teaching materials.

MUS 232a Violin II. (1-2) I, II. Prerequisite: MUS 132a. Corequisite: MUS 235 or 236; course open to music majors or minors only. One or two lessons per week. Instruction available in violin. May be retaken to a maximum of four hours.

MUS 232b Viola II. (1-2) I, II. Prerequisite: MUS 132b. Corequisite: MUS 235 or 236; course open to music majors or minors only. One or two lessons per week. Instruction available in viola. May be retaken to a maximum of four hours.

MUS 232c 'Cello II. (1-2) I, II. Prerequisite: MUS 132c. Corequisite: MUS 235 or 236; course open to music majors or minors only. One or two lessons per week. Instruction available in violin 'cello. May be retaken to a maximum of four hours.

MUS 232d String Bass II. (1-2) I, II. Prerequisite: MUS 132d. Corequisite: MUS 235 or 236 or 255A; course open to music majors or minors only. One or two lessons per week. Instruction available in string bass. May be retaken to a maximum of four hours.

MUS 232f Guitar II. (1-2) I, II. Prerequisite: MUS 132f. Corequisite: MUS 257; course open to music majors or minors only. One or two lessons per week. Instruction available in guitar. May be retaken to a maximum of four hours.

MUS 242 Organ II. (1-2) I, II. One or two lessons per week. May be retaken to a maximum of four hours.

MUS 245a Cornet and Trumpet II. (1-2) I, II. Prerequisite: MUS 145a. Corequisite: MUS 250 and 235 or 255a or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in cornet and trumpet. May be retaken to a maximum of four hours.

MUS 245b French Horn II. (1-2) I, II. Prerequisite: MUS 145b. Corequisite: MUS 250 and 235 or 255a or 255b or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in French horn. May be retaken to a maximum of four hours.

MUS 245c Euphonium II. (1-2) I, II. Prerequisite: MUS 145c. Corequisite: MUS 250 and 255a or 255b or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in euphonium. May be retaken to a maximum of four hours.

MUS 245d Trombone II. (1-2) I, II. Prerequisite: MUS 145d. Corequisite: MUS 250 and 235 or 255a or 255b or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in trombone. May be retaken to a maximum of four hours.

MUS 245e Tuba II. (1-2) I, II. Prerequisite: MUS 145e. Corequisite: MUS 250 and 255a or 255b or 235 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in tuba. May be retaken to a maximum of four hours.

MUS 246a Flute II. (1-2) I, II. Prerequisite: MUS 146a. Corequisite: MUS 250 and 255a or 255b or 235 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in flute. May be retaken to a maximum of four hours.

MUS 246b Oboe II. (1-2) I, II. Prerequisite: MUS 146b. Corequisite: MUS 250 and 255a or 255b or 235 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in oboe. May be retaken to a maximum of four hours.

MUS 246c Clarinet II. (1-2) I, II. Prerequisite: MUS 146c. Corequisite: MUS 250 and 255a or 255b or 235 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in clarinet. May be retaken to a maximum of four hours.

MUS 246d Bassoon II. (1-2) I, II. Prerequisite: MUS 146d. Corequisite: MUS 250 and 255a or 255b or 235 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in bassoon. May be retaken to a maximum of four hours.

MUS 246e Saxophone II. (1-2) I, II. Prerequisite: MUS 146e. Corequisite: MUS 250 and 255a or 255b or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in saxophone. May be retaken to a maximum of four hours.

MUS 247 Percussion II. (1-2) I, II. Prerequisite: MUS 147. Corequisite: MUS 253 and 255a or 255b or 235 or 256; course open to music majors or minors only. One or two lessons per week. May be retaken to a maximum of four hours.

MUS 251 Brass Instruments Class I. (1) I, II. Fingering, care of instruments, tone production, and tuning. Group instruction to prepare for teaching brass instruments in band or orchestra. Examination of materials suitable for beginning instrumental programs.

MUS 252 Brass Instruments Class II. (1) I, II. Prerequisite: MUS 251. Continuation of MUS 251.

MUS 301 A, B, C Performance Class. (0) A. Prerequisite: completion of MUS 101 A,B,C. Required of all music majors for three semesters. Passing grade achieved when students have attended a minimum total of 16 concert events per semester.

MUS 312 Piano III. (1-4) I, II. Prerequisite: MUS 212 and completion of the sophomore comprehensive in music. Corequisite: MUS 425 or 426; course open to music majors only, One or two lessons per week. May be retaken to a maximum of eight hours.

MUS 313 Accompanying. (1/2) I, II. Prerequisite: keyboard coordinator approval. Upper-division keyboard students may substitute MUS 313 for ensembles requirements. Additional accompanying hours assigned. May be retaken to a maximum of two hours.

MUS 320 Class Voice. (1) I, II. Basic vocal techniques with emphasis on developing the voice for solo and/or choral performance.

MUS 322 Voice III. (1-4) I, II. Prerequisite: MUS 222 and completion of the sophomore comprehensive in music. Corequisite: MUS 425 or 426; course open to music majors only. One or two lessons per week. May be retaken to a maximum of eight hours.

MUS 330 String Instruments Class II. (1) I,

II. Prerequisite: MUS 230. Continuation of MUS 230.

MUS 332a Violin III. (1-4) I, II. Prerequisite: MUS 232a and completion of the sophomore comprehensive in music. Corequisite: MUS 435 or 436; course open to music majors only. One or two lessons per week. Instruction in violin. May be retaken to a maximum of eight hours.

MUS 332b Viola III. (1-4) I, II. Prerequisite: MUS 232b and completion of the sophomore comprehensive in music. Corequisite: MUS 435 or 436; course open to music majors only. One or two lessons per week. Instruction in viola. May be retaken to a maximum of eight hours.

MUS 332c 'Cello III. (1-4) I, II. Prerequisite: MUS 232c and completion of the sophomore comprehensive in music. Corequisite: MUS 435 or 436; course open to music majors only. One or two lessons per week. Instruction in 'cello. May be retaken to a maximum of eight hours.

MUS 332d String Bass III. (1-4) I, II. Prerequisite: MUS 232d and completion of the sophomore comprehensive in music. Corequisite: MUS 435 or 436 or 455a; course open to music majors only. One or two lessons per week. Instruction in string bass. May be retaken to a maximum of eight hours.

MUS 332f Guitar III. (1-4) I, II. Prerequisite: MUS 232f and completion of the sophomore comprehensive in music. Corequisite: MUS 457; course open to music majors only. One or two lessons per week. Instruction in guitar. May be retaken to a maximum of eight hours.

MUS 342 Organ III. (1-4) I, II. One or two lessons per week. May be retaken to a maximum of eight hours.

