



ACADEMIC INFORMATION

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DEGREE INFORMATION

UNDERGRADUATE DEGREES

ASSOCIATE DEGREE

Associate of Applied Science in Radiography
Major in radiography

BACCALAUREATE DEGREES

Bachelor of Applied Arts and Sciences
Major in applied arts and sciences

Bachelor of Arts
Majors offered in art, computer science, English, geosciences, history, humanities, international studies, kinesiology, mass communication, mathematics, music, political science, psychology, sociology, Spanish, and theatre

Bachelor of Business Administration
Majors offered in accounting, economics, finance, general business, management, management information systems, and marketing

Bachelor of Fine Arts
Majors offered in art and theatre

Bachelor of Music
Majors offered in music (performance) and music (certification)

Bachelor of Science
Majors offered in athletic training, biology, chemistry, computer science, environmental science, exercise physiology, geosciences, kinesiology, manufacturing engineering technology, mathematics, physics, psychology, sociology, and sport and fitness management

Bachelor of Science in Clinical Laboratory Science
Major in clinical laboratory science

Bachelor of Science in Criminal Justice
Major in criminal justice

Bachelor of Science in Dental Hygiene
Major in dental hygiene

Bachelor of Science in Interdisciplinary Studies
Major in interdisciplinary studies with certification program in elementary teaching: early childhood - grade 4, and grade 4 - grade 8

Bachelor of Science in Mechanical Engineering
Major in mechanical engineering

Bachelor of Science in Nursing
Major in nursing

Bachelor of Science in Radiologic Sciences
Major in radiologic sciences

Bachelor of Science in Respiratory Care
Major in respiratory care

Bachelor of Social Work
Major in social work

GENERAL REQUIREMENTS FOR ASSOCIATE OF APPLIED SCIENCE IN RADIOGRAPHY

1. Satisfy all admission conditions.
2. The completion of a minimum of twenty-five percent of the semester hours required in the specific degree program at Northwestern State University. Credit by examination may not be used to satisfy the minimum residence requirements.
3. Twelve of the last 15 semester hours required for the degree must be completed in residence at Northwestern State University.
4. A minimum of six semester hours of the major must be completed in residence at Northwestern State University.
5. Not more than 15 semester hours in extension and correspondence may be counted toward a degree. Credit by correspondence for a course failed in residence will not be accepted toward graduation.
6. To qualify for an associate degree from Northwestern State University, a student must earn a minimum grade point average of 2.0 on the courses attempted at Northwestern State University. A student must also earn a minimum grade point average of 2.0 in the major. A student must have a C (2.0) major and cumulative average based on Northwestern State University work, as well as transfer work accepted, to graduate. A student who presented a grade point deficiency based on transfer work accepted must have sufficient grade points earned at MSU to remove the deficiency in the major and cumulative average. See program area for special grade requirements.
7. Twenty-six semester hours of general academic courses listed on page 241 in the Radiologic Sciences section of this catalog.
8. A minimum total credit of 72 semester hours excluding developmental courses.
9. Satisfactory completion of all requirements specified for the degree by the college in which it is offered.
10. Meet all requirements of the Texas Success Initiative (see page 82).
11. Honors are not awarded for an associate's degree.
12. Formal application for the degree through the Office of the Registrar. See Academic Calendar for deadlines and see Application for Degree Candidacy.
13. Payment of fees and satisfaction of all other financial obligations including "exit interviews" as required by loan programs.
14. For May and December graduates, attendance of graduation exercises unless approved by the Associate Provost for graduation in absentia.

GENERAL REQUIREMENTS FOR ALL BACHELOR'S DEGREES

1. Satisfy all admission conditions.
2. The completion of a minimum of twenty-five percent of the semester hours required in the specific degree program at Northwestern State University. Credit by examination may not be used to satisfy the minimum residence requirements.
3. Twenty-four hours of the last 30 semester hours required for graduation must be completed in residence at Northwestern State University with the exception of the BAAS and distance education programs in health sciences: BSRC, RN/BSN, and BSRS.
4. A maximum of 18 semester hours may be taken by correspondence. Credit by correspondence for a course failed in residence will not be accepted toward graduation.

5. A major of at least 24 semester hours of which 12 must be advanced; 12 advanced semester hours of the major must be completed in residence at Midwestern State University. This requirement does not apply to the BAAS degree.
6. A minor of at least 18 semester hours of which six must be advanced (does not apply to BAAS, BBA, BM, BFA, BSCL, BSDH, BSIS, BSME, BSN, BSRC, BSRS, BSW, and BS with a major in Athletic Training). Six advanced semester hours of the minor must be completed in residence at Midwestern State University. This residence requirement does not apply to students receiving the BAAS degree with a minor.
7. To qualify for a degree from Midwestern State University, a student must earn a minimum grade point average of 2.0 on the courses attempted at Midwestern State University. A student must also earn a minimum grade point average of 2.0 in the major and a 2.0 in the minor. A student must have a C (2.0) major, minor, and cumulative grade point average based on Midwestern State University work, as well as transfer work accepted, to graduate. A student who presented a grade point deficiency based on transfer work accepted must have sufficient grade points earned at MSU to remove the deficiency in the major, minor, or cumulative average. Some programs require more than a 2.0 grade point average on major and minor hours. The student should consult with the academic advisor about specific program requirements.
8. A minimum of 42 semester hours advanced work (36 semester hours advanced work for BSDH, BSRS, BSCL; 33 semester hours for the BS and BSN degrees; and 30 semester hours for the BAAS, BSRC, and RN/BSN degrees).
9. A minimum total credit of 124 semester hours. Developmental courses are excluded from the 124 hours. Other than kinesiology majors, only two physical activities courses will be counted for the 124 hour requirement.
10. Take the ETS (Educational Testing Service) Academic Profile Test. This test assesses the student's knowledge of the academic foundations. It is used as an assessment measure for accreditation; there is no passing or failing score.
11. Satisfaction of the Writing Proficiency Requirement through one of the following options:
 - a. Pass the Writing Proficiency Examination administered between 60 and 90 hours. Students failing the Writing Proficiency Examination must pass English 2113. (See page 268.)
 - b. Pass English 2113, English Composition Skills.
12. Completion of academic foundations.
13. Demonstrate computer literacy by taking a proficiency test or earning credit for CMPS 1023, 1043, 2153, or EDUC 1023.
14. Satisfactory completion of all requirements specified for the degree by the college in which it is offered.
15. Graduation with honors will be accorded to candidates who have completed at least 30 semester hours of work at Midwestern State University with cumulative grade point average as indicated:

Cum laude	Midwestern State University cumulative grade point averages of 3.50-3.69 inclusive.
Magna cum laude	Midwestern State University cumulative grade point averages of 3.70-3.89 inclusive.
Summa cum laude	Midwestern State University cumulative grade point averages of 3.90-4.00 inclusive.

This recognition is placed on both the permanent academic record and on the diploma. Credit by examination may not be used for honors awarded at graduation. (See page 65) Honors are not awarded for a second bachelor's degree.

16. Formal application for the degree is through the Office of the Registrar. See Academic Calendar and Application for Degree Candidacy.

17. Payment of fees and satisfaction of all other financial obligations including "exit interviews" as required by loan programs.
18. For May and December graduates, attendance of graduation exercises unless approved by the Associate Provost for graduation in absentia.

ACADEMIC FOUNDATIONS AND CORE CURRICULUM

To achieve the goals of academic foundations the faculty of Midwestern State University has developed a core curriculum for all baccalaureate degrees, which each student is expected to complete substantially before beginning academic specialization. The following objectives underlie the design of the core curriculum.

1. The curriculum is designed to provide each student a range of knowledge, skills, and intellectual approaches that will support his/her efforts to develop a full and productive life. To meet this objective the University offers a course of study that contributes to the development of a meaningful career and to the continued growth of the student both as an individual and as a rational and ethical member of society.
2. First, the curriculum emphasizes the acquisition of fundamental skills—skills necessary to learning, judgment, and self-expression. Chief among these are reading, analytical and critical thinking, cogent oral and written expression, computation, and quantitative reasoning.
3. Secondly, the curriculum seeks to develop each student's understanding of him/herself in relation to others through a study of the liberal arts and sciences. Such study provides exposure to the collective knowledge and experience of mankind; each student is introduced to disciplined ways to gather, organize, and communicate this knowledge and experience as they relate to the cultural, social, and physical environment.
4. In the aggregate, the core curriculum provides a substantial base for the second phase of university education; academic specialization to achieve significant mastery in at least one discipline or interdisciplinary field. The core curriculum not only introduces students to a variety of disciplines (and thus to related career options), but more importantly provides a perspective from which to view specialized study in relation to the whole range of human experience and endeavor. As the student proceeds to academic specialization, it becomes the responsibility of each academic department to maintain and nurture this integrating perspective.

CORE REQUIREMENTS

COMMUNICATION - 9 semester hours

ENGL 1113 and 1123
And 3 hours from SPCH 1133 or 1233

MATHEMATICS - 3 semester hours

MATH 1053, 1203, 1233, 1433, 1533, 1634, 1734, 2033, 2043

SCIENCE - 6 semester hours

BIOL 1134, 1144, 1234, 1544
CHEM 1101 and 1103, 1141 and 1143, 1203, 1241 and 1243
ENSC 1114

GEOS 1134, 1233
 GNCS 1104, 1204 (for teacher certification students only)
 PHYS 1144, 1244, 1533, 1624, 2104, 2204, 2644

HUMANITIES & VISUAL AND PERFORMING ARTS - 9 semester hours

Six hours from English literature, history, humanities, philosophy, or two semesters of one foreign language; any courses in art history, music history, or theatre history may also be accepted in fulfillment of the humanities requirement:

ENGL 2413, 2423, 2613, 2623, 2723, 2813, 2823

HIST 1333, 1433, 3133

HUMN 2013, 2023, 2033, 2043, 2053

PHIL 1033, 1533, 2033, 2233, 2633

FREN 1134, 1234

GERM 1134, 1234

SPAN 1134, 1234

3 hours from ART 1213, 1413, MUSC 1033, THEA 1503, MCOM 2213

or

3 hours from ART 1113, 1123, 1313, MUSC 1103, 1603/1601, THEA 2533

or

3 hours from MUSC 1001 and/or 1021

SOCIAL & BEHAVIORAL SCIENCES - 18 semester hours

HIST 1133 and 1233

POLS 1333 and 1433

ECON 1333 or 2333

And 3 hours from PSYC 1103 or SOCL 1133

INSTITUTIONALLY DESIGNATED OPTION - 3 semester hours

KNES 1011 and a two-hour activity course

or

Two different activity courses excluding KNES 1011

or

Two semesters of marching band and one activity course

or

Four semesters of credit in marching band

EXCEPTIONS TO PHYSICAL ACTIVITIES REQUIREMENT

A student may be excused from the physical activities requirement for the following reasons:

1. If the student is a veteran of the U.S. armed forces (discharged under honorable conditions) who has had one year of continuous active military service.
2. If the student has received a physical activities exemption through the Vinson Health Center. Students with disabling conditions should consult their physicians concerning enrolling in the adapted physical education course.

REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE

Academic Foundations and Core Curriculum 48 hours (see page 103)

Six hours of literature and/or humanities courses chosen from the list below:

ENGL 2413, 2423, 2613, 2623, 2723, 2813, 2823
 HUMN 2013, 2023, 2033, 2043, 4013, 4023, 4033, 4043

A humanities course taken at the 2000 level may not be repeated at the 4000 level or vice-versa.

Two years of one foreign language. International students who are native speakers of a language other than English may satisfy this requirement by petitioning the Foreign Language Department to verify proficiency in another language with the major college dean's approval. This waiver applies to all degree programs. A foreign language waiver does not exempt a student from the general humanities requirement.

Students may use the same literature, humanities, and foreign language courses to fulfill BA and core requirements, as well as major and/or minor requirements in these fields.

REQUIREMENTS FOR THE BACHELOR OF SCIENCE DEGREE

Academic Foundations and Core Curriculum 48 hours (see page 103)

Additional General Requirements

All B.S. degree programs include at least four laboratory science courses. Manufacturing engineering technology majors may choose four physics courses (exclusive of Physics 1533). All other majors must choose two courses in each of two different laboratory sciences, (exclusive of Physics 1533, Chemistry 1101, 1103, 1203, and Environmental Science 1114).

The B.S. degree programs in athletic training, exercise physiology, psychology, and sociology require one mathematics course (exclusive of MATH 0003, 1003, 1053, 1203, 2033, and 2043).

All other B.S. degree programs include at least two mathematics courses (exclusive of MATH 0003, 1003, 1053, 1203, 2033, and 2043). Statistics 3573 may be used to satisfy three hours of this mathematics requirement.

The science and math courses may be included as part of the major and/or minor.

Requirements for Other Degrees

REQUIREMENTS FOR THE ASSOCIATE OF APPLIED
 SCIENCE IN RADIOGRAPHY DEGREE

See page 241

REQUIREMENTS FOR THE BACHELOR OF
 APPLIED ARTS AND SCIENCES DEGREE

See page 264

REQUIREMENTS FOR THE BACHELOR OF
 BUSINESS ADMINISTRATION DEGREE

See page 121

REQUIREMENTS FOR THE BACHELOR OF FINE ARTS DEGREE

See page 175 for art

See page 202 for theatre

REQUIREMENTS FOR THE BACHELOR OF
MUSIC DEGREE

See page 189

REQUIREMENTS FOR THE BACHELOR OF
SCIENCE IN CLINICAL LABORATORY SCIENCE DEGREE

See page 312

REQUIREMENTS FOR THE BACHELOR OF SCIENCE
IN CRIMINAL JUSTICE DEGREE

See page 209

REQUIREMENTS FOR THE BACHELOR OF
SCIENCE IN DENTAL HYGIENE DEGREE

See page 214

REQUIREMENTS FOR THE BACHELOR OF
SCIENCE IN INTERDISCIPLINARY STUDIES DEGREE

See page 143

REQUIREMENTS FOR THE BACHELOR OF
SCIENCE IN MECHANICAL ENGINEERING DEGREE

See page 334

REQUIREMENTS FOR THE BACHELOR OF
SCIENCE IN NURSING DEGREE

See page 221

REQUIREMENTS FOR THE BACHELOR OF SCIENCE
IN RADIOLOGIC SCIENCES DEGREE

See page 242

REQUIREMENTS FOR THE BACHELOR OF SCIENCE
IN RESPIRATORY CARE DEGREE

See page 252

REQUIREMENTS FOR THE BACHELOR OF
SOCIAL WORK DEGREE

See page 259

SECOND BACHELOR'S DEGREE

A person who holds a baccalaureate degree from Midwestern State University or another regionally accredited four-year college or university may be awarded a second baccalaureate degree in a different field by:

1. Completing a minimum of 31 semester hours, 18 of which must be advanced, in residence at Midwestern State University.
2. Completing all catalog requirements for the new major field and for the degree sought.
3. A person holding a baccalaureate degree from any college or university other than Midwestern State University will have to meet the Writing Proficiency Requirement.

Honors are not awarded for a second bachelor's degree.

APPLICATION FOR DEGREE CANDIDACY

To graduate at the end of the spring semester, all seniors must pay the graduation fee and file an Application for Degree Candidacy in the Office of the Registrar during the fall semester of their senior year (see University Calendar for deadline). Seniors who plan to complete their degrees at the close of the fall semester should pay and file no later than July 1. Candidates for summer graduation should file by April 1. Students may also apply for graduation on-line at <http://registrar.mwsu.edu/applygraduation/applydegree.asp>.

Early application is encouraged to allow time for a complete records check prior to the student's enrolling for the last semester.

In order to be admitted to candidacy for graduation without reservation, a student must have at least five grade points above the number of semester hours attempted on the official record at the time of application. Any student who enters the last semester or summer term in residence without a surplus of five grade points will be admitted with reservation and thereby forewarned that all degree requirements, both qualitative and quantitative, must be met.

COMMENCEMENT

Midwestern State University conducts commencement exercises in December and May. Candidates who complete their degrees during the summer terms may participate in the December ceremony. Candidates who complete their degrees in the fall semester are required to attend the December commencement unless approved by the Associate Provost for graduation in absentia. Candidates who complete their degrees at the end of the spring semester must attend the May commencement unless approved by the Associate Provost for graduation in absentia. All conferred degrees will be posted to the student's permanent record as of the last day of finals for second summer term or as of the date of the graduation ceremony for December and May.

REQUIREMENTS FOR PRE-PROFESSIONAL CURRICULA

In selecting any pre-professional program, the student should be mindful that the requirements vary with different schools. Therefore, it is always wise for the student to obtain a catalog from the professional school under consideration so that the course of study can be arranged to meet specific requirements.

It is recommended that the student complete work for the bachelor's degree since many professional schools require it as a prerequisite for admission.

The pre-professional student should confer with the advisor in planning a course of study. Several pre-professional curricula have been prepared which indicate the minimum requirements of the professional schools. A copy may be obtained from the student's advisor.

Pre-dentistry, pre-engineering, pre-law, pre-medicine, pre-nursing, pre-osteopathy, pre-optometry, pre-pharmacy, pre-physical therapy, and pre-veterinary medicine, are some of the pre-professional programs which may be taken at Midwestern State University. MSU also participates in the Dental Early Acceptance Program (DEAP) with the University of Texas Health Science Center at San Antonio. See page 317.

A student interested in completing a pre-professional program other than those listed above should consult the college dean of a closely related field so that the program can be planned in keeping with catalog requirements of the institution where the student plans to complete the professional training.

GRADUATE STUDIES

The following master's degrees are offered at Midwestern State University:

Master of Arts

Majors offered in counseling, English, history, human resource development, political science, psychology, and training and development

Master of Business Administration

Majors offered in business administration and health services administration

Master of Education

Majors offered in curriculum and instruction, educational leadership, educational technology, reading education, school counseling, and special education

Master of Health Administration

Major offered in health services administration

Master of Public Administration

Major offered in public administration

Master of Science

Majors offered in biology and computer science

Master of Science in Kinesiology

Major offered in kinesiology

Master of Science in Nursing

Majors offered in family nurse practitioner, health services administration, and nurse educator

Master of Science in Radiologic Sciences

Majors offered in radiologic administration and radiologic education

Graduate minors are available in biology, early childhood education, educational foundations, English, English as a second language, gifted and talented, history, kinesiology, master mathematics teacher, mathematics, political science, public administration, reading education, special education, teacher leadership, and training and development. Graduate certificates in administration of justice, health services administration, and long term care administration are offered by the College of Health Sciences and Human Services. The West College of Education offers programs leading to certificates for Superintendent, Principal, School Counselor, Diagnostician, Master Mathematics Teacher, Master Reading Teacher, as well as a Graduate Initial Teacher Certification.

For more information about the graduate programs please refer to the Graduate Catalog.

APPLICABILITY OF CATALOG REGULATIONS

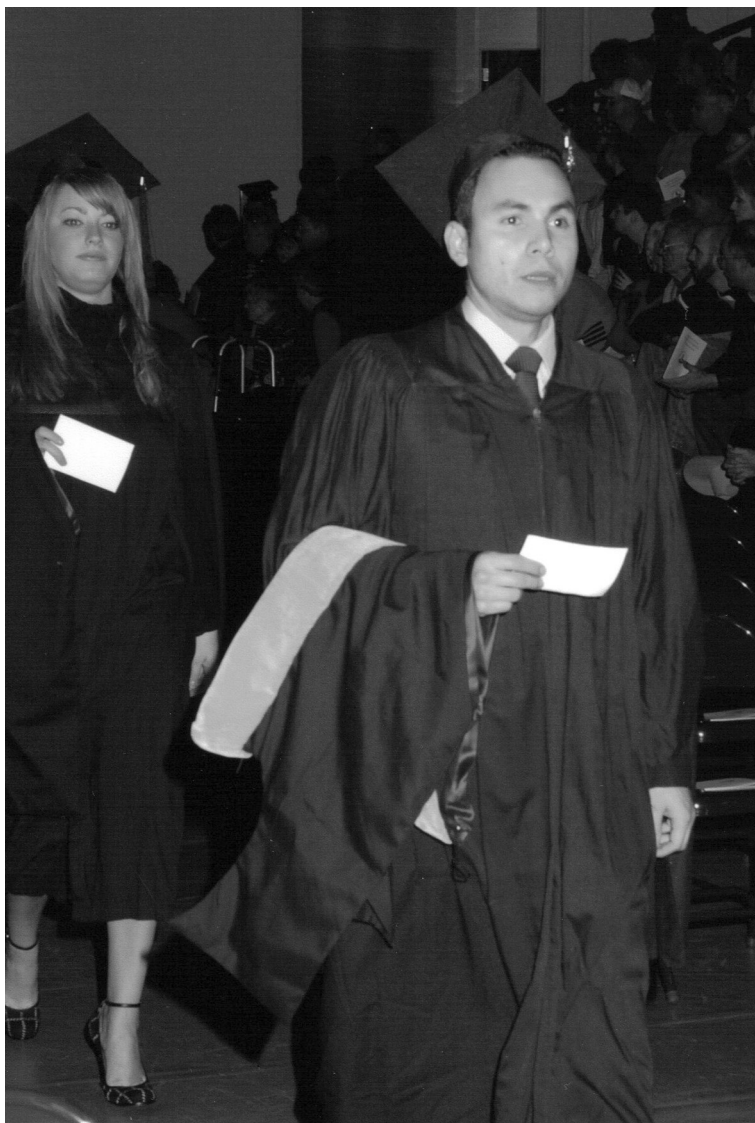
The student may receive a degree from Midwestern State University in accordance with the program requirements stated in the catalog in effect at the time that person enters the University or those of any subsequent year provided the requirements are completed within six years of the date of the catalog selected and the student earns a minimum of twelve semester hours during the two-year period it is in effect. The program requirements must be from one catalog. However, the general requirements for the associate and baccalaureate degrees are those which are shown in the current catalog.

THIS CATALOG EXPIRES AND CANNOT BE USED FOR GRADUATION REQUIREMENTS AFTER AUGUST 31, 2013.

Midwestern State University reserves the right to make changes in course offerings, academic policies, academic calendar, tuition, fees, other charges, rules, and regulations as required by the Academic Council, Board of Regents, Texas Higher Education

Coordinating Board, Texas Legislature, and state and national testing agencies. The provisions of this catalog are not to be regarded as a contract between the University and its students or applicants. The MSU catalog is also available on the MSU website. The web version will contain policy updates as they are approved and effective. The updated web version will take precedence over the printed catalog.

A separate publication, The Student Handbook, is issued once each year. The rules and regulations stated in the handbook are applicable to all students.







**SPECIAL
ACADEMIC
PROGRAMS**

Bachelor of Science in Clinical Laboratory Science

Bachelor of Science in Mechanical Engineering

Bachelor of Science in Nursing - RN/BSN Track

Bachelor of Science in Radiologic Sciences

Academic Support Center

Honors Program

Distance Education

International Education

Air Force ROTC through the University of North Texas

SPECIAL ACADEMIC PROGRAMS

ACADEMIC FOUNDATIONS CURRICULUM FOR DESIGNATED ACADEMIC PROGRAMS

The following basic core and additional requirements apply to the Bachelor of Science in Clinical Laboratory Science, Bachelor of Science in Mechanical Engineering, Bachelor of Science in Nursing - RN/BSN Track, and Bachelor of Science in Radiologic Sciences.

Basic Core (27 semester hours)

Political Science 1333, 1433
 English 1113, 1123
 Mathematics 1053, or 1203, or 1233*
 History 1133, 1233
 Speech Communication - 3 hours
 Demonstrate computer literacy by taking a proficiency test or earning credit for CMPS 1023, 1043, 2153, or EDUC 1023.**

* Math 1233 is required for BSCL.

* Math 1634 is required for BSME.

** BSME students meet this requirement by taking MENG 3243 in the major.

Additional 18 hours

Select from at least four of the following areas: Social and Behavioral Sciences, Sciences, Fine Arts, Speech Communication (cannot be same course used in Basic Core), Humanities, Economics, and Kinesiology.

Additional degree requirements — see specific pages below:

Bachelor of Science in Clinical Laboratory Science (see page 312)
 Bachelor of Science in Mechanical Engineering (see page 334)
 Bachelor of Science in Nursing - RN/BSN Track (see page 221)
 Bachelor of Science in Radiologic Sciences (see page 242)

ACADEMIC SUPPORT CENTER

Director: Naoma Clark

The Academic Support Center provides opportunities for students to maximize their academic potential at MSU. Classes offered are part of the University's academic curriculum and are 3 hour elective credit courses, generally limited to 20 students.

In order to enhance the academic and social integration of all first year and transfer students at MSU, the following college-level course is recommended:

MWSU 1233. College Connections 3(3-0)

This course assists new students in their transition to the college environment and focuses on the cognitive and behavioral dimensions of learning. Emphasis is placed on the disciplines of written and oral communication. A career exploration project is required. Limited to new students.

Students who are admitted under Advised Admissions status (see page 55) are required to enroll in designated classes of MWSU 1233. See schedule of classes.

For students who would benefit from an intensive program of academic assistance in developing individualized learning strategies, the following college-level course is recommended:

MWSU 1003. Skills for Success 3(3-0)

This course examines learning and thinking processes with an emphasis on experiential application of effective reading, writing, and study strategies. Areas of study include information processing theory, cognitive and behavioral influences in motivation and concentration, assessment of learning and thinking styles and development of an individualized protocol for efficient and effective learning and review strategies.

Students who are in the First Year Probation Program (see below) are required to enroll in MWSU 1003.

Students who re-enter the University following academic suspension may be required to enroll in MWSU 1003. This course is also highly recommended for all students placed on scholastic probation.

For students who have been nominated for their outstanding leadership qualities, the following college-level course is recommended:

MWSU 1333. Leadership MSU 3(3-0)

This course is designed to introduce students to leadership concepts and develop an increased awareness of individual interests and abilities. It relies heavily on student involvement and is designed to encourage challenging and stimulating student interaction. The theory and history of leadership as well as the conceptual skills required by leaders, including team building, collaboration, innovation, conflict resolution, communications, and problem solving are emphasized.

First Year Probation Program. This is an early intervention program for beginning and transfer freshmen students who after their first semester at MSU are on scholastic probation (grade point average of less than 1.70). Re-enrolling students placed in this program at the end of the fall semester are required to enroll in MWSU 1003 - Skills for Success and repeat two classes in which they received grades of D or F. Students who need to be full-time may choose an additional class plus a kinesiology activity course, but may not register for more than 14 semester hours. Students placed in the program at the end of the spring semester may not enroll in more than 7 semester hours in a summer term, including at least one repeat (if available) and/or 14 semester hours in the following fall semester, including at least two repeat courses and MWSU 1003 - Skills for Success.

Academic Advising. Students who are undecided on a major field of study are advised through the Academic Support Center.

Supplemental Instruction (SI). SI is an academic enrichment program that targets historically difficult academic courses and offers free peer-assisted study sessions to all enrolled students in a designated section of selected courses. SI sections are noted in the Schedule of Classes each semester.

For more information, please contact the Academic Support Center at MSU (940) 397-4684 or asc@mwsu.edu.

UNIVERSITY HONORS PROGRAM

Director: Dr. Mark Farris
Assistant Professor of Mathematics

First established in 1964, the University Honors Program offers high achieving MSU students a challenging undergraduate learning experience. From the Honors Introductory Seminar at the beginning, through Honors designated classes taught by outstanding faculty, to the Honors Capstone Course and Graduation with Honors, the MSU Honors Program presents an interdisciplinary curriculum that fosters students' love for learning. Honors experiences and achievements prepare students for success and leadership in graduate and professional schools, in the job market, and as citizens of our global community.

In order to graduate with Honors Program distinction, Honors students are required successfully to complete a minimum of eight courses as specified by the Honors Program. Honors students must maintain a minimum cumulative GPA of 3.25. In addition to these curricular requirements, the Honors Program requires participation in a variety of enriching, co-curricular activities, such as professional conferences, fieldtrips, community service, and a choice of undergraduate research projects, internships, or study abroad. Students must visit the Honors Program Office to be advised concerning their Honors curricular and co-curricular requirements. Honors housing, including our exclusive Honors House, offers students a supportive living and learning environment.

Honors students in good standing receive a yearly Honors scholarship. Admission to the Honors Program is by application, and requires a written essay and a letter of recommendation. Incoming freshmen must meet ONE of the following requirements: a minimum composite SAT score of 1200, a minimum composite ACT score of 27, high school graduation with an IB diploma, high school graduation in the top 5%. Under special circumstances individuals may be granted provisional status based on relevant outstanding achievements. Continuing students, including transfer students, may apply to the Honors Program if they have at least 75 semester hours left to complete at MSU.

Midwestern State University is a member of the National Collegiate Honors Council and the regional Great Plains Honors Council. These affiliations broaden the scope of opportunities available for Honors students.

The selection of Honors designated courses includes two required courses: MWSU 1433 - Honors Introductory Seminar, to be taken at the beginning and MWSU 4433 - Honors Capstone Seminar, to be taken at the end of the degree program.

MWSU 1433. Honors Introductory Seminar 3(3-0)

This team-taught, interdisciplinary class is designed to guide Honors students in their transition to the University, to sharpen their academic skills, and to introduce them to University faculty members representing various fields of study. In this course, Honors students learn how to use various research methods to acquire and process knowledge in different fields, how to relate ideas learned in one discipline to those learned in others, and how to participate meaningfully in a learning community.

MWSU 4433. Honors Capstone Seminar 3(3-0)

This course is designed to provide a venue for Honors students to take a more global view of their undergraduate experience, to work with students completing their studies in different fields in the study of a particular theme, and to present their research to their peers and faculty. The course engages students in a synthesis of knowledge and skills gained during their academic years and addresses the

relevance of this knowledge and these skills for the students' future as contributing citizens.

For more information please contact the MSU Honors Program at (940) 397-4534, honors@mwsu.edu or <http://academics.mwsu.edu>.

DISTANCE EDUCATION

The Center for Extended Education coordinates the following Distance Learning options which offer students an opportunity to earn college credit by participating in a variety of non-traditional oriented courses.

Telecourses

Telecourses are offered each semester as an alternative to the traditional classroom experiences. Students are required to attend an orientation session before the semester starts and to take tests on campus (with the exception of students at the Universities Center at Dallas and at other locations remote from the campus). Telecourses require the regular viewing of professionally produced video programs, either at home on Time Warner Cable Channel 2 (MSU-TV2), in MSU's Moffett Library, or at other designated locations. In addition, a copy of the tape can be checked out at the Library for home viewing. The class schedule indicates if the course is a telecourse. Telecourses appear on the transcript in the same manner as all other resident credit.

Interactive Television

Midwestern State University receives and transmits courses via the Trans-Texas Videoconference Network in conjunction with the Texas A&M University System. In addition, MSU has established an independent network which includes the Graham Education and Workforce Center in Graham, Texas, the Universities Center at Dallas, Keller ISD and other locations where demand can be served by appropriate two-way video technologies. This allows students at a distance to enroll in Midwestern courses via compressed video.

Web-based Courses

MSU offers more than 200 courses on the Internet either as supplements to traditional classroom format or as full web-based courses. Both undergraduate and graduate courses are offered via the Internet.

Universities Center at Dallas (UCD)

Midwestern State University is an affiliate member of the Federation of North Texas Colleges and offers upper-division undergraduate courses and graduate courses at the campus of the Universities Center at Dallas (UCD). Six universities, including Midwestern State, cooperate in offering upper-division undergraduate and graduate courses at UCD: Texas A & M University - Commerce, Texas Woman's University, the University of North Texas, the University of Texas at Arlington, and the University of Texas at Dallas.

Currently Midwestern State University offers the Bachelor of Applied Arts and Sciences degree and the Master of Arts degree in Human Resource Development to students at UCD. For details, call Midwestern State University Office of Extended Education at 940-397-4785 or refer to the university website.

INTERNATIONAL EDUCATION

Midwestern State University is committed to providing study abroad opportunities for all students, whether graduate or undergraduate. To facilitate this international dimension, the Office of International Education has been established with the expressed objective of providing support for any student who wishes to study in an international setting. Scholarships as well as financial aid have been specifically set up to facilitate a student's study abroad expenses. Necessary documentation as well as mandatory orientations for all study abroad students ensures that each student's experience will not be subjected to unnecessary interruptions. Additionally, each study abroad program is committed to academic excellence as well as the standards set forth by the university. All international classes have rigorous requirements and offer the kind of intellectual stimuli usually found in honors courses.

For more information, please contact the Office of International Education at (940) 397-4038 or <http://academics.mwsu.edu/internationaleducation>.

AIR FORCE ROTC PROGRAM Through the University of North Texas

MSU students are given the opportunity to participate in the Air Force ROTC program at the University of North Texas. For more information, the student should contact:

Unit Admissions Officer
Division of Aerospace Studies
Divisional Office, Kendall Hall, 144
AFROTC-Det 835
940-565-2074

Col Patrick J. Smith, Chair
P.O. Box 305400
Denton, TX 76203-5400
(940) 565-2074
AFROTC@unt.edu

The courses which may be taken in this AFROTC program are located below.

COURSES IN MILITARY SCIENCE (MLSC)

These are Air Force ROTC courses taught at the University of North Texas, Denton, Texas.

1030. 1040. 2030. 2040. 3310. 3320. 4310. 4320. **Physical Training**

Involves enhancing the fitness level of cadets and prepare them to meet AFROTC and Air Force standards. Motivate cadets to pursue a physically fit and active lifestyle. Improve both the safety and efficiency of physical training within AFROTC.

1031. 1041. **Foundations of the United States Air Force** 1(1-1)

Survey of the structure and missions of Air Force organizations; officership and professionalism; and an introduction to communication skills. (AERO 1030, 1040)

2031. **Evolution of the United States Air Force Air and Space Power** 1(1-1)

Focus on factors contributing to the development of air power from the earliest beginnings through two world wars; the evolution of air power concepts and doctrine; and assessment of communicative skills. (AERO 2030)

2041. Evolution of the United States Air Force Air and Space Power 1(1-1)

Focus on concepts preparatory to developing officer leadership skills; ethics and values, group problem solving, leadership methods, and communications. (AERO 2040)

2921. Cooperative Education in Aerospace 1(1-0)

Prerequisites: Student must meet employer's requirements and have consent of the division chair.

Supervised work in a job directly related to the student's major, professional field of study or career objective. May be repeated for credit. (AERO 2920)

3314. 3324. Leadership and Management 4(3-1)

Prerequisite for 3324: MLSC 3314.

Study of leadership and quality management fundamentals, professional knowledge, leadership ethics and communication skills required of an Air Force officer. Case studies are used to examine Air force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. (AERO 3310, 3320)

4314. 4324. National Security 4(3-1)

Prerequisite for 4314: MLSC 3314, 3324.

Prerequisite for 4324: MLSC 4314.

Examines the need for national security, analyzes the evolution and formulation of the American defense policy, strategy, and joint doctrine; investigates the methods for managing conflict; and overview of regional security, arms control and terrorism. Special topics of interest focus on the military as a profession, officership, the military justice system, and current issues affecting military professionalism. (AERO 4310, 4320)







ACADEMIC PROGRAMS

Academic Program Advisors

Dillard College of Business Administration

Gordon T. and Ellen West College of Education

Lamar D. Fain College of Fine Arts

College of Health Sciences and Human Services

Prothro-Yeager College of Humanities and Social Services

College of Science and Mathematics

ACADEMIC PROGRAM ADVISORS

<u>Program</u>	<u>Advisor</u>
Accounting	Dr. Ralph Fritzsch
Applied Arts and Sciences	Dr. J. David Martin
Art	Dr. Nancy Steele-Hamme
Athletic Training	Ms. Jennifer Lancaster
Biology	Dr. William Cook
Business (lower division)	Mr. Nick Gipson
	Ms. Barbara Hargrove
Chemistry	Dr. Rodney Cate
Clinical Laboratory Science	Ms. Asma Javed
Computer Science	Dr. Ranette Halverson
Criminal Justice	Dr. Nathan Moran
Dental Hygiene	Ms. Barbara DeBois
Economics	Dr. Yoshi Fukasawa
Education	Dr. Ann Estrada
English	Dr. Tom Galbraith
Environmental Science	Dr. Pamela Stephens
Exercise Physiology	Dr. Frank Wyatt
Finance	Dr. Yoshi Fukasawa
General Business	Dr. Phillip Wilson
Geosciences	Dr. Pamela Stephens
History	Dr. Kenneth E. Hendrickson, Jr.
Humanities	Dr. Lynn Hoggard
International Studies	Dr. Michael Preda
Kinesiology	Dr. Frank Wyatt
Management	Dr. Phillip Wilson
Management Information Systems	Dr. Stephen E. Lunce
Manufacturing Engineering Technology	Dr. Idir Azouz
Marketing	Dr. Phillip Wilson
Mass Communication	Dr. James Sernoe
Mathematics	Dr. Patrick Mitchell
Mechanical Engineering	Dr. Idir Azouz
Music	Dr. Ruth Morrow
Nursing	Dr. Melissa Ford
Philosophy	Dr. Fred Stewart
Physics	Dr. Richard Fleming
Political Science	Vacant
Psychology	Dr. George Diekhoff
Radiologic Sciences	Dr. Nadia Bugg
Respiratory Care	Ms. Annette Medford
Social Work	Dr. Jan Walker
Sociology	Dr. Emily LaBeff
Spanish	Dr. Adalberto Garcia
Sport and Fitness Management	Dr. Frank Wyatt
Theatre	Ms. Laura Jefferson
Undecided	Academic Support Center
Pre-Dentistry & Dental Early Acceptance Program	Dr. Rodney Cate
Pre-Engineering	Dr. Idir Azouz
Pre-Health Sciences & Human Services	Ms. Catherine Dentler
Pre-Law	Dr. Kris Tilker
	Dr. Stuart MacDonald
Pre-Medicine, Pre-Veterinary, & Joint Admissions Medical Program (JAMP)	Dr. Rodney Cate
Pre-Pharmacy & Pre-Physical Therapy	Dr. William Cook

DILLARD COLLEGE OF BUSINESS ADMINISTRATION

**Providing leadership as the region's center of excellence
in business education and service.**

Anthony F. Chelte, Dean (Dillard College of Business Administration Building 239)

MISSION STATEMENT FOR THE DILLARD COLLEGE OF BUSINESS ADMINISTRATION

Dillard College of Business Administration at Midwestern State University is committed to offering high quality business education and service. While it serves students and other stakeholders primarily from the north Texas and the southern Oklahoma regions (Texoma), its reach extends globally, attracting a significant proportion of international students.

Dillard College emphasizes relationship-building and seeks to develop partnerships across stakeholder groups through its educational programs and service commitments, including those provided by its Bureau of Business and Government Research (BBGR) and its Small Business Development Center (SBDC). These entities also provide opportunities for faculty and students to further enhance research and service contributions to the region.

An emphasis on learning is the foundation for both the undergraduate and graduate programs. The B.B.A. professional curricula focus on the knowledge and competencies necessary for successful careers while maintaining a strong liberal arts foundation consistent with the University's mission. The M.B.A. program is orientated toward enhancing students' professional skills that lead to career advancement and leadership opportunities.

Dillard College of Business' core values revolve around quality education and service which are reinforced through the commitment to continuous improvement. The broad use of current technology and emphasis on co-curricular student activities, service learning opportunities, and favorable student-faculty ratios position the College to realize its vision as being Texoma's center of excellence in business education and service.

Faculty members demonstrate commitment to Dillard College's core values through diverse contributions that include service to academic disciplines and to the College, University, and community. The faculty is committed to ensuring that the College's programs are both current and relevant. This is accomplished through production of scholarly work, including research contributions to practice, learning and pedagogy, and the business disciplines.

REQUIREMENTS FOR THE BACHELOR OF BUSINESS ADMINISTRATION

The Bachelor of Business Administration (B.B.A.) degree is offered with majors in accounting, economics, finance, general business, management, management information systems, and marketing.

Minors are offered in business administration, accounting, economics, and management information systems. (See pages 123, 127, 129, and 138 for specific requirements.)

Teacher certification is available in basic business as a primary teaching field through the West College of Education. Students seeking teacher certification should check with the West College of Education concerning the specific requirements for teacher certification early in their college careers.

All candidates for a Bachelor of Business Administration (B.B.A.) degree must complete a course of study consisting of a minimum of 124 hours including kinesiology requirements, if applicable. Candidates must satisfy all general requirements for a bachelor's degree (see page 101) as well as requirements listed below.

ACADEMIC FOUNDATIONS AND CORE CURRICULUM (see page 103)

Candidates for the B.B.A. degree must satisfy all academic foundations and core curriculum requirements (see page 103).

BUSINESS CORE

In order to matriculate in the upper division business curriculum, students must complete all nine (27 semester hours) of the business core courses listed below (with an overall GPA of 2.0) and have completed an additional 21 hours in the university core.

BUAD	1033	Introduction to Business
ENGL	1113	Rhetoric and Composition
ENGL	1123	Rhetoric and Composition
MATH	1203	Mathematical Analysis for Business OR MATH 1233 College Algebra
ACCT	2143	Financial Accounting
ACCT	2243	Managerial Accounting
CMPS	2153	Microcomputer Applications for Business
ECON	2333	Macroeconomics ¹
ECON	2433	Microeconomics

¹ Business majors must take this option in the Academic Foundations.

PROFESSIONAL BUSINESS CORE

After satisfying the business core requirements discussed above, students pursuing the B.B.A. degree may begin taking upper level business courses including those listed in the Professional Business Core. In order to receive the B.B.A. degree in most business programs, students must successfully complete all nine (27 semester hours) of the Professional Business Core courses listed below.

MGMT	3013	Organizational Behavior in Business
BUAD	3033	Business and Economic Statistics
BUAD	3113	Management Information Systems
BUAD	3233	Legal Environment of Business
BUAD	3323	Business Ethics
MGMT	3453	Operations Management
MKTG	3723	Principles of Marketing
FINC	3733	Business Finance
* MGMT	4853	Strategic Management

* This course not required for students completing the joint BBA/MBA in Accounting.

REQUIREMENTS FOR MAJORS IN BUSINESS ADMINISTRATION

Students may select a major in accounting, economics, finance, general business, management, management information systems, or marketing; however, the course of study during the first two years is virtually the same for all business administration majors.

Specific requirements for a major in the undergraduate program are listed below. Each major requires the courses in the Professional Business Core plus other courses specific to the particular major selected. Students must earn a minimum overall grade point average of 2.0 in the major and the Professional Business Core (on the courses attempted at Midwestern State University).

Students pursuing a B.B.A. degree with any major must take a minimum of 40 percent of their semester hours outside the Dillard College of Business Administration. Dillard College of Business Administration courses are listed as ACCT, BUAD, ECON, FINC, MGMT, MIS, and MKTG; however, ECON 2333 and ECON 2433 may be counted as work outside the Dillard College of Business Administration when making this calculation.

Total hours granted for internships in all areas of business administration may not exceed six hours of credit.

Transfer Credit

All transfer credit intended to satisfy degree requirements will be evaluated and acceptance determined by Midwestern State University. Business courses (including accounting, finance, marketing, management, business law, and information systems) taken at junior or community colleges that are offered at Midwestern State University as upper division courses (3000 or above) are not normally accepted as credit toward degree requirements for the B.B.A.

Suggested Minor in International Studies

In our increasingly global environment, it is imperative that students be prepared for careers that transcend local, regional, and national boundaries. Students have the opportunity to expand their global perspective both within the curriculum of the Dillard College of Business Administration and by selecting a minor in International Studies (see page 289). A minor in International Studies can provide the differentiation that leads to a successful career path in the ever-increasing global economy. This interdisciplinary minor develops global perspective and understanding of cross cultural concerns while offering specialization in advanced studies in global perspectives.

REQUIREMENTS FOR MINOR IN BUSINESS ADMINISTRATION

(21 semester hours)

ACCT 2143 and 2243, BUAD 3033, ECON 2433, FINC 3733, MGMT 3013, and MKTG 3723.

NOTE: Students minoring in business administration should take ECON 2333, CMPS 2153, and MATH 1203 or 1233 instead of the other options listed under the Academic Foundations and General Degree Requirements.

COURSES IN BUSINESS ADMINISTRATION (BUAD)

1033. **Introduction to Business** (TCCNS = BUSI 1301) 3(3-0)
A general survey course introducing the functional areas of business. This course is

designed to provide the beginning business student with an introduction to the various business disciplines and demonstrate their interrelationships. Ethical issues facing the business person are introduced.

3033. Business and Economic Statistics 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, MATH 1203 or MATH 1233, and CMPS 2153 or equivalent.

Introduction of statistical methods to the analysis of problems encountered in business and economics. Topics include descriptive statistics, probability and probability distributions, sampling and sampling distributions, estimation, hypothesis testing, analysis of variance, and simple and multiple regression and correlation.

3103. MIS for Non-Business Majors 3(3-0)

Prerequisite: BAAS major or consent of instructor.

Introduction to management information systems and the importance of systems in achieving organizational goals. Includes an overview of hardware, software, databases, and other technology impacting management issues. May not be counted toward a major or minor within the College of Business Administration.

3113. Management Information Systems 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and CMPS 2153 or equivalent.

Introduction to management information systems and the importance of systems in achieving organizational goals. Includes topics such as systems concepts, time-sharing, telecommunications, distributed databases, and associated software and hardware.

3223. Business Communications 3(3-0)

Prerequisite: Junior standing or above or consent of the chair.

Study and applications of the concepts of inter- and intra-organizational communication — oral and written. Includes listening skills, letters, memos, proposals, resumes, giving instructions, chairing meetings, and interviews.

3233. Legal Environment of Business 3(3-0)

Prerequisites: POLS 1333 and 1433 or consent of the instructor and junior standing or above or consent of the instructor.

An introduction to the procedures of the American legal system and how law operates in the business environment with international, economic, political, and social influences. Topics include legal and ethical responsibilities in organizations and society, legal process, alternative dispute resolution, legal and ethical decision making, international law, torts, contracts, and sales law. This course is beneficial for pre-law students.

3243. Commercial Law 3(3-0)

Prerequisites: POLS 1333 and 1433 or consent of the instructor and junior standing or above or consent of the instructor.

Agency, real property, bankruptcy, and Uniform Commercial Code Articles 2, 3, 4, and 7. This course is designed for students taking the CPA exam, business majors desirous of a second course in law, and pre-law students. Students are strongly encouraged to take BUAD 3233 before taking this class.

3323. Business Ethics 3(3-0)

Prerequisite: Junior standing or above or consent of the chair.

An introduction to the ethical dilemmas faced by business persons and business leaders. This course will introduce students to the concepts required for ethical decision making in the current business environment, as well as examining various perceptions of what ethical standards business leaders should adhere to. This course should enable

the student to examine ethical dilemmas from various perspectives and understand ethical issues from varying perspectives.

4763. International Business Decisions 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, MGMT 3013, and MKTG 3723.

An in-depth examination of problems, strategies, and techniques frequently encountered and utilized by global business managers in structuring, implementing, and monitoring international business activities. Focus will be both global and country-specific. Culture, marketing, legal, forms of organizations, joint ventures, trading blocks, and technology development are among the topics covered.

4873. Seminar in Business 3(3-0)

Prerequisites: Senior standing in Business Administration and consent of the dean.

Seminar discussions and projects dealing with topics in business administration. May be repeated for credit when topics vary.

4883. Problems in Economics and Business 3(3-0)

Prerequisites: Junior standing or above and consent of the chair.

Research in a specific area selected by the student in conjunction with a member of the school faculty. This course is open only to students of high scholastic standing. Enrollment must be approved prior to registration.

4893. Internship in Business Administration 3(3-0)

Prerequisites: Junior standing or above or consent of the chair and the dean.

Field experience in selected areas of business administration with local or regional organizations. May involve a specific project or theoretical integration with the "real world". May be repeated once. Must be approved with all paperwork completed prior to registration. Total hours granted for internships in all areas of business administration may not exceed six hours of credit.

4991. Current Events in Business 1(1-0)

Prerequisites: Junior standing or above or consent of the chair, and consent of the instructor.

Seminar discussions and projects dealing with current events in one or more designated business disciplines. May be repeated once for credit when topics vary.

4993. International Issues in Business 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and consent of the instructor.

Examination of government regulation and culture in the European Union as it affects the different disciplines of business.

ACCOUNTING

Ralph Fritsch, Chair (Dillard College of Business Administration Building 287)

Professors: Fritsch, Kaciuba

Assistant Professor: Bauer

Professors Emeriti: T. Harris, Madera, McInturff

REQUIREMENTS FOR THE B.B.A. WITH A MAJOR IN ACCOUNTING

Academic Foundations and Core Curriculum: (see page 103)

Business Core: (see page 122)

Professional Business Core: (see page 122)

Courses for Major in Accounting: (24 semester hours)

ACCT 3023, 3033, 3043, 3073, 3203, 4043 or 4053, and six accounting elective hours selected from ACCT 4083, 4093, 4123, 4333. ACCT 4043 or 4053 may also be used as an accounting elective if not used to fulfill the requirement shown above.

Other Program Requirements: (3 semester hours)
BUAD 3243.

Approved electives to bring total to 124 semester hours including kinesiology requirements, if applicable.

JOINT BBA/MBA IN ACCOUNTING

This program is an integrated 150-hour combination of the BBA in accounting and the MBA (non-thesis option) involving 114 hours of undergraduate and 36 hours of graduate course work. Completion of the program results in the awarding of both degrees and fulfills the educational requirements of the Texas State Board of Public Accountancy for certification as a Certified Public Accountant based on the American Institute of Certified Public Accountant's 150-hour program requirements.

Students interested in this program should consult an accounting advisor at the beginning of their junior year regarding special scheduling requirements and must apply for admission to the graduate program in the semester before starting their last 12 hours of undergraduate credit. (See graduate catalog for specific requirements.) If accepted for graduate admission, students may enroll in both graduate and undergraduate courses for the remainder of the program.

REQUIREMENTS FOR JOINT BBA/MBA IN ACCOUNTING

Academic Foundations and Core Curriculum: (see page 103)

Business Core: (see page 122)

Professional Business Core: (See page 122 omitting MGMT 4853.)

Undergraduate Accounting Program Requirements (omitting one undergraduate accounting elective) (21 semester hours): ACCT 3023, 3033, 3043, 3073, 3203, and 4043 or 4053. ACCT 4123 must be taken as the other accounting elective.

MBA Program Requirements (Non-Thesis Option): See Joint BBA/MBA program requirements in the graduate catalog. **Other Program Requirements** (3 semester hours): BUAD 3243.

Electives to bring total to 150 semester hours including kinesiology requirements, if applicable.

Certification as a Certified Public Accountant (CPA)

The Texas State Board of Public Accountancy currently requires the completion of 150 semester hours including 36 hours of accounting. Students intending to become certified should complete ACCT 4123 (Advanced Accounting) and ACCT 4083 (Federal Income Tax II) or ACCT 4093 (Federal Income Tax III) as their accounting electives. A second auditing course (ACCT 4043 or 4053) and either a second tax elec-

tive or ACCT 4333 (Governmental & Nonprofit Entity Accounting) should also be completed in addition to other requirements of the major in accounting.

The Texas State Board of Public Accountancy also requires 3 semester hours of approved ethics instruction as part of the 150-hour requirement.

REQUIREMENTS FOR A MINOR IN ACCOUNTING: (18 semester hours)

ACCT 2143, 2243, 3023, 3033, and six advanced hours.

(ACCT) ACCOUNTING

2143. Financial Accounting (TCCNS = ACCT 2301) 3(3-0)

Introduction to fundamental concepts and principles underlying accounting information, the accounting cycle, service and merchandising operations, sole proprietorships and partnerships, and corporations.

2243. Managerial Accounting (TCCNS = ACCT 2302) 3(3-0)

Prerequisite: ACCT 2143.

Accounting for cash flows, financial statement analysis, responsibility and cost accounting, and budgeting.

3023. Accounting Information Systems 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and ACCT 2243.

Use of accounting data as an information system; general ledger programs and sub-programs relevant to the basic accounting cycle.

3033. Intermediate Accounting I 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and ACCT 3023 with a grade of "C" or higher.

Financial accounting theory and problems; statement presentations; an intensive course combining theory and practical applications.

3043. Intermediate Accounting II 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and ACCT 3033 with a grade of "C" or higher.

A continuation of Accounting 3033. An intensive course combining theoretical concepts and practical applications of accounting for a wide range of business activities.

3073. Federal Income Tax I 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and ACCT 2243.

General concepts of federal income taxation applicable to individuals and business entities.

3203. Cost Accounting I 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and ACCT 2243.

Theory and procedures used in determining costs of business operations with emphasis on manufacturing accounting for materials, labor, and overhead in job order, process, and standard cost systems.

3633. Financial Analysis 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, ACCT 2143, ACCT 2243, and MATH 1203 or MATH 1233.

The study of financial tools and techniques used in the analysis of financial statements and other information for the purpose of deriving reasonable judgments about past, present, and future conditions of the firm and the effectiveness of its management.

4043. **External Auditing** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and ACCT 3043 or concurrent enrollment.
Theory, practice, and procedure of auditing, internal accounting control, auditing standards and principles, and working papers and reports.
4053. **Internal Auditing** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and ACCT 2243.
Topics in auditing, theory, and practice. Includes internal controls, auditing procedures for automated accounting systems, and operations.
4083. **Federal Income Tax II** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and ACCT 3073.
Survey of federal income tax laws applicable to corporations, partnerships and S-corporations, and fiduciary relationships.
4093. **Federal Income Tax III** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and ACCT 3073.
Survey of federal income tax laws applicable to corporations, partnerships and S-corporations, and fiduciary relationships.
4123. **Advanced Accounting** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and ACCT 3043 or concurrent enrollment.
Intensive study of special areas in accounting with emphasis on consolidated statements; other topics include multinational companies, fiduciaries, insolvencies, partnerships, and fund accounting.
4333. **Governmental and Nonprofit Entity Accounting** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and ACCT 2243.
Application of accounting principles and systems of budgeting, accounting, and reporting of governmental units and other nonprofit entities.
4883. **Problems in Accounting** 3(3-0)
Prerequisites: Junior standing or above and consent of the chair.
Research in a specific area selected by the student in conjunction with a member of the accounting faculty. This course is open only to students of high scholastic standing. Enrollment in this course must be approved prior to registration.
4893. **Internship in Accounting** 3(3-0)
Prerequisites: Junior standing or above and consent of the chair and the dean.
Field experience in accounting with local or regional firms. Provides significant accounting work experience involving training and supervision by an employer. A written report and employer evaluation are required. May be repeated once. Must be approved with all paperwork completed prior to registration. Total hours granted for internships in all areas of business administration may not exceed six hours of credit.

ECONOMICS and FINANCE

Yoshi Fukasawa, Chair (Dillard College of Business Administration Building 209)

Professors: Fukasawa, Harmel, Martinez, Patin

Associate Professor: MacDonald

Assistant Professors: Lei, Li, Owen

Professors Emeriti: Krienke, Rodriguez, Van Geem

ECONOMICS

REQUIREMENTS FOR THE B.B.A. WITH A MAJOR IN ECONOMICS

Academic Foundations and Core Curriculum: (see page 103)

Business Core: (see page 122)

Professional Business Core: (see page 122)

Courses for Major in Economics: (27 semester hours)

ECON 3323, 3333, 3543, 3703, and FINC 3353, plus 12 semester hours of upper level economics. MGMT 4033 may be counted as one of the upper level economics courses.

Economics majors planning to go on to a graduate program are strongly recommended to take additional mathematics courses including MATH 1634, 1734, and 3833.

Approved electives to bring total to 124 semester hours including kinesiology requirements, if applicable.

REQUIREMENTS FOR A MINOR IN ECONOMICS (18 semester hours)

ECON 2433, plus 15 semester hours of upper level economics which must include ECON 3323 or 3333.

Note: Economics minors should take ECON 2333 - Macroeconomic Principles instead of ECON 1333 - General Economics to fulfill the university core on page 104.

COURSES IN ECONOMICS (ECON)

1333. **General Economics** (TCCNS = ECON 1301) 3(3-0)

A non-theoretical approach to describe economic involvement in relevant social and political matters. A subject matter to help fill the general need for improved economic reasoning. (Students majoring or minoring within the Dillard College of Business Administration should take ECON 2333 instead of this course.)

2333. **Macroeconomic Principles** (TCCNS = ECON 2301) 3(3-0)

Scope and methodology of economics. Development of principles useful for understanding aggregate economics and for choosing policy to resolve problems such as unemployment, inflation, recession, poverty, economic stagnation, and resource waste.

2433. **Microeconomic Principles** (TCCNS = ECON 2302) 3(3-0)

Prerequisite: MATH 1203 or MATH 1233.

Economic principles to describe behavior of business firms under conditions of competition or monopoly and to explain what determines product and resource price levels. An application of economic tools to select problems in monopoly, international trade, economic development, and taxation.

3323. Intermediate Macroeconomics 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, ECON 2333, and ECON 2433.

Macroeconomic analysis is studied to identify forces affecting the economy's performance and to present theory useful in policy development to achieve society's economic goals.

3333. Intermediate Microeconomics 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, ECON 2333, and ECON 2433.

An analysis of the overall functioning of the price system and of the modern business firm in a private enterprise, market-oriented economy. The relation of price, quantity, and profit under competition and imperfect competition.

3543. Introduction to Econometrics 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and BUAD 3033.

The application of statistical methods to economic and financial analysis; particular attention is given to regression analysis including limited and dichotomous dependent variables, regression diagnostics, hypothesis testing, analysis of variance, and selected topics in time series forecasting.

3553. Economic Geography 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and 3 credit hours of economics.

A study of global economic activity from the geographic and natural resource perspectives. Location economics will be used to analyze global resource allocation and development, technological change, environmental risks, and societal impacts, as well as to develop public policy alternatives.

3703. Money, Banking, and Monetary Policy 3(3-0)

Prerequisites: Junior standing or above or consent of the chair.

An analysis of money, banking, and monetary policy, including an introduction to monetary theory. Topics include the use of balance sheet management techniques to control interest rate risk and increase profit in a dynamic banking environment.

3713. History of Economic Thought 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and 3 credit hours of economics.

The significance, influence, and development of economic doctrines from ancient times to modern thought.

3743. Public Finance 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, ECON 2333, and ECON 2433.

A critical analysis of government acquisition and disbursement of revenues; detailed attention to the various taxing programs, the economic effects of governmental debt, and the significance of governmental expenditures for national defense, public works, social security benefits, resource development, and education.

4633. Contemporary Economics Issues 3(3-0)

Prerequisites: Junior standing or above and consent of the chair.

Content will vary at different offerings. Topics will be selected as needed to keep students abreast of contemporary economic issues. Course may be repeated when topics vary.

4643. International Economics and Finance 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, ECON 2333, or ECON 2433.

International trade theory and practice, historical survey, balance of payments, and world economic problems.

4723. Comparative Economic Systems 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and 3 credit hours of economics.

Examination of economic characteristics and institutions related to economic freedom, growth, business enterprise, government planning, taxation expenditure, and transfer payments in the U.S., France, United Kingdom, West Germany, and Japan.

4743. Industrial Organization 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, ECON 2333, and ECON 2433.

The implications as to how the structure of business organization, the conduct of buyers and seller, and the involvement of government affect economic performance and welfare in the society.

4883. Problems in Economics 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, ECON 2333, and ECON 2433.

Research in a specific area selected by the student in conjunction with a member of the school faculty. This course is open to students of high scholastic standing. Enrollment must be approved prior to registration.

FINANCE

REQUIREMENTS FOR THE B.B.A. WITH A MAJOR IN FINANCE

Academic Foundations and Core Curriculum: (see page 103)

Business Core: (see page 122)

Professional Business Core: (see page 122)

Courses for a Major in Finance: (27 semester hours)

FINC 3353, 4653, 4733, ECON 3543, 3703, and 4643, plus nine semester hours (three courses) selected from ECON 3323, 3333, 3743, FINC 3413, 3753 and advanced accounting (limit six semester hours).

Approved electives to bring total to 124 semester hours including kinesiology requirements, if applicable.

Students pursuing a B.B.A. degree with a major in Finance must earn a grade of C or higher in FINC 3353, 3733, 4653, and 4733 taken at MSU or transferred from another college or university.

COURSES IN FINANCE (FINC)

1733. Personal Finance (TCCNS = BUSI 1307) 3(3-0)

Study from the consumer's point of view of individual and family financial problems with emphasis on budgeting, credit purchases, insurance, social security, taxes, investments, and sources of consumer information.

- 3353. Financial Markets and Institutions** 3(3-0)
Prerequisite: Junior standing or above or consent of the chair.
The structure, internal operation, regulation, supervision, and interaction of financial institutions and markets within the United States.
- 3413. Real Estate** 3(3-0)
Prerequisite: Junior standing or above or consent of the chair.
Real estate principles and practices and market forces affecting real estate finance, sales, and brokerage; urban land use, and location analysis; the impact of government policies upon the real estate industry.
- 3733. Business Finance** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, ACCT 2143, and ECON 2433.
Introduction to the principles of financial management applied by domestic and international firms. Core topics include financial analysis, time value of money, risk and return, asset valuation, cost of capital and capital budgeting.
- 3753. General Insurance** 3(3-0)
Prerequisite: Junior standing or above or consent of the chair.
General principles of insurance and their application to the business situation; fundamentals of the major types of insurance, including life, casualty, surety, fire, and marine.
- 4653. Financial Management** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, BUAD 3033, and FINC 3733.
As the capstone course for the Finance major, financial management gives advanced treatment of core topics from business finance as well as introductory treatment of new topics such as working capital management, capital structure and dividend decisions, and real options applied to capital budgeting decisions.
- 4733. Investments** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, BUAD 3033, and FINC 3733.
Study of various investment markets with special emphasis on corporate and government securities; the effect of investment control by the federal government evaluated from viewpoint of the public and the investor.
- 4833. Security Analysis and Portfolio Management** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and FINC 3733 or equivalent.
Theory of portfolio management including an examination of investment alternatives, security valuation, investment timing, diversification, and risk reduction.
- 4893. Internship in Finance** 3(3-0)
Prerequisites: Junior standing or above and consent of the chair and the dean.
Field experience in finance with local or regional firms. Provides significant finance work experience involving training and supervision by an employer. The maintenance of a weekly log, a written report, and an employer evaluation is required. May be repeated once. Must be approved with all paperwork completed prior to registration. Total hours granted for internships in all areas of business may not exceed six hours of credit.

MANAGEMENT, MARKETING, and GENERAL BUSINESS

Phillip Wilson, Chair (Dillard College of Business Administration Building 272)

Professors: Chelte, Patterson, Ramser, Tilker

Associate Professor: Bultena

Assistant Professors: Shao, Wilson

Instructor: Hargrove

Professors Emeriti: Boutwell, McCullough, McWhorter, Moeller, Rountree

MANAGEMENT

REQUIREMENTS FOR THE B.B.A. WITH A MAJOR IN MANAGEMENT

Academic Foundations and Core Curriculum: (see page 103)

Business Core: (see page 122)

Professional Business Core: (see page 122)

Courses for Major in Management: (27 semester hours)

MGMT 3783, 4033, 4113, 4213, and 4613; plus twelve hours from the following: MGMT 4023, 4413, 4513, BUAD 4763, 4993, or MKTG 4303.

Approved electives to bring total to 124 semester hours including kinesiology requirements, if applicable.

COURSES IN MANAGEMENT (MGMT)

3013. Organizational Behavior in Business 3(3-0)

Prerequisite: Junior standing or above or consent of the chair.

A study of the behavior of people at work in all forms of organizations. Topics to be covered include the fundamentals both of organizations and of organizational behavior, including individual differences, attitudes, values, ethics, motivation, group dynamics, decision-making, conflict, power, change, stress, leadership, job design, and organization structure. Also includes the development of management theory, as well as international and technological management, and self-assessment.

3453. Operations Management 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, MATH 1203 or MATH 1233.

Study of concepts, issues, and techniques for systems of production. Development of a basic understanding of the manufacturing function in industry.

3783. Entrepreneurship and Management of Small Enterprises 3(3-0)

Prerequisite: Junior standing or above or consent of the chair.

Focus on the principles and problems associated with starting and managing small enterprises. Students gain an understanding of: forms of ownership, sources of funds, location analysis, facility requirements, and business plans.

4023. Current Topics in Management 3(3-0)

Prerequisite: Junior standing or above or consent of the chair.

Content will vary each semester course is taught. Topics are selected in order to keep Management majors abreast of contemporary management topics. Course may be repeated for credit one time when topics change.

- 4033. Quantitative Methods** 3(3-0)
 Prerequisites: Junior standing or above or consent of the chair, and BUAD 3033 or equivalent.
 Methods and application of operations research including topics such as linear programming, waiting line theory, PERT, networks, transportation, assignment, dynamic and goal programming.
- 4113. Leadership** 3(3-0)
 Prerequisites: MGMT 3013 and junior standing or above or consent of the chair.
 Course focuses on the leadership challenges in organizations. Key learning outcomes in this course include: current perspectives on the key elements of effective leadership; the fundamental elements and best practices in the area of organizational change; using the concepts of leadership and change to analyze organizational change situations.
- 4213. Human Resource Management** 3(3-0)
 Prerequisites: Junior standing or above or consent of the chair, and MGMT 3013.
 Personnel and human resource policies and practices related to procuring and training employees, development, careers, job analysis, basic compensation, equal opportunity, and fairness. Also looks at human resource philosophy and the national/international arena.
- 4413. Human Resource Perspectives** 3(3-0)
 Prerequisite: Senior standing in business administration or consent of the chair.
 Human resource policies and practices relating to benefits, performance appraisal, rewards, motivation, communications, labor relations, and health and safety. Problem solving, applications orientation with emphasis on human resource manager's job.
- 4513. Employment Relations** 3(3-0)
 Prerequisite: Senior standing in business administration or consent of the chair.
 An experiential study of human relations in varied employment settings, with special emphasis on communications, self-esteem, ethics, motivation, trust, emotional balance, professionalism, team building, conflict, labor-management relations, dispute resolution, and diversity. Extensive use of case analysis, incident-techniques, and panel discussions.
- 4613. Supervisory Management** 3(3-0)
 Prerequisites: Junior standing or above or consent of the chair, and MGMT 3013.
 A study of the art of working with and through people as a manager or team leader. Topics include coverage of management functions such as leading, planning, decision making, organizing, delegating, change management, managing stress, and effective time management. Historical, ethical, and international dimensions will be considered.
- 4853. Strategic Management** 3(3-0)
 Prerequisite: Graduating senior in business administration or consent of the chair.
 Formulation and implementation of top-level managerial strategy. Topics include internal/external analysis, business, corporate, and international strategy, competitive dynamics, acquisition/restructuring, strategic leadership, and innovation. Students apply course concepts by developing a strategic case analysis and by participating in a computer business simulation.
- 4893. Internship in Management** 3(3-0)
 Prerequisites: Junior standing or above and consent of the chair and the dean.
 Field experience in selected areas of business administration with local or regional organizations. May involve a specific project or theoretical integration with the "real world." May be repeated once. Must be approved with all paperwork completed prior to registration. Total hours granted for internships in all areas of business administration may not exceed six hours of credit.

MARKETING

REQUIREMENTS FOR THE B.B.A. WITH A MAJOR IN MARKETING

Academic Foundations and Core Curriculum: (see page 103)

Business Core: (see page 122)

Professional Business Core: (see page 122)

Courses for Major in Marketing (30 semester hours)

MKTG 3763, 3823, 4143, 4743, 4753; one course selected from MKTG 4203, 4643, or 4723; two courses selected from MKTG 3803, 4203, 4223, 4233, 4303, 4643, 4723, or MGMT 3783; three hours of advanced economics; and, three hours from any advanced course from the Dillard College of Business Administration.

Approved electives to bring total to 124 semester hours including kinesiology requirements, if applicable.

COURSES IN MARKETING (MKTG)

3723. Principles of Marketing 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and ECON 2433 or equivalent.

A description and analysis of business activities designed to plan, price, promote, and distribute products and services to customers. Topics studied include the marketing environment, consumer buying habits and motives, types of middlemen, marketing institutions and channels, governmental regulations, advertising, and current marketing practices.

3763. Professional Selling 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and MKTG 3723.

Professional selling principles and practices for business. Includes principles of communication, listening, selling yourself, and selling a product. Students develop and present two sales presentations.

3803. Marketing on the Internet 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and MKTG 3723.

An introduction to the World Wide Web as an online marketing tool. Includes coverage of user characteristics and behavior, Web technology, design, and management of Web pages as a distribution and marketing communication medium.

3823. Consumer Behavior 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and MKTG 3723.

An exploration and evaluation of the extensive body of research evidence pertaining to the consumer, and an assessment of the marketing implications of the various processes and facets of consumer motivation.

4143. Marketing Research 3(3-0)

Prerequisites: Senior standing in business administration or consent of the chair, BUAD 3033, and MKTG 3723.

Emphasizes the importance and use of marketing research in U.S. businesses. Includes a detailed analysis of the research process from the formulation of the problem to the preparation of the research report. Each student will complete a research project.

- 4203. Promotion Management** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and MKTG 3723.
An overview of the broad field of promotion. Including promotional program selection, media selection, and determination of advertising effectiveness and coordination of the advertising function with the other promotional tools of personal selling and sales promotion.
- 4223. Retailing** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and MKTG 3723.
Philosophy and techniques of modern retail merchandising; store location, traffic studies, store layouts and arrangements, store organization, merchandising budget system, and store policies.
- 4233. Current Marketing Topics** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and MKTG 3723.
Content will vary each semester course is taught. Topics are selected in order to keep marketing majors abreast of contemporary marketing topics. Course may be repeated for credit when topics change.
- 4303. Sales Management** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and MKTG 3723.
Basics of first-level management in a sales setting. Topics include the boundary spanning role, strategic programs, planning, organizing, staffing, directing and controlling the sales and sales force operation.
- 4643. International Marketing** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and MKTG 3723.
A survey of international marketing, world markets, political restraints in trade, and international marketing practices.
- 4723. Services Marketing** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and MKTG 3723.
An understanding of the unique characteristics of services industry, the marketing challenges created by these characteristics, the marketing tools to deal with these challenges, and the strategic issues of utilizing these marketing tools.
- 4743. Advanced Marketing Problems** 3(3-0)
Prerequisites: Senior standing in business administration or consent of the chair, and MKTG 3723.
The utilization of oral and written cases in solving problems in the areas of marketing management and marketing strategy. Emphasis is placed on simulated problem solving and decision making in the marketing environment.
- 4753. Marketing Management** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and MKTG 3723.
Marketing management including a study of qualitative and quantitative market analysis, product distribution, sales management functions, sales organization, sales promotion functions, and sales control.
- 4893. Internship in Marketing** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair and the dean.
Field experience in selected areas of marketing with local or regional businesses. May be repeated once. Must be approved with all paperwork completed prior to registration. Total hours granted for internships in all areas of business administration may not exceed six hours of credit.

GENERAL BUSINESS

REQUIREMENTS FOR THE B.B.A. WITH A MAJOR IN GENERAL BUSINESS

Academic Foundations and Core Curriculum: (see page 103)

Business Core: (see page 122)

Professional Business Core: (see page 122)

Courses for Major in General Business (27 semester hours)

BUAD 3243; one upper level business course from each of the following areas: Accounting, Economics, Finance, Management, and Marketing; and any other three upper level courses from the Dillard College of Business Administration.

Approved electives to bring total to 124 semester hours including kinesiology requirements, if applicable.

REQUIREMENTS FOR THE B.B.A. WITH A MAJOR IN GENERAL BUSINESS AND TEACHING CERTIFICATION

Students seeking a major in general business and teaching certification should check with the West College of Education concerning specific requirements for teaching certification, and then the students should work closely with their respective advisors in the Colleges of Business Administration and Education. Program requirements for the B.B.A. with teaching certification will total approximately 140 semester hours including kinesiology requirements, if applicable.

MANAGEMENT INFORMATION SYSTEMS

(formerly Business Computer Information Systems)

Stephen E. Lunce, Chair (Dillard College of Business Administration Building 257)

Professor: Lunce

Assistant Professors: Friesen, Johnston, Wierschem

Instructor: VonDielingen

Professors Emeriti: C. Harris, Harvey

REQUIREMENTS FOR THE B.B.A. WITH A MAJOR IN MANAGEMENT INFORMATION SYSTEMS

Academic Foundations and Core Curriculum: (See page 103)

Business Core: (See page 122)

Professional Business Core: (See page 122)

Courses for Major in Management Information Systems: (30 semester hours):

MIS 3113, 3123, 3133, 3303, 4143, 4443, and

IT track: MIS 3153, 4113, 4323 or 4333; and one course selected from the following: MIS 3163, 3203, or 4153.

or

MIS track: MIS 3163, 3203, 4153; and one course selected from the following: MIS 3153, 4113, 4323, or 4333.