MUS 345a Cornet and Trumpet III. (1-4) I, II. Prerequisite: MUS 245a and completion of the sophomore comprehensive in music. Corequisite: MUS 250 and 256 or 455a or 455b or 435; course open to music majors only. One or two lessons per week. Instruction available in cornet and trumpet. May be retaken to a maximum of eight hours.

MUS 345b French Horn III. (1-4) I, II. Prerequisite: MUS 245b and completion of the sophomore comprehensive in music. Corequisite: MUS 250 and 256 or 455a or 455b or 435; course open to music majors only. One or two lessons per week. Instruction available in French horn. May be retaken to a maximum of eight hours.

MUS 345c Euphonium III. (1-4) I, II. Prerequisite: MUS 245c and completion of the sophomore comprehensive in music. Corequisite: MUS 250 and 455a or 455b or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in euphonium. May be retaken to a maximum of eight hours.

MUS 345d Trombone III. (1-4) I, II. Prerequisite: MUS 245d and completion of the sophomore comprehensive in music. Corequisite: MUS 250 and 256 or 455a or 455b or 435; course open to music majors only. One or two lessons per week. Instruction available in trombone. May be retaken to a maximum of eight hours.

MUS 345e Tuba III. (1-4) I, II. Prerequisite: MUS 245e and completion of the sophomore comprehensive in music. Corequisite: MUS 250 and 455a or 455b or 435 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in tuba. May be retaken to a maximum of eight hours.

MUS 346a Flute III. (1-4) I, II. Prerequisite: MUS 246a and completion of the sophomore comprehensive in music. Corequisite: MUS 250 and 455a or 455b or 435 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in flute. May be retaken to a maximum of eight hours.

MUS 346b Oboe III. (1-4) I, II. Prerequisite: MUS 246b and completion of the sophomore comprehensive in music. Corequisite: MUS 250 and 455a or 455b or 435 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in oboe. May be retaken to a maximum of eight hours.

MUS 346c Clarinet III. (1-4) I, II. Prerequisite: MUS 246c and completion of the sophomore comprehensive in music. Corequisite: MUS 250 and 455a or 455b or 435 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in clarinet. May be retaken to a maximum of eight hours.

MUS 346d Bassoon III. (1-4) I, II. Prerequisite: MUS 246d and completion of the sophomore comprehensive in music. Corequisite: MUS 250 and 455a or 455b or 435 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in bassoon. May be retaken to a maximum of eight hours.

MUS 346e Saxophone III. (1-4) I, II. Prerequisite: MUS 246e and completion of the sophomore comprehensive in music. Corequisite: MUS 250 and 455a or 455b or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in saxophone. May be retaken to a maximum of eight hours.

MUS 347 Percussion III. (1-4) I, II. Prerequisite: MUS 247 and completion of the sophomore comprehensive in music. Corequisite: MUS 253 and 455a or 455b or 435 or 256; course open to music majors or minors only. One or two lessons per week. May be retaken to a maximum of eight hours.

MUS 351 Woodwind Instruments Class I. (1) I, II. Fingering, care of instruments, tone production, and tuning. Group instruction to prepare for teaching woodwind instruments in band or orchestra. Examination of materials suitable for beginning instrumental programs.

MUS 352 Woodwind Instruments Class II. (1) I, II. Prerequisite: MUS 351. Continuation of MUS 351.

MUS 354 Percussion Class I. (1) I, II. Snare drumming, rudiments, teaching techniques. Experiences on all related percussion instruments: bass drum, tympani, and others. Some experiences with mallet instruments; marimba, xylophone, bells, and others.

MUS 364 Instrumental Music Lab. (1) II. Prerequisite: MUS 366. Practical experience in performing and conducting instrumental music literature appropriate for use in school situation. May be retaken to a maximum of one hour.

MUS 365 Choral Music Lab. (1) I. Prerequisite: MUS 366. Practical experience in performing and conducting choral music literature appropriate for use in school situation. May be retaken to a maximum of one hour.

MUS 370 Marching Band Techniques. (2) I, II. Marching fundamentals, charting, and scoring for the contemporary marching band.

MUS 382 Choral Arranging. (2) I, II. Scoring literature of all types of choral ensembles for school use.

MUS 399 Joint Recital. (1) I, II. Prerequisite: junior standing in music. Performances on four departmental recitals or a half recital shared with another student.

MUS 412 Piano IV. (1-4) I, II. Prerequisite: MUS 312. Corequisite: MUS 425 or 426 or 513; course open to music majors only. One or two lessons per week. May be retaken.

MUS 422 Voice IV. (1-4) I, II. Prerequisite: MUS 322. One or two lessons per week. May be retaken. Music majors only, corequisite: MUS 425 or 426.

MUS 432a Violin IV. (1-4) I, II. Prerequisite: MUS 332a. Corequisite: MUS 435 or 436; course open to music majors only. One or two lessons per week. Instruction available in violin. May be retaken to a maximum of eight hours.

MUS 432b Viola IV. (1-4) I, II. Prerequisite: MUS 332b. Corequisite: MUS 435 or 436; course open to music majors only. One or two lessons per week. Instruction available in viola. May be retaken to a maximum of eight hours.

MUS 432c 'Cello IV. (1-4) I, II. Prerequisite: MUS 332c. Corequisite: MUS 435 or 436; course open to music majors only. One or two lessons per week. Instruction available in violin 'cello. May be retaken to a maximum of eight hours.

MUS 432d String Bass IV. (1-4) I, II. Prerequisite: MUS 332d. Corequisite: MUS 435 or 436 or 455a; course open to music majors only. One or two lessons per week. Instruction available in string bass. May be retaken to a maximum of eight hours.

MUS 432f Guitar IV. (1-4) I, II. Prerequisite: MUS 332f. Corequisite: MUS 457; course open to music majors only. One or two lessons per week. Instruction available in guitar. May be retaken to a maximum of eight hours.

MUS 442 Organ IV. (1-4) I, II. One or two lessons per week. May be retaken.

MUS 445a Cornet and Trumpet IV. (1-4) I, II. Prerequisite: MUS 345a. Corequisite: MUS 250 and 256 or 455a or 455b or 435; course open to music majors only. One or two lessons per week. Instruction available in cornet and trumpet. May be retaken to a maximum of eight hours.

MUS 445b French Horn IV. (1-4) I, II. Prerequisite: MUS 345b. Corequisite: MUS 250 and 256 or 455a or 455b or 435; course open to music majors only. One or two lessons per week. Instruction available in French horn. May be retaken to a maximum of eight hours.

MUS 445c Euphonium IV. (1-4) I, II. Prerequisite: MUS 345c. Corequisite: MUS 250 and 455a or 455b or 256; course open to music majors only. One or two lessons per week. Instruction available in baritone horn. May be retaken to a maximum of eight hours.