Students pursuing a B.B.A. degree with a major in Management Information Systems must earn a grade of C or higher in MIS 3123 and 3133 taken at MSU or transferred from another college or university.

Approved electives to bring total to 124 semester hours including kinesiology requirements, if applicable.

REQUIREMENTS FOR MINOR IN MANAGEMENT INFORMATION SYSTEMS (18 semester hours)

BUAD 3113 Management Information Systems

MIS 3123 Database Design and Management

One approved programming language (C, C++, COBOL, Visual Basic, or Java)

Three advanced MIS courses approved by MIS department chair

COURSES IN MANAGEMENT INFORMATION SYSTEMS (MIS) (formerly courses in Business Computer Information Systems – BCIS)

3113. Business Programming Language 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, CMPS 2153 or equivalent, and MATH 1203 or MATH 1233.

An introduction to a programming language which has relevance to business applications. Includes language theory and programming logic as well as implementation. May be repeated if topic differs.

3123. Database Design and Management (formerly 4123) 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and CMPS 2153 or equivalent.

An examination of database management systems and their applications in business. Emphasis is placed on design, consideration of the end-user, and management of databases. There will be extensive hands-on use of a microcomputer-based database package.

3133. Business Systems Analysis (formerly 4133) 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, and BUAD 3113 or equivalent.

Study of the analysis phase of the system development life cycle. Emphasis is placed on feasibility studies, requirement analysis, human factors, and preliminary design. Diagramming techniques and CASE tools, and team presentations will be studied and/ or utilized.

3153. Hardware Issues in Information Technology (I.T.) 3(3-0)

Prerequisites: Junior standing or above or consent of the chair, CMPS 2153 or equivalent, and MATH 1203 or 1233.

The objective of this course is to familiarize students with the components, standards, and protocols associated with personal computers. Students will study the various PC configurations and technologies including microprocessors, motherboards, power supplies, bus configurations, peripheral devices and others. A hands-on project requiring students to design and build a personal computer will also be part of the course. Upon completion of the course, students will have a basic knowledge of and understanding of the following hardware components, concepts, and applications: system resources, Random Access Memory, CMOS RAM, disk devices, printer drivers, and system protection.

- 3163. Project Management** 3(3-0)
Prerequisite: Junior standing or above or consent of the chair.
Practical approach to business problem solving through the actual implementation of a software product. It includes study of project management tools and techniques necessary to plan, staff, organize, direct, and control the development of computer-based information systems.
- 3203. Electronic Commerce** 3 (3-0)
Prerequisite: Junior standing or above or consent of the chair.
This course will explore business uses of the tools and technologies needed for Electronic Commerce. Topics include business concepts, opportunities, challenges, and strategies that surround the emergence of electronic commerce. Problems related to the impact of electronic commerce such as social issues, risk, security, authentication, encryption, privacy, and methodologies will be discussed.
- 3303. Networking and Telecommunications** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and BUAD 3113.
Telecommunication applications and regulating environment as they apply to business. An introduction to the technical aspects of current telecommunications technology and the managerial aspects of telecommunications in business organizations.
- 4113. Advanced Programming** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and MIS 3113.
An extended introduction to an advanced programming environment utilizing a business oriented programming language. The course will provide instruction in the advanced manipulation of data and the programming of sophisticated data-intensive applications and file structures. In this course emphasis will be placed on developing object-oriented and web-based business applications. Major topics covered include program, system and interface design, database access, web service concepts, and programming management.
- 4143. Business Systems Design and Implementation** 3(3-0)
Prerequisites: Senior standing or consent of the chair, and grade of "C" or better in MIS 3123 and 3133.
Study of the design and implementation phases of the system development life cycle. Emphasis is placed on detailed, physical design of a system, and its implementation in a microcomputer environment. Students will work in a team environment to develop a prototype computer-based system for a client, either real or hypothetical.
- 4153. Decision Making and Decision Support Systems (D.S.S.)** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and BUAD 3113.
This course explores various theories of decision making. It provides an opportunity for the student to study the application of quantitative decision-making techniques to management decision problems; focus on model development, solution, and implementation of results.
- 4323. Business Network Design** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and MIS 3303.
This course explores the telecommunication technologies used in wide area networks. Technologies such as frame relay, ATM, TCP/IP, and voice over IP will be studied. The role of the common carriers will also be discussed. Secure network traffic over TCP/IP and other security topics will be included.
- 4333. Advanced Database Design** 3(3-0)
Prerequisites: Junior standing or above or consent of the chair, and MIS 3123.
This course will allow faculty and students to explore emerging technologies and

concepts within systems development including, but not limited to: data warehousing, data mining, knowledge management (KM), and other technologies necessary to facilitate the successful implementation of electronic business functions (e.g., e-commerce) and other enterprise systems.

4443. Information Resource Management 3(3-0)

Prerequisite: Graduating senior in MIS or consent of the chair.

This is a capstone course in management of information systems and the information resources of an organization. Included in the course is a study of the principles and concepts involved in the management of all aspects of an organization's information systems resources. Topics include project control, CIO functions, information systems planning and budgeting, strategic impact of information systems, multinational organizations, and relevant legal, professional, and ethical issues. A key component in this course will be the inclusion of a nationally recognized, comprehensive qualification exam.

4893. Internship in Management Information Systems 3(3-0)

Prerequisites: Junior standing or above and consent of the chair and the dean.

Field experience in selected areas of information systems with local enterprises and agencies. May be repeated once. Must be approved with all paperwork completed prior to registration. Total hours granted for internships in all areas of business administration may not exceed six hours of credit.

AUXILIARY PROGRAMS

Bureau of Business and Government Research

James Owen, Ph.D.
Director

The Bureau of Business and Government Research is an integral part of the Dillard College of Business Administration and Midwestern State University. The mission of the Bureau of Business and Government Research is:

1. to provide assistance in research conducted by the faculty and students in the University;
2. to conduct and encourage research related to economic development and the local community; and
3. to promote partnerships in the business and local community to pursue contemporary economic, business, and government issues.

The Bureau of Business and Government Research at Midwestern State University is a member of the nationwide Association for University Business and Economic Research. The Bureau of Business and Government Research publishes the Midwestern Business and Economic Review twice yearly.

The Mamie Raborn Center for Economic Education

John Martinez, Ph.D.
Director

The Mamie Raborn Center for Economic Education was established in 1982 to increase the economic understanding of the university community and the citizens of the North Texas area. The Center provides economic education materials, disperses

information concerning economic issues, and serves as a point of contact for members of the media and community having questions about economic issues.

Small Business Development Center

Vanda Wright
Director

The MSU Small Business Development Center provides assistance to small businesses. Clients include those already in business and those who want to start a new enterprise. The Center provides business and technical advice in one-on-one counseling. Special seminars and workshops are developed and presented as needed. Assistance in international trade, government contracting, and technology transfer is also offered.

The Small Business Development Center works with the Dillard College of Business Administration in developing cooperative research with faculty members.

The Center for Management and Leadership Development

Jim Lundy, Ph.D.
Director

The Center for Management and Leadership Development is committed to guiding managers and leaders at all levels of responsibility to respect, involve, and guide their associates to embrace the progressive pursuit of individual responsibility and accountability. The challenges of leadership and teamwork exist in all groups – for profit, not-for-profit, governmental or private. Through consultations, workshops, lectures, and other services, the Center for Management and Leadership Development strives to enhance the abilities of individuals and groups to provide their customers, clients, and constituents with outstanding leadership and management competencies.

BRIDWELL DISTINGUISHED PROFESSORSHIP OF FINANCE

The Bridwell Distinguished Professorship of Finance was established in 1990 by the Bridwell Foundation to bring outstanding scholarship to Midwestern State University. The professor holding this position is recognized in the finance profession for his academic achievements.

Dr. Roy P. Patin, Jr., the Bridwell Distinguished Professor of Finance, came to Midwestern State University in 1992 from McNeese State University. Dr. Patin has written numerous articles and has served as a finance consultant. He has work experience with Exxon Oil Company and Dow Chemical Company. He has held administrative positions in higher education and has taught at McNeese State University, Clemson University, and Mississippi State University.

LOUIS J. AND RAMONA RODRIGUEZ DISTINGUISHED PROFESSORSHIP

The Louis J. and Ramona Rodriguez Distinguished Professorship was established in 2003 to honor President Emeritus Louis J. and Ramona Rodriguez.

Dr. Anthony F. Chelte, the Louis J. and Ramona Rodriguez Distinguished Professor of Management, came to Midwestern State University in 2005 from Western New England College, where he was Chair and Professor of Management. Dr. Chelte has authored several articles on topics ranging from team performance to conflict resolution. He is also the author of numerous supplemental materials for major publishing houses. He has served as a mediator and arbitrator (most recently for the United States Postal Service), and as a management consultant for a wide array of business and not-for-profit organizations.

ROBERT MADERA DISTINGUISHED PROFESSORSHIP OF ACCOUNTING

The Robert Madera Distinguished Professorship of Accounting was established in 2005 in recognition of the long-time service of Professor Emeritus, Robert Madera. The generosity of alumni of the Dillard College of Business Administration has made this professorship possible.

GORDON T. AND ELLEN WEST COLLEGE OF EDUCATION

Grant W. Simpson, Jr., Dean (Ferguson Hall 201A)

EDUCATION

Ann Estrada, Chair - Education and Reading

Michaëlle Kitchen, Chair - Counseling and Special Education

Michael Land, Chair - Educational Leadership and Technology

Professors: Coe, Gore, Land, Simpson

Associate Professors: Bailey, Capps, Estrada, Kitchen, Menard, Stange

Assistant Professors: Andersen, Burger, Mullen, Owen, Redmon, Schreiber

Instructors: Curry, Pérez, Schultz

Certification Officer: Darter

Professors Emeriti: Darter, Furr, Hill, Newton, Smith

MISSION STATEMENT FOR THE GORDON T. AND ELLEN WEST COLLEGE OF EDUCATION

The mission of the Gordon T. & Ellen West College of Education, a community of learners, is to prepare successful, reflective professionals through the use of best practices.

Philosophy

The West College of Education believes that learning changes both the individual and society. Developing resiliency and tolerance enhances an individual's potential. The individual becomes a critical thinker and an effective problem solver. Individuals with a cause beyond self contribute to an informed, democratic, and synergistic society. We will establish a reflective and collaborative community to enhance the potential of both the learner and society.

Programs

The undergraduate teacher certification program of the West College of Education functions within a Center for the Professional Development of Teachers (CPDT). The CPDT consists of the Gordon T. and Ellen West College of Education and cooperating public schools. All professional education courses, and most reading courses, are taught as field-based courses in classrooms dedicated to our teacher education program in those professional development schools.

The Gordon T. and Ellen West College of Education offers teacher certification for elementary, secondary, and all-level teachers. Students who wish to become elementary teachers (Early Childhood - Grade 4; Grades 4-8) graduate with a Bachelor of Science in Interdisciplinary Studies (BSIS). Students who wish to become secondary teachers (Grades 8-12) or all-level teachers (Grades K-12) pursue a Bachelor of Science, Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, or Bachelor of Business Administration with a major and/or minor in appropriate teaching fields.

The program requirements listed are those in effect at the time this catalog was pub-

lished. Changes may be mandated by the Texas Higher Education Coordinating Board (THECB), Texas Education Agency, or Midwestern State University Teacher Education Committee (MSU-TEC). Students should contact the West College of Education for information regarding program changes.

Students already holding a bachelor's degree who wish to seek teacher certification should contact the Certification Officer, Ferguson Hall 201-B, for an assessment of their degree and specific program requirements.

Summary Information of Teacher Candidates

The teacher education preparation program is accredited by the Texas Education Agency. The following demographic data presents the pass rate of the ExCET for those completing the initial teacher education program between September 1, 2003 and August 31, 2004.

Overall pass rate:

<u>Total</u>	<u>Female</u>	<u>Male</u>
97% (138)	99% (110)	88% (28)

Numbers in parenthesis represent number passing the test.

Admission to the Teacher Certification Program: The Teacher Education Committee expects all teacher education students to be above average scholars; therefore, to be considered for admission to the Teacher Certification program, the applicant must have:

1. an application on file (forms available in Education Office);
2. three letters of recommendation (forms available in Education Office);
3. satisfactory scores on the Texas Higher Education Assessment (THEA), or equivalent, in reading, writing, and mathematics;
4. at least 60 semester hours of credit;
5. a cumulative grade point of 2.75; and
6. a grade point of 2.5 in freshman English (excluding any developmental courses).

When the above steps have been successfully completed, the student's application to the teacher education program is submitted to the Teacher Education Committee. The Teacher Education Committee has the authority to accept or reject an applicant to teacher certification based on the applicant's file and other relevant information. Admission to the Teacher Education Program is highly selective. Should limitations on resources require restrictions to be placed on the number of students admitted in a given semester or year, the Teacher Education Committee will admit students according to the level of distinction achieved.

All students must satisfy the basic skills testing requirement (Texas Higher Education Assessment test) and have 60 semester credit hours prior to enrolling in any professional education course (EDUC 3153, 3163, 4106, 4113, 4166, 4173, 4176, 4466, 4473, READ 4203, 4213, 4223, 4273). Students should complete all requirements and file for admission by the time they have completed 60 hours of credit. Students having 60 hours of credit and having met the THEA requirement but who have not been admitted to the program are limited to taking 6 semester hours of professional education.

Undergraduate students seeking teacher certification shall have their official advisor appointed by the Dean of the West College of Education. The Certification Officer will advise post-baccalaureate candidates.

Admission to Student Teaching. Students should make application for student teaching by October 15 for the spring semester and by March 15 for the fall semester.

Consideration for admission requires a 2.6 grade point average (programs in the Prothro-Yeager College of Humanities and Social Sciences require a 2.75**) and the dean's approval in professional education and each teaching field. A grade of "D" in a course required for certification cannot be used in a student's major, minor, or professional education courses. Students may be required to pass qualifying exams in their respective colleges prior to being admitted to student teaching. Forty-five hours of field experiences, with at least one-half at the appropriate teaching level, must be completed before student teaching begins. Complete applications are approved by the Teacher Education Committee. Fall applications may not be approved until August, if the student has summer courses to complete.

All students receive a speech/language diagnostic assessment as part of their course work. If there are areas for remediation and correction, speech/language therapy is provided for students as a professional service. Admission into student teaching is contingent upon completion of the recommended corrective steps. Proper speech and language is a professional competency and expectation. Providing these services to education students should be viewed as a tangible benefit of attending MSU.

Student teachers seeking elementary certification must have completed Education 3153, 4106, Reading 4203, 4213, and 4223, prior to student teaching.

Student teachers seeking secondary certification must have completed Reading 4273, Education 3153, 4113, and SPED 3613 prior to student teaching.

Student teaching will be full days for 12 weeks.

**Teaching fields in the Prothro-Yeager College of Humanities and Social Sciences include Composite Social Studies, English/Language Arts and Reading, French, History, and Spanish.

Fitness for the Teaching Profession. Students who are admitted to teacher education are expected to meet specified non-academic standards that are necessary to be competent teachers. The intent is to ensure that the students recommended for teacher certification are able to effectively and independently carry out the duties for which they are being prepared. The fitness criteria include physical characteristics, personality characteristics, responsibility characteristics, communication skills, social relationships, and commitment to the teaching profession. Students who have been identified with a demonstrable discrepancy by two or more professors or cooperating teachers will meet with the Faculty Review Committee to discuss options and develop a growth plan. The Faculty Review Committee consists of three faculty members in the West College of Education appointed by the dean. Failure to make satisfactory progress on the growth plan may result in denied admission to student teaching or removal from the program.

Recommendation for Certification. University recommendation for teacher certification will be made upon completion of the approved program, satisfactory scores on the state competency examinations (TExES), and approval by the Teacher Education Committee. Recommendation for certification will not be made for a student receiving a grade below "C" in student teaching. Certification requires successful scores on the TExES and an application fee set by the State Board for Educator Certification. Application for certification is made by applying online at the website for the State Board for Education Certification (<http://www.sbec.state.tx.us>). Contact the Certification Assistant in the Education Office for detailed instructions on applying online.

For the Language and Bilingual program, students must also pass an oral examination (TOPT).

Upon receipt of the University recommendation, the State Board for Educator Certification screens all applicants for Texas certificates for a record of felony or mis-

demeanor conviction through the Texas Department of Public Safety. In accordance with Article 6252-13c, Texas Civil Statutes, the Commissioner of Education may suspend or revoke a teaching certificate, or refuse to issue a teaching certificate for a person who has been convicted of a felony or misdemeanor for a crime which directly relates to the duties and responsibilities of the teaching profession.

Bachelor of Science in Interdisciplinary Studies (BSIS)

Elementary/Middle School Certification

The BSIS is designed for initial certification of elementary and middle school teachers. The degree program includes two levels of certification, Early Childhood – Grade 4 and Grades 4-8.

Early Childhood Through Grade 4 (EC-4)

Academic Foundations and Core Curriculum 46 hours

ENGL	1113, 1123	Rhetoric and Composition	6
SPAN	1134, 1234	Elementary Spanish	8
GNSC	1104, 1204	Life/Earth Science and Physical Science	8
HIST	1133, 1233	Survey of American History	6
POLS	1333, 1433	American Government	6
MATH	2033	Structure of the Number System I	3
SPCH	1133 or 1233	Fundamentals of Speech or Voice and Diction	3
PSYC	1103 or SOCL 1133	General Psychology or Introduction to Sociology	3
ART	4303	Foundations of Art I	3

Academic Subject Area 40 hours

ENGL	Sophomore literature		3
COUN	2023	Human Development	3
ECON	1333 or 2333	General Economics or Macroeconomics	3
MATH	2043, 2053	Structure of the Number System II and III	6
BIOL	2333 or KNES 2333	Nutrition	3
Science	(One 4 hour lab science)		4
MUSC	4813	Foundations of Music	3
COUN	3143	Human Diversity	3
ECED	3103	Introduction to Young Children	3
ECED	4123	Early Childhood Development: Language and Literacy	3
SPED	3613	Exceptional Individuals	3
EDUC	3153	Educational Psychology	3

Professional Education 24 hours

ECED	3173	ESL Methods and Materials	3
ECED	4133	Early Childhood Curriculum	3
EDUC	2013	School and Society	3
EDUC	3163	Classroom Management	3
EDUC	4106	Planning and Assessment	6
EDUC	4166	Student Teaching in Elementary School	6

Reading		12 hours
READ	3013 Child and Adolescent Literature	3
READ	4203 Developmental Reading	3
READ	4213 Methods of Teaching Reading and the Language Arts	3
READ	4223 Diagnosis and Correction of Reading Difficulties	3
Other Requirements		9-10 hours
EDUC	1023, CMPS 1023 or demonstrate computer proficiency through department exam.	3
KNES	4663 Fundamentals of Elementary Physical Education	3
KNES	Activity	2
KNES	1011 Fundamentals of Physical Activity and Health or 1 activity	1-2
Total semester hours		131-132

Bachelor of Science in Interdisciplinary Studies Grade 4 Through Grade 8

The West College of Education offers the following four teaching fields for grades 4-8 certification: English/Language Arts and Reading, Mathematics, Science, and Social Studies.

English Language Arts and Reading (4-8 Certificate)

Academic Foundations and Core Curriculum		46 hours
ENGL	1113, 1123 Rhetoric and Composition	6
SPAN	1134, 1234 Elementary Spanish	8
GNSC	1104, 1204 Life/Earth Science and Physical Science	8
HIST	1133, 1233 Survey of American History	6
POLS	1333, 1433 American Government	6
MATH	3 hours (see Academic Subject Area below)	3
SPCH	1133 or 1233 Fundamentals of Speech or Voice and Diction	3
PSYC	1103 or SOCL 1133 General Psychology or Introduction to Sociology	3
ART	1413 or MUSC 1033 Art or Music Appreciation	3
Academic Subject Area		46 hours
ENGL	Sophomore literature	6
ENGL	3503 Advanced Survey of Literature	3
ENGL	3513 Advanced Grammar	3
ENGL	3533 Theory of Composition	3
	Advanced English (3000 or 4000 level)	6
JOUR	1233 Introduction to Mass Communication	3
COUN	2023 Human Development	3
MATH	2033*, 2043, 2053 Structure of the Number System I, II, and III	6
	OR	
MATH	1233*, 2033, 2043 College Algebra, Structure of the Number System I, and Structure of the Number System II	
ECON	1333 or 2333 General Economics or Macroeconomics	3
Science	(One 4 hour lab science)	4

COUN	3143	Human Diversity	3
SPED	3613	Exceptional Individuals	3

* Math 2033 or 1233 will satisfy the math requirement in the Academic Foundations and Core Curriculum.

Professional Education **21 hours**

EDUC	2013	School and Society	3
EDUC	3153	Educational Psychology	3
EDUC	3163	Classroom Management	3
EDUC	4106	Planning and Assessment	6
EDUC	4166	Student Teaching in Elementary School	6

Reading **12 hours**

READ	3013	Child and Adolescent Literature	3
READ	4203	Developmental Reading	3
READ	4213	Methods of Teaching Reading and the Language Arts	3
READ	4223	Diagnosis and Correction of Reading Difficulties	3

Other Requirements **9-10 hours**

EDUC	1023, CMPS 1023	or demonstrate computer proficiency through department exam.	3
KNES	4663	Fundamentals of Elementary Physical Education	3
KNES		Activity	2
KNES	1011	Fundamentals of Physical Activity and Health or 1 activity	1-2

Total Semester Hours **134-135**

Mathematics (4-8 Certificate)

Academic Foundations and Core Curriculum **46 hours**

ENGL	1113, 1123	Rhetoric and Composition	6
SPAN	1134, 1234	Elementary Spanish	8
GNSC	1104, 1204	Life/Earth Science and Physical Science	8
HIST	1133, 1233	Survey of American History	6
POLS	1333, 1433	American Government	6
MATH	1233	College Algebra	3
SPCH	1133 or 1233	Fundamentals of Speech or Voice and Diction	3
PSYC	1103 or SOCL 1133	General Psychology or Introduction to Sociology	3
ART	1413 or MUSC 1033	Art or Music Appreciation	3

Academic Subject Area **37 hours**

MATH	2033, 2043	Structure of Number System I and II	6
MATH	3033	Modeling	3
MATH	3113	Techniques in Problem Solving	3
MATH	3123	Concepts of Geometry	3
STAT	3573	Probability and Statistics	3
MATH	4033	Foundations of Discrete Math	3
GNSC	3104	Concepts of Science	4
COUN	2023	Human Development	3

COUN	3143	Human Diversity	3
GEOG	3003	Geography of the World	3
SPED	3613	Exceptional Individuals	3

Professional Education **21 hours**

EDUC	2013	School and Society	3
EDUC	3153	Educational Psychology	3
EDUC	3163	Classroom Management	3
EDUC	4106	Planning and Assessment	6
EDUC	4166	Student Teaching in Elementary School	6

Reading **12 hours**

READ	3013	Child and Adolescent Literature	3
READ	4203	Developmental Reading	3
READ	4213	Methods of Teaching Reading and the Language Arts	3
READ	4273	Content Reading	3

Other Requirements **12-13 hours**

EDUC	1023, CMPS 1023	or demonstrate computer proficiency through department exam.	3
KNES	4663	Fundamentals of Elementary Physical Education	3
KNES		Activity	2
KNES	1011	Fundamentals of Physical Activity and Health or 1 activity	1-2
ECON	1333 or 2333	General Economics or Macroeconomics	3

Total semester hours **128-129**

Science (4-8 Certificate)

Academic Foundations and Core Curriculum **46 hours**

ENGL	1113, 1123	Rhetoric and Composition	6
SPAN	1134, 1234	Elementary Spanish	8
GNSC	1104, 1204	Life/Earth Science and Physical Science	8
HIST	1133, 1233	Survey of American History	6
POLS	1333, 1433	American Government	6
MATH	3 hours	(see Academic Subject Area below)	3
SPCH	1133 or 1233	Fundamentals of Speech or Voice and Diction	3
PSYC	1103 or SOCL 1133	General Psychology or Introduction to Sociology	3
ART	1413 or MUSC 1033	Art or Music Appreciation	3

Academic Subject Area **47-48 hours**

BIOL	1144	General Zoology or GEOS 1233 - Historical Geology	3-4
BIOL	1544	General Botany	4
GEOS	1134	Physical Geology	4
GNSC	3104	Concepts of Science	4
PHYS	1533	Descriptive Astronomy	3
ENSC	1114	Foundations of Environmental Science	4
GEOS	3133	Oceanography	3
BIOL	3434 or 3534	Entomology or Systematic Botany	4

CHEM	1103	Introductory Chemistry	3
MATH	2033*, 2043, 2053	Structure of the Number System I, II, and III	6
OR			
MATH	1233*, 2033, 2043	College Algebra, Structure of the Number System I, and Structure of the Number System II	
COUN	2023	Human Development	3
COUN	3143	Human Diversity	3
SPED	3613	Exceptional Individuals	3

* Math 2033 or 1233 will satisfy the math requirement in the Academic Foundations and Core Curriculum.

Professional Education **21 hours**

EDUC	2013	School and Society	3
EDUC	3153	Educational Psychology	3
EDUC	3163	Classroom Management	3
EDUC	4106	Planning and Assessment	6
EDUC	4166	Student Teaching in Elementary School	6

Reading **12 hours**

READ	3013	Child and Adolescent Literature	3
READ	4203	Developmental Reading	3
READ	4213	Methods of Teaching Reading and the Language Arts	3
READ	4273	Content Reading	3

Other Requirements **12 hours**

EDUC	1023, CMPS 1023	or demonstrate computer proficiency through department exam.	3
KNES	4663	Fundamentals of Elementary Physical Education	3
KNES		Activity	2
KNES	1011	Fundamentals of Physical Activity and Health	1
ECON	1333 or 2333	General Economics or Macroeconomics	3

Total Semester Hours **138-139**

Social Studies (4-8 Certificate)

Academic Foundations and Core Curriculum **46 hours**

ENGL	1113, 1123	Rhetoric and Composition	6
SPAN	1134, 1234	Elementary Spanish	8
GNSC	1104, 1204	Life/Earth Science and Physical Science	8
HIST	1133, 1233	Survey of American History	6
POLS	1333, 1433	American Government	6
MATH	3 hours	(see Academic Subject Area below)	3
SPCH	1133 or 1233	Fundamentals of Speech or Voice and Diction	3
PSYC	1103 or SOCL 1133	General Psychology or Introduction to Sociology	3
ART	1413 or MUSC 1033	Art or Music Appreciation	3

Academic Subject Area **45 hours**

HIST	1333	Survey of Western Civilization	3
HIST	1433	Survey of Western Civilization	3

HIST	3133	Comparative World Religions and Cultures	3
HIST	3003	Survey of Texas History	3
SOCL	3783	Populations and World Cultures	3
SOST	3003	Concepts of Social Studies	3
POLS	2523	Foundations of Government	3
GEOG	3003	Geography of the World	3
GEOG	3013	Geography of North America	3
ECON	1333 or 2333	General Economics or Macroeconomics	3
MATH	2033*, 2043, 2053	Structure of the Number System I, II, and III	6
	OR		
MATH	1233*, 2033, 2043	College Algebra, Structure of the Number System I, and Structure of the Number System II	
COUN	2023	Human Development	3
COUN	3143	Human Diversity	3
SPED	3613	Exceptional Individuals	3

* Math 2033 or 1233 will satisfy the math requirement in the Academic Foundations and Core Curriculum.

Professional Education **21 hours**

EDUC	2013	School and Society	3
EDUC	3153	Educational Psychology	3
EDUC	3163	Classroom Management	3
EDUC	4106	Planning and Assessment	6
EDUC	4166	Student Teaching in Elementary School	6

Reading **12 hours**

READ	3013	Child and Adolescent Literature	3
READ	4203	Developmental Reading	3
READ	4213	Methods of Teaching Reading and the Language Arts	3
READ	4273	Content Reading	3

Other Requirements **13 hours**

EDUC	1023, CMPS 1023	or demonstrate computer proficiency through department exam.	3
KNES	4663	Fundamentals of Elementary Physical Education	3
KNES		Activity	2
KNES	1011	Fundamentals of Physical Activity and Health	1
Science		(One 4 hour lab science)	4

Total Semester Hours **137**

Bachelor of Science in Interdisciplinary Studies
Special Education Early Childhood through Grade 12
General Education Early Childhood through Grade 4

Academic Foundations and Core Curriculum **44 hours**

ENGL	1113, 1123	Rhetoric and Composition	6
ENGL		Sophomore literature	6
GNSC	1104, 1204	Life/Earth Science and Physical Science	8
HIST	1133, 1233	Survey of American History	6
POLS	1333, 1433	American Government	6

MATH	1233	College Algebra	3
SPCH	1233	Voice and Diction	3
PSYC	1103 or SOCL 1133	General Psychology or Introduction to Sociology	3
One course from: ART 4303, MUSC 4813, THEA 4423			3

Academic Subject Area **40 hours**

ENGL	3523	Advanced Composition	3
MATH	2033, 2043	Structure of Number System I and II	6
Advanced MATH (3000 or 4000 level)			3
Science	(One 4 hour lab science)		4
SPED	3513	Behavior Management	3
SPED	4113	Foundations of Special Education	3
SPED	4123	Assessment	3
SPED	4513	Teaching Strategies for Affective Disorders	3
SPED	4523	Vocational/Transitional Education	3
SPED	4533	Early Childhood Special Education	3
READ	3013	Child and Adolescent Literature	3
READ	4203	Developmental Reading	3

Professional Education **24 hours**

EDUC	2013	School and Society	3
EDUC	3153	Educational Psychology	3
EDUC	4106	Planning and Assessment	6
EDUC	4173	Student Teaching, Elementary, all-level	3
EDUC	4473	Student Teaching, Secondary, all-level	3
SPED	3313	Teaching Strategies for Cognitive Disorders	3
SPED	3613	Exceptional Individuals	3

Reading **12 hours**

READ	4213	Methods of Teaching Reading and the Language Arts	3
READ	4223	Diagnosis and Correction of Reading Difficulties	3
ECED	4123	Early Childhood Development: Language and Literacy	3
SPED	4313	Reading for Disabled Readers	3

Other Requirements **18-19 hours**

COUN	2023	Human Development	3
COUN	3143	Human Diversity	3
ECED	3103	Introduction to Young Children	3
ECON	1333 or 2333	General Economics or Macroeconomics	3
EDUC	1023, CMPS 1023	or demonstrate computer proficiency through department exam.	3
KNES	Activity		2
KNES	1011	Fundamentals of Physical Activity and Health or 1 activity	1-2

Total semester hours **138-139**

Bachelor of Science in Interdisciplinary Studies Bilingual Generalist and General Education EC-4

Academic Foundations and Core Curriculum	46 hours
ENGL 1113, 1123 Rhetoric and Composition	6
SPAN 1134, 1234 Elementary Spanish	8
GNSC 1104, 1204 Life/Earth Science and Physical Science	8
HIST 1133, 1233 Survey of American History	6
POLS 1333, 1433 American Government	6
MATH 2033 Structure of the Number System I	3
SPCH 1133 or 1233 Fundamentals of Speech or Voice and Diction	3
PSYC 1103 or SOCL 1133 General Psychology or Introduction to Sociology	3
ART 4303 or MUSC 4813 Foundations of Art or Music	3
 Academic Subject Area	 37 hours
ECED 3173 ESL Methods & Materials	3
ECED 4123 Early Childhood Language & Literacy	3
ECED 4133 Early Childhood Curriculum	3
EDBE 3213 Foundations of Bilingual Education	3
EDBE 3313 Methods & Materials in Bilingual Education	3
EDBE 4303 Second Language Acquisition	3
EDBE 4313 Concepts of Bilingualism & Biculturalism	3
EDBE 4323 Reading & Language Arts in Bilingual Education	3
EDBE 4333 Assessment in Bilingual Education	3
MATH 2043 Structure of the Number System II	3
MATH 2053 Structure of the Number System III	3
Science 4 hours any science	4
 Professional Education	 24 hours
EDUC 2013 School and Society	3
EDUC 3153 Educational Psychology	3
EDUC 3163 Classroom Management	3
EDUC 4106 Planning and Assessment	6
EDUC 4166 Student Teaching	6
SPED 3613 Exceptional Individuals	3
 Reading	 12 hours
READ 3013 Child and Adolescent Literature	3
READ 4203 Developmental Reading	3
READ 4213 Methods of Teaching Reading and the Language Arts	3
READ 4223 Diagnosis and Correction of Reading Difficulties	3
 Other Requirements	 15-16 hours
COUN 2023 Human Development	3
COUN 3143 Human Diversity	3
ECON 1333 or 2333 General Economics or Macroeconomics	3
EDUC 1023, CMPS 1023 or demonstrate computer proficiency through department exam.	3
KNES Activity	2
KNES 1011 Fundamentals of Physical Activity and Health or 1 activity	1-2
 Total Semester Hours	 134-135

ENDORSEMENTS

English as a Second Language and Gifted and Talented

These endorsements are available at the graduate level. With permission, students within one semester of graduation may begin course work on these graduate endorsements. See graduate catalog.

SECONDARY TEACHER CERTIFICATION Grades 8 -12

Secondary teacher certification is based on bachelor's degrees offered in academic areas of the University. In addition to the requirements for the degree, students seeking certification take 15 hours of Professional Education, a course in reading and student teaching. The requirements for secondary teacher certification may be slightly different from those of the degree without teacher certification but include academic foundations, a major field, a minor field, and special program requirements for the degree and major. Careful planning and advisement with both the major college and the West College of Education are important.

Professional Education for Secondary Certification. The professional secondary education block includes student teaching and field experience in schools and provides beginning skills for teaching. Initial certification is the first step in a teacher's career path for professional development.

Teaching Fields. The West College of Education offers the following teaching fields for grades 8-12 certification: English Language Arts and Reading, History, Mathematics, Science (Composite, Life, and Physical), and Social Studies. Other teaching fields are offered in the following areas: French, Journalism, and Speech.

BACHELOR OF ARTS WITH SECONDARY CERTIFICATION (GRADES 8-12)

Academic Foundations and Core Curriculum

plus additional requirements	63-67
ENGL 1113, 1123	6
6 hours sophomore literature* or humanities	6
SPCH 1133	3
MATH 1233	3
Natural Sciences – two laboratory courses	6-8
HIST 1133, 1233	6
POLS 1333, 1433	6
ECON 1333 or 2333**	3
PSYC 1103 or SOCL 1133	3
KNES – 1 activity and KNES 1011	3
Foreign Language – 2 years of one foreign language	12-14
Fine Arts***	3
COUN 3143	3

* Sophomore literature required for English Language Arts and Reading.

** Econ 2333 required for Social Studies program.

*** Theatre Arts majors will meet requirement with theatre courses.

Additional General Requirements 3

EDUC 1023, CMPS 1023 or demonstrate computer proficiency through department exam. 3

Professional Education 24

EDUC 2013 School and Society 3
 EDUC 3153 Educational Psychology 3
 EDUC 4113 Planning and Assessment for Secondary Education and All-Level 3
 READ 4273 Content Reading 3
 EDUC 3163 Classroom Management 3
 EDUC 4466 Student Teaching in the Secondary School 6
 SPED 3613 Exceptional Individuals 3

English Language Arts and Reading**Major: English 36**

ENGL 1113*, 1123* 6
 6 hours sophomore literature* 6
 ENGL 3503, 3513 and 3533 9
 3 additional hours from 3000 level 3
 3 hours from ENGL 4773, 4783, 4853, 4863, 4873, or 4883 3
 6 additional hours from 4000 level 6
 3 hours from any level (exclude ENGL 2113) 3

*12 hours duplicated in Academic Foundations.

Minor: Communication 24

SPCH 2133 and 3013 6
 JOUR 1233, 1243, and 3633 or 3653 9
 READ 4223, 4253, and 4273* 9

*3 hours duplicated in Professional Education.

Total Semester Hours 135-139

History**Major: History 33**

HIST 1133*, 1233* Survey of American History 6
 HIST 1333, 1433 Survey of Western Civilization 6
 HIST 3003 Survey of Texas History 3
 HIST 3133 World Religions and Cultures 3
 HIST 4433 Twentieth Century Europe 3
 3 hours advanced U.S. History 3
 3 hours advanced European History 3
 3 hours advanced Far Eastern or Middle Eastern History 3
 3 hours advanced Latin American History 3

*6 hours duplicated in Academic Foundations.