MUS 445d Trombone IV. (1-4) I, II. Prerequisite: MUS 345d. Corequisite: MUS 250 and 256 or 455a or 455b or 435; course open to music majors only. One or two lessons per week. Instruction available in trombone. May be retaken to a maximum of eight hours.

MUS 445e Tuba IV. (1-4) I, II. Prerequisite: MUS 345e. Corequisite: MUS 250 and 455a or 455b or 435 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in tuba. May be retaken to a maximum of eight hours.

MUS 446a Flute IV. (1-4) I, II. Prerequisite: MUS 346a. Corequisite: MUS 250 and 455a or 455b or 435 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in flute. May be retaken to a maximum of eight hours.

MUS 446b Oboe IV. (1-4) I, II. Prerequisite: MUS 346b. Corequisite: MUS 250 and 455a or 455b or 435 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in oboe. May be retaken to a maximum of eight hours.

MUS 446c Clarinet IV. (1-4) I, II. Prerequisite: MUS 346c. Corequisite: MUS 250 and 455a or 455b or 435 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in clarinet. May be retaken to a maximum of eight hours.

MUS 446d Bassoon IV. (1-4) I, II. Prerequisite: MUS 346d. Corequisite: MUS 250 and 455a or 455b or 435 or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in bassoon. May be retaken to a maximum of eight hours.

MUS 446e Saxophone IV. (1-4) I, II. Prerequisite: MUS 346e. Corequisite: MUS 250 and 455a or 455b or 256; course open to music majors or minors only. One or two lessons per week. Instruction available in saxophone. May be retaken to a maximum of eight hours.

MUS 447 Percussion IV. (1-4) I, II. Prerequisite: MUS 347. Corequisite: MUS 253 and

455a or 455b or 435 or 256; course open to music majors or minors only. One or two lessons per week. May be retaken.

MUS 499 Senior Project/Recital. (1-2) I, II. Prerequisite: MUS 399. A full performance recital or a theory and composition project consisting of a theory project and recital of student's own compositions.

MUS 512 Piano V. (1-4) I, II. May not be taken for credit by piano majors.

MUS 513 Techniques of Accompanying. (1) I, II. Practical training in the tradition, interpretation, and execution of accompaniments. May be retaken to a maximum of two hours.

MUS 522 Voice V. (1-4) I, II. May not be taken for credit by voice majors.

MUS 542 Organ V. (1-4) I, II. May not be taken for credit by organ majors.

MUS—Music MUSIC ENSEMBLES
Rob James, Chair

Ensembles are open to all students enrolled in the University and to qualified persons not enrolled. Interested individuals are invited to participate and should confer with the director of each ensemble to arrange for an audition.

MUS 127, 327 Opera Workshop. (1) I, II. Prerequisite: instructor approval. Preparation and presentation of opera scenes and complete works. All phases of performance and technical procedures of staging, costumes, and management. Course may be retaken.

MUS 205 Chamber Music. (1/2) I, II. Study and performance of standard chamber music literature. Open to pianists, vocalists, string, wind, and percussion players upon recommendation of instructor. Course may be retaken.

MUS 224 Chamber Singers. (1) I, II. Highly select small ensemble dedicated to the highest standards of preparation and performance of choral literature from all style periods. Membership is by audition only. May be retaken to a maximum of four hours.

MUS 225 Concert Choir. (0-1) I, II. Large mixed chorus open to all singers. This choir places an emphasis on developing sight reading and performance skills while providing a challenging and satisfying musical experience. Course may be retaken.

MUS 226 University Singers. (0-1) I, II. The University's premier large choral ensemble. This choir presents several major concerts throughout the year and tours annually. Membership is by audition only. May be retaken to a maximum of four hours.

MUS 235 Orchestra. (0-1) I, II. Rehearsal and performance of orchestra literature from all style periods. Concerts given both on and off campus. Three or more hours rehearsal per week. by audition only. May be retaken to a maximum of four hours.

MUS 236 String Orchestra. (0-1) I, II. Rehearsal and performance of string orchestra literature from all style periods. Concerts given both on and off campus. Two or more hours of rehearsal per week. Course open by audition only. May be retaken to a maximum of four hours.

MUS 250 Small Ensembles. (0-1/2) I, II. Rehearsal and performance for: string, brass, percussion, vocal, and woodwind ensembles. Course may be retaken.

MUS 253 Percussion Ensemble. (0-1) I, II. Rehearsal and performance of standard Percussion Ensemble literature including steel drums, African studies, and marimba ensemble literature. Course open by audition only. May be retaken to a maximum of four hours.

MUS 254 Jazz Ensemble. (0-1) I, II. Rehearsal and performance of standard Jazz Ensemble literature including jazz improvisation, jazz styles, and form. Course open by audition only. May be retaken to a maximum of four hours.

MUS 255A Symphonic Band. (0-1) I, II. Course open by audition only. Rehearsal and performance of standard band literature. May be retaken to a maximum of four hours.

MUS 255B Concert Band. (0-1) II. Course open to all students with prior experience in wind and percussion instruments. Rehearsal and performance of standard band literature. May be retaken to a maximum of four hours. Departmental approval required for 0 credit section.

MUS 256 Marching Band. (0-1) I. Preparation and performances of marching band shows during the football season. Three or more rehearsals per week. May be retaken to a maximum of four hours.

MUS 257 Guitar Ensemble. (1) I, II. Course open to guitar majors only. Must have experience reading music and performance skills on the instrument. May be retaken for a total of four hours.

MUS 310 Topics in Music:_____ (1-3). Selected topics in music, music technology, or applied musical skills. May be retaken to a maximum of 6 hours if topic is different.

MUS 424 Chamber Singers. (1) I, II. Prerequisite: MUS 224. Highly select small ensemble dedicated to the highest standards of preparation and performance of choral literature from all style periods. Membership is by audition only. May be retaken.

MUS 425 Concert Choir. (0-1) I, II. Prerequisite: MUS 225. Large mixed chorus open to all singers. This choir places an emphasis on developing sight reading and performance skills while providing a challenging and satisfying musical experience. Course may be retaken.

MUS 426 University Singers. (0-1) I, II. Prerequisite: MUS 226. The University's premier large choral ensemble. This choir presents several major concerts throughout the year and tours annually. Membership is by audition only. May be retaken.

MUS 435 Orchestra. (0-1) I, II. Prerequisite: MUS 235. Rehearsal and performance of orchestra literature from all style periods. Concerts given both on and off campus. Course open by audition only. May be retaken.