Minor: (any minor)	18 hours
Total Semester Hours	135-139

Social Studies

Major: History	33
HIST 1133*, 1233* Survey of American History	6
HIST 1333, 1433 Survey of Western Civilization	6
HIST 3003 Survey of Texas History	3
HIST 3133 World Religions and Cultures	3
HIST 4433 Twentieth Century Europe	3
3 hours advanced U.S. History	3
3 hours advanced European History	3
3 hours advanced Far Eastern or Middle Eastern History	3
3 hours advanced Latin American History	3
Interdisciplinary Minor	27
POLS 1333*, 1433* American Government	6
POLS 2523 Foundations of Government and Politics	3
POLS 3313 Introduction to Political Theory	3
ECON 2333* Macroeconomic Principles	3
ECON 2433 Microeconomic Principles	3
GEOG 3003, 3013 Geography of the World/Geography of North America	6
SOST 3003 Concepts of Social Studies	3

*15 hours duplicated in Academic Foundations.

Total Semester Hours	135-139
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BACHELOR OF SCIENCE WITH SECONDARY CERTIFICATION (GRADES 8-12)

Academic Foundations and Core Curriculum plus additional requirements	51-56
ENGL 1113, 1123	6
6 hours humanities (two semesters of one foreign language required for science majors)	6-8
SPCH 1133	3
MATH 1233*	3
Natural Sciences – two semesters of one lab science	6-8
**CHEM 1141, 1143, 1241, 1243	
***PHYS 1144 or 1624 and 1244 or 2644	
HIST 1133, 1233	6
POLS 1333, 1433	6
ECON 1333 or 2333	3
PSYC 1103 or SOCL 1133	3
KNES – 2 activities or 1 activity and KNES 1011****	3-4
Fine Arts	3
COUN 3143	3

* Math majors should take MATH 1533 instead.

** Required for composite science and physical science majors.

*** Required for life science major.

**** Composite science majors must take 1 activity and KNES 1011.

Professional Education 24

EDUC	2013	School and Society	3
EDUC	3153	Educational Psychology	3
EDUC	3163	Classroom Management	3
EDUC	4113	Planning and Assessment for Secondary Education and All-Level	3
READ	4273	Content Reading	3
EDUC	4466	Student Teaching in the Secondary School	6
SPED	3613	Exceptional Individuals	3

Additional General Requirements 3

EDUC 1023, CMPS 1023 or demonstrate computer proficiency through department exam. (Math majors meet requirement in interdisciplinary minor.)	3
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Mathematics**Major: Mathematics 39**

MATH	1533*	Precalculus	3
MATH	1634	Calculus I	4
MATH	1734	Calculus II	4
MATH	2133	Introduction to Modern Mathematics	3
MATH	2534	Calculus III	4
MATH	3133	Foundations of Geometry	3
MATH	3833	Linear Algebra	3
9 advanced hours elective MATH			9
6 hours math sequence selected from:			6
Analysis (MATH 4733 and 4833)			
Statistics (MATH 4133 and 4143)			
Algebra (MATH 3293 and 4293)			

*3 hours duplicated in Academic Foundations.

Interdisciplinary Minor 20

CMPS	1043	Computer Science I	3
CMPS	1053	Computer Science II	3
STAT	3573	Probability and Statistics	3
2 semesters lab science (different than core requirement)			8
3 advanced hours taken from CMPS, BIOL, PHYS, CHEM, GEOS, or STAT			3

Total semester hours 134-139**Composite Science
(Grades 8-12)****Major: Biology 24**

BIOL	1144	General Zoology	4
BIOL	1544	General Botany	4
BIOL	3054	Principles of Biology I	4
BIOL	3064	Principles of Biology II	4
BIOL	3104	Fundamental Genetics	4
4 hours from BIOL 3024, 3434, 3534			4

Interdisciplinary Minor		26
GEOS	1134, 1233 Physical and Historical Geology	7
GEOS	3133 Oceanography	3
ENSC	1114 Foundations of Environmental Science	4
GNSC	3104 Concepts of Science	4
PHYS	1144, 1244 General Physics	8
Program Requirement		7
CHEM	3003, 3001 Organic Chemistry	4
MATH	1433 Plane Trigonometry	3
Total semester hours		137-139

Life Science (Grades 8-12)

Major: Biology		31-32
BIOL	1144 General Zoology	4
BIOL	1544 General Botany	4
BIOL	3054 Principles of Biology I	4
BIOL	3064 Principles of Biology II	4
BIOL	3144 or 3044 Physiology or Bacteriology	4
BIOL	3104 Fundamental Genetics	4
BIOL	3534 Systematic Botany	4
BIOL	3434 or 3643 Entomology or Invertebrate Zoology	3-4
Interdisciplinary Minor		22
CHEM	1143, 1141 General Chemistry	4
CHEM	1243, 1241 General Chemistry	4
CHEM	3003, 3001 Organic Chemistry	4
GNSC	3104 Concepts of Science	4
MATH	1433 Plane Trigonometry	3
STAT	3573 Probability and Statistics	3
Total Semester Hours		133-137

Physical Science (Grades 8-12)

Major: Physical Science		37
CHEM	1143*, 1141* General Chemistry	4
CHEM	1243*, 1241* General Chemistry	4
GEOS	1134, 1233 Physical and Historical Geology	7
GEOS	3134 Mineralogy	4
PHYS	1533 Descriptive Astronomy	3
15 advanced hours selected from:		15
	CHEM 3302, 3303, 3402, 3403	
	PHYS 3343, 3313, 4343	

*8 hours duplicated in Academic Foundations.

Interdisciplinary Minor	18
GEOG 3003 or 3013 Geography of the World/Geography of North America	3
GNSC 3104 Concepts of Science	4
PHYS 1144 or 1624 General Physics or Mechanics, Wave, Motion, and Heat	4
PHYS 1244 or 2644 General Physics or Electricity and Magnetism and Optics	4
MATH 1433 Plane Trigonometry	3
Total semester hours	127-130

Other Teaching Fields (Grades 8-12)

Students desiring certification in the teaching fields of French (all-level), Journalism (grades 8-12), or Speech (grades 8-12) need to confer with the Chair of the field of interest.

French – 26 hours

FREN 1134, 1234, 2133, 2233, 3133, 3233, 3333, 4013.

Journalism – 21 hours

JOUR 1233, 1243, 3133, 3233, 3633 or 3653; MCOM 4153, 4163.

Speech – 21 hours

SPCH 1133, 1233, 3013, 3023, 4133; 2133 or JOUR 1233, 3 additional hours selected from: MCOM 4153, THEA 4213, 4423.

BUSINESS

Bachelor of Business Administration with Teacher Certification

The program requirements listed are those in effect at the time this catalog was published. Changes may be mandated by THECB, Texas Education Agency, or MSU-TEC. Students should contact the West College of Education for information regarding program changes.

Academic Foundations and Core Curriculum

plus additional requirements	51-54
ENGL 1113, 1123	6
SPCH 1133	3
HIST 1133, 1233	6
POLS 1333, 1433	6
Natural Sciences – two laboratory courses	6-8
CMPS 2153	3
MATH 1233 or 1203	3
Humanities – 6 hours	6
Fine Arts – 3 hours from art, music, or theatre	3
SOCL 1133 or PSYC 1103	3
ECON 2333	3
Kinesiology (2 activities or 1 activity and KNES 1011)	3-4

Major in General Business	57
ACCT 2143, 2243, 3023	9
BUAD 1033, 3033, 3113, 3233, 3243, 3323	18
ECON 2433, 3323 or 3333 or 4723	6
FINC 1733, 3733	6
MGMT 3013, 3453, 4853	9
MKTG 3723	3
MGMT 4213 or 4613	3
Approved elective	3
Additional General Requirement: COUN 3143	3
Professional Education for Secondary Certification	24
EDUC 2013 School and Society	3
EDUC 3153 Educational Psychology	3
EDUC 3163 Classroom Management	3
EDUC 4113 Planning and Assessment for Secondary Education and All-Level	3
EDUC 4466 Student Teaching in the Secondary School	6
READ 4273 Content Reading	3
SPED 3613 Exceptional Individuals	3
Total Semester Hours	135-138

All-Level Teaching Fields

The program requirements listed are those in effect at the time this catalog was published. Changes may be mandated by THECB, Texas Education Agency, or MSU-TEC. Students should contact the West College of Education for information regarding program changes.

All-Level Certification is available in five disciplines for students who wish to teach grades EC - 12.

BFA:	Art All-Level	BM:	Music All-Level
BA:	Kinesiology All-Level	BA:	Spanish All-Level
BS:	Kinesiology All-Level	BFA:	Theatre All-Level

ART

Bachelor of Fine Arts with Teacher Certification

Art All-Level

Academic Foundations and Core Curriculum plus additional requirements	45-48
ENGL 1113, 1123	6
COUN 3143	3
SPCH 1133	3
HIST 1133, 1233	6
POLS 1333, 1433	6
Natural Sciences – two laboratory courses	6-8
MATH 1233	3
EDUC 1023 or CMPS 1023 or pass department exam	3
Fine Arts – met by course required in major	0

Humanities – met by courses required in major	0
SOCL 1133 or PSYC 1103	3
ECON 1333 or 2333	3
Kinesiology (2 activities or 1 activity and KNES 1011)	3-4

Major in Art 66

Design and Basic Art - 1113, 1123, 1313, 1323, 1413, 2013, 2153, 2313, 2523, 2613, 2813, 4303, 4403	39
Art History - 9 hours	9
Studio - 18 hours of which 12 must be advanced and equally divided between one 2-dimensional and one 3-dimensional studio area	18
Painting 3333, 4313, 4323	
Printmaking 3143, 3153, 4143, 4153	
Ceramics 3613, 4523, 4613	
Metals 3813, 3823, 4813, 4823	
Photography 3013, 3023, 4013, 4023	
Commercial Art 3713, 3723, 4713, 4723	
Sculpture 3623, 3633, 4623	

Professional Education for Secondary Certification 24

EDUC 2013 School and Society	3
EDUC 3153 Educational Psychology	3
EDUC 3163 Classroom Management	3
EDUC 4113 Planning and Assessment for Secondary Education and All-Level	3
EDUC 4173 Student Teaching, Elementary, All-Level	3
EDUC 4473 Student Teaching, Secondary, All-Level	3
READ 4273 Content Reading	3
SPED 3613 Exceptional Individuals	3

Total Semester Hours 135-138

KINESIOLOGY

Bachelor of Arts with Teacher Certification (Grades EC-12, All-Level)

Academic Foundations and Core Curriculum 59-61
plus additional requirements

ENGL 1113, 1123	6
6 hours sophomore literature or humanities	6
SPCH 1133	3
MATH 1233	3
BIOL 1134, 1234	8
HIST 1133, 1233	6
POLS 1333, 1433	6
ECON 1333 or 2333	3
PSYC 1103 or SOCL 1133	3
Foreign Language - 2 years of one foreign language	12-14
Fine Arts (art, music, theatre)	3

Additional General Requirements	9
EDUC 1023, CMPS 1023 or demonstrate computer proficiency through department exam.	3
COUN 3143 Human Diversity	3
KNES 4513 Physical Activity for Exceptional Individuals	3
Major in Kinesiology	30
KNES 1053 Foundations of Kinesiology	3
KNES 1203 Health and Wellness	3
KNES 1983 Anatomical Assessment of Human Movement	3
KNES 1993 Fundamentals of Human Movement	3
KNES 2503 Physiology of Sport and Fitness	3
KNES 3363 Motor Development	3
KNES 3423 Team Sport Methods and Techniques	3
KNES 3433 Individual and Dual Sport Methods and Techniques	3
KNES 4523 Organizational Management in Kinesiology	3
KNES 4663 Fundamentals of Elementary Physical Education	3
Professional Education for All-Level Certification	21
EDUC 2013 School and Society	3
EDUC 3153 Educational Psychology	3
EDUC 3163 Classroom Management	3
EDUC 4113 Planning and Assessment for Secondary Education and All-Level	3
EDUC 4173 Student Teaching, Elementary, All-Level	3
EDUC 4473 Student Teaching, Secondary, All-Level	3
READ 4273 Content Reading	3
Minor - Minimum of 18 hours in any discipline (see minor for specific requirements).	18
Total Semester Hours	137-139

KINESIOLOGY

Bachelor of Science with Teacher Certification (Grades EC-12, All-Level)

Academic Foundations and Core Curriculum plus additional requirements	57-58
ENGL 1113, 1123	6
6 hours sophomore literature or humanities	6
SPCH 1133	3
MATH 1233; 1433 or STAT 3573	6
Sciences – two laboratory courses of same discipline - not biology	7-8
BIOL 1134, 1234	8
HIST 1133, 1233	6
POLS 1333, 1433	6
ECON 1333 or 2333	3
PSYC 1103 or SOCL 1133	3
Fine Arts (art, music, theatre)	3

Additional General Requirements	9
EDUC 1023, CMPS 1023 or demonstrate computer proficiency through department exam.	3
COUN 3143 Human Diversity	3
KNES 4513 Physical Activity for Exceptional Individuals	3
Major in Kinesiology	30
KNES 1053 Foundations of Kinesiology	3
KNES 1203 Health and Wellness	3
KNES 1983 Anatomical Assessment of Human Movement	3
KNES 1993 Fundamentals of Human Movement	3
KNES 2503 Physiology of Sport and Fitness	3
KNES 3363 Motor Development	3
KNES 3423 Team Sport Methods and Techniques	3
KNES 3433 Individual and Dual Sport Methods and Techniques	3
KNES 4523 Organizational Management in Kinesiology	3
KNES 4663 Fundamentals of Elementary Physical Education	3
Professional Education for All-Level Certification	21
EDUC 2013 School and Society	3
EDUC 3153 Educational Psychology	3
EDUC 3163 Classroom Management	3
EDUC 4113 Planning and Assessment for Secondary Education and All-Level	3
EDUC 4173 Student Teaching, Elementary, All-Level	3
EDUC 4473 Student Teaching, Secondary, All-Level	3
READ 4273 Content Reading	3
Minor - Minimum of 18 hours in any discipline (see minor for specific requirements).	18
Total Semester Hours	135-136

MUSIC

Bachelor of Music with Teacher Certification

Music All-Level, Vocal Emphasis

Academic Foundations, Core Curriculum, and Computer Competency	42-45
ENGL 1113, 1123	6
SPCH 1233	3
HIST 1133, 1233	6
POLS 1333, 1433	6
Natural Sciences – two laboratory courses	6-8
MATH 1233	3
EDUC 1023 or CMPS 1023 or pass department exam	3
Fine Arts – met by course required in major	0
Humanities – met by courses required in major	0
SOCL 1133 or PSYC 1103	3
ECON 1333 or 2333	3
Kinesiology (2 activities or 1 activity and KNES 1011, or two semesters of marching band and 1 activity, or four semesters of marching band)	3-4

Additional General Requirements	6
COUN 3143 Human Diversity	3
SPED 3613 Exceptional Individuals	3
Major in Music	63
Theory 1601/1603, 1611/1613, 2603, 2613, 3632, 3662	18
Instrumental classes 3141, 3161, 3181, 3291	4
History 3723, 3733, 3743	9
Conducting 4843, 4863	6
Diction 1211, 1221	2
Choral Literature 3862	2
Applied Music	6
Senior Recital	1
Ensemble	7
Advanced electives	2
Piano Proficiency and Recital Attendance	
Music Technology 4893	3
Foundations of Music II 4823	3
Professional Education for All-Level Certification	21
EDUC 2013 School and Society	3
EDUC 3153 Educational Psychology	3
EDUC 3163 Classroom Management	3
MUSC 4873 Foundations of Music III	3
EDUC 4173 Student Teaching, Elementary, All-Level	3
EDUC 4473 Student Teaching, Secondary, All-Level	3
READ 4273 Content Reading	3
Total Semester Hours	133-136

MUSIC

Bachelor of Music with Teacher Certification

Music All-Level, Instrumental Emphasis

Academic Foundations, Core Curriculum, and Computer Competency	39-41
ENGL 1113, 1123	6
SPCH 1233	3
HIST 1133, 1233	6
POLS 1333, 1433	6
Natural Sciences – two laboratory courses	6-8
MATH 1233	3
EDUC 1023 or CMPS 1023 or pass department exam	3
Fine Arts – met by course required in major	0
Humanities – met by courses required in major	0
SOCL 1133 or PSYC 1103	3
ECON 1333 or 2333	3
Kinesiology (normally met by 4 semesters of marching band)	0
Additional General Requirements	6
COUN 3143 Human Diversity	3
SPED 3613 Exceptional Individuals	3

Major in Music	64
Theory 1601/1603, 1611/1613, 2603, 2613, 3632, 3662	18
Instrumental classes 3141, 3161, 3181, 3281, 3291	5
History 3723, 3733, 3743	9
Conducting 4843, 4853	6
Applied Music	6
Senior Recital	1
Ensemble (includes 4 semesters of marching band)	7
Advanced electives	6
Piano Proficiency and Recital Attendance	
Music Technology 4893	3
Foundations of Music II 4823	3
Professional Education for All-Level Certification	21
EDUC 2013 School and Society	3
EDUC 3153 Educational Psychology	3
EDUC 3163 Classroom Management	3
MUSC 4873 Foundations of Music III	3
EDUC 4173 Student Teaching, Elementary, All-Level	3
EDUC 4473 Student Teaching, Secondary, All-Level	3
READ 4273 Content Reading	3
Total Semester Hours	130-132

SPANISH

Bachelor of Arts with Teacher Certification (Grades EC-12, All-Level)

Academic Foundations and Core Curriculum plus additional requirements	48-51
ENGL 1113, 1123	6
6 hours sophomore literature or humanities	6
MATH 1233	3
Sciences – two laboratory courses	6-8
HIST 1133, 1233	6
ECON 1333 or 2333	3
POLS 1333, 1433	6
PSYC 1103 or SOCL 1133	3
SPCH 1133	3
Fine Arts	3
Kinesiology (2 activities or 1 activity and KNES 1011)	3-4
Additional General Requirements	9
EDUC 1023, CMPS 1023 or demonstrate computer proficiency through department exam.	3
COUN 3143 Human Diversity	3
SPED 3613 Exceptional Individuals	3
Major in Spanish	38
SPAN 1134 Elementary Spanish I	4

SPAN	1234	Elementary Spanish II	4
SPAN	2133	Intermediate Spanish I	3
SPAN	2233	Intermediate Spanish II	3
SPAN	3013 or 3023	Spanish Civilization or Spanish American Civilization	3
SPAN	3003	Introduction to Hispanic Literature	3
SPAN	3333	Conversation and Composition	3
SPAN	4433	Advanced Comprehensive Skills	3
3 hours from: SPAN 3133, 3233, 3533, or 3633			3
SPAN	4133 or 4233	Advanced Oral Expression or Advanced Grammar and Composition	3
6 hours SPAN electives			6
Professional Education for All-Level Certification			21
EDUC	2013	School and Society	3
EDUC	3153	Educational Psychology	3
EDUC	3163	Classroom Management	3
EDUC	4113	Planning and Assessment for Secondary Education and All-Level	3
EDUC	4173	Student Teaching, Elementary, All-Level	3
EDUC	4473	Student Teaching, Secondary, All-Level	3
READ	4273	Content Reading	3
Minor - Minimum of 18 hours in any discipline (see minor for specific requirements).			18
Total Semester Hours			134-137

THEATRE

Bachelor of Fine Arts with Teacher Certification (Grades EC-12, All-Level)

Academic Foundations, Core Curriculum, and Computer Competency			39-45
ENGL	1113, 1123		6
SPCH	1233		3
HIST	1133, 1233		6
POLS	1333, 1433		6
Natural Sciences – two laboratory courses			6-8
MATH	1233		3
EDUC	1023 or CMPS 1023 or pass department exam		0-3
Fine Arts – met by course required in major			0
Humanities – met by courses required in major			0
SOCL	1133 or PSYC 1103		3
ECON	1333 or 2333		3
Kinesiology (2 activities or 1 activity and KNES 1011, or two semesters of marching band and 1 activity, or four semesters of marching band)			3-4
Major in Theatre			58
THEA	1413	Movement for Stage	3
THEA	1513	Scene Construction	3
THEA	1613	Performance Makeup	3
THEA	1713	Introduction to Theatrical Design	3
THEA	2121	Rehearsal and Production	1

THEA	2433	Theatre History I	3
THEA	2443	Theatre History II	3
THEA	2533	Introduction to Acting	3
THEA	3121	Advanced Rehearsal and Production (6 semesters of enrollment)	6
THEA	3123	Advanced Movement	3
THEA	3423	Script Analysis	3
THEA	3433	Principles of Directing	3
THEA	3543	Advanced Acting	3
THEA	4483	Direction of Plays	3
9 hours from:			9
	THEA 3463	Scene Design	
	THEA 3473	Performance Lighting	
	THEA 3483	Theatre Graphics	
	THEA 4463	Construction of Stage Costumes	
	THEA 4473	Design of Stage Costumes	
6 hours from:			6
	SPCH 2133	Oral Interpretation	
	THEA 4143	Problems in Theatre	
	THEA 4213	Voice for the Theatre and Stage Dialects	
	THEA 4423	Creative Dramatics	

Professional Education for All-Level Certification **27**

EDUC	2013	School and Society	3
EDUC	3153	Educational Psychology	3
EDUC	3163	Classroom Management	3
EDUC	4113	Planning and Assessment for Secondary Education and All-Level	3
EDUC	4173	Student Teaching, Elementary, All-Level	3
EDUC	4473	Student Teaching, Secondary, All-Level	3
READ	4273	Content Reading	3
COUN	3143	Human Diversity	3
SPED	3613	Exceptional Individuals	3

Total Semester Hours **124-130**

THEATRE

**Bachelor of Fine Arts with Teacher Certification
and an additional Teaching Field in Speech**
(Grades EC-12, All-Level)

Academic Foundations, Core Curriculum, and Computer Competency **36-42**

ENGL	1113, 1123		6
Speech – met by course required in Speech teaching field			0
HIST	1133, 1233		6
POLS	1333, 1433		6
Natural Sciences – two laboratory courses			6-8
MATH	1233		3
EDUC	1023 or CMPS 1023 or pass department exam		0-3
Fine Arts – met by course required in major			0
Humanities – met by courses required in major			0
SOCL	1133 or PSYC 1103		3
ECON	1333 or 2333		3
Kinesiology (2 activities or 1 activity and KNES 1011, or two semesters of marching band and 1 activity, or four semesters of marching band)			3-4

Major in Theatre 49

THEA	1413	Movement for Stage	3
THEA	1513	Scene Construction	3
THEA	1613	Performance Makeup	3
THEA	1713	Introduction to Theatrical Design	3
THEA	2121	Rehearsal and Production	1
THEA	2433	Theatre History I	3
THEA	2443	Theatre History II	3
THEA	2533	Introduction to Acting	3
THEA	3121	Advanced Rehearsal and Production (6 semesters of enrollment)	6
THEA	3423	Script Analysis	3
THEA	3433	Principles of Directing	3
THEA	3543	Advanced Acting	3
THEA	4483	Direction of Plays	3
9 hours from:			9
	THEA 3463	Scene Design	
	THEA 3473	Performance Lighting	
	THEA 3483	Theatre Graphics	
	THEA 4463	Construction of Stage Costumes	
	THEA 4473	Design of Stage Costumes	

Professional Education for All-Level Certification 27

EDUC	2013	School and Society	3
EDUC	3153	Educational Psychology	3
EDUC	3163	Classroom Management	3
EDUC	4113	Planning and Assessment for Secondary Education and All-Level	3
EDUC	4173	Student Teaching, Elementary, All-Level	3
EDUC	4473	Student Teaching, Secondary, All-Level	3
READ	4273	Content Reading	3
COUN	3143	Human Diversity	3
SPED	3613	Exceptional Individuals	3

Speech Teaching Field Requirements 21

SPCH	1133	Fundamentals of Speech	3
SPCH	1233	Voice and Diction	3
SPCH	3013	Argumentation and Debate	3
SPCH	3023	Persuasion	3
SPCH	4133	Organizational Communication	3
3 hours from:			3
	SPCH 2133	Oral Interpretation	
	JOUR 1233	Introduction of Mass Communication	
3 hours from:			3
	MCOM 4153	Broadcast Diction	
	THEA 4213	Voice for the Theatre and Stage Dialects	
	THEA 4423	Creative Dramatics	

Total Semester Hours 133-139

COURSES IN BILINGUAL EDUCATION (EDBE)

3213. **Foundations of Bilingual Education** 3(3-0)
The historical, legal, legislative, and global contexts of bilingual education as well as models of bilingual education, including characteristics and goals of various types of bilingual education programs.
3313. **Methods and Materials in Bilingual Education** 3(3-0)
Curriculum, methods, and materials for bilingual education including instructional techniques, materials, evaluations, and classroom management.
4303. **Second Language Acquisition** 3(3-0)
Established principles and recent developments in second language acquisition and their educational applications.
4313. **Concepts of Bilingualism and Biculturalism** 3(3-0)
The impact of bilingualism and biculturalism on the learning environment.
4323. **Reading & Language Arts in Bilingual Education** 3(3-0)
Methods and materials for teaching the language arts and reading in Spanish.
4333. **Assessment in Bilingual Education** 3(3-0)
Methods of assessing oral and written language and reading to plan and implement literacy instruction in the bilingual classroom.

COURSES IN COUNSELING (COUN)

2023. **Human Development** 3(3-0)
A study of the principles of normal child growth and development from conception through adolescence. Focus on physical, cognitive, social, moral, and emotional domains of development.
3143. **Human Diversity** 3(2-2)
A study of individual, family, and cultural community diversity. Field experience required.
4913. **Seminar in Counseling** 3(2-2)
Topic as announced. Major project and/or field study with group sharing and analysis.

COURSES IN EARLY CHILDHOOD EDUCATION (ECED)

3103. **Introduction to Young Children** 3(3-0)
An introductory overview of the field including a study of the history of early childhood education. Emphasis on characteristics of young children and their needs, types of programs, and current issues.
3173. **ESL Methods and Materials** 3(3-0)
Curriculum, methods and materials for teaching English as a second language.
4123. **Early Childhood Development: Language and Literacy** 3(3-0)
Emphasis on how young children's language and literacy develop and the application of developmentally appropriate practice in planning for instruction.
4133. **Early Childhood Curriculum** 3(2-2)
Prerequisite: ECED 3103.
Planning the learning environment, developing learning activities, organizing the school day, and interpreting children's growth to parents. Emphasis on developmentally appropriate practice. Field experience required.

COURSES IN EDUCATION (EDUC)

- 1023. Computer Applications for Education** 3(2-2)
Experience organizing and manipulating data with computers, including hands-on experience with word processing, databases, spreadsheets, graphics, desktop publishing, and graphing. Focus on computer applications for classroom including hardware and software selection, computer environments, telecommunications, and ethics.
- 2013. School and Society** (TCCNS = EDUC 1301) 3(2-2)
An introduction to the teaching profession and the role of the school in a democratic society with an emphasis on educational equity for all students. Field experiences in diverse communities required.
- 3153. Educational Psychology** 3(2-2)
Concepts of learning theory and applications, motivation, and measurement and evaluation. Field experience arranged through the instructor.
- 3163. Classroom Management** 3(2-2)
Co-requisite: Must have concurrent enrollment in EDUC 4106 or 4113.
The management of the classroom to optimize student learning. The development of management skills such as active listening, reality therapy, and conflict resolution.
- 4106. Planning and Assessment** 6(4-4)
Prerequisites: EDUC 3153, MATH 2033, 2043. Concurrent enrollment in EDUC 3163.
Assessment and models of instructional planning, emphasis on learning with technology and the models of instruction. Field experience required.
- 4113. Planning and Assessment for Secondary Education and All-Level** 3(3-0)
Co-requisite: Must have concurrent enrollment in EDUC 3163.
Models of instructional planning and assessment strategies for teaching in the secondary schools with emphasis on learning with technology.
- 4163. Student Teaching in Elementary School** 3 semester hours
Prerequisites: Senior standing and approval of the dean.
Used when a student pursues elementary certification with an endorsement. Teaching under supervision in a public elementary school; meets full day for six weeks, including orientation; orientation and supervision by college instructor.
- 4166. Student Teaching in Elementary School** 6 semester hours
Prerequisites: Senior standing and approval of the dean.
Teaching under supervision in a public elementary school; meets full day for twelve weeks, including orientation; orientation and supervision by college instructor.
- 4173. Student Teaching, Elementary All-Level** 3 semester hours
Prerequisites: Senior standing and approval of the dean.
Teaching art, music, or physical education under supervision in a public elementary school; meets full day for six weeks, including orientation; orientation and supervision by college instructor.
- 4176. Internship** 6 semester hours
Prerequisites: Senior standing, a minimum of five years experience as a teacher's aide, and approval of the dean.
Teaching under supervision in a public school; meets full day for twelve weeks, including orientation; orientation and supervision by college instructor.
- 4183. Student Teaching in Early Childhood and Kindergarten** 3 semester hours
Prerequisites: Completion of 6 hours of early childhood course work, senior standing, and approval of the dean.

Student teaching for early childhood and kindergarten endorsement; meets full day for six weeks.

4243. Internship I 3(0-6)

Prerequisites: A bachelor's degree, a Texas Probationary Teaching Certificate, and approval of the dean.

Teacher of record with a mentor in a public school; meets full day for a semester; includes supervision by a college instructor.

4253. Internship II 3(0-6)

Prerequisite: EDUC 4243.

Teacher of record with a mentor in a public school; meets full day for a semester; includes supervision by a college instructor.

4466. Student Teaching in the Secondary School 6 semester hours

Prerequisites: Senior standing and approval of the dean.

Teaching under supervision in a public secondary school; meets full day for twelve weeks, including orientation; orientation and supervision by college instructor.

4473. Student Teaching, Secondary All-Level 3 semester hours

Prerequisites: Senior standing and approval of the dean.

Used only when all-level students desire secondary certification in a minor; teaching under supervision in a public secondary school; meets full day for six weeks, including orientation; orientation and supervision by college instructor.

4903. Problem Course 3 semester hours

Prerequisites: Senior standing and approval of dean.

Designed for advanced students to work in appropriate areas not otherwise available. May be repeated for credit.

4913. Seminar in Education 3(2-2)

Topic as announced. Major project and/or field study with group sharing and analysis.

COURSES IN READING EDUCATION (READ)

3013. Child and Adolescent Literature (formerly ENGL 3013) 3(3-0)

Exploration of children's and adolescent literature from a variety of literary genres representing various cultural groups.

4203. Developmental Reading 3(2-2)

Prerequisites: EDUC 3153 and 4106. Concurrent enrollment in READ 4213.

Literacy theory and developmental stages of literacy. Planning and organizing for literacy-centered instruction.

4213. Methods of Teaching Reading and the Language Arts 3(2-2)

Prerequisites: EDUC 3153 and 4106. Concurrent enrollment in READ 4203.

The integration of reading, listening, speaking, writing, viewing, visual representation, and thinking; planning and organizing for the integrated teaching of reading and language arts. Includes teaching reading and the language arts within the context of content areas.

4223. Diagnosis and Correction of Reading Difficulties 3(2-2)

Prerequisite: READ 4203 or 4273.

Teaching strategies for classroom teachers to use for the continuous diagnostic and prescriptive teaching of reading.

4253. Secondary Reading and Language Arts 3(3-0)

Prerequisite: EDUC 3153.

Methods for designing and implementing instruction that integrates all components of the English language arts (writing, reading, listening/speaking, viewing/representing).

4273. Content Reading 3(3-0)

Prerequisite: EDUC 3153 or concurrent enrollment.

Strategies and materials for assessing students' content reading needs; instructional techniques and modifications for engaging students in content subjects.

4913. Seminar in Reading 3(2-2)

Topic as announced. Major project and/or field study with group sharing and analysis.

COURSES IN SPECIAL EDUCATION (SPED)

3313. Teaching Strategies for Cognitive Disorders 3(2-2)

Prerequisite: Consent of instructor.

Strategies for teaching children and adolescents with mild disabilities. Emphasis on accessing the general education curriculum through universal inclusion strategies and through individualized interventions and modifications including use of technology. Focus on content area learning incorporating formative assessment and planning procedures. Field experience required.

3513. Behavior Management 3(3-0)

Prerequisite: Consent of instructor.

Managing group and individual behavior in classroom, school, home, and community environments in a range of special education contexts through the use of Positive Behavioral Supports. Includes certification in Nonviolent Crisis Intervention. Development and implementation of Behavior Intervention Plan derived from Functional Behavioral Analysis. One hour per week field experience required.

3613. Exceptional Individuals 3(2-2)

Prerequisites: Fifty or more semester hours and EDUC 2013.

A study of the etiology of and concepts relating to exceptional individuals. Field experience included.

4113. Foundations of Special Education 3(3-0)

Prerequisite: SPED 3613.

Philosophical, historical, and legal foundations of special education. Introduction to roles and responsibilities of the special educator, and legal and ethical requirements of the profession. Theoretical perspectives related to the nature and needs of persons with disabilities; involvement in disability advocacy.

4123. Assessment 3(3-0)

Prerequisite: SPED 3613.

Introduction to data-based decision making through monitoring student progress and designing scientifically-based instruction through the use of formative assessment strategies. Includes statistical concepts, norm-referenced summative assessment, standardized test interpretation, and the development of Individualized Education Plans.

4313. Reading for Disabled Readers 3(3-0)

Scientific-based reading instruction in the explicit, intensive teaching of decoding skills, fluency, and phonemic awareness for students with dyslexia and other reading-related learning disabilities.

4513. Teaching Strategies for Affective Disorders 3(3-0)

Using evidence-based interventions to address the needs of students with affective disorders with an emphasis on creating specialized individualized systems of support; includes social skills training, functional behavior assessment. Includes nature and

needs of students with emotional/behavioral disorders, and legal issues related to the education of such students. One hour per week field experience required.

4523. Vocational/Transitional Education 3(2-2)

Prerequisites: SPED 3513 and 4513.

Multidimensional transition planning and the use of research-supported strategies for preparing adolescents with mild to moderate disabilities for adult life. Includes field experience and advocacy for persons with disabilities. Two hours per week field experience required.

4533. Early Childhood Special Education 3(3-0)

Prerequisites: SPED 3513 and 4513.

Development of transdisciplinary Individual Family Service Plans and Strategies for promoting the development of infants and young children with moderate disabilities. Two hours per week field experience required.

4903. Problem Course 3 semester hours

Prerequisite: Senior standing or approval of dean.

Designed for advanced students to work in appropriate areas not otherwise available. May be repeated for credit.

4913. Seminar in Special Education 3(2-2)

Topic as announced. Major project and/or field study with group sharing and analysis.

WEST FOUNDATION DISTINGUISHED PROFESSORSHIP OF EDUCATION

The West Foundation of Wichita Falls supports the West Foundation Distinguished Professor of Education, Mary Ann Coe, in the Gordon T. and Ellen West College of Education. Dr. Coe's research emphasis is on the integration of technology into the learning process.





LAMAR D. FAIN COLLEGE OF FINE ARTS

Ronald D. Fischli, Dean (Fain Fine Arts Center B128)

MISSION STATEMENT FOR THE LAMAR D. FAIN COLLEGE OF FINE ARTS

The primary purpose of the Lamar D. Fain College of Fine Arts is to equip students with the knowledge and skills necessary to pursue a career in art, mass communication, music, or theatre. To accomplish this purpose, stress is placed on applying classroom learning to process and performance. The college prides itself on ensuring that its students do what they study: in its art studios, in its newspaper and television laboratories, and in its concerts, recitals, and dramatic productions.

Besides providing knowledge and training that will qualify students for jobs, graduate study, or professional school, the college endeavors to help students develop aesthetic sensibility, cultural awareness, and social responsibility. Not only are students taught to create within their disciplines, but they are challenged to evaluate the quality of what they have created, to assess the effect of their creations on the wider culture, and to aspire to professionalism and excellence. The goal is to empower students to use their talents to enrich and advance society.

Thus, the Fain College of Fine Arts adopts a twofold mission designed to produce graduates who are both competent professionals and sensitive, reliable, constructive citizens.

ART

Nancy Steele-Hamme, Chair (Fain Fine Arts Center C104)

Professors: Ash, Goldberg, Yarosz-Ash

Associate Professors: Davis, Steele-Hamme

Assistant Professors: Hiraide, Prose

Professor Emeritus: Crossnoe

MISSION STATEMENT FOR THE ART PROGRAM

The art program is dedicated to ensuring that the students acquire the necessary foundation knowledge and skills, develop marketable competencies in an area of artistic specialization, and come to see themselves as professionals committed to excellence.

Three degree programs are offered for art majors:

Bachelor of Fine Arts degree

Bachelor of Fine Arts degree with Teacher Certification, see page 160

Bachelor of Arts degree

Non-majors may enroll in studio courses with the consent of the instructor.

BACHELOR OF FINE ARTS degree requirements

The requirements for the degree of Bachelor of Fine Arts with a major in Art are as follows:

Academic Foundations and Core Curriculum (see page 103) 48 hours

Art Requirements 81 hours

15 hours of basic art courses including 1113, 1123, 1313, 1323, and 1413

12 hours of Art History: 3413, 3423, and 6 additional hours

Painting 2313

Photography 2013

Printmaking 2153

Ceramics 2613

Metals 2813

Sculpture 2523

Drawing III 3213 or Drawing IV 4213

12 additional hours in a major studio emphasis

9 additional hours in a minor studio emphasis

9 additional hours advanced art

A senior exhibition of work (Art 4923) is required prior to graduation.

Total 129 hours

BACHELOR OF FINE ARTS WITH TEACHER CERTIFICATION degree requirements

Academic Foundations, Art requirements, and Professional Education requirements are found on page 160.

BACHELOR OF ARTS degree requirements

The purpose of the B.A. degree is to explore a variety of disciplines versus specialization.

The requirements for the degree of Bachelor of Arts with a major in art are as follows:

Academic Foundations and Core Curriculum (see page 103)

Bachelor of Arts requirements (see page 104)

Art Requirements

All students selecting a major or minor in the B.A. degree program must have their schedules approved in advance of registration by the Art Chair.

Major (39 semester hours)

ART 1113*, 1123*, 1313, 12 hours art history: ART 3413*, 3423*, and 6 additional hours*. 18 additional hours from a variety of studio disciplines with a total of 30 advanced hours.

A minor may be chosen in any field of interest. The minor must be approved by the student's advisor. *Art majors who select a minor in art history must take approved electives in place of these courses to fulfill art major requirements.

REQUIREMENTS FOR A MINOR IN ART (18 semester hours)

ART 1113 or 1123, ART 1313, three hours of advanced art history, and nine additional hours, with a total of 12 advanced hours.

REQUIREMENTS FOR A MINOR IN ART HISTORY (24 semester hours)

ART 1113, 1123, 3413, 3423, and 12 hours from 4000-level art history courses (ART 4533 may be repeated once for credit).

NOTE: The college reserves the privilege of retaining such student work as desired for reference or exhibition purposes. If the student, upon due notification, does not claim his/her work after a three-month period, the University will have the right to dispose of it.

COURSES IN ART (ART)

1113. **Design I** (TCCNS = ARTS 1311) 3(2-4)
 Fundamental elements and principles of 2-dimensional design. Construction, presentation, and rendering skills developed.
1123. **Design II** (TCCNS = ARTS 1312) 3(2-4)
 Fundamental principles of 3-dimensional design. Continuation of 1113 with emphasis on small construction format developing the use of various tools, materials, and presentation skills.
1213. **Art Appreciation, Applied** 3(2-2)
 Hands-on opportunities in basic 2- and 3-dimensional media, such as drawing, painting, printmaking, ceramics, and sculpture, together with the usual foundation lecture experience in art appreciation. For non-art majors.
1313. **Drawing I** (TCCNS = ARTS 1316) 3(2-4)
 Drawing a variety of subjects in both wet and dry media with emphasis on black and white visual organization and expression.
1323. **Drawing II** (TCCNS = ARTS 1317) 3(2-4)
 Prerequisite: ART 1313.
 Continuation of 1313 with emphasis on color drawing media and development through both individual and group projects.
1413. **Art Appreciation** (TCCNS = ARTS 1301) 3(3-0)
 Lectures, slides, and discussion of the visual elements and their application to the arts. Prerequisite for all art history courses.
2013. **Photography I** (TCCNS = ARTS 2356) 3(2-4)
 Prerequisites: ART 1113, 1123, 1323 or consent of instructor.
 Introduction to camera, film, and basic darkroom techniques in black and white photography. Emphasis on photography as a fine art.
2153. **Printmaking I** (TCCNS = ARTS 2333) 3(2-4)
 Prerequisites: ART 1113, 1123, 1323 or consent of instructor.
 Introduction to printmaking. Beginning instruction in one of the following printmaking processes: intaglio, dealing with etching, aquatint, and soft ground. Relief printing methods including linocuts and relief intaglio applications. Screen process printing (serigraphy) dealing with direct photo emulsions. Monoprint and monotype processes.
2313. **Painting I** (TCCNS = ARTS 2316) 3(2-4)
 Prerequisites: ART 1113, 1123, 1323 or consent of the instructor.
 Introduction to painting. Instruction in one of the following areas: Oil medium, acrylic medium, or watercolor medium. Oil and acrylic painting including the fabrication of stretchers and surface preparations.
2323. **Painting II** (TCCNS = ARTS 2317) 3(2-4)
 Prerequisite: ART 2313.
 Introduction to a second painting medium with emphasis on skill development and individual exploration of ideas. (See Painting 2313 for media options.)
2523. **Sculpture I** (TCCNS = ARTS 2326) 3(2-4)
 Prerequisites: ART 1113, 1123, 1323 or consent of instructor.

Introduction to sculpture. Emphasis on exploration of materials through the proper use of appropriate tools and working processes. Beginning instruction in the following: casting (flexible and non-flexible mold making, wax model making, substitution materials in bronze, aluminum, plaster, rubber, and plastic); woodworking (hand and power equipment); metal fabrication (oxyacetylene and electrical welding).

2613. **Ceramics I** (TCCNS = ARTS 2346) 3(2-4)

Prerequisites: ART 1113, 1123, 1323 or consent of instructor.

Basic studio practices in handbuilding or wheelthrowing skills and design with an introduction to techniques in decoration and glaze application.

2623. **Ceramics II** (TCCNS = ARTS 2347) 3(2-4)

Prerequisite: ART 2613 or consent of instructor.

Intermediate studio practices in handbuilding or wheelthrowing techniques and design with instruction in glazing and firing.

2713. **Commercial Art I** 3(2-4)

Prerequisites: ART 1113, 1123, 1323 or consent of instructor.

Introduction to commercial art. Beginning instruction in one of three main areas: graphic design, typography, and advertising design. Design, layout, and computer skills will be used in publication and symbol design.

2723. **Commercial Art II** 3(2-4)

Prerequisite: ART 2713 or consent of instructor.

Continuation of Commercial Art I. Problems in concept development and visual expression in editorial and corporate design.

2813. **Metals I** 3(2-4)

Prerequisites: ART 1113, 1123, 1323 or consent of instructor.

Introduction to metalsmithing. The development of basic construction and manipulation processes of various non-ferrous metals. Minimum of four of the following techniques are covered: rivets, soldering, piercing, casting, enameling, raising, die-forming, and stone setting. Also various surface treatments will be explored including etching, stamping, roll milling, inlay, and patinas. Emphasis on design and craftsmanship.

2823. **Sculpture II** (TCCNS = ARTS 2327) 3(2-4)

Prerequisite: ART 2523 or consent of the instructor.

Continuation of Sculpture I. Emphasis on skill development and individual exploration of ideas.

3013. **Photography II** 3(2-4)

Prerequisite: ART 2013 or consent of the instructor.

Photography as an expressive medium, with an emphasis on personal style. Continued development of advanced darkroom techniques. These include the use of a medium format camera and an introduction to archival processing.

3023. **Photography III** 3(2-4)

Prerequisite: ART 3013 or consent of the instructor.

Color photography as a fine arts medium with emphasis on development of professional skills. This course includes color slide processing, printing, positives from color slides, and color negatives. May be repeated once for credit by mass communication majors.

3143. **Printmaking II** 3(2-4)

Prerequisite: ART 2153 or consent of instructor.

Introduction to a second print medium: intaglio, relief, or serigraphy emphasizing color printing. (See ART 2153 – Printmaking I for definition of media.)

3153. **Printmaking III** 3(2-4)
Prerequisite: ART 3143 or consent of instructor.
Advanced study in a previously enrolled medium or introduction to a third process. Emphasizing color printing and technical development. (See Printmaking 2153 for definition of media.)
3213. **Drawing III** 3(2-4)
Prerequisite: ART 1313 or 1323 or consent of the instructor.
Emphasis on advanced pictorial attitudes and mixed media production through prolonged drawing problems.
3333. **Painting III** 3(2-4)
Prerequisite: ART 2323 or consent of instructor.
Introduction to a third painting medium with emphasis on continued individual exploration and skill development. (See Painting 2313 for media options.)
3413. **History of World Art: Survey I** 3(3-0)
Prerequisite: ART 1413 (for art majors); ART 1213 or 1413 (for non art majors); or consent of instructor.
An introduction to art and architecture as social products of a global human history. Both the comparability and diversity of human social organizations and the role of visual culture in them will be discussed. From the Prehistoric through the Gothic era in Europe.
3423. **History of World Art: Survey II** 3(3-0)
Prerequisite: ART 1413 (for art majors); ART 1213 or 1413 (for non art majors); or consent of instructor.
An introduction to art and architecture as social products of global human history. Both the comparability and diversity of human social organizations and the role of visual culture in them will be discussed. From the fifteenth century to the present.
3613. **Ceramics III** 3(2-4)
Prerequisite: ART 2623 or consent of the instructor.
Selected studio problems in handbuilding and throwing techniques with an emphasis on the combining of the two techniques. An understanding of ceramic raw materials and basic glaze will be developed.
3623. **Sculpture III** 3(2-4)
Prerequisite: ART 2823 or consent of instructor.
Advanced study in various traditional and nontraditional materials with emphasis on continued individual exploration and skill development.
3633. **Sculpture IV** 3(2-4)
Prerequisite: ART 3623 or consent of instructor.
Advanced study in various processes with emphasis on combining materials. Stress placed on individual development of ideas and a refinement in techniques and skills.
3713. **Commercial Art III** 3(2-4)
Prerequisite: ART 2723 or consent of instructor.
Design and production using computerized type. Design as a means of visual and verbal communication will be explored. May be repeated once for credit by mass communication majors.
3723. **Commercial Art IV** 3(2-4)
Prerequisite: ART 3713 or consent of instructor.
Design and production of books, brochures, and posters utilizing computerized Macintosh equipment.

- 3813. Metals II** 3(2-4)
Prerequisite: ART 2813 or consent of the instructor.
The continued development of metalsmithing skills and design in various non-ferrous metals. Minimum of four of the following techniques are covered: rivets, soldering, piercing, casting, enameling, raising, die-forming, and stone-setting.
- 3823. Metals III** 3(2-4)
Prerequisite: ART 3813 or consent of the instructor.
Advanced study in various metalsmithing processes and skill development with emphasis on continued individual exploration of design, ideas, and skill development.
- 3913. Professional Practices** 3 (3-0)
Prerequisites: Art majors only. Consent of instructor.
Practical and philosophical aspects concerned with success outside of the academic environment. A survey of information centering on career opportunities, interviewing, business and professional concerns, this course will involve in-class and outside-of-class activities, discussions, and assignments.
- 4013. Photography IV** 3(2-4)
Prerequisite: ART 3023 or consent of the instructor.
This course will explore color photography as a fine arts medium. Experimental approach to color will be explored. These approaches will include: Cliche vere, non silver, dye transfer, and electronic imaging.
- 4023. Photography V** 3(2-4)
Prerequisite: ART 4013 or consent of the instructor.
This course will explore advanced techniques of both black and white and color. The course will introduce students to the 4x5 camera and studio lighting. Each student will pursue his or her individual creative path culminating in a final portfolio. May be repeated for credit.
- 4113. Photography in Great Britain** 3(3-0)
This is the lecture component of the class where historical and contemporary photographic practices in Great Britain will be addressed. London's museums, galleries, and institutions such as Royal Photographic Society will be utilized; important British photographers will be invited to class to discuss their work. Field trips to various locations such as Stonehenge and Laycock Abbey will be an integral part of the course. Each student will compile a photographic portfolio as a final project.
- 4123. Photography in Great Britain** 3(2-4)
This is the studio component of the class where historical and contemporary photographic practices in Great Britain will be addressed. London's museums, galleries, and institutions such as Royal Photographic Society will be utilized; important British photographers will be invited to class to discuss their work. Field trips to various locations such as Stonehenge and Laycock Abbey will be an integral part of the course. Each student will compile a photographic portfolio as a final project.
- 4143. Printmaking IV** 3(2-4)
Prerequisite: ART 3153 or consent of instructor.
Selected studio problems with emphasis on combining or mixing media. Stressing individual development and production.
- 4153. Printmaking V** 3(2-4)
Prerequisite: ART 4143 or consent of instructor.
Further emphasis in individual development of image and technique stressing production of prints to be included in the Senior Exhibition. May be repeated for credit.

4163. **Domestic/International Field Study** 3(2-4)
Prerequisite: Consent of instructor.
Studies away from MSU campus in studio art and art history. Will include preparatory class meetings before travel and at the conclusion of experience. May be repeated for credit when topics and instructors vary.
4213. **Drawing IV** 3(2-4)
Prerequisites: 15 studio hours or consent of the instructor.
The development of personal attitudes towards drawing. Designed to deal with individual problems and concepts.
4223. **Drawing V** 3(2-4)
Prerequisite: ART 4213 or consent of instructor.
Continuation of ART 4213.
4233. **Drawing VI** 3(2-4)
Prerequisite: ART 4223 or consent of instructor.
Continuation of ART 4223.
4303. **Foundations of Art I** 3(2-4)
A study of the essential elements of fine arts as outlined by the Texas Education Agency. The course provides experience in the value of art, art judgment, creativity, and awareness of art fundamentals. It also combines experience in working with both two- and three-dimensional media with reading and research in art.
4313. **Painting IV** 3(2-4)
Prerequisite: ART 3333.
Selection of media previously investigated. Individual exploration of ideas focused; techniques and skills refined.
4323. **Painting V** 3(2-4)
Prerequisite: ART 4313.
Selection of media previously investigated. Consistency of imagery, idea, and refinement of technical skill expected. Production of paintings to be included in Senior Exhibition. May be repeated for credit.
4403. **Foundations of Art II** 3(2-4)
A study of the philosophy, organization, and theory related to art programs. Focuses on the development of curriculum and lesson plan organization. Also provides field observation and teaching experience.
4413. **Art of the European Renaissance 1300-1600** 3(3-0)
Prerequisite: ART 1413 (for art majors); ART 1213 or 1413 (non art majors); or consent of instructor.
Art and architecture examined in terms of style, cultural meaning, context, and ideology. Investigation of conditions of art production, change in role of artist, relationship between theory and practice, and the question or concept of Renaissance. Italy, France, Germany, and southern and northern Netherlands.
4423. **Art in Early Modern Europe I: Art from 1600-1750** 3(3-0)
Prerequisite: ART 1413 (for art majors); ART 1213 or 1413 (non art majors); or consent of instructor.
Exploration of art and architecture of Europe from the Counter-Reformation shrine of St. Peter to Louis XIV's palace at Versailles; from the Jesuit altarpieces in Antwerp to the Dutch Republic of Vermeer and Rembrandt and more. Italy, Spain, France, Germany, England, Flanders, Netherlands.

4433. Art in Early Modern Europe II: Art from 1750-1900 3(3-0)

Prerequisite: ART 1413 (for art majors); ART 1213 or 1413 (for non art majors); or consent of instructor.

An investigation of the visual arts and architecture in Europe from the stirrings of revolution in the late eighteenth century to the new age of imperialism that reached its apogee before World War I. Neoclassicism, Romanticism, Historicism, Realism, Impressionism, Post-Impressionism, Symbolism, Art Nouveau.

4443. Modern and Contemporary Art 3(3-0)

Prerequisite: ART 1413 (for art majors); ART 1213 or 1413 (for non art majors); or consent of instructor.

Investigation of the visual arts and architecture from Post-impressionism to the present. Special emphasis on cultural definitions of modernity and modernism, the ideologies of the avant-garde, and the ideas and issues surrounding the production, reception, marketing, interpretation, and criticism of painting, sculpture, drawing, photography, installations, performance, video, and other mixed media modes of presentation. International in scope.

4453. Art in the United States 3(3-0)

Prerequisite: ART 1413 (for art majors); ART 1213 or 1413 (for non art majors); or consent of instructor.

Investigation of the role visual culture has played in the United States as Americans attempted to situate themselves geographically, culturally, economically, and politically within their own society and within the world at large. Traces change within the visual arts within the context of important social, political, and intellectual events from ca. 1600 to 1945.

4453. Exhibition and Presentation Methods 3 semester hours

Prerequisite: Consent of instructor.

A practicum in the fundamentals of exhibition organization. Emphasis on gallery installation and advanced presentation skills beyond the studio experience. May be repeated for credit.

4523. Ceramics IV 3(2-4)

Prerequisite: ART 3613 or consent of the instructor.

Advanced individual problems in clay construction and design with an emphasis on the development of personal direction. Problems in non-utilitarian forms with consideration for the technical problems inherent to the process and materials selected by the student.

4533. Topics in History of Art 3(3-0)

Prerequisite: ART 1413 (for art majors); ART 1213 or 1413 (for non art majors); or consent of instructor.

Survey and investigation of a particular topic, problem, or issue in art history with emphasis on those not covered in other courses (e.g., issues in contemporary art, Mesoamerican art before the conquest; women in art; history of museums and collecting; problems in methodology; history, criticism, theories of photography; etc.). Exact content will be announced before each offering. May be repeated once for credit.

4543. Topics in Studio Art 3(3-0)

Prerequisites: ART 1113, 1123, 1313, 1323 or consent of instructor.

Advanced study of various disciplines of studio art. Studio offerings will be outside of mainstream courses, and will not be credited to established areas of major and minor study. May be repeated for credit when topics and instructors vary. Advanced art hour credit.

4613. **Ceramics V** 3(2-4)
Prerequisite: ART 4523 or consent of instructor.
Advanced individual problems in clay construction and design with further emphasis on the development of a personal direction stressing production of works suitable for use in the Senior Exhibition. May be repeated for credit.
4623. **Sculpture V** 3(2-4)
Prerequisite: ART 3633 or consent of instructor.
Further emphasis in individual development of techniques and concept. Stress placed on production of works to be included in the Senior Exhibition. May be repeated for credit.
4713. **Commercial Art V** 3(2-4)
Prerequisite: ART 3723 or consent of instructor.
Introduction to advertising design. Problems of design and production in a variety of advertising media.
4723. **Commercial Art VI** 3(2-4)
Prerequisite: ART 4713 or consent of instructor.
Use of illustration, typography, and photography in advertising. Portfolio presentation and development for seniors. May be repeated for credit.
4813. **Metals IV** 3(2-4)
Prerequisite: ART 3823 or consent of instructor.
Advanced study in various metalsmithing processes with emphasis on combining processes and stressing individual exploration of contemporary metals design and skill development.
4823. **Metals V** 3(2-4)
Prerequisite: ART 4813 or consent of instructor.
Advanced individual problems in metals with emphasis on the development of a personal direction stressing production of works to be included in the Senior Exhibition. May be repeated for credit.
4913. **Advanced Problems in Art** 3 semester hours
Prerequisites: Nine hours in the field to be investigated.
Problems to be worked out in conjunction with instructor of the field being investigated. May be repeated for credit when fields of study vary.
4923. **Senior Exhibition** 3 (2-4)
Prerequisite: Consent of instructor.
Special emphasis on all aspects of preparation for the selection and presentation of work included in the senior exhibition. Includes production of resume, artist's statement, exhibition announcement, public relations practices, and various forms of correspondence and communication. For B.F.A. majors only. To be taken during final semester. Exhibition scheduling will be determined by the instructor in consultation with the gallery director. Instructor oversees all aspects of every senior exhibition.
4933. **Visual Arts Apprenticeship** 3 semester hours
Prerequisite: Consent of instructor.
Student serves as an apprentice to the instructor in the development of works of art designed by the faculty member. Medium and instructor may not be repeated.
4943. **Art Internship** 3 semester hours
Prerequisite: Limited to B.F.A. majors of senior standing with 3.0 overall grade point average.

Practical work experience in an environment related to the student's art career objectives. A minimum of 160 hours on the job is required. Must be approved and arranged prior to registration and receive consent of the Department Chair. May be repeated in a different work experience for a total of six hours credit.

MASS COMMUNICATION

James Sernoe, Chair (Fain Fine Arts Center B110)

Associate Professor: Sernoe

Assistant Professors: Bolin, Conrad, Gorham, Pruitt

Professors Emeriti: Allen, Cowart, Kable, Taylor

MISSION STATEMENT FOR THE MASS COMMUNICATION PROGRAM

The mission of the Mass Communication program is to prepare Bachelor of Arts graduates for employment in the multi-discipline media arena and/or graduate education. The mission will be achieved by evolving curriculum that stresses both theoretical principles and practical application of current theory.

The requirements for the degree of Bachelor of Arts in mass communication are as follows:

Academic Foundations and Core Curriculum (see page 103)

Bachelor of Arts requirements (see page 104)

Mass Communication Requirements (42 semester hours)

Mass Communication (21 semester hours) 2213, 3223, 3313, 3613, 4123, 4163
(one semester working either on *The Wichitan* or at MSU2), 4243;

Journalism (9 semester hours) 1233, 1243, 4643;

Speech Communication (9 semester hours) 1233, 4133, 3023;

Art (3 semester hours) 2013 or 3713.

A student majoring in Mass Communication must select a minor from one of the following:

Journalism (18 semester hours)

3133, 3233, 3623, 3633, 3653, 4123.

Broadcast Journalism (18 semester hours)

Journalism 3623, 4123, Mass Communication 4153, 4263, 4313, 4363.

Theatre (18 semester hours)

2533, 3433, 3473, 3483, 3543, 4483.

Art (18 semester hours)

1113 or 1123, 1313, 3013 or 3 hours of advanced commercial art, 3 hours of advanced art history, plus 6 advanced hours.

Public Relations (18 semester hours)

JOUR 3133, 3233, 3633 or 3653, 4123, 4683, 4693.

Electives (sufficient to bring total hours to 124)

A 3.0 grade point average in major and minor is required prior to enrollment in Mass Communication 4243.

Minor in Mass Communication—18 semester hours comprised of:

JOUR	1233	Introduction to Mass Communication
JOUR	1243	News Writing I
MCOM	3223	Advertising
MCOM	3313	Studio Procedures I
JOUR	4643	Mass Communication Law or MCOM 4313 Media Management
JOUR	4683	Public Relations or SPCH 4133 Organizational Communication

COURSES IN MASS COMMUNICATION (MCOM)

2213. **Appreciation of Film** (TCCNS = COMM 2366) 3(3-0)
The history, theory, and aesthetics of film as artistic expression. Lighting, composition, editing, continuity, and genres will be emphasized.
3223. **Advertising** 3(3-0)
Study of the means of marketing ideas, goods, and services. Emphasis on principles, procedures, and techniques employed in the creation of campaigns.
3313. **Studio Procedures I** (formerly 2313) 3(3-0)
The theory and practice of television production and procedures. Supervised direction in all aspects of media presentation.
3513. **Selected Studies in Mass Communication** 3(3-0)
Directed and concentrated study in mass communication. May be repeated for credit when topics vary.
3613. **Studio Procedures II** (formerly 2613) 3(3-0)
Prerequisites: MCOM 3313. Limited to mass communication majors.
Advanced theory and practice of television production. Supervised direction in all aspects of media presentation.
4123. **Radio and Television Programming** 3(3-0)
Prerequisite: Limited to mass communication majors.
Study of radio and television program design and audience analysis, with emphasis on current programming practices and promotional techniques.
4153. **Broadcast Diction** 3(3-0)
Prerequisite: SPCH 1233.
The application of the International Phonetic Alphabet to improve the vocal processes, articulation, and pronunciation. Extensive reading of broadcast copy.
4163. **Mass Communication Applications** 3 semester hours
Prerequisite: Consent of the instructor.
Writing for campus newspaper and/or campus television station in a professional atmosphere. May be repeated once for credit.
4173. **Problems in Mass Communication** 3 semester hours
Prerequisites: Consent of instructor. Limited to mass communication majors.
Directed research in mass communication.
4243. **Senior Production** (formerly 3123) 3(3-0)
Prerequisites: MCOM 3313, 3613, and JOUR 1243. Limited to mass communication majors with a 3.0 G.P.A. in major and minor.
The execution of a television documentary incorporating written, oral, and organizational skills. Emphasis on applied media aesthetics. To be taken in final long semester.

4263. **Broadcast News** 3 semester hours
Prerequisites: MCOM 3313, 3613. Limited to mass communication majors.
Gathering, writing, and presenting a television news product under a deadline. Developing news judgment as well as an understanding of the complexities of the visual aspect of broadcast journalism.
4313. **Media Management** 3(3-0)
Prerequisites: Junior standing or consent of instructor.
The financial, legal, and technical aspects of handling media personnel. Practical application of station operation, administration, and programming.
4363. **Advanced Broadcast News** 3 semester hours
Prerequisites: MCOM 4263. Limited to mass communication majors.
The application of broadcast journalism in the role of news producer, news director, and other managerial roles. Responsible for on-air quality of the newscast.

JOURNALISM

The requirements for the minor in journalism are as follows:

Minor in Journalism (18 semester hours)

JOUR 1233, 1243, 3133, 3233 plus six advanced JOUR hours.

The requirements for a teaching field in journalism are as follows:

- JOUR 1233 Introduction to Mass Communication
- JOUR 1243 News Writing I
- JOUR 3133 News Writing II
- JOUR 3233 News Editing and Copy Reading
- JOUR 3633 Editorial Writing or JOUR 3653 Feature Writing
- MCOM 4153 Broadcast Diction
- MCOM 4163 Mass Communication Applications

Total 21 hours

COURSES IN JOURNALISM (JOUR)

1233. **Introduction to Mass Communication** (TCCNS = COMM 1307) 3(3-0)
Survey of the media of mass communication: newspapers, radio, television, magazines, and industrial publications.
1243. **News Writing I** (TCCNS = COMM 2311) 3(2-2)
Introduction to fundamentals such as accuracy, brevity, clarity, deadlines, news story structure, and the nature of the news. Designed to prepare the student for reporting.
3133. **News Writing II** 3(2-2)
Prerequisite: JOUR 1243 or consent of instructor.
Study and practice in reporting the significant and complex news such as science, labor, the courts, and critical reviews. Public affairs and investigative reporting.
3233. **News Editing and Copy Reading** 3(3-0)
Prerequisite: JOUR 1243 or consent of instructor.
Instruction and practice in copy reading, determining news values, use of stylebook, headline writing, photo editing, and newspaper design.

3623. **Mass Communication History and Ethics** 3(3-0)
Prerequisites: Junior standing and JOUR 1233.
Study of the development of American newspapers and other mass communication media related to the political, economic, and social progress of the American people; case history approach to ethical problems of the media.
3633. **Editorial Writing** 3(3-0)
Prerequisite: JOUR 1243.
Study and practice of editorial writing techniques. Role of the editorial in contemporary journalism. Organization of facts for interpretation and persuasion.
3653. **Feature Writing** 3(3-0)
Prerequisite: JOUR 1243.
Procedure in gathering material for feature stories with emphasis on newspaper articles. Analysis of reader appeal, study of feature story structure, and development of style by practice in writing feature stories.
4123. **Mass Media Internship** 3 semester hours
Prerequisites: Junior standing, JOUR 1243, and consent of instructor.
Field experience in selected areas of mass communication, including but not limited to news and sports reporting, advertising, graphic design, public relations, promotions/marketing, broadcast production or other related field. Students must work a minimum of 120 hours. Must be approved by department internship coordinator in advance. May be repeated once for credit.
4643. **Mass Communication Law** 3(3-0)
Prerequisites: Junior standing and JOUR 1233.
Study of how law has developed in mass communication with emphasis on freedom of the press vs. rights of the individual; case history approach to court decisions and to Federal Communication Commission rulings.
4683. **Public Relations** 3(3-0)
Prerequisite: JOUR 1243.
Study of public relations in modern society, business, and communications. Influencing public opinion through acceptable performance and two-way communication.
4693. **Public Relations Campaigns** 3(3-0)
Prerequisite: JOUR 4683 or consent of instructor.
Application of public relations principles to cases; analysis of case histories, and evaluation of major public relations campaigns.

PUBLIC RELATIONS

The requirements for the minor in public relations are as follows:

Minor in Public Relations (18 semester hours)

JOUR 1243, 3133, 3233, 3633 or 3653, 4683, 4693.

SPEECH COMMUNICATION

The requirements for the minor in speech communication are as follows:

Minor in Speech Communication (18 semester hours)

Speech Communication 1133, 1233, 2133, 3013, 3023, 4133.

The requirements for a teaching field in speech are as follows:

SPCH 1133 Fundamentals of Speech Communication
 SPCH 1233 Voice and Diction
 SPCH 3013 Argumentation and Debate
 SPCH 3023 Persuasion
 SPCH 4133 Organizational Communication
 JOUR 1233 Introduction to Mass Communication
 OR
 SPCH 2133 Oral Interpretation

3 additional hours from:

MCOM 4153 Broadcast Diction
 THEA 4213 Voice for the Theatre and Stage Dialects
 THEA 4423 Creative Dramatics

Total 21 hours

COURSES IN SPEECH COMMUNICATION (SPCH)

1133. **Fundamentals of Speech Communication** (TCCNS = SPCH 1315) 3(3-0)
 Development of skills in speech communication. Preparation and delivery of speeches. Study of nonverbal communication, psychological motivation, and one-to-one communication.
1233. **Voice and Diction** (TCCNS = SPCH 1342) 3(3-0)
 Examination of the structure of the vocal apparatus. Analysis of the sound system of the English language. Work on the speaking voice and on General American pronunciation. Emphasis on the International Phonetic Alphabet and on oral practice.
2133. **Oral Interpretation** (TCCNS = SPCH 2341) 3(3-0)
 Prerequisite: SPCH 1133 or 1233 or consent of instructor.
 Analysis of oral interpretation as an art. Consideration of the aim of the interpreter as finding the meanings in the literature and stirring those meanings in the minds of the listeners.
3013. **Argumentation and Debate** 3(3-0)
 Prerequisite: SPCH 1133 or 1233, or consent of instructor.
 Foundations of argumentative discourse. Emphasis on the construction and delivery of logical arguments and development of skills in critical thinking.
3023. **Persuasion** 3(3-0)
 Prerequisite: SPCH 1133 or 1233, or consent of the instructor.
 Advanced study and analysis of persuasive principles with a special emphasis on practical application.
4133. **Organizational Communication** 3(3-0)
 Prerequisite: SPCH 1133 or 1233 or consent of instructor.

A study of communication patterns in a range of business and professional organizational environments. Dynamics of individual and group communication-information flow, attitude change, evaluations systems, socio-emotional climate, conflict resolution, and interviewing.

4143. **Problems in Speech Communication** 3 semester hours
 Prerequisites: SPCH 1133 or 1233 and consent of the instructor.
 Directed research in speech. May be repeated for credit when topics vary.

MUSIC

Ruth Morrow, Chair (Fain Fine Arts Center 117)

Professors: Archambo, Hough, Maxwell, Morrow

Associate Professors: Lewis, Schuppener

Assistant Professors: Black, Crews, Scherler

Professor Emeritus: I. Boland

MISSION STATEMENT FOR THE MUSIC PROGRAM

The mission of the music program at Midwestern State University is to provide a comprehensive music curriculum and a wide range of performance opportunities which will equip students for a variety of music careers while enabling them also to become well-rounded persons through involvement in diverse liberal arts courses. The music program endeavors to help students develop aesthetic sensibility, cultural awareness, and social responsibility. Not only are students taught to create within their disciplines, they are challenged to evaluate the quality of what they have created. Central to the mission is to empower students to use their talents to enrich and advance society. With this in mind the program also serves as a catalyst between the university and the community in promoting artistic activities.

The following degree programs are offered for music majors:

Bachelor of Music (Performance)

Bachelor of Music (with Teacher Certification), see page 163.

Bachelor of Arts with a major in Music*

*As of the printing of this catalog, the B.A. degree with a major in music is pending approval by the Texas Higher Education Coordinating Board.

The Music program is accredited by the National Association of Schools of Music through its Commission on Accreditation.

GENERAL INFORMATION

Entering students may be required to take music placement tests. Preparatory study or considerable experience in the field of performance concentration is required of all majors. Advanced standing of transfer students will be determined by placement tests and evaluation of scholastic standing.

All music majors, with the exception of keyboard performance majors, are required to maintain continuous enrollment in piano class or private piano (with approval from the chair of keyboard studies) until keyboard proficiency is passed.

All music majors must participate in at least one major ensemble for credit each semester of enrollment except during the semester of student teaching. (See list of major ensembles under Courses in Music Ensemble on page 195.)

All music majors are required to maintain continuous enrollment in their primary performance area until successfully completing the senior recital.

All music majors are required to make a grade of "C" or better in every music course required for the degree and/or major in music.

Additional information regarding Music Department policies and procedures is available in the Music Department Policy Manual.

RECITAL REQUIREMENTS

All candidates for the Bachelor of Music degree must prove satisfactory performance ability by performing publicly in recital. Students taking the performance degree will perform a half recital in the junior year, and a full recital in the senior year. Students with teacher certification will perform a half recital in the senior year.

All music majors, with the exception of keyboard performance majors, must pass the keyboard proficiency examination prior to the performance of their senior recital.

Before a recital is performed publicly, the student will be required to demonstrate to the faculty in his/her performance area that the program is ready for public performance. The time for this preview will be at least three weeks prior to the public performance date.

RECITAL ATTENDANCE REQUIREMENTS

Each student will be required to enroll in Recital Attendance (MUSC 1000) until eight semesters have been completed. This course is required for graduation but will carry no semester-hours credit toward a degree. The number of required semesters of Recital Attendance for transfer students will be determined by the Music Department Chair upon the student's entrance into the music program.

Grading will be by pass/fail. Attending a specific number of recitals will be required each semester for a passing grade. Failure to attend the requisite number of recitals will result in a failing grade for the semester.

Music majors must pass a minimum of eight semesters. Students will not be cleared for graduation until these requirements are met.

REQUIREMENTS FOR THE MINOR IN MUSIC (23-24 semester hours):

All students selecting a minor in music must have their program approved in advance of registration by the Music Minor Advisor.

Music 1000 (4 semesters), 1601/1603, 3723, and 3733 or 3743, 2 semester hours from 1111 Beginning Piano or 1121 Piano Class (keyboard students take MUSC 3823 Piano Pedagogy I (offered fall semester only); Major Ensemble (4 semesters), 4 semester hours primary performance area (must be concurrently enrolled in major ensemble), 3-4 semester hours from the following: 1611/1613, 3733, 3743, 4813, 4823, 4843, or 4893. Nine hours of the minor must be at the advanced level (3 advanced hours may be taken in upper-level ensemble).

REQUIREMENTS FOR THE BACHELOR OF MUSIC DEGREE:

Primary Performance Areas: Brass, Percussion, Woodwinds, Guitar, Voice, Keyboard, Strings (with teacher certification only).