MUS 436 String Orchestra. (0-1) I, II. Rehearsal and performance of string orchestra literature from all style periods. Concerts given both on and off campus. Two or more hours of rehearsal per week. Course open by audition only. May be retaken.

MUS 453 Percussion Ensemble. (0-1) I, II. Rehearsal and performance of standard Percussion Ensemble literature including steel drums, African studies, and marimba ensemble literature. By audition only. May be retaken.

MUS 454 Jazz Ensemble. (0-1) I, II. Rehearsal and performance of standard Jazz Ensemble literature including jazz improvisation, jazz styles, and forms. By audition only. May be retaken.

MUS 455A Symphonic Band. (0-1) I, II. Prerequisite: MUS 255A. By audition only. Rehearsal and performance of standard band literature. May be retaken. Departmental approval required for 0 credit section.

MUS 455B Concert Band. (0-1) II. Prerequisite: MUS 255B. Course open to all students with prior experience in wind and percussion instruments. Rehearsal and performance of standard band literature. May be retaken. Departmental approval required for 0 credit section.

MUS 457 Guitar Ensemble. (1) I, II. Prerequisite: MUS 257. Course open to guitar majors only. Must have experience reading music and performance skills on the instrument. May be retaken.

MUS—Other Music Courses
Rob James, Chair

MUS 102 Introduction to the Fundamentals of Music. (3) I, II. Required by students whose musical experience and preparation, as indicated by the Theory Placement Interview, are deemed insufficient to complete MUS 181. Credit does not count toward a music major or minor.

MUS 161 Musicianship I (1) I, II. Corequisite MUS 181. Skills and strategies for the perception, identification and performance of the basic materials of music.

MUS 162 Musicianship II (1) I, II. Prerequisite: MUS 161, corequisite MUS 182. Continuing study of skills and strategies for the perception, identification and performance of the basic materials of music.

MUS 181 Beginning Theory I. (3) I, II. Corequisite: MUS 161. Perception and understanding of music through an integrated study of relatively simple, short structures from the late Baroque to the early Romantic periods.

MUS 182 Beginning Theory II. (3) I, II. Prerequisite: MUS 181. Corequisite: MUS 162. Continuation of MUS 181.

MUS 190 Introduction to Music Industry I. (2) II. An overview to the music industry. Includes topics in music business careers, promotion and trade associations, basics of music merchandising such as music product, sales, instruments and equipment.

MUS 191 Introduction to Music Industry II. (2) I. Prerequisite: MUS 190 or departmental approval. Continuation of MUS 190. An overview of the music industry including record production and companies, recording studios and engineers, commercial radio and records, and radio business.

MUS 220 Diction for Singers. (1) I, II. For voice, education, and choral conducting students. Enunciation and projection; accurate pronunciation in English, Italian and Ecclesiastical Latin. Phonetics and the International Phonetic Alphabet.

MUS 261 Musicianship III (1) I, II. Prerequisite: MUS 162(C), corequisite MUS 281. Skills and strategies for the perception, identification and performance of the basic materials of music. Further study of more difficult, harmonic, melodic and rhythmic materials from the Baroque and Classic periods.

MUS 262 Musicianship IV (1) I, II. Prerequisite: MUS 261. Co-requisite MUS 282. Skills and strategies for the perception, identification and performance of the materials of music. Further study of more difficult, harmonic, melodic and rhythmic materials from the Romantic and Modern periods.

MUS 281 Intermediate Theory III. (3) I. Prerequisite: minimum grade of "C" in MUS 182. Corequisite: MUS 261. Continuation of MUS 182. Integrated skills further developed through the study of more difficult, longer structures from the Baroque and Classic periods.

MUS 282 Intermediate Theory IV. (3) II. Prerequisite: MUS 281. Corequisite: MUS 262. Continuation of MUS 281. Integrated skills further developed through the study of more difficult structures from the Romantic and Modern periods.

MUS 283 Beginning Composition. (1) A. Prerequisite: instructor approval. Guidance in the exploration and development of compositional techniques relevant to the student's stylistic direction. Correct notation and major stylistic analysis stressed. May be retaken to a maximum of four hours provided the subject matter is different each time.

MUS 285 Jazz Improvisation. (3) I, II. Prerequisite: MUS 182 or instructor approval. Develop skills for improvising in contemporary jazz idioms.

MUS 290 Film Scoring. (2) II. Prerequisite: MUS 190, 191 or departmental approval. This course gives students important and practical knowledge, tools, and approaches to writing music in the profession. Will also cover topics in Midi, sequencing, Finale, Sibelius, and hard disk recording applications.

MUS 349 Applied Learning in Music. (.5-8) A. Prerequisite: departmental approval. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours employment required for each semester hour credit.

MUS 349 A-N Cooperative Study: Music. (.5-8) A. Prerequisite: departmental approval. Work in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours employment required for each semester hour credit.

MUS 360 Music Fundamentals for the Elementary Teacher. (2) I, II. Open only to elementary education majors who have been admitted to the Teacher Education Program. Provides the grade teacher with sufficient knowledge and skills to teach music in the classroom. Notation, rhythmic participation, rhythm and melody instruments, creative activities, and listening experiences.

MUS 366 Fundamentals of Conducting. (1) I. Prerequisite: junior standing in music or instructor approval. Basic techniques of conducting.

MUS 367 Instrumental Conducting. (2) II. Prerequisite: MUS 366. Instrumental conducting techniques and their application in rehearsal and performance.

MUS 368 Choral Conducting. (2) II. Prerequisite: MUS 366. Choral conducting techniques and their application in rehearsal and performance.

MUS 383 Orchestration. (3) I, II. Prerequisite: Music majors only, MUS 182 and junior standing. Survey of ranges, timbres, and characteristics of orchestra and band instruments. Scoring for wind ensemble and full orchestra.

MUS 384 Computer Skills for Musicians. (2) I, II. Prerequisite: MUS 182 and junior standing in Music. This course will provide a systematic investigation of technologies and software relevant to the field of music.

MUS 390 Survey of the Music Industry I. (3) I. Prerequisite: MUS 191. Examination of the music industry including marketing and promotion, advertising, record production and companies, commercial radio and records, and radio business. A project reflecting course study is required.

MUS 391 Survey of the Music Industry II. (3) II. Prerequisite: MUS 390 or instructor approval. Continuation of MUS 390. Examination of the music industry including royalties, artist management, performing rights, trade journals, and industry relations and problems. A project reflecting course study is required.

MUS 480 Form and Analysis. (3) I, II. Prerequisites: MUS 281 and junior standing in music. In-depth study of the materials of form from the motive through large structures.

MUS 481 Tonal Counterpoint. (3) A. Prerequisite: MUS 281 or equivalent. A study of contrapuntal music from the 18th century, including analysis of representative literature and stylistic composition assignments.