MUSIC CORE REQUIREMENTS (required of all music majors) 40-41 hours**Recital Attendance** (eight semesters)**Music Theory** (18 hours) - MUSC 1601/1603, 1611/1613, 2603, 2613, 3632, and 3662.**Music History** (9 hours) - MUSC 3723, 3733, and 3743.**Conducting** (3 hours) - MUSC 4843.**Ensemble** (Performance Majors - 8 hours, Teacher Certification - 7 hours)**Music Technology** (3 hours) - MUSC 4893**PERFORMANCE MAJORS - ADDITIONAL REQUIREMENTS****Academic Foundations, Core Curriculum, and
Computer Competency****36-41 hours****Music Requirements:**

Instrumental Performance	42 hours
MUSC 4853	3
Primary Performance Area (12 advanced, including 3 of Junior Recital and 3 of Senior Recital)	24
Secondary Performance Area with Proficiency (4 sem.)	4
Secondary Ensemble (4 sem.)	4
Advanced music electives	7
Total hours	120-124
Vocal Performance	53 hours
MUSC 1211, 1221, 3211, 3221, 4833, and 4863	10
Primary Performance Area (12 advanced, including 3 of Junior Recital and 3 of Senior Recital)	24
Performance Class 1101 (2 sem.), 3101 (2 sem.)	4
Opera Workshop 1931 (2 sem.), 3931 (2 sem.)	4
Advanced music electives	3
Foreign Language (2 semesters of French or German - can be met by Academic Core Requirements)	8
Total hours	128-134
Keyboard Performance	49 hours
MUSC 3823, 3833, 3842, 3852, and 4853 or 4863	13
Primary Performance Area (12 advanced, including 3 of Junior Recital and 3 of Senior Recital)	24
Secondary Performance Area (2 semesters must be keyboard)	4
Advanced music electives	8
Total hours	124-131

Bachelor of Music with Teacher Certification

Music All-Level, Vocal Emphasis

Academic Foundations, Core Curriculum, and Computer Competency 42-45

ENGL	1113, 1123	6
SPCH	1233	3
HIST	1133, 1233	6
POLS	1333, 1433	6
Natural Sciences	– two laboratory courses	6-8
MATH	1233	3
EDUC	1023 or CMPS 1023 or pass department exam	3
Fine Arts	– met by course required in major	0
Humanities	– met by courses required in major	0
SOCL	1133 or PSYC 1103	3
ECON	1333 or 2333	3
Kinesiology	(2 activities or 1 activity and KNES 1011, or two semesters of marching band and 1 activity, or four semesters of marching band)	3-4

Additional General Requirements 6

COUN	3143 Human Diversity	3
SPED	3613 Exceptional Individuals	3

Major in Music 63

Theory	1601/1603, 1611/1613, 2603, 2613, 3632, 3662	18
Instrumental classes	3141, 3161, 3181, 3291	4
History	3723, 3733, 3743	9
Conducting	4843, 4863	6
Diction	1211, 1221	2
Choral Literature	3862	2
Applied Music		6
Senior Recital		1
Ensemble		7
Advanced electives		2
Piano Proficiency and Recital Attendance		
Music Technology	4893	3
Foundations of Music II	4823	3

Professional Education for All-Level Certification 21

EDUC	2013 School and Society	3
EDUC	3153 Educational Psychology	3
EDUC	3163 Classroom Management	3
MUSC	4873 Foundations of Music III	3
EDUC	4173 Student Teaching, Elementary, All-Level	3
EDUC	4473 Student Teaching, Secondary, All-Level	3
READ	4273 Content Reading	3

Total Semester Hours 133-136

Bachelor of Music with Teacher Certification

Music All-Level, Instrumental Emphasis

Academic Foundations, Core Curriculum, and Computer Competency 39-41

ENGL	1113, 1123	6
SPCH	1233	3
HIST	1133, 1233	6
POLS	1333, 1433	6
Natural Sciences	– two laboratory courses	6-8
MATH	1233	3
EDUC	1023 or CMPS 1023 or pass department exam	3
Fine Arts	– met by course required in major	0
Humanities	– met by courses required in major	0
SOCL	1133 or PSYC 1103	3
ECON	1333 or 2333	3
Kinesiology	(normally met by 4 semesters of marching band)	0

Additional General Requirements 6

COUN	3143 Human Diversity	3
SPED	3613 Exceptional Individuals	3

Major in Music 64

Theory	1601/1603, 1611/1613, 2603, 2613, 3632, 3662	18
Instrumental classes	3141, 3161, 3181, 3281, 3291	5
History	3723, 3733, 3743	9
Conducting	4843, 4853	6
Applied Music		6
Senior Recital		1
Ensemble	(includes 4 semesters of marching band)	7
Advanced electives		6
Piano Proficiency and Recital Attendance		
Music Technology	4893	3
Foundations of Music II	4823	3

Professional Education for All-Level Certification 21

EDUC	2013 School and Society	3
EDUC	3153 Educational Psychology	3
EDUC	3163 Classroom Management	3
MUSC	4873 Foundations of Music III	3
EDUC	4173 Student Teaching, Elementary, All-Level	3
EDUC	4473 Student Teaching, Secondary, All-Level	3
READ	4273 Content Reading	3

Total Semester Hours 130-132

Bachelor of Arts with a major in Music

(As of the printing of this catalog, the B.A. degree with a major in music is pending approval by the Texas Higher Education Coordinating Board.)

Academic Foundations and Core Curriculum	39-42
ENGL 1113, 1123	6
SPCH 1133 or 1233	3
3 hours college-level math	3
Natural Sciences – two laboratory courses	6-8
Fine Arts – met by course required in major	0
Humanities – met by courses required in major	0
HIST 1133, 1233	6
POLS 1333, 1433	6
ECON 1333 or 2333	3
SOCL 1133 or PSYC 1103	3
Kinesiology (2 activities or 1 activity and KNES 1011, or two semesters of marching band and 1 activity, or four semesters of marching band)	3-4
 Bachelor of Arts Requirements	 20
Humanities (six hours of sophomore literature or humanities)	6
Foreign Language (two years of one language)	14
 Major in Music	 42
Theory 1601/1603, 1611/1613, 2603, 2613, 3632	16
History 3723 or 3733; and 3743	6
Conducting 4843	3
Music Technology 4893	3
Recital Attendance 1000 (8 semesters)	0
MUSC 1001, 3001, 1011, and/or 3011 (4 semesters) OR MUSC 1021, 3021, 1041, and/or 3041 (4 semesters)	4
Primary Performance Area (applied lessons)	4
Advanced music electives	6
 Minor - Minimum of 18 hours in any discipline (see minor for specific requirements).	 18-24
 Electives - Sufficient hours to bring total to at least 124, including no more than 3-4 hours of KNES activity/marching band, and no fewer than 42 upper-level hours.	
 Proficiency Exams	 0-6
Writing Proficiency Exam OR pass ENGL 2113	
Computer Proficiency Exam OR pass CMPS 1023, 1043, 2153, EDUC 1023	
Piano Proficiency Exam	
 Total Semester Hours	 124 minimum

While any stated minor in the current catalog may be used, one of the following is recommended for the Bachelor of Arts with a major in Music:

Vocal Performance (18 hours):

AMUS 3201 (3 semesters), 3961, MUSC 1211, 1221, 4833, Major Ensemble (4 semesters), and Advanced music or related field electives (5 hours).

Instrumental Performance (18 hours):

AMUS applied lessons at the 3000 level (3 semesters), AMUS 3961, MUSC 4853, Major Ensemble (4 semesters), Secondary Ensemble (4 semesters), and Advanced music or related field electives (3 hours).

Keyboard Performance (18 hours):

AMUS applied lessons at the 3000 level (3 semesters), 3961, MUSC 3823, 3833, Major Ensemble (4 semesters), and Advanced music or related field electives (4 hours).

Journalism (18 hours): see page 186

Business Administration (21 hours): see page 123

Management Information Systems (18 hours): see page 138

COURSES IN MUSIC ENSEMBLE (MUSC)

The term major ensemble as used in the curricula includes University Symphonic Band or University Marching Band for students concentrating in instrumental music and University Singers for students concentrating in vocal music. Students concentrating in keyboard music may select from any of the major ensembles mentioned above. Ensembles other than University Symphonic Band, University Marching Band, and University Singers are considered secondary.

1001, 3001. University Singers 1(0-4)

A select choral ensemble open to all students of the University who qualify by audition. At least four hours of rehearsal are required each week and members must participate in all public performances. An extended tour is taken in the spring. Choral music from all historical periods in various genres is explored and performed. The repertoire includes world music from a variety of cultures.

1011, 3011. Oratorio Chorus 1(0-3)

A choral organization open to all interested students and townspeople specializing in the performance of major works with orchestral accompaniment. Historical periods ranging from Renaissance to the 21st Century are varied each semester, as well as the birth origin of the individual composers, so as to provide a fresh multicultural musical experience with each major work.

1021, 3021. University Symphonic Band 1(0-4)

The Midwestern State University Symphonic Band is a select group representing all colleges on campus. The band tours annually and performs several concerts on campus and off campus. Membership is open to all students with band experience, who qualify by audition (spring semester).

1031, 3031. University Pep Band 1(0-2)

The Midwestern State University Pep Band meets twice weekly during the spring semester and performs for all home basketball games and selected outdoor activities. Membership is open to all students with band experience (spring semester).

1041, 3041. University Marching Band 1(0-6)

A group which represents all colleges on campus. During the fall semester, the band performs at MSU home football games. Membership is open to all students with band experience. One hour of credit is given each semester. Two hours credit may be substituted for one kinesiology activity course. May be repeated for credit (fall semester only).

1061, 3061. **Wichita Falls Chamber Orchestra** 1(0-2)

A large instrumental ensemble open to all interested students and townspeople. Membership is by audition. Fall and spring concerts are presented. Additional concerts for the community are scheduled as needed. Literature ranges from baroque to contemporary classics (fall and spring semesters).

1931, 3931. **Opera Workshop** (TCCNS = MUSI 1157) 1 semester hour

An ensemble open to all students by audition. Trains singers and directors in the special problems of the musical stage (spring semester).

1941, 3941. **University Jazz Ensemble** 1(0-3)

An instrumental ensemble representing students from all colleges on campus. The band tours each year and performs for local high school assemblies and civic club programs. Membership is by audition (fall and spring semesters).

1961, 3961. **Chamber Ensemble** 1 semester hour

Small ensembles devoted to the learning and performing of all styles of chamber music. Membership is by audition (fall and spring semesters).

1981, 3981. **Midwestern Singers** 1 semester hour

A chamber ensemble selected by audition from members of the University Singers. The Midwestern Singers perform a wide variety of music from different countries, ranging from madrigals and motets to vocal jazz arrangements from America and abroad.

COURSES IN APPLIED MUSIC – PERFORMANCE (AMUS)

Courses in performance (private lessons) are available for one or three semester hours credit. Performance course numbers have a first digit of 1 or 3 corresponding to the level of study. The final digit corresponds to the number of semester hours in which a student is enrolled. The central digits show the area of performance study (piano, voice, non-major voice, etc.) according to the table below.

Students majoring in performance as candidates for the Bachelor of Music degree may enroll for no more than three semester hours in their primary performance area each semester. Candidates for the Bachelor of Music degree with Teacher Certification, music minors, and non-majors/non-minors may enroll for no more than one semester hour each semester.

Performance Area:	Central Digits for Performance Area
Voice	20
Voice for non-majors/non-minors	70
Keyboard	
Piano	22
Piano Proficiency (repeat once only—two semesters total)	23
Organ	24
Harpsichord	28
Keyboard for non-majors/non-minors	72
Percussion	26
Strings	
Guitar	38
Strings	39

Winds	
Flute	40
Oboe	42
Clarinet	44
Saxophone	46
Bassoon	48
Brasses	
French Horn	50
Trumpet (Cornet)	52
Trombone	54
Baritone	56
Tuba	58
Instrumental for non-majors/non-minors	74
Conducting	60
Composition	69
Junior Recital, Performance	86
Senior Recital, Performance, Education, or B.A. music majors	96

Voice, piano, or instrumental for non-majors may be taken only with consent of instructor and department chair.

COURSES IN MUSIC (MUSC)

1033. The Appreciation of Music (TCCNS = MUSI 1306/1310) 3(3-0)

A course designed to increase the variety and depth of the student's exposure to music and to enhance better understanding and enjoyment of music as an art. Offered as traditional music appreciation or jazz/rock music appreciation.

1101. Performance Class 1 semester hour

A course designed to cover all aspects of performance relating to the student's performing medium. Where applicable, areas covered will be pedagogy, history, diction, literature, instrument maintenance, interpretation, and stage presence. Meets one hour a week for one hour credit.

1103. Beginning Piano for Non-Music Majors 3(3-0)

Along with beginning repertoire, the class will cover basic fundamental keyboard skills including notation, major/minor scales and triads, fundamental chord progressions, harmonization of easy folk tunes, and sight reading of simple melodies. *This class is open only to those with little or no background in either piano or music.*

1111. Beginning Piano 1(0-2)

Class instruction in piano for students with no previous background; emphasis on the development of fundamental skills. Majors/minors only. May be repeated for credit.

1121. Piano Class 1(0-2)

Prerequisite: Ability to read treble and bass clefs.

Emphasis on basic skills to pass the piano proficiency. Majors/minors only. May be repeated for credit.

1211. Diction I 1 semester hour

A beginning course for the study of singers' diction. The International Phonetic Alphabet will be learned and applied to English, Italian, and Latin pronunciation.

1221. Diction II 1 semester hour

A beginning course for the study of German and French pronunciation. A working knowledge of IPA is expected.

1503. **Basic Music** 3(3-0)
A study of the basic elements of music theory, including the reading of musical notation on treble and bass staves, key signatures, scales, and chords.
1601. **Elementary Sight-Singing and Ear Training** 1(0-2)
Prerequisite: MUSC 1503 or consent of instructor.
Singing in treble and bass clefs with introduction to alto clef, major, and minor modes. Recognition of intervals and triads and melodic dictation. Enrollment limited to students who are enrolled in or have completed MUSC 1603.
1603. **Theory I** (TCCNS = MUSI 1311) 3(3-0)
Prerequisite: MUSC 1503 or consent of instructor.
Part writing of figured bass exercises and melody harmonizations using triads. Composing on a small scale will be introduced. MUSC 1601 should be taken concurrently.
1611. **Elementary Sight-Singing and Ear Training** 1(0-2)
Prerequisite: MUSC 1601.
A continuation of MUSC 1601. Enrollment limited to students who are enrolled in or have completed MUSC 1613.
1613. **Theory II** (TCCNS = MUSI 1312) 3(3-0)
Prerequisite: MUSC 1603.
A continuation of MUSC 1603. MUSC 1611 should be taken concurrently.
2603. **Theory III** (TCCNS = MUSI 2311) 3(3-1)
Prerequisite: MUSC 1613.
Sight-singing more difficult melodies. Dictation of more advanced melodies. Introduction of two-part and four-part dictation. Part-writing of figured basses and melodies using altered chords, modulations, 9th, 11th, and 13th chords. Students will also have the opportunity to freely compose several short works in various styles using some of the more advanced chords as they are studied. Composing in various styles involving advanced chords will be included.
2613. **Theory IV** (TCCNS = MUSI 2312) 3(3-1)
Prerequisite: MUSC 2603.
A continuation of MUSC 2603.
3101. **Performance Class** 1 semester hour
A continuation of MUSC 1101.
3141. **Woodwind Instruments Class** 1(1-1)
Instruments comprising the woodwind section of the orchestra and band, including practical experience in playing these instruments. The principles concerning history, correct embouchures, tonguing, and phrasing are presented in class. Reed-making and reed-repairing methods are included.
3161. **Brass Instruments Class** 1(1-1)
Instruments which make up the brass section of the orchestra and band, including practical experience in playing these instruments. The principles concerning history, correct embouchures, tonguing, and phrasing are included. Mastery of the fundamentals of playing these instruments is included to prepare for the direction of school orchestras and bands.
3181. **String Instruments Class** 1(1-1)
A course designed to familiarize students with the instruments of the string orchestra; namely, violin, viola, violincello, and bass viol. A study of bowing techniques, posi-

tions, and fundamentals which are necessary for the correct teaching of these instruments in the public schools.

3211. **Diction III** 1 semester hour

Prerequisite: MUSC 1211.

Advanced study of Italian and Latin pronunciation. A working knowledge of IPA is expected.

3221. **Diction IV** 1 semester hour

Prerequisite: MUSC 1221.

Advanced study of German and French pronunciation. A working knowledge of IPA is expected.

3281. **Voice Class** 1(1-1)

Group instruction and practice in the fundamentals of singing such as breath control, tone production, consonant formations, etc. Individual assignments as indicated by the student's own problems, background, and ability.

3291. **Percussion Instruments Class** 1(1-1)

A study of the instruments comprising the percussion section of the orchestra or band. Mastery of the fundamentals in playing these instruments is included to prepare students for the direction of school orchestras or bands.

3632. **Analysis of Musical Form** 2 semester hours

Analysis of musical structure including simple binary and ternary forms, the rondo and sonata-allegro forms, and contrapuntal applications.

3662. **Orchestration** 2 semester hours

Prerequisites: MUSC 1611 and 1613.

Techniques of scoring and part extraction for orchestra. Special consideration to aspects of school and church ensembles. Problems involving combinations of instrumental groups with other media. As part of the final projects, students will orchestrate an original composition 16-24 measures in length. The original will be in a keyboard style of the student's choosing with the approval of the instructor.

3723. **Western and World Music Literature** 3(3-0)

A survey of music through periods, composers, and genres. Study of traditional western European art music, folk music, and music of diverse cultures, including America, Africa, and Asia. Emphasis will be given to the development of study skills necessary for further study in any branch of music history through analysis and identification of written scores and aural examples. For music majors; open to others as space permits.

3733. **Music History I** 3(3-0)

A study of the development of music and the related arts from early Greek music through the Baroque period. Recorded illustrations of music show stylistic development of representative composers in each period.

3743. **Music History II** 3(3-0)

A study of the development of music and the related arts from the classical period through the Twentieth Century. Recorded illustrations of music show stylistic development of representative composers in each period.

3801. **Instrument Repair** 1 semester hour

Designed to familiarize students with the fundamentals of instrument repair. Includes care and maintenance, inspections, standard minor repairs, and emergency repairs.

- 3823. Piano Pedagogy I** 3 semester hours
Principles and materials for the instruction of beginning piano students of all ages. Knowledge of the leading printed teaching methods and anthologies, and application of leveling principles through pedagogical composition assignments. Discussion of studio policies. Some in-class teaching. Two lessons of practice teaching per week required.
- 3833. Piano Pedagogy II** 3 semester hours
Prerequisite: MUSC 3823.
Principles and materials for the instruction of intermediate and advanced piano students. Knowledge of the leading printed teaching methods and anthologies, and application of leveling principles through pedagogical composition assignments. Discussion of business practices and studio policies. Some in-class teaching. Two lessons of practice teaching per week required.
- 3842. Keyboard Literature I** 2 semester hours
A survey of keyboard literature from its beginnings through the early Romantic composers. Recorded and student performances of literature used to illustrate various aspects of form and style.
- 3852. Keyboard Literature II** 2 semester hours
A survey of keyboard literature during the Romantic, Impressionist, and 20th Century eras, coming as close to the present day as possible. Various national styles will be discussed, as will the divergent trends in 20th Century keyboard music. Recorded and student performances of literature.
- 3862. Choral Literature** 2 semester hours
A study of six major choral genres, performance practice and materials from the Renaissance through the 21st Century including a unit on world choral music.
- 4612. Practicum in Vocal Accompanying** 2 semester hours
Prerequisite: Consent of instructor.
Survey of the song literature from the Italian, German, and French schools. Introduction to foreign language diction and coaching techniques. Development of score reduction skills.
- 4622. Practicum in Marching Band** 2 semester hours
A study of the basic fundamentals of marching band, including history, drill design, music preparation and arranging, show preparation, and importance of auxiliary groups related to the marching band.
- 4632. Practicum in Instrumental Accompanying** 2 semester hours
Prerequisite: Consent of instructor.
Survey of Instrumental Duo repertoire, including sonatas. Work in figured bass realization, orchestral reductions, and rehearsal techniques.
- 4813. Foundations of Music I** 3(3-0)
A study of elementary music education as it relates to musical concepts, music-reading skills, the elements of music, performance, and materials.
- 4823. Foundations of Music II** 3(3-0)
A study and evaluation of music procedures and basic concepts for music programs.
- 4833. Vocal Pedagogy** 3(3-0)
Prerequisite: Consent of instructor.
A study of the principles and techniques of teaching voice. The history of teaching methods and procedures including those of the Italian and German schools is covered. Observation of teaching required.

4843. **Basic Conducting** 3(3-0)
 For music majors and minors. Others may register with the consent of the instructor. Emphasis on basic conducting techniques, style, and interpretation.
4853. **Instrumental Conducting** 3 semester hours
 Prerequisite: MUSC 4843.
 Continuation, development, and expansion of MUSC 4843 with emphasis on instrumental conducting.
4863. **Choral Conducting** (formerly 4862) 3 semester hours
 Prerequisite: MUSC 4843.
 Continuation, development, and expansion of MUSC 4843 with emphasis on choral conducting and choral methods.
4873. **Foundations of Music III** 3(3-0)
 A course designed for music majors working toward the all-level certificate in music. Emphasis is placed upon the specific activities comprising an elementary music program, the materials and skills necessary for implementing such a program, and the integration of music with the total elementary school program. Students receive an introduction to multiculturalism and world music, with focus on the Andean music of South America. Includes laboratory experience in teaching beginning vocal and instrumental techniques individually, in small groups, and in larger classes.
4893. **Music Technology** 3 semester hours
 A survey including advances in music technology, digital synthesis, sequencing, MIDI, desk-top music publishing, basic music acoustics, music applications of the Internet, recording, microphones, and sound systems. May be repeated for credit.
4963. **Problems in Music** 3 semester hours
 Prerequisite: Consent of Chair.
 Directed study on special problems in music. May be repeated for credit.

DOLORES P. BOLIN DISTINGUISHED CHAIR OF PIANO

The Dolores P. Bolin Distinguished Chair of Piano was established in 1981 through the generous gift of Mrs. Bolin in memory of her husband, Wichita Falls oil man, D. Houston Bolin. In 2000, a second chair was established through a generous gift from D. Phil and Aurora S. Bolin. These endowments allow Midwestern State University to enhance its high level of pianistic and musical excellence. Past Bolin Chairs were Dr. Peter Armstrong, Julie Bees, and Nancy Boston.

Dr. Ruth Morrow is the current Dolores P. Bolin Distinguished Chair of Piano. She holds degrees from Indiana University (D.M., Piano Performance and Pedagogy), Eastman School of Music (M.M., Piano; M.A., Musicology), and Whitman College (B.A., Music, Philosophy). With a background which spans all musical styles and includes performances throughout the United States and in Europe, Dr. Morrow brings depth, breadth, and enthusiasm to her position.

THEATRE

Laura Jefferson, Chair (Fain Fine Arts Center 106)

Professors: Fischli, Henschel, Lewandowski

Associate Professor: Jefferson

MISSION STATEMENT FOR THE THEATRE PROGRAM

The mission of the Midwestern State University theatre program is to advance the study and performance of live theatre, and, in so doing, to equip students to make positive cultural contributions as theatre educators, professionals, or graduate students.

Four degree programs are offered for theatre majors:

Bachelor of Fine Arts

Bachelor of Arts

Bachelor of Fine Arts with Teacher Certification

Bachelor of Fine Arts with Teacher Certification and an additional Teaching Field in Speech

A grade of "C" or better must be achieved in all courses required to complete a major in theatre.

BACHELOR OF FINE ARTS degree requirements

Academic Foundations and Core Curriculum (see page 103)

Theatre Requirements (71 semester hours)

General Requirements (14 semester hours)

SPCH 1233, 2133, THEA 2121, 3121 (7 hours or every semester enrolled as a theatre major)

History/Theory (6 semester hours)

2433 and 2443

Acting/Directing (18 of the following 21 semester hours)

1413, 2533, 3123, 3423, 3433, 3543, 4483

Technical Theatre (18 of 24 semester hours)

Required: 1513, 1613, 1713

9 hours from 3463, 3473, 3483, 4463, 4473

Plus twelve advanced hours chosen from the following:

THEA 3463, 3473, 3483, 3513, 4143, 4213, 4423, 4463, 4473

Electives – sufficient hours to bring total to 124, including no more than 3-4 hours of KNES activity/Marching Band, and no fewer than 42 upper-level hours.

BACHELOR OF ARTS degree requirements

Academic Foundations and Core Curriculum (see page 103)

Bachelor of Arts requirements (see page 104)

Theatre requirements (41 semester hours)

THEA 1513 or 1613, 1713, 2533, 3423, 3433, 3543, 4483; one hour of 2121, seven hours of 3121; three semester hours from 2433 or 2443; nine semester hours from 3463, 3473, 3483, 4213, 4463, 4473.

Chosen Minor (18-24 semester hours)

Electives – sufficient hours to bring total to 124, including no more than 3-4 hours of KNES activity/Marching Band, and no fewer than 42 upper-level hours.

The requirements for the minor in theatre are as follows:

Minor in Theatre (18 semester hours)

SPCH 1233, THEA 1513, 1613, 2533, 3433, and three semester hours from 3423, 3463, 3473, 3483, or 4463.

BACHELOR OF FINE ARTS with Teacher Certification

(Grades EC-12, All-Level)

Academic Foundations, Core Curriculum, and Computer Competency 39-45

ENGL	1113, 1123	6
SPCH	1233	3
HIST	1133, 1233	6
POLS	1333, 1433	6
Natural Sciences	– two laboratory courses	6-8
MATH	1233	3
EDUC	1023 or CMPS 1023 or pass department exam	0-3
Fine Arts	– met by course required in major	0
Humanities	– met by courses required in major	0
SOCL	1133 or PSYC 1103	3
ECON	1333 or 2333	3
Kinesiology	(2 activities or 1 activity and KNES 1011, or two semesters of marching band and 1 activity, or four semesters of marching band)	3-4

Major in Theatre 58

THEA	1413	Movement for Stage	3
THEA	1513	Scene Construction	3
THEA	1613	Performance Makeup	3
THEA	1713	Introduction to Theatrical Design	3
THEA	2121	Rehearsal and Production	1
THEA	2433	Theatre History I	3
THEA	2443	Theatre History II	3
THEA	2533	Introduction to Acting	3
THEA	3121	Advanced Rehearsal and Production (6 semesters of enrollment)	6
THEA	3123	Advanced Movement	3
THEA	3423	Script Analysis	3
THEA	3433	Principles of Directing	3
THEA	3543	Advanced Acting	3
THEA	4483	Direction of Plays	3
9 hours from:			9
	THEA 3463	Scene Design	
	THEA 3473	Performance Lighting	
	THEA 3483	Theatre Graphics	
	THEA 4463	Construction of Stage Costumes	
	THEA 4473	Design of Stage Costumes	
6 hours from:			6
	SPCH 2133	Oral Interpretation	
	THEA 4143	Problems in Theatre	
	THEA 4213	Voice for the Theatre and Stage Dialects	
	THEA 4423	Creative Dramatics	

Professional Education for All-Level Certification 27

EDUC	2013	School and Society	3
EDUC	3153	Educational Psychology	3
EDUC	3163	Classroom Management	3
EDUC	4113	Planning and Assessment for Secondary Education and All-Level	3
EDUC	4173	Student Teaching, Elementary, All-Level	3
EDUC	4473	Student Teaching, Secondary, All-Level	3
READ	4273	Content Reading	3
COUN	3143	Human Diversity	3
SPED	3613	Exceptional Individuals	3

Total Semester Hours 124-130**BACHELOR OF FINE ARTS with Teacher Certification and an additional Teaching Field in Speech (Grades EC-12, All-Level)****Academic Foundations, Core Curriculum, and Computer Competency 36-42**

ENGL	1113, 1123		6
Speech – met by course required in Speech teaching field			0
HIST	1133, 1233		6
POLS	1333, 1433		6
Natural Sciences – two laboratory courses			6-8
MATH	1233		3
EDUC	1023 or CMPS 1023 or pass department exam		0-3
Fine Arts – met by course required in major			0
Humanities – met by courses required in major			0
SOCL	1133 or PSYC 1103		3
ECON	1333 or 2333		3
Kinesiology (2 activities or 1 activity and KNES 1011, or two semesters of marching band and 1 activity, or four semesters of marching band)			3-4

Major in Theatre 49

THEA	1413	Movement for Stage	3
THEA	1513	Scene Construction	3
THEA	1613	Performance Makeup	3
THEA	1713	Introduction to Theatrical Design	3
THEA	2121	Rehearsal and Production	1
THEA	2433	Theatre History I	3
THEA	2443	Theatre History II	3
THEA	2533	Introduction to Acting	3
THEA	3121	Advanced Rehearsal and Production (6 semesters of enrollment)	6
THEA	3423	Script Analysis	3
THEA	3433	Principles of Directing	3
THEA	3543	Advanced Acting	3
THEA	4483	Direction of Plays	3
9 hours from:			9
	THEA 3463	Scene Design	
	THEA 3473	Performance Lighting	
	THEA 3483	Theatre Graphics	
	THEA 4463	Construction of Stage Costumes	
	THEA 4473	Design of Stage Costumes	

Professional Education for All-Level Certification 27

EDUC	2013	School and Society	3
EDUC	3153	Educational Psychology	3
EDUC	3163	Classroom Management	3
EDUC	4113	Planning and Assessment for Secondary Education and All-Level	3
EDUC	4173	Student Teaching, Elementary, All-Level	3
EDUC	4473	Student Teaching, Secondary, All-Level	3
READ	4273	Content Reading	3
COUN	3143	Human Diversity	3
SPED	3613	Exceptional Individuals	3

Speech Teaching Field Requirements 21

SPCH	1133	Fundamentals of Speech	3
SPCH	1233	Voice and Diction	3
SPCH	3013	Argumentation and Debate	3
SPCH	3023	Persuasion	3
SPCH	4133	Organizational Communication	3
3 hours from:			3
	SPCH 2133	Oral Interpretation	
	JOUR 1233	Introduction of Mass Communication	
3 hours from:			3
	MCOM 4153	Broadcast Diction	
	THEA 4213	Voice for the Theatre and Stage Dialects	
	THEA 4423	Creative Dramatics	

Total Semester Hours 133-139**COURSES IN THEATRE (THEA)**

1413. **Movement for Stage** (TCCNS = DRAM 1322) 3(3-0)
The use of improvisational techniques to explore the coordination of physical and vocal expression. For theatre majors and minors only.
1503. **Appreciation of Theatre** (TCCNS = DRAM 1310) 3(3-0)
Analysis of the theatre experience, especially from the viewpoint of the spectators. Aesthetic principles involved in all phases of the theatrical art. The development of this art by mankind.
1513. **Scene Construction** (TCCNS = DRAM 1330) 3(2-2)
Constructing, finishing, and painting scenery and properties for stage, studio, and display.
1613. **Performance Makeup** (TCCNS = DRAM 1341) 3(3-0)
Principles of straight and character makeup for camera and live audience.
1713. **Introduction to Theatrical Design** 3(3-0)
Exploration of the principles of theatrical design and basic drawing skills as forms of artistic communication.
2121. **Rehearsal and Production** (TCCNS = DRAM 1120) 1 semester hour
Laboratory in theatre productions. Participation in the performance or production of at least two plays involving the successful completion of assigned tasks.
2122. **Dance for the Theatre** 2(1-2)
Prerequisite: Consent of Chair.

Basic instruction in tap, jazz, and modern. Instruction may be related to productions being prepared for public presentation.

2433. **Theatre History I** (formerly 3403, 4433) 3(3-0)

History and theory of playwriting, directing, acting, and production from the beginnings through the eighteenth century.

2443. **Theatre History II** (formerly 3413, 4443) 3(3-0)

History and theory of playwriting, directing, acting, and production in the nineteenth and twentieth centuries. Special study of the contemporary theatre.

2533. **Introduction to Acting** (TCCNS = DRAM 1351) 3(2-2)

Open to non-majors. Study and application of the theories and techniques of the art of acting with emphasis on acting as a communicative process.

3121. **Advanced Rehearsal and Production** 1 semester hour

Prerequisite: THEA 2121.

Developmental experiences in performance or production beyond THEA 2121 associated with the semester's productions. May be repeated for credit.

3123. **Advanced Movement** 3(3-0)

Exploration of advanced techniques in stage movement.

3423. **Script Analysis** 3(3-0)

The skills and techniques of script analysis. The analyzing and practical application of the production and performance values in a playscript. May be repeated once for credit.

3433. **Principles of Directing** 3(2-2)

Prerequisites: THEA 2533 and 3543, or consent of the instructor.

Fundamental principles and aesthetics of directing. Criteria and procedures in selection, casting, rehearsal, and production. Practice in directing scenes.

3463. **Scene Design** 3(2-2)

Prerequisites: THEA 1513, 1713 and 3483 or consent of instructor.

Study and practice in scenic design principles.

3473. **Performance Lighting** 3(2-2)

Study and practice in lighting theories. Principles of electricity as applied to theatre, broadcast, and concert lighting.

3483. **Theatre Graphics** 3(2-2)

Prerequisite: THEA 1513 or consent of instructor.

Principles of and practices in drafting and drawing for the performing arts. Application of standard graphic language in scenic design and technical production.

3513. **Selected Studies in Theatre** 3(3-0)

Topics will vary and may include such subjects as supplementary playreading and analysis, advanced work with voice and dialects, sound design, and special performance studies. May be repeated for credit when topics vary.

3543. **Advanced Acting** 3(2-2)

Prerequisite: THEA 2533 or consent of the instructor.

Advanced study and application of the theories and techniques of acting with emphasis on characterization, role analysis, and ensemble playing.

4143. **Problems in Theatre** 3 semester hours

Prerequisite: Consent of the college dean.

Directed research in theatre. May be repeated for credit when topics vary.

4213. Voice for the Theatre and Stage Dialects 3(3-0)

Prerequisite: SPCH 1233 or consent of the instructor.

The course begins with exercises in phonetics, vocal expressiveness, and vocal clarity. Students proceed to a study of 4-5 major stage dialects aimed at integrating the learning of dialects with the use of effective vocal technique.

4393. British Theatre: Performance 3(3-0)

As part of the British Studies Program, this course involves experiencing professional British theatre productions, then critiquing them from the standpoint of performance. Instruction will be bolstered by professional actors and directors invited to class to discuss their work or conduct workshops. The course will also include trips to British theatre museums and collections.

4423. Creative Dramatics 3(2-2)

The use of story dramatization, role playing, and improvisation for the purpose of developing critical thinking, creativity, and social communication skills in the child. It is designed for prospective teachers of all disciplines.

4463. Construction of Stage Costumes 3(2-2)

Techniques in the making of stage costumes, drafting, and adapting of patterns for period and modern clothes for the stage.

4473. Design of Stage Costumes 3(2-2)

Prerequisites: THEA 1713 and 4463 or consent of the instructor.

Design of costumes for stage.

4483. Direction of Plays (formerly 3443) 3(2-2)

Prerequisites: THEA 2533, 3433, 3543 or consent of the instructor.

Conceptualization, direction, and production of a one-act play for presentation before an audience. Includes responsibility for all performance, design, technical, and promotional aspects of the production.

4493. British Theatre: Production 3(3-0)

As part of the British Studies Program, this course involves experiencing professional British theatre productions, then critiquing them from the standpoint of design. Instruction will be bolstered by professional designers, stage managers, and technicians invited to class to discuss their work or conduct workshops. The course will also include trips to British theatre museums and collections.



COLLEGE OF HEALTH SCIENCES AND HUMAN SERVICES

Susan Sportsman, Dean (J. S. Bridwell Hall 104D)

MISSION STATEMENT FOR THE COLLEGE OF HEALTH SCIENCES AND HUMAN SERVICES

The College of Health Sciences and Human Services includes undergraduate study in criminal justice, dental hygiene, kinesiology (including athletic training, exercise physiology, teacher certification, and sport and fitness management), nursing, radiologic sciences, respiratory care, and social work; with graduate programs in kinesiology, radiologic sciences, health service administration, nursing, and public administration. There are also degree programs designed specifically for working radiographers, registered nurses, and respiratory therapists and a certification course in health service administration. Post-master's nursing students may also take courses pursuant to certification as nurse educators or family nurse practitioners. The mission of the college is to prepare students to successfully function in their chosen professions within the rapidly changing health care and human service environment. All programs are based upon a comprehensive liberal arts and sciences foundation and include both clinical/practicum and didactic learning opportunities in the courses of the major. Graduates of the dental hygiene, nursing, respiratory care, and associate degree radiologic sciences programs are eligible for licensure or certification in their disciplines.

Admission Policies

Applications are accepted from men and women regardless of age or marital status. Applicants will be considered for admission on an individual basis.

1. See the sections on Admission and Registration Information for details. Admission to Midwestern State University does not guarantee acceptance into a health science program.
2. It is recommended that the high school background include courses in chemistry, biology, and algebra (2 units) for health sciences programs.
3. Application forms for admission to nursing, dental hygiene, radiologic sciences, and respiratory care programs may be obtained from the respective departments.
4. See individual program for specific admission requirements. In exceptional cases, persons who do not meet the criteria for regular admission may be granted provisional admission by the College Admissions Committee.
5. The semester-by-semester program of individual courses should be followed by entering students. Exceptions may be made by the department chair.

CRIMINAL JUSTICE

Nathan R. Moran, Chair (Martin Hall 110)

Assistant Professors: Davids, Moran

Instructor: Paddack

Professor Emeritus: Grant

Criminal Justice is a discipline that encompasses the preservation and protection of social order in a free society. It includes such principles as democracy, rule of law, constitutionalism, civil liberties, and the safeguarding of citizens against intimidation and oppression. The Criminal Justice curriculum, which is based on the University's liberal arts core, is designed to prepare students for higher education or entering careers in criminal justice. Graduates are expected to continue their personal and professional development in a variety of practical settings. To achieve this mission, four dimensions of development serve as a basis for the curriculum.

- (1) **Knowledge, Reasoning, Judgment:** The Criminal Justice curriculum provides students with the opportunity and assistance to acquire knowledge of the roles of policing, courts, laws, corrections, and international affairs as they contribute to social order. Students will gain knowledge of the history, concepts, and critical issues in these areas through criminal justice required courses. The curriculum further provides a theoretical foundation of the discipline, combined with a thorough understanding of the scientific methods as it applies to criminal justice. This combination is expected to sharpen the students' talents of reasoning and judgment - qualities imperative to rational functioning in the discipline.
- (2) **Ability, Skills, Integration:** The Criminal Justice curriculum provides students with the ability to achieve the professional goals of criminal justice. Students will learn how to prudently integrate knowledge and practice in criminal justice. Furthermore, the curriculum provides students with an opportunity to develop the individual and group skills necessary to meet various role expectations.
- (3) **Conduct, Professionalism, Ethics:** The Criminal Justice curriculum will provide graduates with an appreciation for the complexity and dilemmas associated with the criminal justice profession. Criminal Justice students will be exposed to the moral and ethical dimensions of the various careers within the discipline and will be charged with the essential aptitudes necessary for their professional conduct.
- (4) **Vision, Change, Adaptation:** The Criminal Justice curriculum will provide students with an understanding of the discipline as it currently exists and as it is envisioned to be in the future. The Criminal Justice student will be able to apply vision in the face of change and to respond to the evolving nature of criminal justice and society. Furthermore, students will be equipped with the tools of adaptation for making these changes.

REQUIREMENTS FOR THE BACHELOR OF SCIENCE IN CRIMINAL JUSTICE DEGREE

Academic Foundations and Core Curriculum (see page 103)

Additional Program Requirements

In addition to the Academic Foundations and Core Curriculum, one year in one foreign language or six additional hours of science is required.

REQUIREMENTS FOR A MAJOR IN CRIMINAL JUSTICE (WITH A MINOR or DUAL MAJOR)

Major (36 semester hours)

Thirty-six semester hours to include CRJU 1113, 2213 or 2223, 2233 or 2243, 3213, 3713, 4213, 4253, one additional 2000 level course, and 12 additional advanced hours to total at least 24 advanced hours.

Minor to be selected in a field acceptable to the chair of the major and minor programs.

REQUIREMENTS FOR A MAJOR IN CRIMINAL JUSTICE (NO MINOR)

Major (48 semester hours)

Forty-eight semester hours to include CRJU 1113, 2213 or 2223, 2233 or 2243, 2933, 3213, 3713, 4213, 4253, one additional 2000 level course, and 21 additional advanced hours to total 33 advanced hours.

REQUIREMENTS FOR A MINOR IN CRIMINAL JUSTICE (21 semester hours)

Twenty-one semester hours to include CRJU 1113, 2213 or 2223, 2233 or 2243, 4213, 4253, and 6 additional advanced hours to total at least 12 advanced hours.

COURSES IN CRIMINAL JUSTICE (CRJU)

1113. Introduction to Criminal Justice (TCCNS = CRIJ 1301) 3(3-0)

Studies the history, development, and philosophy of the criminal justice system. Introduces the agencies, theories and models involved in the administration of criminal justice.

2113. Introduction to Criminal Law 3(3-0)

Preparatory course covering the U.S. legal system. Guides the student in developing an understanding of the characteristics of criminal law through the study of the historical development, major definitions, general concepts, and classifications of crimes and penalties.

2123. Police-Community Relations 3(3-0)

Prerequisite: CRJU 1113.

Intergroup relations between the police and the community with emphasis upon the importance of each understanding the problems and perspectives of the other.

2213. Legal Aspects of Law Enforcement (TCCNS = CRIJ 2323) 3(3-0)

Prerequisite: CRJU 1113.

Substantive law relating to law enforcement with special attention on Constitutional issues and case law. Emphasis on the application of statutes and cases to the enforcement of laws and liability of peace officers.

2223. Legal Aspects of Corrections 3(3-0)

Prerequisite: CRJU 1113.

Substantive and procedural law relating to corrections with special attention on Constitutional issues and case law. Emphasis on application of statutes and cases to basic rights of convicted persons.

2233. Police Systems and Practices (TCCNS = CRIJ 2328) 3(3-0)

Prerequisite: CRJU 1113.

Study of the police professions, organization of law enforcement systems, the police role, police discretion and ethics, and current and future issues.

2243. **Correctional Systems and Practices** (TCCNS = CRJ 2313) 3(3-0)
 Prerequisite: CRJU 1113.
 Study of corrections in the criminal justice system including institutional operations, alternatives to institutionalization, and treatment and rehabilitation.
2933. **Judicial Systems and Practices** (formerly 3933) 3(3-0)
 Prerequisite: CRJU 1113.
 Study of the U.S. judicial system. Designed to familiarize the student with the criminal judicial process and the basics of criminal law and procedure.
3103. **Criminology** 3(3-0)
 Prerequisites: Nine hours of CRJU courses, Junior/Senior status.
 Analysis of crime and delinquent behavior in the context of human deviance. Emphasis is placed on alternative explanations of the causes of criminal behavior, the degree of crime, community response to crime, and agencies of social control.
3113. **Organized Crime** 3(3-0)
 Prerequisites: Nine hours of CRJU courses, Junior/Senior status.
 Historical review and activities of national and international organized crime groups. Emphasis is placed on the nature and concept of organized crime, both traditional and nontraditional, as well as the rise of the modern street gang. Focus is on emerging strategies used in the fight against organized crime.
3123. **Theories of Crime Analysis** 3(3-0)
 Prerequisite: Junior/Senior status.
 Overview of the theory behind the crime analysis process covering both basic and advanced concepts. Outlines major issues that crime analysts and crime analysis units must face. Essential study includes setting up a crime analysis unit, crime data, statistics, major investigations and the linking of criminals and their relationship to each other.
3133. **MS Office for Community Policing** 3(3-0)
 Prerequisite: Junior/Senior status.
 Overview of the crime analysis process using an application software (Microsoft Office). Essentials of understanding the usefulness of the software and the components in the office package and how it is applicable to crime analysis. Collection and analysis of data is studied through the import/entry process into the software.
3213. **Research Methods** 3(3-0)
 Prerequisite: Junior/Senior status.
 Methods and techniques of research in the administration of justice and other behavioral sciences. Historical development of psychological and social research, techniques and problems. Quantitative and qualitative methods of data collection through practical application and research design development.
3223. **Terrorism** 3(3-0)
 Prerequisites: Nine hours of CRJU courses, Junior/Senior status.
 An overview of the fields of terrorism, counter-terrorism, and intelligence. Using a multi-dimensional approach that draws from international relations, law, and police strategies, the course emphasizes research and analysis. Students also gain the ability to examine and scrutinize international strategies aimed at reducing terrorist incidents.
3313. **Law and Society** 3(3-0)
 Prerequisite: Junior/Senior status.
 Examination of the objectives, functions and limitations of criminal law and procedures. Analyzes issues such as substance abuse, victimology, domestic violence and civil liability for criminal justice practitioners.

- 3323. Emergency Administration** 3(3-0)
Prerequisite: Junior/Senior status.
An in-depth analysis of planning and administration for emergency management in the criminal justice environment (including public & not-for-profit sectors); the need for emergency planning, identification and allocation of resources, incident command procedure, and safety in the working environment.
- 3463. Community Corrections Supervision** 3(3-0)
Prerequisites: CRJU 1113, 2223 or 2243, and Junior/Senior status.
Functions of probation, parole and specialized treatment of offenders within the community environment. Special attention is given to supervision issues, as well as methods and technologies utilized by community corrections practitioners.
- 3713. Ethical Issues in Criminal Justice** 3(3-0)
Prerequisites: Nine hours of CRJU courses or consent of the instructor, Junior/Senior status.
A philosophical and applied knowledge of ethical and moral theories that impact the criminal justice system. Because the nature of criminal justice is control over others, it is imperative that the professional in this discipline understand how this control affects all citizens.
- 3723. Geographic Information Systems** 3(3-0)
Prerequisite: Junior/Senior status.
An overview of Geographic Information Systems (GIS) uses in criminal justice. Special emphasis is placed on GIS uses within law enforcement and hot spot analysis as a tool in reducing crime.
- 3733. Juvenile Delinquency** 3(3-0)
Prerequisite: Junior/Senior status.
Nature, extent and causes of juvenile offenders and delinquency in the criminal justice system. Impact of gangs and violence among youth, delinquency prevention programs, and the institutional controls and correctional programs in the criminal justice system.
- 3913. Fundamentals of Criminal Investigation** (formerly 2913) 3(3-0)
Prerequisite: Junior/Senior status.
Introduction to criminal investigation. Consideration of conduct at the crime scene, including the recognition, collection, and preservation of the various types of evidence. Fundamentals of the interview, interrogations, the use of informants, and surveillance techniques. Particular attention to the identification of the various elements of specific offenses.
- 3923. Criminal Intelligence** 3(3-0)
Prerequisite: Junior/Senior status.
An overview of the criminal intelligence process. Emphasis is placed on defining criminal intelligence, issues facing crime analysts and crime analysis units, and practical application in law enforcement.
- 4133. Public Administration** 3(3-0)
Prerequisite: Junior/Senior status.
Structure, administration, major services, political processes, and decision-making functions of governmental agencies. Comparison of federal, state, and local entities and policy-making. Consideration of the relationship between politics, society, and economics within the administration of justice.
- 4213. Criminal Law** 3(3-0)
Prerequisites: Nine hours of CRJU courses, Junior/Senior status.

Purpose and goals of criminal law and a study of the historic development of its basic concepts. Examines substantive criminal law with emphasis on Texas Criminal Law. Emphasis on analyzing recent court cases and interpretations, as well as a comparison of federal and model codes as they relate to the penal law of the State of Texas.

4223. Criminal Procedures 3(3-0)

Prerequisites: Nine hours of CRJU courses, Junior/Senior status.

Procedural laws of the State of Texas with particular attention to the provisions of the Code of Criminal Procedure. Analysis of constitutional and other limitations, court interpretation and recent Federal statutory provisions as they relate to criminal procedure.

4233. Constitutional Law for the Criminal Justice Practitioner 3(3-0)

Prerequisites: Nine hours of CRJU courses, Junior/Senior status.

Development and interpretation of select Amendments of the United States Constitution specific to the criminal justice practitioner and the administration of justice.

4253. Comparative Criminal Justice Systems 3(3-0)

Prerequisites: Nine hours of CRJU courses, Junior/Senior status.

The study of criminal justice in societies other than the United States including, but not limited to, the European region, the Asian region, and the African region. Emphasis is on the uncommon roots of criminal justice in these regions and the effectiveness of such systems in responding to criminal behavior.

4263. Correctional Counseling 3(3-0)

Prerequisites: Nine hours of CRJU courses, Junior/Senior status.

Various treatment modalities as they may be applied by correctional practitioners in the course of carrying out the sentence of the court. Course includes strategies for interviewing and dealing with difficult offenders. These theories are the foundation for the changes that are desired in the "correcting" of deviant criminal behaviors.

4333. Contemporary Correctional Issues 3(3-0)

Prerequisites: Nine hours of CRJU courses, Junior/Senior status.

Various concerns affecting efficient delivery of services involving convicted criminal offenders. Special emphasis is given to utilization of guest expert practitioners in the field to facilitate understanding of some of the difficult contemporary problems in the corrections profession.

4403. Profiling Criminal Behaviors 3(3-0)

Prerequisites: Nine hours of CRJU courses, Junior/Senior status.

Acquaint the student with the behavioral profile of persons who commit violent criminal acts. Concepts of victimology, crime scene indicators, staging, personation and serial crime are thoroughly discussed. The study of homicide, arson and sexual assault comprise the majority of the course, with additional attention given to domestic abuse, stalking, workplace/school violence, hostages and assassins.

4413. Administration of Justice 3(3-0)

Prerequisites: Nine hours of CRJU courses, Junior/Senior status.

Principles and procedures for the administration of criminal justice agencies. Introduction to modern management techniques and application of skills required for pragmatic criminal justice issues. Special emphasis includes labor relations, contract negotiations, budgeting, and other relative matters.

4773. Internship in Criminal Justice 3 semester hours

Prerequisites: CRJU major, Junior/Senior status.

Field experience in selected criminal justice agencies. May be repeated for credit up to 12 hours.

4901. **Independent Studies** 1(1-0)
Prerequisites: CRJU major, minimum of 2.5 cumulative GPA with a 3.0 GPA in the major, Senior status.
Supervised reading in the field of criminal justice.
4902. **Independent Studies** 2(2-0)
Prerequisites: CRJU major, minimum of 2.5 cumulative GPA with a 3.0 GPA in the major, Senior status.
Supervised reading in the field of criminal justice.
4903. **Independent Studies** 3(3-0)
Prerequisites: CRJU major, minimum of 2.5 cumulative GPA with a 3.0 GPA in the major, Senior status.
Supervised reading in the field of criminal justice. May be repeated for credit when topics vary.
4913. **Issues in Criminal Justice** 3(3-0)
Prerequisites: Nine hours of CRJU courses, Junior/Senior status.
Description and analysis of crucial issues relating to selected structures and processes in the criminal justice system. Review and analysis of recent studies concerning criminal justice. May be repeated for credit when topics vary.
4923. **Seminar in Criminal Justice** 3(3-0)
Prerequisites: Nine hours of CRJU courses, Junior/Senior status.
Study and research of specific issues in the criminal justice system. May be repeated for credit when topics vary.
4943. **Research Internship** 3(3-0)
Prerequisites: 12 hours of CRJU courses, Senior status, and Department Chair approval.
Supervised training including special applications in information acquisition, storage, analysis, and display in criminal justice.

DENTAL HYGIENE

Barbara DeBois, Chair (Gaines Clinic, J.S. Bridwell Hall)

Associate Professor: Davis

Assistant Professors: DeBois, Crump, Curran

MISSION STATEMENT FOR THE DENTAL HYGIENE PROGRAM

The Dental Hygiene Department strives to educate students to be competent health care providers who have strong clinical skills and the desire to educate patients to the point where they will assume the responsibility for their own health. The role of the faculty is to facilitate learning and to guide students to reach their potential through role modeling and sensitivity toward each individual student. Emphasis is placed on positive reinforcement of behaviors appropriate for a professional health care provider, on a positive attitude toward health care delivery as a team effort, and on establishing strong moral and ethical values. Furthermore, faculty strive to instill in graduates the importance of lifelong learning, the advancement of professional skills, and continued competence.

The Bachelor of Science in Dental Hygiene (127 semester hours)

The Dental Hygiene Department offers the Bachelor of Science in Dental Hygiene

degree (BSDH). The curriculum consists of: (1) the dental hygiene prerequisite courses and the University core curriculum taken during the freshman and sophomore years (63 hours + 2 activity courses) and (2) the dental hygiene courses (62 hours) taken during the junior and senior years, after acceptance into the Dental Hygiene Program. Acceptance into the University does not constitute acceptance for admission into the Dental Hygiene Program. Entrance into the Dental Hygiene Program is competitive and limited to the number of clinical positions available in the M.S.U. Gaines Dental Hygiene Clinic (18). A new class is accepted each April for entry into the program the following fall semester.

The Dental Hygiene Program is accredited by the American Dental Association Commission on Dental Accreditation. Completion of degree requirements enables the graduate to take the National Board Dental Hygiene Examination and the State Board Clinical/Jurisprudence Examinations for licensure. The Texas State Board of Dental Examiners has set guidelines and criteria regulating the eligibility of persons with criminal convictions, mental illness, and/or chemical dependency to obtain a license to practice dental hygiene in the state of Texas. (Detailed information is available from the Texas State Board of Dental Examiners - <http://www.tsbde.state.tx.us> - Texas Occupations Code, Title 3, Chapter 263.) A student who has concerns in this area is encouraged to contact the Dental State Board in the state in which he/she wishes to practice early in his/her academic career. The profession of dental hygiene is classified as a Category I level (high-risk) profession for bloodborne pathogens, according to OSHA standards.

A person with certain musculoskeletal conditions may have difficulty performing the daily activities required in the profession of dental hygiene. These include, but are not limited to, degenerative conditions or injuries to the neck, back, shoulder, elbow, wrist, and/or hands. Examples: herniated or bulging disks, chronic rotator cuff symptoms, and carpal tunnel syndrome. It is strongly recommended that individuals with any of these conditions be evaluated by their physician prior to pursuing the dental hygiene degree.

ADMISSION POLICIES

To be considered for admission, the following basic requirements must be met by candidates on or before April 1 (for the following fall's entering class):

1. Be eligible for admission to M.S.U.
2. Submit a dental hygiene application and most recent transcripts depicting completed courses, as well as courses in progress, to the Dental Hygiene Department (Dental Hygiene applications can be downloaded from the MSU Dental Hygiene website at <http://hs2.mwsu.edu/dental/>.)
3. Present a minimum cumulative GPA of 2.50 and a minimum science GPA of 2.50 for all semester hour credits attempted pertaining to the BSDH prerequisite and core academic courses.
4. Provide documentation of work experience or 80 hours of observation in a dental office. Contact the Dental Hygiene Department for documentation form.
5. Complete the Health Occupations Basic Entrance Test (HOBET) or the Nursing Entrance Test (NET).
6. Successfully complete the following courses prior to enrollment in dental hygiene major courses: (Recommended degree plan can be downloaded from the Dental Hygiene website listed in #2 above.)

Dental Hygiene Prerequisites - (21 semester hours)

BIOL 1134, 1234, 3004

CHEM 1203

KNES 2333 (Nutrition)

MATH - 3 hours college level (other than developmental)

Academic Foundations and Core Curriculum - (42 semester hours + 2 activity courses)

At least 36 hours of the following core courses must be completed prior to entering the dental hygiene program.

ECON 1333 or 2333

ENGL 1113, 1123

Three hours Fine Arts

HIST 1133, 1233

SOCL 1133

Six hours Humanities

Kinesiology - 2 Activities

POLS 1333, 1433

PSYC 1103

SPCH 1133

General Degree Requirements: Demonstrate computer literacy by taking a proficiency test or earning credit for CMPS 1023, 1043, 2153, or EDUC 1023.

APPLICANT SELECTION PROCEDURES

Due to the limited availability of clinical positions, the selection process for admission into the dental hygiene program is based upon a ranking system. Applicant ranking will be based upon, but not limited to:

GPA of prerequisite courses (cumulative GPA and science GPA)

Number of prerequisite and core courses completed with a grade of B or better

Number of prerequisite and core courses in progress at application deadline

Previous dental-related experience

Dental Hygiene Program Application

Performance on the Health Occupations Basic Entrance Test (HOBET) or the Nursing Entrance Test (NET)

For additional information on application procedures, admission requirements, and applicant ranking computations, visit the department website at: <http://hs2.mwsu.edu/dental>

PROGRESSION POLICY

Dental hygiene courses must be taken in the sequences prescribed. The lack of satisfactory completion of such courses in sequence will result in suspension from the program until the courses can be repeated. Requirements are as follows:

1. A student must attain a grade of 75 (C) or above in each of the dental hygiene major courses:
 MAJOR REQUIREMENTS (62 semester hours) Dental Hygiene 3002, 3003, 3005, 3013, 3022, 3023, 3102, 3113, 3114, 3123, 4003, 4013, 4018, 4022, 4023, 4032, 4038, 4103.
2. Failure to attain a minimum grade of 75 in any course will prevent the student from progressing in the program - until the course(s) can be repeated. Dental hygiene courses are offered only once per academic year; therefore, failure of a course(s) will require a student to sit out for a full year.

3. A student who fails to achieve a grade of 75 in any of the dental hygiene courses may repeat the course only once. Failure to achieve a minimum grade of 75 when repeating a dental hygiene course results in dismissal from the program and the student may not reapply to this Dental Hygiene Program.
4. A student who withdraws from the Dental Hygiene Program and/or the University must go through the dental hygiene admissions process again in order to be readmitted.
5. The BSDH Program Admissions Committee reserves the right to make exceptions to the above due to extenuating circumstances.

ADDITIONAL REQUIREMENTS

Prior to enrollment in Clinical Practice II (DNHY 3005), the student must provide documentation of:

1. Program approved student liability insurance.
2. Completion of physical examination.
3. Health insurance.
4. Compliance with state and program mandated immunizations.

TRANSFER POLICIES

Only students transferring from an accredited dental hygiene program will be considered for admission with advanced standing. Transfer students will be considered on a space available basis and must meet the following criteria:

1. Transfer students must meet the admission requirements of the University and the Dental Hygiene Department.
2. Students must submit an application to the MSU Dental Hygiene Department by April 1 for the following fall admission.
3. Progression requirements for these students are identical to those of the MSU dental hygiene students.
4. Students wishing to transfer dental hygiene courses from another dental hygiene program must meet the following criteria:
 - a. Dental hygiene courses to be transferred were completed at a CODA accredited dental hygiene program.
 - b. A grade of B or better was earned in all dental hygiene courses.
 - c. A written statement from the Dean or Chair of the previous program must accompany the application form. The statement must indicate that the student is in good academic standing and is eligible for readmission to the program from which he or she is transferring.
 - d. Documentation on dental hygiene courses the student would like to transfer into the MSU Dental Hygiene Program must be submitted in a well-organized notebook to the Chair of the department. A copy of the letter of good standing must accompany the notebook, as well as a copy of the admission application. The faculty of record for selected courses will review the packet for equivalency to MSU dental hygiene courses.
 - e. All potential transfer students are reviewed by the Dental Hygiene Admissions Committee, which will make recommendation regarding admission and placement.
5. Transfer credit will be evaluated according to University policy.
6. Transfer students must earn 31 semester credit hours in 3000/4000 level courses at MSU.

COURSES IN DENTAL HYGIENE (DNHY)**3002. Oral Radiology I** 2(2-0)

An in-depth introduction to dental radiography. Subject matter includes the history of dental x-rays; theoretical aspects of x-ray production, the x-ray machine; radiation protection; applications of dental x-ray film; normal radiographic anatomy; and patient education.

3003. Dental Hygiene II 3(3-0)

Prerequisites: DNHY 3113, 3114. Concurrent enrollment in DNHY 3005 (Clinical Practice II).

This course focuses on the fundamental knowledge base necessary to instruct dental patients in prevention of oral diseases with a study of professional and patient utilized plaque removal techniques and aids as they apply to various age groups of patients, use of fluorides, oral irrigation, care of hypersensitive teeth, and cleaning of dental appliances. Discussion of basic research methodology in regard to product evaluation. An examination of common physical characteristics of various age groups with emphasis on how these might affect treatment, as well as content of patient education. Includes discussion and analysis of the patient/healthcare provider relationship regarding ethical and legal responsibilities of each.

3005. Clinical Practice II 5(0-10)

Prerequisites: DNHY 3113, 3114. Concurrent enrollment in DNHY 3003.

Further development of skills acquired in prerequisite Clinical Practice course through treatment of clinical patients under close supervision of program faculty. Introduction and development of selective polishing procedures and practical application of professional methods utilized to clean dental appliances.

3013. Dental Materials 3(2-2)

Study of the materials used in restorative dentistry and in various other specialty areas of dentistry to fabricate dental appliances and tooth restorations. This course includes lecture and laboratory components designed to help students develop an understanding of the composition, properties, structure, and manipulative variables of dental materials historically used in dentistry, as well as the most current materials available. Emphasis is placed on practical, clinical applications of materials; the dental hygienist's role in educating patients regarding these materials; and the techniques for placement of the materials in the oral cavity.

3022. Histology 2(2-0)

Microscopic anatomy of the teeth and related oral structures. Subject matter includes an introduction to General Histology; the embryologic development of the face and oral cavity; development of teeth and their eruption; tooth enamel, dentin, cementum and pulp; periodontal ligament; salivary glands; dental caries; and the temporomandibular joint.

3023. Periodontology 3(3-0)

The study of the normal and pathological structures of the periodontium with emphasis on patient education by the hygienist for the prevention of periodontal disease and gingival problems. Includes information on various treatment modalities for management of periodontal disease.

3102. Oral Radiology II 2(1-2)

Prerequisite: DNHY 3002.

Hands on oral radiology; includes practical experience in both laboratory and clinical applications. Students gain experience in mounting and interpretation of dental radiographs. Also includes discussions of infection control in radiographic procedures, quality assurance in dental radiography, intra and extraoral film placement criteria, and principles of panoramic radiography.

3113. Dental Hygiene I 3(3-0)

Prerequisites: Admission procedures completed or consent of Dental Hygiene Department Chair. Concurrent enrollment in DNHY 3114 (Clinical Practice I).

Overall orientation to program, review of the history of the dental hygiene profession, discussion of institutional accreditation and individual licensing, and an introduction to the current dental health trends, issues, research, and legislation influencing the dental hygiene profession as well as the changing role of the dental hygienist. Emphasis is placed on a study of the prevention of disease transmission, content and rationale for comprehensive assessment of health, dental, and periodontal status; content and rationale for treatment plans and summaries; and instrumentation techniques and patient education based on the needs of the individual patient. This course must be taken in conjunction with Clinical Practice I to achieve basic cognitive, psychomotor, and affective skills in patient care procedures.

3114. Clinical Practice I 4(0-8)

Prerequisites: Admission procedures completed or consent of Dental Hygiene Department Chair. Concurrent enrollment in DNHY 3113.

Application of didactic instruction from the course Dental Hygiene I (DNHY 3113) with emphasis on application of the principles of infection control, acquiring skills to detect and remove calculus and other tooth deposits, and assessment and documentation of patients' medical, dental, and periodontal status. Laboratory practice on manikins and clinical experiences on selected patients (fellow classmates).

3123. Head, Neck, and Dental Anatomy 3(2-2)

Detailed anatomy of dental structures with special emphasis on human dentition in laboratory sessions through study and identification of extracted teeth. Identification of components of the temporomandibular joint as well as nomenclature, osteology, osteous landmarks, muscles, nerves, vascular supply and drainage, and glands of the head and neck region.

4003. Pathology 3(3-0)

Introduction of the principles of human disease including pathogenesis, clinical appearance, and treatment. In certain instances, microscopic features will be discussed if they enhance the understanding of the disease process. A portion of the course is devoted to basic principles of general pathology. The majority of the course is an overview of oral pathology with an emphasis on the dental hygienist's role in the recognition of oral disease.

4013. Dental Health Education 3(3-0)

Prerequisites: DNHY 3003, 3005, 3023.

This course builds on previously learned knowledge by integrating it with the concepts of learning theory and applications, motivation, and the physical, mental, emotional, social, and moral development of various age groups. Emphasis is placed on the interrelationship of physical (general, as well as oral), psychological, social, cultural, and economic influences in compliance and noncompliance with preventive dental health programs, techniques, and aides. It explores the dental hygienist's role in the assessment of patient needs, planning treatment and patient education strategies, and then implementation and evaluation of these activities. Introduction of objectives, curriculum development, and preparation of lesson plans for oral health presentations.

4018. Clinical Practice III 8(0-16)

Prerequisites: DNHY 3114, 3005, 3102. Concurrent enrollment in DNHY 4023.

Clinical practice continued in the Gaines Dental Hygiene Clinic as well as extramural sites in the community. Further development of instrumentation and assessment skills acquired in prerequisite Clinical Practice courses on patients of a more difficult caliber. Introduction and development of techniques for pit and fissure sealant place-

ment, ultrasonic scaling, periodontal scaling and root planning. Enhances proficiency in exposing, developing, and assessing dental radiographs taken on patients by providing clinical application of didactic and laboratory instruction from prerequisite course in oral radiology, under instructor supervision.

4022. Dental Public Health 2(2-0)

Prerequisite: DNHY 4013.

Theory, methodology, and application of the principles of public health in relating the significance of oral health to total health, with special emphasis on the role of the dental team in public health programs and the use of a basic systems approach to the development of any public health program. Provides an overview of how statistics are utilized in research and development of public programs. Specific topics include but are not limited to study design, central tendency and variability, probability, repeated analysis of variance, data association and prediction, and the evaluation of research studies.

4023. Dental Hygiene III 3(3-0)

Prerequisites: DNHY 3003, 3005, 3102. Concurrent enrollment in DNHY 4018 (Clinical Practice III).

A study of the rationale, indications and/or contraindications, and utilization techniques for various procedures including: pit and fissure sealants, ultrasonic scaling, periodontal scaling and root planning. The concepts of decision making are examined to assist students to develop responsibility and accountability for their actions. Recognition and management of life-threatening emergency situations are reviewed, with in-depth discussion of the etiological and/or precipitating factors, and the possible effects of these factors on the oral tissues. Emphasis is placed on the integration of this information with knowledge obtained in prerequisite courses to further develop critical thinking skills in obtaining comprehensive patient medical histories and development of dental hygiene treatment plans. This course must be taken in conjunction with Clinical Practice III to achieve cognitive, psychomotor, and affective skills in patient care procedures covered.

4032. Dental Hygiene IV 2(2-0)

Prerequisites: DNHY 4023. Concurrent enrollment in DNHY 4038 (Clinical Practice IV).

A study of the rationale, indications and/or contraindications, and utilization techniques for air-powdered polishing units. CPR recertification and a general review of dental hygiene science, as needed in preparation for the National Board Examination. Preparation for the transition from dental hygiene student to practitioner in private practice dental offices and/or public health institutions with guest lecturers; discussions on new developments in patient care; resume writing and job interviewing; patient and personal insurance; and legal/ethical issues facing health care providers. Other major concepts included are the political aspects of dental and dental hygiene care, decision making, responsibility, and accountability. The study of this content assists the students to develop responsibility for personal professional growth.

4038. Clinical Practice IV 8(0-16)

Prerequisites: DNHY 3114, 3005, 4018.

Clinical practice continued in the Gaines Dental Hygiene Clinic as well as extramural sites in the community. Practice in the use of more advanced treatment modalities. Further development of instrumentation and assessment skills with limited instructor assistance. The student will assume responsibility for all aspects of dental hygiene treatment for each of their clinical patients, with limited instructor input and supervision.

4103. Pharmacology 3(3-0)

This course is designed to provide students with the opportunity to study pharmacology as it relates to clinical dental hygiene. Drug references; prescriptions; drug action;

various drug groups prescribed by physicians that affect dental hygiene care, and various drug groups used in dentistry are included for study.

HEALTH SERVICES ADMINISTRATION

The College of Health Sciences and Human Services offers courses in health services administration.

COURSES IN HEALTH SERVICES ADMINISTRATION (HSAD)

3213. The Art of Healing 3(3-0)

Prerequisite: Honors standing or permission of instructor.

Exploration of the expressive art to heal including holistic and complementary healing practices; discussion of general and empiric knowledge as well as practical application; analyzing of both historical and cultural anthropological health practices; examination of complementary/alternative healing practices and traditional medicine.

4103. End of Life Care 3(3-0)

This course provides students from multiple health care disciplines the opportunity to explore issues related to end of life care. Topics to be emphasized include legal issues, standards of care, advanced care planning, assisted suicide/euthanasia, medical futility, gaps and barriers to good care, pathophysiological changes associated with death, holistic assessment, the normal grieving process, communication and decision-making, pain management, mental health management, and symptom control.

JOHN AND NEVILS WILSON SCHOOL OF NURSING

Melissa B. Ford, Chair (J. S. Bridwell Hall 312)

Professor: Sportsman

Associate Professors: Ford, A. Smith

Assistant Professors: Bowles, Coleman, Collins, Coyle, Distel, Gibson,

Jansen, Johnson, Leach, Lockhart, Polvado, Roberts, Robinson,

B. Smith, D. Stewart, J. Stewart, Villegas, Walker, Williamson

Professors Emeriti: Flanders, Inman, Mezzo, Tickle

MISSION STATEMENT FOR THE NURSING PROGRAM

It is the mission of the John and Nevils Wilson School of Nursing at Midwestern State University to prepare nurses who will provide competent and compassionate health care to individuals, families, groups, and communities. The nursing faculty values teaching/learning in an individualized, collegial environment inclusive of a variety of teaching methodologies. This approach to both undergraduate and graduate nursing education develops students as leaders through collaborative identification of issues, and the implementation of innovative, creative solutions to the provision of health services.

THE BSN PROGRAMS

The Wilson School of Nursing offers curricula leading to a Bachelor of Science in Nursing (BSN). These curricula include a prelicensure (generic) program for students who do not have a license to practice as a Registered Nurse and a post-licensure RN to

BSN program for RNs who have graduated from hospital-based programs or who hold associate degrees in nursing.

These programs include general education courses that provide a foundation for understanding physiological, psychosocial, cultural, political, and economic factors influencing a person's health status. The nursing courses prepare the BSN graduate to provide holistic nursing care in a variety of complex environments that will enhance the optimal health of individuals, families, groups, and communities.

The RN to BSN program is a flexible option designed to meet the needs of the working RN. Nursing classes are offered via distance learning methodologies with periodic visits to campus. Clinical experiences may be conducted in the geographical area in which the RN student resides. The RN to MSN program is available at MSU, and is fully described in the graduate catalog.

The BSN program is accredited by the Commission on Collegiate Nursing Education (CCNE) and the Board of Nurse Examiners for the State of Texas (BNE). The program includes a total of 134 hours (66 hours nursing and 68 non-nursing hours) for the prelicensure student and a total of 124 hours in the RN/BSN program (58 nursing hours, including 30 hours awarded through the Texas Nurses Association (TNA) Articulation Agreement, and 66 non-nursing hours).

Upon completion of the program, the graduates (prelicensure BSN) are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

RECOMMENDATION FOR LICENSURE

University recommendation for application for RN licensure will be made upon satisfactory completion of the nursing curriculum.

INFORMATION REGARDING ELIGIBILITY TO WRITE NCLEX

The BNE has established guidelines and criteria regarding the eligibility of persons with criminal convictions to obtain a license as a registered nurse. The BNE may refuse to admit persons to its licensure examinations, may refuse to issue a license or certificate of registration, or may refuse to issue a temporary permit to any individual who has been convicted of a felony, a misdemeanor involving moral turpitude, or engaged in conduct resulting in the revocation of probation imposed pursuant to such conviction. A Federal Bureau of Investigation (FBI) criminal background check is required by the BNE. Convictions for offenses other than the minor in possession or traffic violations will be investigated. A student contemplating entry into the BSN program who has/had such offenses should submit a Declaratory Order packet for review by the BNE. The information can be found on the BNE website at <http://www.bne.state.tx.us>.

The Board of Nurse Examiners (BNE) for the State of Texas has established guidelines and criteria regarding the eligibility of persons with mental illness and/or chemical dependency to obtain a license as a registered nurse. The BNE may refuse to admit persons to its licensure examinations, may refuse to issue a license or certificate of registration, or may refuse to issue a temporary permit to any individual with lack of fitness to practice by reason of mental illness or intemperate use of alcohol or drugs that could result in injury to patients or the public. A student who is considering entry into the BSN program and who has/had such mental health or chemical dependency issues should submit a Declaratory Order packet for review by the BNE. The information can be found on the BNE website at <http://www.bne.state.tx.us>.

A student who has concerns in either of these areas is encouraged to file a declaratory order with the Board of Nurse Examiners (BNE) for the State of Texas early in their

academic career. BNE investigations may take up to a year. Detailed information is available from the Board of Nurse Examiners for the State of Texas or the Chair of the Wilson School of Nursing.