MUS 482 20th Century Music Analysis. (2) A. Prerequisite: Junior standing. Corequisites and/or prerequisites: MUS 282 and MUH 372. A study of the compositional devices relevant to twentieth-century music, and a study of specific representative literature of significant twentieth-century composers.

MUS 483 Composition. (2) A. Prerequisite: MUS 282 and 283; or departmental approval. Individual guidance in the exploration and development of compositional techniques relevant to the student's stylistic direction. May be retaken to a maximum of eight hours, provided the subject matter is different.

MUS 510 Special Topics in Music:_____ (1-3) A. Prerequisite: MUS 480 or equivalent or departmental approval. Advanced topics in music. May be retaken to a maximum of six hours, provided the topics are different. Credit will not be awarded for both MUS 510 and 510S.

MUS 510S Special Topics in Music: _____. (1-3) A. Prerequisite: MUS 480 or departmental approval. Advanced topics in music that incorporates a service learning component. May be retaken to a maximum of six hours, provided the topics are different. Credit will not be awarded for both MUS 510 and 510S.

MUS 520 Advanced Diction for Singers. (1) I, II. Prerequisite: MUS 220. For voice and choral conducting students. Enunciation and projection; accurate pronunciation in German and French. Phonetics and the International Phonetic Alphabet.

MUS 550 Teaching Techniques. (1-2) A. Analysis of current teaching methods and materials with the intention of developing sound teaching procedures. May include observation and performance. Topics in woodwinds, brass, percussion, strings, voice, piano, and organ. May be retaken to a maximum of two hours.

MUS 551 Performance Literature. (1-2) A. Literature for various performing media relative to performance practices and problems. Topics in woodwinds, brass, percussion, strings, voice, piano, and organ. May be retaken to a maximum of two hours.

MUS 554 Band Literature. (2) A. Designed to acquaint the student with European origins of the modern band; history of band music; and literature for the contemporary band.

MUS 555 Symphonic Music Literature. (3) II. Prerequisites: MUH 371 and 372. Evolution of the symphony from its beginning to the 20th century with emphasis on score reading and listening.

MUS 556 Choral Music Literature. (3) I. Prerequisites: MUH 371 and 372. Survey of choral music literature from the 15th century to the present.

MUS 564 Advanced Instrumental Conducting. (2) A. Prerequisite: MUS 367 or equivalent. Development of skills in score reading, preparation, interpretation, and conducting of representative orchestra or band works.

MUS 565 Advanced Choral Conducting. (2-3) A. Prerequisite: MUS 368 or equivalent. Development of skills in score reading, preparation, interpretation, and conducting of representative choral works.

MUS 586 Workshop in Instrumental Music. (1-4) A. Topics in band or orchestra procedures. May be retaken to a maximum of four hours.

MUS 588 Pedagogy of Theory. (2) A. Comparative study of theory systems with emphasis on presentation and illustrative exercises dealing with related theoretical problems.

MUS 589 Workshop in Choral Music. (1-4) A. Techniques, literature, and materials pertinent to a particular area or areas of preparation and performance of choral music. Topics to be announced. May be retaken to a maximum of four hours.

NAT—Natural Science
TBA, Chair

NAT 300 Science as a Human Endeavor. (3) I, II. Using examples from biological and physical science this course investigates the scientific community, its structure, methods, and philosophy. Emphasis is on scientific revolutions that have affected perceptions of space, time, and cause.

NAT 310 Topics in the Natural Sciences. (1-3) A. Selected interdisciplinary topics and topics of current interest in the natural sciences. May be retaken to a maximum of three hours provided topic is different each time.

NAT 380 Science and Society. (3) I, II. By investigating incidences in which scientific knowledge interacts with society, this course attempts to understand the involvement of science with religion, government, technology, human population, energy, the environment, and the future. Credit will not be awarded for both NAT 380 and 380W. Gen. Ed. VII (NS).

NAT 380W Science and Society (3) I, II. Prerequisite: ENG 102, or ENG 105 (B), or HON 102. A writing-intensive exploration of instances in which scientific knowledge interacts with society, this course attempts to understand the involvement of science with religion, government, technology, human population, energy, the environment, and the future. Credit will not be awarded for both NAT 380 and 380W. Gen. Ed. VII (NS), VIII.

NET—Network Security and Electronics
Dr. Vigyan Chandra, Coordinator

NET 302 PC Troubleshooting & Construction. (3) I, II. Prerequisite: TEC 161 or CSC 104 or higher or CIS 212. Construction, operation and troubleshooting microprocessors, system memory, computer architecture, video types, monitors, hard drives, mice, cabling, notebook computers and printers, modern operating systems, and application programs. Building computer systems to specific requirements. 2 Lec/2 Lab.

NET 303 LANs & PC Communications. (3) I, II. Prerequisite: TEC 161 or CSC 104 or higher or CIS 212 and a grade of at least "C" in MAT 095 or a minimum math ACT score of 18 or a minimum SAT math score of 490. Installing, configuring, managing, and troubleshooting network and computer systems communications hardware and software. 2 Lec/2 Lab.

NET 343 Network Switches & Routers. (3) A. Prerequisite: NET 303 or CIS 375. Cisco internetworking, switching, IOS, routing, VLAN's, access lists, and WAN protocols are covered in a combination of lecture, demonstration, and laboratory. 2 Lec/2 Lab.

NET 354 Microcomputer & Network Security. (3) I, II. Prerequisite: NET 303 or CIS 375. Security considerations in computer systems and networks using appropriate hardware and software. Topics include malware, encryption, VPNs, ACLs, firewalls, Wi-Fi, and secure protocols. Testing, configuring, managing and troubleshooting security in network systems. 2 Lec/2 Lab.

NET 395 Special Topics in NET. (2-3) A. Prerequisite: departmental approval, sophomore (30-59 hours) or higher standing, and (EET 252 or NET 303) Emerging technologies in the area of Network security and electronics (NET): May be repeated up to a maximum of 9 hours provided subject matter differs each time. Lec/Lab.

NET 399 Associate Degre Capstone. (3) II. Prerequisite: departmental approval and sophomore (30-59 hours) standing with a minimum of 24 semester hours of NET coursework completed. A project and research oriented course which serves as a capstone experience at the Associate Degree level. Design, implementation, analysis, and troubleshooting of electronic and computer technology related systems, and managing a technical project.

NET 403 Advanced LANs and PC Communication. (3) A. Prerequisite: NET 303 or CIS 375. This course will cover installation, configuration, troubleshooting and maintaining common server platforms. The participants will be given the opportunity to setup and manage network hardware, operating systems and applications. 2 Lec/2 Lab.

NET 440 Fiber-optics & Communications. (3) A. Prerequisite: (MAT 108 or higher), (PHY 101), and EET 257. Principles of communication over fiber and other wired/wireless media; digital and analog data transmission; modulation and multiplexing of data. Communication system components, safety, testing and troubleshooting of fiber-optic and communication systems. 2 Lec/2 Lab.

NET 454 Wireless/WAN Security. (3) A. Prerequisites: (NET 303 or CIS 375) and NET 354 Security considerations in wireless and WANs. Wi-Fi, 802.11x, WPA, RADIUS, encryption, VPNs, VLANs, AAA authentication, Network Security Appliances, and secure protocols. Laboratory based configuration and security testing of WAPs, appliances and servers. 2 Lec/2 Lab

NET 499 Senior Capstone. (3) II. Prerequisite: departmental approval and senior (90 hours or more) standing. A project and research oriented course which serves as a capstone experience

at the Bachelor Degree level. Design, implementation, analysis, and troubleshooting of networking, computers and electronics technology related systems, and managing a technical project.

NFA—Nutrition, Foods, and Food Administration
Dr. Diane Leggett, Chair

NFA 121 Introduction to Food Composition and Preparation. (3) I, II. A beginning food science course which deals with food composition and the relationship of scientific processes and principles to food preparation. Lecture and laboratory experiences.

NFA 201 Essentials of Nutrition. (3) I, II. A scientific study of the essential nutrients and their application in meeting nutritional needs of all ages. Consideration is given to food selection, nutrition misinformation, obesity, and other common dietary problems. Gen. Ed. VI.

NFA 202 Introduction to Dietetics. (1) I. A professional orientation course describing the roles of the practitioner in administrative, clinical, and community dietetics, along with relationships to other health professionals.

NFA 301 Bio Nutrition. (3) A. Prerequisites: CHE 102 or 112/112L; and NFA 201. Structures and chemical properties of CHO, PRO, fat and nucleic acids, vitamins, coenzymes, minerals, and water related to metabolic processes.

NFA 317 Nutrition in the Life Cycle. (3) I, II. Study of dietary needs adapted to periods of the life cycle.

NFA 321 Meal Management. (3) A. Prerequisites: NFA 121 and 201. Food management, planning, preparation, and service of meals through management of time, energy, money, and efficient use of equipment. Consideration is given to nutritional needs, food habits, and social customs of family groups.

NFA 323 Experimental Foods. (3) A. Prerequisites: NFA 121 and CHE 102 or equivalent. Advanced food science course concerning the study of the reactions and interactions of food components in complex food systems during preparation, processing, and preservation. Lecture and laboratory experiences.

NFA 325 Quantity Food Production. (3) I. Prerequisite: NFA 121. Corequisite: NFA 326. Standards, principles, and techniques for managing throughout the functional subsystems of a food service setting; emphasis on quality, quantity, and cost controls.

NFA 326 Field Experiences in Quantity Food Production. (3) I. Prerequisite: NFA 321. Corequisite: NFA 325. Supervised field experience in the technical application of theory presented in NFA 325.

NFA 344 Institutional Purchasing. (3) II. Prerequisites: NFA 325 and 326 or departmental approval. Principles and methods of purchasing foods and equipment for various types of quantity food services; emphasis on specifications and factors affecting quality; food cost control. Field trips included.

NFA 349 Applied Learning in Nutrition, Foods, and Food Administration. (.5-8) A. Prerequisite: instructor approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours work required for each academic credit.

NFA 349 A-N Cooperative Study: Nutrition, Foods, and Food Administration. (.5-8) A. Prerequisite: instructor approval. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours work required for each academic credit.

NFA 401 Human Nutrition. (3) I. Prerequisites: NFA 301 and BIO 301. Study of the functions, requirements, and interrelations of macronutrients in normal nutrition; integration and regulation of energy metabolism and balance.

NFA 402 Medical Nutrition Therapy. (3) I. Prerequisite or Corequisite: NFA 401. Analysis and application of nutrition assessment, documentation, and modified feeding practices including enteral and parenteral nutrition with application for therapeutic management of gastrointestinal disorders.

NFA 403 Medical Nutrition Therapy II. (3) II. Prerequisite: NFA 402. Integration of nutrition therapy, pathophysiology, and biochemical alterations for assessment and management of trauma, diabetes, cancer; and cardiovascular, renal, hepatic, and pulmonary disorders.

NFA 404 Human Nutrition II. (3) II. Prerequisite: NFA 401. Study of the functions, requirements, and interrelations of essential and non-essential micronutrients in normal nutrition and wellness.

NFA 411 Community Nutrition. (3) A. Prerequisite: NFA 201. Survey of services, legislation, assessment, other relevant activities, and the role of nutritionists in various community settings. Development of educational resources for different populations. Field experience in community programs and settings to include individual and family nutrition counseling.

NFA 412 Research Applications in Nutrition. (3) I. Prerequisite: admission to General Dietetics Program; or departmental approval. Evaluation, interpretation, and application of professional and research literature in nutrition/dietetics. Emphasis on making ethical, evidence-based practice decisions.

NFA 415 Seminar in the Dietetics Profession. (1-3) A. Prerequisites: NFA 401 and departmental approval. Current concepts and trends in dietetics and review of recent research. Topics include, but are not limited to, professional ethics, marketing, quality assurance and preparing for a dietetic internship.

NFA 416 Special Problems in Nutrition. (1-3) A. Prerequisites: NFA 401 and departmental approval. The student chooses a problem and works under the supervision of an instructor. May be retaken to a maximum of six hours provided the topics vary. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

NFA 445 Food Service Organization and Management. (3) A. Prerequisites: NFA 325, 326. Administrative functions within a food service system. Emphasis in top management responsibilities: financial and time management, quality assurance, legislation, labor unions, merchandising, networking, and human resource management.

NFA 449 Onsite Foodservice Management. (3) II. Prerequisite: Junior standing. A study of the benefits and characteristics of successful onsite food and beverage enterprises.

NFA 500 Nutrition Concepts and Issues. (3) A. Fundamental principles of human nutrition and their application in meeting nutritional needs of all ages. Not open to dietetic or food service administration majors.

NFA 505 Maternal and Infant Nutrition. (3) A. Prerequisite: NFA 317 or equivalent. Nutritional requirements prior to and during pregnancy, lactation, and infancy. Survey the effects of dietary toxicants, deficiency and excesses of nutrients. Field experience.

NFA 507 Child and Adolescent Nutrition. (3) A. Prerequisite: NFA 201. Nutritional needs, problems, dietary habits, and motivations of the toddler through adolescent years. Field experience.

NFA 509 Nutrition and Aging. (3) A. Prerequisite: NFA 201. The theories of causes of aging; nutritional requirements, dietary intakes and effects of nutrition on the rate of biological aging. Field experience.

NFA 517 Sports Nutrition. (3). A. Prerequisite: NFA 201 or 500/700. Relationship of nutrition to optimal sports performance. Examines energy use during exercise metabolism, specific nutrient needs, nutritional strategies during training, conditions requiring special consideration, controversial and potentially dangerous nutritional practices of athletes.

NSC—Nursing (Baccalaureate)
Dr. Judy Short, Chair

NSC 232 Health Assessment and Promotion I. (3) I, II. Prerequisites: taken in semester immediately prior to expected enrollment in NSC 380 and students must meet minimum program GPA requirements of 2.5 or department approval. Development of assessment and health promotion skills to be used with clients throughout the life cycle.

NSC 242 Communication in Nursing. (3) I, II. Prerequisite: sophomore standing and minimum 2.5 cumulative GPA requirement or department approval. Therapeutic communication processes, theories, and techniques for building nurse client relationships throughout the life cycle. Development of beginning skills in nursing informatics and oral communication.

NSC 252 Intro to Professional Nursing. (3) I, II. Prerequisite: sophomore standing and minimum 2.5 cumulative GPA requirement or department approval. Nursing science foundation using selected concepts and constructs. Emphasis on past and current knowledge in the formulation of nursing as a basic and applied science. Application of epidemiology to nursing practice.

NSC 262 Professional Nursing Concepts. (4) I, II, A. Prerequisite: Admission to the BSN Program – Second Degree Option or department approval. Introduction to concepts and theories of professional nursing practice. Development of beginning skills for building nursing-patient relationships.

NSC 330 Clinical Drug Therapy. (3) I, II, A. Prerequisites: NSC 332, 350, and 380 with a grade of "C" or better. Corequisite: NSC 386. Foundation for applying drug knowledge in client care, with emphasis on increasing therapeutic effects and decreasing adverse effects. Includes study of selected drug classes, prototypes and individual drugs.

NSC 331 Clinical Pharmacology for the RN. (3) A. Prerequisite: RN status. Builds on a basic foundation of drug knowledge with an emphasis on both the therapeutic and adverse effects of drug therapy. Includes the study of selected individual drugs, drug classes, and current prototypes.

NSC 332 Health Assessment and Promotion II. (2) I, II, A. Prerequisites: NSC 232, 242, and 252 with a grade of "C" or better and admission to the baccalaureate nursing major. Corequisite: NSC 350 and 380. Development of physical assessment skills and evaluation of health patterns for clients throughout the life cycle.

NSC 340 Health Assessment for the RN. (2) A. Prerequisites: RN status and admission to the RN-BSN option. Enhancement of physical assessment skills for RNs with application to clients throughout the lifespan.

NSC 350 Pathophysiology. (3) I, II. A. Prerequisites: NSC 232, 242, and 252 with a grade of "C" or better and admission to the baccalaureate nursing major. Corequisite: NSC 332 and 380. Provides a framework for interpreting structural and functional changes associated with disease, facilitating critical thinking and decision making required of the professional nurse.

NSC 370 Health Disparities. (3) A. Prerequisite: junior standing or departmental approval. Explores the social, economic, political and historical context of health disparities experienced by groups with an emphasis on racial/ethnic, gender and socioeconomic aggregates. Explores contributing

factors and potential solutions to domestic and global health disparities.

NSC 378 Short Topics in Clinical Nursing. (1-3) A. Prerequisites: NSC 392 and 396. Provides enrichment learning for upper division nursing students and practicing registered nurses. Each segment of the course describes the current trends in nursing theory and practice including relevant pathologic processes and usual nursing management. Emphasis on in-depth study of current interest topics. May be retaken to a maximum of six hours credit.

NSC 380 Adult Health Nursing I. (4) I, II. Prerequisites: NSC 232, 242, and 252 with a grade of "C" or better and admission to the baccalaureate nursing major. Corequisite: NSC 332 and 350. Uses nursing process to develop practice solutions for selected adult health issues.

NSC 381 Perspectives in Professional Nursing I. (5) A. Prerequisites: RN status and admission to the RN-BSN option. Transition to the professional nursing role for the RN student emphasizing foundational concepts of professional nursing practice.

NSC 385 Perspectives in Professional Nursing II. (5) A. Prerequisite: NSC 381. Advanced concepts and skills for professional nursing practice.

NSC 386 Adult Health Nursing II. (10) I, II. Prerequisites: NSC 332, 350, and 380 with a grade of "C" or better. Corequisite: NSC 330. Uses nursing process to develop practice solutions for selected adult health issues.

NSC 390 W Nursing Research. (2) I, II, A. Prerequisites: STA 215 or 270 with a grade of "C" or better. Uses the research process to guide nursing practice in the delivery of quality, cost effective health care. Credit will not be awarded for both NSC 390 and 390W.

NSC 392 Mental Health Nursing. (5) I, II. Prerequisites: NSC 330 and 386 with a grade of "C" or better. Uses the nursing process to develop practice solutions for clients throughout the life cycle with selected mental health issues.

NSC 396 Family Health Nursing. (7) I, II. Prerequisites: NSC 330 and 386 with a grade of "C" or better. Uses the nursing process to develop practice solutions for families during the childbearing and child rearing experience.

NSC 440 Leadership and Management. (3) A. Prerequisites: RN status and admission to the RN-BSN option. An overview of leadership and management theory in health care explores the leadership role of nursing. Strategies for facing challenges, promoting cost-effective health care, and promoting leadership success in the dynamic health care system.

NSC 442 Complex Health Systems. (5) A. Prerequisites: NSC 440 and NSC 486 or department approval. Synthesis of professional nursing competencies and concepts to address human diversity and manage care in today's complex health systems.

NSC 445RN Professional Role Transitions. (2) A. Prerequisites: RN status and admission to the RN-BSN option. Role development seminar for RNs. Critical analysis of trends which shape professional nursing practice. Analysis of strategies for instituting change in various health care delivery systems.

NSC 480 Health Care Leadership. (3) I, II. Prerequisites: NSC 390, 392, and 396 with grades of "C" or better. An overview of leadership and management theory within nursing including legal, ethical and economic concepts. Prepares students to assume leadership in dynamic health care systems to promote comprehensive, cost-effective health care.

NSC 484 Adult Health Nursing III. (5) I, II. Prerequisites: NSC 390, 392, and 396 with a grade of "C" or better. Uses nursing process to develop practice solutions for selected adult health issues.

NSC 486 Public Health Nursing. (5) I, II. Prerequisites: NSC 385 or NSC 392 and 396 or departmental approval. Synthesizes nursing concepts and applies the nursing process to develop practice partnerships with communities and their subsystems.

NSC 492 Complex Client Health Care. (5) I, II. Prerequisites: NSC 480, 484, and 486 with minimum grades of "C." Corequisite: NSC 495. Synthesizes nursing competencies to manage complex health problems, integrating legal, ethical and economic concepts.

NSC 495 Professional Role Transition. (2) I, II. Prerequisite: NSC 480, 484, and 486 with minimum grades of "C." Corequisite: NSC 492. Role development seminar emphasizing refinement of oral presentation skills. Critical analysis of role theory, political, economic and socioethical systems which shape nursing practice. Analyzes strategies for instituting change in the health care delivery system.

NSC 496 Application of Nursing Theory. (2) I, II. Prerequisites: NSC 480, 484, and 486 with minimum grades of "C." Facilitates synthesis of nursing knowledge and strengthens the student's ability to apply theory to specific patient situations. Patient case situations from all nursing clinical areas are utilized.

NSC 498 Independent Study. (1-6) A. Prerequisite: student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. Directed study or research on an issue or area of interest to nursing. May be retaken to a maximum of six hours.

NSC 500 Early Childhood Health Care. (3) A. Prerequisite: education major or instructor approval. Focuses on the development of competencies necessary for health management of young children (ages birth through five years) with special health care needs. Appropriate for non-health care professionals in the community or classroom.

NUR—Nursing (Associate)
Dr. Peggy Tudor, Chair

NUR 114 Nursing Concepts I (8) I, II. Prerequisite: Admission to the Associate Degree Nursing Program. Provides theoretical and clinical foundation necessary for beginning nursing students. Content addresses the role of the nurse in assisting clients to achieve optimal health. Students are provided opportunities in the classroom, laboratory, and healthcare setting. Credit will not be awarded to students who have received credit for NUR 112 and 116.

NUR 124 Nursing Concepts II - Med-Surg. (5) I, II. Prerequisites: NUR 112 and 116, BIO 171, ENG 101 or ENG 105, NFA 201 all with a grade of "C" or better. Applies the nursing process when caring for adult and pediatric clients experiencing common stressors and clients experiencing selected health issues.

NUR 126 Nursing Concepts II - Perinatal. (3) I, II. Prerequisites: NUR 112 and 116, BIO 171, ENG 101 or ENG 105, NFA 201 all with a grade of "C" or better. Applies the nursing process when caring for families during the childbearing experience.

NUR 200 Dosage Calculation for Nursing. (1) A. Develops competency in dosage calculation and provides progression in application for nonparenteral to parenteral medications.

NUR 201 Dosage Calculation for Nursing II. (1) I, II. Prerequisite: NUR 117 (S) or NUR 200 (C or better). Develops competency in dosage calculations of intravenous therapies. Emphasis on IV medication on titration calculations including pediatric, obstetric, and clinical care dosages.

NUR 215 Clinical Techniques in Nursing. (1-6) A. Prerequisites: NUR 120, 121, 122, and 123 or 124 & 126 or equivalent with a grade of "C" or better. Supervised practice in department approved agency. The number of hours will depend on the range and depth of activities. May be retaken to a maximum of 6 hours.

NUR 217 Strategies for Success in Nursing. (1) I, II. This course explores a variety of strategies designed to assist students to develop habits which promote success in nursing education.

NUR 232 Nursing Concepts III-Med-Surg. (7) I, II. Prerequisites: NUR 124, 126 or NUR 205; BIO 301, CHE 105/105L, ENG 102 or ENG 105 all with a grade of "C" or better. Applies the nursing process while caring for adult and pediatric clients experiencing selected complex health issues.

NUR 234 Nursing Concepts III-Psych. (3) I, II. Prerequisites: NUR 124, 126 or NUR 205, BIO 301, CHE 105/105L, ENG 102 or ENG 105 all with a grade of "C" or better. Applies the nursing process while caring for clients experiencing psychosocial health issues.

NUR 242 Nursing Concepts IV. (9) I, II. Prerequisites: NUR 232, 234, BIO 273 or MLT 209/211, PSY 200 all with grade of "C" or better. Corequisite: NUR 255. Develops competencies in the application of the nursing process while caring for individuals and groups of adult and pediatric clients experiencing selected complex health issues.

NUR 247 Holism, Health, and Success. (1), I, II. Prerequisite: CHS nursing student. Principles and theories from holistic nursing, education, and psychology are explored and applied to the creation of academic success, health, and the attainment of personal life goals.

NUR 250 Introduction to Gerontology. (3) I, II. An interdisciplinary approach to the study of aging that presents a balanced view of both normal and problem aspects of aging.

NUR 255 Trends and Issues in Nursing. (2) I, II. Prerequisites: NUR 232 and 234. Corequisite: NUR 242. Focuses on the exploration of current issues and trends in nursing practice.

NUR 265 Independent Study. (1-6) A. Directed study on an issue or area of interest to nursing. May be retaken to a maximum of six hours credit.

NUR 300 Individual Clinical Enrichment. (1-6). A. Prerequisite: departmental approval. Integrates theory and practice through collaborative partnerships to enhance clinical nursing competencies.

OHO—Ornamental Horticulture
Dr. John Settimi, Chair

OHO 115 Operation of Horticultural Equipment. (2) I. Lecture, laboratory and field experiences related to horticultural power equipment, and their safe operation, including hydraulics, electricity, chemical, and maintenance facilities. 1 Lec/2 Lab.

OHO 131 Principles of Horticulture. (3) I. Corequisite: OHO 132. Introduction to the major divisions of horticulture with emphasis on plant growth, propagation, reproduction, and soil-water relationships. Exploration of the various phases of horticulture and the related employment opportunities in the industry.

OHO 132 Horticulture Laboratory. (1) I. Corequisite: OHO 131. Laboratory, greenhouse, and field work which applies the principles of nursery, turf, and greenhouse management taught in the classroom.

OHO 301 Directed Work Experience. (1-4) I, II. A minimum of three hours per week per hour of credit using university or other approved facilities. May be retaken for a maximum of 4 credit hours.

OHO 304 Horticulture Pest Management (4) II. Identification of the principle horticulture insect, disease, and weed pests in the transition zone. Control measures are identified with special emphasis on the safe use of chemicals and equipment calibration. Credit will not be awarded for both OHO 304 and AGR 304. 3 Lec/2 Lab.

OHO 349 Applied Learning in Horticulture. (.5-8) A. Work under faculty and field supervisors in placements related to academic studies. One to eight hours credit per semester or summer. Total hours: eight, associate; sixteen, baccalaureate. A minimum of 80 hours work required for each academic credit.