ADMISSION INTO THE NURSING MAJOR (BSN, Prelicensure)

The student must:

1. submit an application to the Wilson School of Nursing BSN Program from March 1 to April 1 for summer admission or October 1 to November 1 for spring admission;
2. submit Nursing Entrance Test (NET) scores with the admission packet;
3. have a cumulative nursing GPA of 2.75 or better on a 4.0 scale based on all semester hours applicable to the BSN degree and a grade of C or better in all science and nursing courses;
4. complete the following courses before enrollment in NURS 3303:

Rhetoric and Composition I & II	General Psychology
College-level math	Introduction to Sociology
Anatomy and Physiology I & II	Microbiology
Chemistry 3 hours	Developmental Psychology
NURS 3103 (may be concurrent with NURS 3303)	
5. provide documentation of the following prior to enrollment in NURS 3306:
 - a. program approved student liability insurance;
 - b. completion of a physical examination;
 - c. health insurance;
 - d. compliance with state-mandated and program immunizations;
 - e. American Heart Healthcare Provider CPR or CPR-PR Red Cross CPR;
 - f. Criminal Background Search; and
 - g. Ten Panel Urine Drug Screen.
6. Attend the BSN orientation, at which time information regarding the nursing program's requirements will be clarified.

NURSING CLASSES REQUIRED FOR THE BSN DEGREE (GENERIC)

NURS	3103	Introduction to Nursing* (Fall/Spring/Summer)	3
NURS	3203	Pathophysiologic Process* (Fall/Spring/Summer)	3
NURS	3303	Family Health Assessment (Spring/Summer)	3
NURS	3306	Basic Nursing (Fall)	6
NURS	3313	Pharmacology (Summer/Fall)	3
NURS	3323	Community Nursing I (Fall)	3
NURS	3406	Mental Health Nursing (Spring)	6
NURS	3407	Family Health I (Spring)	7
NURS	3503	Nursing Research (Spring/Summer)	3
NURS	4004	Nursing of the Childbearing Family (Fall)	4
NURS	4007	Family Health II (Fall)	7
NURS	4014	Pediatric Nursing (Spring)	4
NURS	4104	Community Nursing II (Spring)	4
NURS	4305	Nursing Management (Fall)	5
NURS	4605	Clinical Decision Making (Spring)	5
Major Courses			66

*Courses may be taken prior to admission or concurrently with NURS 3303.

NON-NURSING COURSES/REQUIREMENTS FOR THE BSN DEGREE (Prelicensure)

*Anatomy and Physiology I and II	8
*Microbiology	4
*Rhetoric and Composition I & II	6
*General Psychology	3
*Introduction to Sociology	3
*Developmental Psychology	3
*Chemistry (no lab)	3
*College-level math (not developmental)	3
**Statistics (NURS 4123 recommended)	3
**Humanities (courses in literature, Western Civilization, humanities, philosophy, OR a two-semester sequence of a foreign language)	6
**General or Macro Economics	3
**American Government (two semesters)	6
**Survey of U.S. History (two semesters)	6
**Speech Communication or Voice and Diction	3
**Two different activity courses	3-4
**Fine Arts (music, art, or theatre - no applied music)	3
**Computer Competency (proficiency exam or introductory computer course)	3
English Usage Requirement (Exam or ENGL 2113)	

*required prior to admission

**students should complete most of these requirements prior to admission, as the nursing curriculum in the final two (2) years constitutes full-time study.

ADMISSION INTO THE BSN PROGRAM (RN TO BSN/Post-licensure)

The student must:

- complete an application for admission to the BSN Program;
- hold licensure as a Registered Nurse (Texas or designated State);
- have official transcripts from all colleges/universities and/or diploma school of nursing sent to MSU Admissions;
- meet TNA Articulation Agreement requirements;
- complete the following courses prior to NURS 3203/3303:
 - Anatomy & Physiology I & II
 - Microbiology
 - Chemistry 3 hours
- provide documentation of the following prior to enrollment in clinical courses:
 - professional liability insurance;
 - completion of physical examination;
 - health insurance;
 - compliance with State or program mandated immunizations;
 - current licensure (GNs may enroll in one semester of nursing courses with the stipulation that they must pass the NCLEX-RN prior to completion of the course. If they do not pass NCLEX, no further progression in the RN to BSN program will be permitted until successful completion of NCLEX is accomplished.);
 - American Heart Healthcare Provider CPR or CPR-PR Red Cross CPR;
 - Criminal background check; and
 - Ten panel urine drug screen.

NURSING COURSES REQUIRED FOR THE RN TO BSN DEGREE

NURS	3203	Pathophysiologic Processes (Fall/Spring/Summer)	3
NURS	3303	Family Health Assessment (Spring/Summer)	3
NURS	3503	Nursing Research (Spring/Summer)	3
NURS	3705	Advanced Nursing Seminar (Fall)	5
NURS	4107	Community Nursing (Fall)	7
NURS	4317	Nursing Management for the Registered Nurse (Spring)	7
		TNA Articulation Agreement	<u>30</u>
		Major Hours including Articulation Agreement Hours	58

NON-NURSING/ REQUIREMENTS FOR THE RN TO BSN DEGREE**Basic Core (27 semester hours)**

- English 1113, 1123
- History 1133, 1233
- Mathematics 1053, or 1203, or 1233
- Political Science 1333, 1433
- Speech Communication - 3 hours
- Demonstrate computer literacy by taking a proficiency test or earning credit for CMPS 1023, 1043, 2153, or EDUC 1023 - 3 hours

Academic Course Work (39 semester hours)

- BIOL 1134, 1234, 3004
- Chemistry - 3 hours (no lab)
- ECON 1333 or 2333
- PSYC 1103, 3233
- SOCL 1133
- Statistics (recommend NURS 4123)
- Fine Arts/Humanities (courses in music, art, theatre, literature, Western Civilization, humanities, philosophy, OR a two-semester sequence of a foreign language.) - 6 hours
- Elective 3000- or 4000-level - 3 hours

Additional Requirement

- Writing Proficiency Requirement (Pass exam or take and pass ENGL 2113)

ADDITIONAL INFORMATION FOR RN/BSN PROGRAM (See page 112 Special Academic Programs)**TIME LIMITATIONS**

BSN generic students must complete all clinical nursing courses within a 4.5 year period of time (9 long semesters) beginning with initial enrollment in NURS 3303.

RN/BSN students must complete all nursing courses within a four-year period of time beginning with the first nursing course (excluding NURS 3203 Pathophysiology).

TRANSFER POLICY

1. Transfer students must meet the admission requirements of the University and the BSN Program.
2. Students must submit an application to the Wilson School of Nursing by April 1 for summer admission and by November 1 for spring admission.
3. Progression requirements for these students are identical to those of the MSU BSN Program nursing students.

4. In addition, transfer students who wish to transfer nursing courses from another nursing program must meet the following requirements:
 - a. Nursing courses to be transferred were completed at a nationally accredited nursing program.
 - b. A grade of C or better was earned in all nursing courses and all science courses required by the MSU BSN Program.
 - c. A written statement from the Dean or Chair of the previous department to accompany the application form. The student must be in good academic standing and eligible for readmission to the program from which they are transferring.
 - d. Nursing courses the student would like to transfer into the MSU Nursing program must be submitted in a well-organized notebook to the Chair of the Wilson School of Nursing. A copy of the letter of good standing shall accompany the notebook, as well as a copy of the admission application. The faculty of record for selected courses will review the packet for equivalency to MSU nursing courses.
 - e. All potential transfer students are reviewed by the Student Affairs Committee, which will make recommendations regarding admission and placement.
5. Transfer credit will be evaluated according to University policy.
6. Students planning to take general education courses at another college before transferring to the MSU BSN Program should seek guidance from the MSU Health Sciences and Human Services Counselor before enrolling in the courses to assure equivalency with MSU requirements.
7. MSU students who are progressing satisfactorily will be given priority for all classes. Transfer students will be considered on an "as available" basis.
8. Transfer students must earn 31 semester credit hours in 3000/4000 level courses at MSU.

PROGRESSION POLICY FOR BSN GENERIC AND RN/BSN PROGRAMS

Students must maintain satisfactory standards in classroom and clinical activities to be retained and to progress in the program. Requirements are as follows:

1. A minimum grade of C is required in the following science courses: BIOL 1134 (A & P I); BIOL 1234 (A & P II); NURS 3203 (Pathophysiology); BIOL 3004 (Microbiology); and chemistry. A grade lower than C precludes admission/progression.
2. A minimum grade of C is required in all nursing courses. Failure to attain a minimum grade of C in these courses will prevent the student from progressing in the program. A student who fails to achieve a minimum grade of C in any of the required nursing courses may repeat the course only once.
3. A student who is in the process of appealing a course grade through the Academic Appeals Committee may not enroll in any subsequent nursing courses for which the course under appeal is a prerequisite. If the student has early registered, then he/she will be administratively withdrawn from those courses.
4. If any student withdraws from nursing courses and/or the University, he/she must petition the BSN Program's Student Affairs Committee in writing as to their intent prior to re-enrollment.
5. A student who is on University scholastic probation will not be admitted to the program.
6. Failure in any two (2) nursing courses (either the same course twice or two different courses) renders the student ineligible for progression in this nursing program and will result in the dismissal of the student from the program

7. The BSN Program's Student Affairs Committee reserves the right to make exceptions to the progression policies due to compelling circumstances. The Student Affairs Committee will consider petitions from students at its regular meetings.

READMISSION/REENTRY POLICY

1. A student seeking readmission must submit a new application from March 1 to April 1 for summer re-admission, October 1 to November 1 for spring re-admission, and May 1 for fall re-admission and will be evaluated on the basis of current criteria for admission and progression on a first qualified, first admitted basis.
2. A student who withdraws or has an interruption in his/her enrollment in nursing for any reason must petition the BSN Program's Student Affairs Committee in writing prior to re-enrollment. Individual interview with the committee may be required.
3. A student who receives a D or F in a nursing course (other than NURS 3203) must seek reentry to the nursing program by petitioning the BSN Program's Student Affairs Committee in writing for consideration.
4. If the student receives a second D or F in the same or any two nursing course(s) (other than NURS 3203), the student will be ineligible for reenrollment or re-entry in this nursing program.
5. A transfer student with a prior nursing course failure from another nursing program who fails a course with similar content in MSU's BSN Program is ineligible for readmission.
6. A student who has not been enrolled in MSU's BSN Program for three or more years will be required to attain a satisfactory score on a comprehensive exam for each nursing course previously completed and demonstrate clinical competency in selected nursing procedures before readmission will be granted. In addition, the time-limit of 9 long semesters applies.
7. The BSN Program's Student Affairs Committee reserves the right to make exceptions to the progression policies due to compelling circumstances. The Student Affairs Committee will consider petitions from students at its regular meetings.

COURSES IN NURSING (NURS)

3103. Theories and Concepts: Introduction to Nursing 3(3-0)

Prerequisite: Sophomore standing.

This course is an introduction to major concepts of concern in the discipline of nursing: person, environment, nursing, and health. Nursing theories and ethical-legal principles related to professional nursing practice are studied. Also addressed are the concepts of critical thinking, communication, and cultural awareness in the context of nursing process.

3203. Pathophysiologic Process 3(3-0)

Prerequisites: BIOL 1134, 1234, 3004, and chemistry (3 hours).

The study of physiologic and psychosocial disorders with emphasis on dynamics of the altered state. Focus is on interpreting diagnostic tests and predicting pathophysiological adaptations which may occur as a result of these disorders.

3303. Theories and Concepts: Family Health Assessment 3(2-3)

Prerequisites: BIOL 1134 and 1234, Pre- or co-requisites: NURS 3103 (generic BSN); NURS 3203.

The focus of this course is on the assessment of the holistic person as an individual member of families, groups, and communities (IFGC). The role of the nurse in health

promotion throughout the life cycle is explored by identifying normal findings. Emphasis will be placed on acquiring skills to record client histories, to perform physical assessments, and to communicate specific findings.

3306. Theories and Concepts: Basic Nursing (formerly 3307) 6(4-6)

Prerequisites: NURS 3203, 3303, ENGL 1113, 1123, MATH 1053 or 1233, PSYC 1103, and SOCL 1133, Pre-or co-requisite NURS 3313.

The course emphasizes the application of beginning theories and concepts fundamental to patient care through the life cycle. In both campus laboratory and clinical experiences the student acquires basic cognitive and psychomotor skills. Students are introduced to the impact cultural diversity has on the outcome of patient care. The nursing process is used to apply knowledge and critical thinking through demonstration of theory-based patient care.

3313. Theories and Concepts: Pharmacology in Nursing Practice 3(3-0)

Prerequisites: NURS 3103, 3203, and 3303.

Explores the nurse's role in relationship to the principles of pharmacology and drug prototypes used to treat alterations or promote health in individuals, families, groups, and communities (IFGC) across the lifespan.

3323. Theories and Concepts: Community Nursing I 3(2-3)

Prerequisites: NURS 3103, 3203, and 3303.

The focus on the course is on the role of the nurse in the community. Students will be introduced to basic epidemiology, health promotion, disease prevention, health planning/teaching, cultural awareness, and state and local resources for community health. Assessment, planning and providing care to families, groups, and communities will be explored.

3406. Theories and Concepts: Mental Health Nursing 6(3-9)

Prerequisites: NURS 3313 and 3306.

Concepts and principles emphasized in this course pertain to communication, interpersonal relationship, and utilization of the nursing process in providing nursing care for clients manifesting psychosocial and/or psychiatric needs. Clinical and classroom discussions provide students with opportunities to develop a greater understanding of self, and to increase their ability in relating to individuals, families, groups, and communities (IFGC) in structured and non-structured settings.

3407. Theories and Concepts: Family Health Nursing I 7(4-9)

Prerequisites: NURS 3313 and 3306.

Application of theories and concepts across the span of adult life to include specific medical-surgical conditions. Emphasis will be placed on integrating previously learned cognitive, psychomotor, and affective knowledge in the holistic care of the individual client, his/her family, as well as groups and communities (IFGC), through application of the nursing process.

3503. Theories and Concepts: Nursing Research 3(3-0)

Prerequisites: Undergraduate statistics course; NURS 3306.

Basic concepts of research and related terminology are studied. Steps involved in conducting useful and sound research studies are explored. Focus is on analysis and evaluation of research reports/studies as they apply to nursing practice.

3705. Theories and Concepts: Advanced Nursing Seminar 5(4-3)

Provides a foundational understanding of theories and concepts related to nursing practice coupled with topics and issues in medical-surgical, maternal-child health, and mental health nursing offered at an advanced level for the registered nurse student. Current health trends, issues, research, and legislation influencing professional nursing are investigated. The role of the professional nurse as a provider of care, a coordinator

of care, and a member of the profession is explored with emphasis on the differences accompanying baccalaureate nursing education. Discussion includes topics relevant to clinical practice, research, and education; and will include ethical, legal, political, and cultural aspects of health care, decision making, responsibility, and accountability.

4004. Theories and Concepts: Nursing of the Childbearing Family 4(2-6)

Prerequisites: NURS 3406 and 3407.

The focus of this course is on the application of theories and concepts used by the nurse to assist childbearing families to achieve their maximum potential. There is an emphasis on relationships within families, access to and use of resources, and lifestyle and cultural diversity. Reproductive processes and women's health issues are explored. The spectrum of nursing roles within the context of a variety of healthcare settings along with the process of decision making in healthcare is also explored.

4007. Theories and Concepts: Family Health Nursing II 7(4-9)

Prerequisites: NURS 3406 and 3407.

Provides a continuation of the application of theories and concepts across the span of adult life to include specific medical-surgical conditions. Emphasis is placed on integrating previously learned knowledge in more complex situations with the individual, his/her family, as well as groups and communities (IFGC), through application of the nursing process.

4014. Theories and Concepts: Pediatric Nursing 4(2-6)

Prerequisites: NURS 4004 and 4007.

The focus of the course is on the application of holistic nursing principles and concepts used by the nurse to assist families to achieve their maximum potential. Emphasis is on interrelationships and intra-relationships of children and their families as well as appreciation of cultural diversity. Nursing process will be pediatric specific, with special consideration to developmentally appropriate nursing care and ethical decision making.

4103. Nursing Care in the United States 3(3-0)

Prerequisite: Student must be a Registered Nurse who is participating in the Global Scholarship Alliance Program.

The focus of the course is to prepare international registered nurse students for success in advanced nursing courses in the United States. Emphasis will be placed on concepts related to the U.S. health care delivery system and nursing practice in the U.S., in comparison to the home countries of the students.

4104. Theories and Concepts: Community Health Nursing II 4(2-6)

Prerequisites: NURS 3323 and concurrent enrollment in or completion of NURS 4014.

The focus is on application of holistic nursing principles in the community. Application of nursing process within the community will be explored. Utilization of epidemiological data, health promotion, disease prevention, health planning/teaching, and issues of diversity will be emphasized at the local, state, national, and global levels.

4107. Theories and Concepts: Community Health Nursing 7(4-9)

Students are exposed to a variety of settings where the nurse functions in the community. Concepts relevant to community health nursing of epidemiology, health promotion, health planning/teaching, cultural awareness, consumerism, legislation, and world health concerns are explored. Emphasis on planning and providing nursing care for individuals, families, groups, and communities is related to community assessment, health promotion/patient education, and primary-secondary-tertiary prevention.

4123. Statistics for the Health Sciences 3(3-0)

The focus of this course is to provide a statistics course specifically for health sci-

ence majors using techniques and data structures relevant to clinical investigations. General topics include choosing correct procedures and using statistics to understand clinical data. Specific topics include but are not limited to study design, central tendency and variability, probability, repeated measures analysis of variance, data association and prediction, and evaluating diagnostic procedures.

4305. Theories and Concepts: Nursing Management (formerly 4307) 5(4-3)

Prerequisites: Senior standing in nursing.

Emphasis is on the management of nursing care and the management of personnel in health care settings. Theories of management, leadership, economics, and change are explored including the varying patterns of health care delivery and strategies for implementation. Case management as a nursing role in a managed care environment and strategies for implementation of the role are explored including the assessment and evaluation of quality within an organization.

4317. Nursing Management for the Registered Nurse 7(4-9)

Emphasis is on the management of nursing care and the management of personnel in health care settings expanding upon the expertise of the registered nurse. Theories of management, leadership, economics, and change are explored including the varying patterns of health care delivery and strategies for implementation. Case management as a nursing role in a managed care environment and strategies for implementation of the role are explored including the assessment of evaluation of quality within an organization.

4403. Special Topics 3(1-3)

Prerequisite: Senior standing or consent of Chair.

Theoretical and/or clinical application of selected nurses issues.

4503. Selected Nursing Issues 3(3-0)

Prerequisite: Consent of instructor or Chair.

Selected nursing issues. To be conducted on an independent basis with the student and selected nursing faculty member. Issues may vary.

4605. Theories and Concepts: Clinical Decision Making (formerly 4603) 5(3-6)

Prerequisites: Senior standing, NURS 4004, 4007; concurrent enrollment in or completion of NURS 4014 and 4104.

This course is an application of clinical judgment skills. Emphasis is placed on integrating previously learned concepts and theories with the student in the role of coordinator of care. Critical thinking is applied in resolving actual clinical problems.

MINNIE RHEA WOOD DISTINGUISHED PROFESSORSHIP OF NURSING

Dr. Susan Sportsman, the Minnie Rhea Wood Distinguished Professor of Nursing, is the Dean of the College of Health Sciences and Human Services at Midwestern State University. She was previously the Associate Dean for Practice at Texas Tech University Health Sciences Center School of Nursing, a hospital administrator, and Assistant Professor at the University of Texas at Arlington. Dr. Sportsman has served in leadership roles in numerous professional organizations, such as the Texas Nurses Association, Texas Nurses Foundation, Nursing Education Policy Coalition, and Texas Society of Allied Health Professionals. Her scholarship interests include the use of patient simulation in competency education and evaluation and conflict management in the health care arena.

KINESIOLOGY

Frank Wyatt, Chair (D.L. Ligon Hall 215)

Associate Professors: Kilgore, Wyatt

Assistant Professor: Wood

Instructors: Burks, Diehm, Elder, Flores, Fowler,
Gaines, Greenhaw, Griffin, Lancaster, Marty, Maskill,
McIlhane, Pack, Ray, Thomas, Tigert, Wiggins

Professors Emeriti: Dudley, Gillespie, Henderson, Stockton

The department of kinesiology offers degree programs which prepare students for a variety of jobs in education, sport-related, and allied health fields. An Athletic Training major is offered for the individual desiring a career in sports medicine. An Exercise Physiology major is offered for the individual desiring a career in this allied health field. B.A. and B.S. degrees are available for students pursuing teacher certification in kinesiology. Teaching certificates may be obtained in all-level kinesiology. A B.S. with a major in Sport and Fitness Management is offered to students wishing to pursue careers in corporate fitness or sports administration.

The Kinesiology Department offers the following degrees:

Bachelor of Science with a major in Athletic Training	see page 231
Bachelor of Science with a major in Exercise Physiology	see page 236
Bachelor of Science or Bachelor of Arts with a major in Kinesiology	see page 236
Bachelor of Science with a major in Sport and Fitness Management	see page 240

ATHLETIC TRAINING MAJOR

The Athletic Training Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) through the Joint Review Committee of Athletic Training (JRC-AT).

The requirements for the Bachelor of Science degree with a major in Athletic Training are as follows:

Academic Foundations and Core Curriculum - 54-55 semester hours (See page 103)

Bachelor of Science (See page 105)

Major (62 semester hours)

ATRN 1073, 1203, 2701, 2703, 2901, 2903, 3331, 3801, 3803, 3811, 3813, 3901,
3913, 4423, 4801, and 4903

BIOL 3004

KNES 1053, 1983, 1993, 2333, 2503, 4033, and 4703

NURS 3203

Minor - no minor required.

Upon completion of this degree the student will be eligible to apply for the Texas Athletic Training Licensure Exam administered by the Texas Department of Health.

Students completing the athletic training curriculum will be allowed to sit for the certification exam given by the Board of Certification (BOC).

ADMISSION REQUIREMENTS

Students interested in Athletic Training should seek advisement from the ATEP faculty. The athletic training pre-professional program is open to any beginning freshman or transfer student who has been admitted to MSU. The pre-professional curriculum consists of a minimum of 24 hours including the following courses: ATRN 1073, 1203, KNES 1053, 2333, plus 12 additional hours of core requirements. It is highly suggested that BIOL 1134 and 1234 are taken at this time. A minimum of 50 hours of clinical observation is required for satisfactory completion of ATRN 1073 for a minimum total of 100 observation hours. Selection for admission into the professional phase of the ATEP is made in July. Selection into the ATEP is competitive and completion of the minimum requirements does not guarantee admission into the professional program. To be considered for admission into the ATEP, the applicant must:

1. Maintain a minimum cumulative 2.5 GPA.
2. Have completed a minimum of 24 hours of college course work including a "C" or better in ATRN 1073.
3. Have documented a minimum of 50 hours of observation under a Certified Athletic Trainer.
4. Submit to the Vinson Health Center a technical standard worksheet and completed shot records.
5. Submit the following to the ATEP director: ATEP application, 3 completed recommendation forms, documentation of completed technical standards, proof of CPR and first aid certification, and official transcripts from all high schools and post secondary academic work.

Due to the competitiveness of the program, not all applicants meeting the criteria will be selected for admission into the ATEP. Selection into the ATEP will be based on the following criteria:

1. Cumulative GPA	25 percent
2. Prerequisite GPA	25 percent
3. Observation Evaluation	25 percent
4. Faculty Recommendations	25 percent

RETENTION

Once admitted into the ATEP, students must maintain a cumulative GPA of at least 2.5 and must receive no grade lower than a "C" in all major and associated courses. Students who do not meet these requirements will be placed on probation with the ATEP program for a semester. If after one semester they have not achieved a cumulative GPA of at least 2.5 and/or have not replaced grades below a "C" with a "C" or better, they may be dismissed from the program or allowed to continue for a maximum of one additional probationary semester. The latter condition will be granted only with permission from the ATEP Director and the Chair of the Department of Kinesiology.

TECHNICAL STANDARDS FOR ADMISSION

The Athletic Training Educational Program at Midwestern State University is a rigorous and intense program that places specific requirements and demands on the students enrolled in the program. An objective of this program is to prepare graduates to enter a variety of employment settings and to render care to a wide spectrum of individuals engaged in physical activity. The technical standards set forth by the Athletic Training Educational Program establish the essential qualities considered necessary for students admitted to this program to achieve the knowledge, skills, and competencies of an entry-level athletic trainer, as well as meet the expectations of the program's accrediting agency (Commission on Accreditation of Allied Health Education Programs

[CAAHEP]). The following abilities and expectations must be met by all students admitted to the Athletic Training Educational Program. In the event a student is unable to fulfill these technical standards, with or without reasonable accommodation, the student will not be admitted into the program.

Compliance with the program's technical standards does not guarantee a student's eligibility for the BOC certification exam.

Candidates for selection to the Athletic Training Educational Program must demonstrate:

1. the mental capacity to assimilate, analyze, synthesize, integrate concepts and problem solve to formulate assessment and therapeutic judgments and to be able to distinguish deviations from the norm;
2. sufficient postural and neuromuscular control, sensory function, and coordination to perform appropriate physical examinations using accepted techniques; and accurately, safely and efficiently use equipment and materials during the assessment and treatment of patients;
3. the ability to communicate effectively and sensitively with patients and colleagues, including individuals from different cultural and social backgrounds; this includes, but is not limited to, the ability to establish rapport with patients and communicate judgments and treatment information effectively. Students must be able to understand and speak the English language at a level consistent with competent professional practice;
4. the ability to record the physical examination results and a treatment plan clearly and accurately;
5. the capacity to maintain composure and continue to function well during periods of high stress;
6. the perseverance, diligence and commitment to complete the athletic training education program as outlined and sequenced;
7. flexibility and the ability to adjust to changing situations and uncertainty in clinical situations; and
8. affective skills and appropriate demeanor and rapport that relate to professional education and quality patient care.

Candidates for selection to the athletic training educational program will be required to verify they understand and meet these technical standards or that they believe that, with certain accommodations, they can meet the standards.

The Counseling and Disability Services Office will evaluate a student who states he/she could meet the program's technical standards with accommodation and confirm that the stated condition qualifies as a disability under applicable laws.

If a student states he/she can meet the technical standards with accommodation, then the University will determine whether it agrees that the student can meet the technical standards with reasonable accommodation; this includes a review as to whether the accommodations requested are reasonable, taking into account whether accommodation would jeopardize clinician/patient safety, or the educational process of the student or the institution, including all course work, clinical experiences and internships deemed essential to graduation.

ATHLETIC TRAINING EDUCATION PROGRAM

Clinical and Field Experience: Due to the strong practical component of the ATEP, clinical supervision by approved clinical instructors provides for unique educational experiences. The Commission on the Accreditation of Allied Health Educational Programs (CAAHEP) Standards and Guidelines require that students receive a mini-

num of two academic years of clinical experience as part of the course work in the ATEP. This clinical instruction and supervision will occur in a variety of athletic training settings including collegiate, secondary, clinical, hospital, and rehabilitative. These experiences are provided in conjunction with ATRN 2701, 2901, 3801, 3811, 3901, and 4801.

Financial Information: Fees associated with the program include, but are not limited to, coverage of annual liability insurance premiums, uniforms, and personal equipment necessary for clinical experience, immunizations and screenings, transportation, and meals associated with off-campus clinical experience, and professional memberships.

Graduation: The completion of a Bachelor of Science degree with a major in Athletic Training requires 130 semester credit hours. This degree is exempt from the University's minor requirement. Students may pursue additional major or minor areas of study to complement the program, realizing that additional course work and time will be necessary. A teaching certification is recommended for those students wishing to seek employment in secondary school settings upon graduation.

Careers in Athletic Training: Following graduation, attainment of NATABOC certification and proper state licensure, the certified athletic trainer may practice in a variety of settings including secondary schools, colleges and universities, professional athletics, sport medicine clinics, fitness/wellness centers, and corporate/industrial settings.

COURSES IN ATHLETIC TRAINING (ATRN)

1073. Care and Prevention of Athletic Injuries 3(3-0)

An introduction to basic athletic training techniques used for prevention and care of injuries common to the physically active individual. Students will receive first-aid and CPR certification in addition to basic athletic taping, bracing, and padding techniques.

1203. Health and Wellness 3(3-0)

This course is designed to provide students with a broad in-depth study of the dynamic process involved in achieving and maintaining a healthy and productive lifestyle. Learning experiences emphasizing general knowledge and practical application of concepts relative to physical, emotional, intellectual, spiritual, social and environmental health will provide the foundation for the dynamic process presented in this course. (Same as KNES 1203.)

All of the following ATRN courses require acceptance into the Athletic Training Educational Program.

2701. Application of General Medical Assessment 1(0-3)

Prerequisite: ATRN 1073. Co-requisite: ATRN 2703.

Clinical application of the principles for prevention, assessment, and management of injuries and illnesses common to the physically active individual.

2703. General Medical Assessment 3(3-0)

Prerequisite: ATRN 1073. Co-requisite: ATRN 2701.

Principles for prevention, assessment, and management of injuries and illnesses common to the physically active individual. Learning experiences emphasize concepts related to pre-participation physical examinations; injuries and illnesses of the abdominal, thoracic, cranial, and facial areas; and the athletic trainer's role as a part of a healthcare team.

2901. Application of Therapeutic Modalities 1(0-3)

Prerequisites: ATRN 2703, 2701. Co-requisite: ATRN 2903.

Clinical practicum in the selection, implementation, and evaluation of the effectiveness of therapeutic modalities in athletic training.

2903. **Therapeutic Modalities** (formerly 4803) 3(2-3)
Prerequisites: ATRN 2703, 2701. Co-requisite: ATRN 2901.
Investigation of the scientific principles underlying therapeutic modalities in athletic training. Includes discussion of selective modalities therapeutic purposes, indications, contraindications, and adverse effects.
3331. **Sport and Exercise Pharmacology** 1(1-0)
Prerequisites: BIOL 3004 and NURS 3203.
A survey of important pharmacological concepts and agents relevant to health, sport, and fitness professionals.
3801. **Practicum in Orthopedic Assessment and Management I** 1(0-3)
Prerequisites: ATRN 2901, 2903. Co-requisite: ATRN 3803.
Clinical practicum in the evaluation and management of orthopedic sports injuries and conditions with a specific focus on the lower extremity, lumbar, and sacral spine.
3803. **Evaluation of Athletic Injuries I** (formerly 4003) 3(3-0)
Prerequisites: ATRN 2703. Co-requisite: ATRN 3801.
Integration of understanding the mechanism of injury into assessment techniques used to distinguish injuries common to the physically active individual with a specific focus on the lower extremity, lumbar, and sacral spine.
3811. **Practicum in Orthopedic Assessment and Management II** 1(0-3)
Prerequisite: ATRN 3801. Co-requisite: ATRN 3813.
Clinical practicum in the evaluation and management of orthopedic sports injuries and conditions with a specific focus on the upper extremity, cervical, and thoracic spine.
3813. **Evaluation of Athletic Injuries II** 3(2-3)
Prerequisite: ATRN 3803. Co-requisite: ATRN 3811.
Integration of understanding of the mechanism of injury into assessment techniques used to distinguish injuries common to the physically active individual with a focus on the upper extremity, cervical, and thoracic spine.
3901. **Application of Therapeutic Exercise** 1(0-3)
Prerequisites: ATRN 3801, 3803. Co-requisite: ATRN 3913.
Clinical practicum in planning and implementation of therapeutic exercise related to the rehabilitation of the physically active individual.
3913. **Therapeutic Exercise** (formerly 4813) 3(2-3)
Prerequisites: ATRN 3801, 3803. Co-requisite: ATRN 3901.
Theory and practice of rehabilitation of physically active individuals. (Same as KNES 3913.)
4423. **Research and Athletic Training** 3(3-0)
The focus on this lecture course is to instruct the athletic training student in the role that research plays in the practice of athletic training. Topics include problem development, literature review, data analysis techniques and interpretations, institutional review boards, and communicating the results.
4801. **Application of Athletic Training Techniques** 1(0-3)
Prerequisites: ATRN 3901, 3913.
Capstone clinical practicum in athletic training.
4903. **Administration of Athletic Training** (formerly 3903) 3(3-0)
Prerequisites: ATRN 3901, 3913.
Overview of administrative and finance principles applicable to the operation of athletic training programs.

EXERCISE PHYSIOLOGY MAJOR

The requirements for the Bachelor of Science degree with a major in Exercise Physiology are as follows:

Academic Foundations and Core Curriculum - 54-55 semester hours (See page 103)

Bachelor of Science (See page 105)

Major (39 semester hours)

KNES 1053, ATRN/KNES 1203, KNES 1983, 1993, 2002, 2503, 3103, 3331, 3913, 4033, 4676, 4703, and ENGL 3203 is also required.

Minor - Exercise Physiology students have the following minor requirement:

BIOLOGY (21 semester hours) BIOL 1113, 1144, 1544, BIOL/KNES 2333, BIOL 3234, 3333

KINESIOLOGY MAJOR

BACHELOR OF SCIENCE and BACHELOR OF ARTS for Teacher Certification only

The requirements for the Bachelor of Arts and Bachelor of Science degrees with a major in kinesiology are as follows:

See page 161 in the Education section for specific course requirements in Academic Foundations and Core Curriculum, Bachelor of Science and Bachelor of Arts requirements, and teacher certification requirements.

Major (30 semester hours)

KNES 1053, 1203, 1983, 1993, 2503, 3363, 3423, 3433, 4523, 4663

Additional General Requirements (9 semester hours)

EDUC 1023, CMPS 1023 or demonstrate computer proficiency through department exam.

COUN 3143 Human Diversity

KNES 4513 Physical Activity for Exceptional Individuals

Minor - minimum of 18 hours in any discipline (see minor for specific requirements)

KINESIOLOGY MINOR

Emphasis I: Kinesiology (21 semester hours)

KNES 1203, 1983, 2503, 3363, 3423, 3433, 4663

Emphasis II: Coaching (21 semester hours)

ATRN 1073, KNES 1203, 1983, 2503, 3303, 3502, 4033, 4671

Emphasis III: Recreation & Fitness (21 semester hours)

KNES 1203, 2503, 3103, 3203, 3353, 4033, 4523

Emphasis IV: Strength & Conditioning (20 semester hours)

KNES 1203, 1983, 2002, 2503, 3813, 4033, 4703

KINESIOLOGY - ACTIVITY COURSES (KNES)

1002 **Archery**

1011 **Fundamentals of Physical Activity and Health** (TCCNS = PHED 1164)

- 1022 **Bowling**
- 1032 **Varsity Sports**
- 1052 **Golf**
- 1062 **Conditioning Activities**
- 1082 ***Adapted Physical Education** (by permission only)
- 1092 **Dance Activities**
- 1102 **Sailing**
- 1112 **Jogging & Physical Fitness Appraisal**
- 1122 **Angling & Casting**
- 1132 **Tumbling**
- 1142 **Badminton**
- 1152 **Soccer**
- 1162 **Weight Training**
- 1172 **Softball**
- 1182 **Volleyball**
- 1192 **Flag Football**
- 1202 **Basketball**
- 1212 **Pilates**
- 1272 **Backpacking**
- 1292 **Walking and Aerobic Fitness**
- 1312 **Spinning**
- 1322 **Canoeing**
- 1342 **Beach Volleyball**
- 1402 **Racquetball**
- 1412 **Beginning Cycling**
- 1422 **Advanced Cycling**
- 1432 **Recreational Cycling**
- 1502 **"Majors only" activity course for students majoring or minoring in the department of Kinesiology.**
- 1822 **Tennis**
- 1832 **Kickboxing Aerobics**
- 1842 **Taekwondo: South Korean Martial Arts** (Each student must purchase a uniform through the Kinesiology department.)
- 1852 **Fencing**

COURSES IN KINESIOLOGY (KNES)

- 1053. **Foundations of Kinesiology** (TCCNS = PHED 1301) 3(3-0)
Philosophical, psychological, and sociological basis for sport and exercise including historical origins and the role of sport in modern society.
- 1203. **Health and Wellness** (TCCNS = PHED 1304) 3(3-0)
This course is designed to provide students with a broad in-depth study of the dynamic process involved in achieving and maintaining a healthy and productive lifestyle. Learning experiences emphasizing general knowledge and practical application of concepts relative to physical, emotional, intellectual, spiritual, social and environmental health will provide the foundation for the dynamic process presented in this course. (Same as ATRN 1203.)
- 1983. **Anatomical Assessment of Human Movement** 3(2-2)
An introductory examination of the anatomical basis of human movement with consideration given to the biomechanical constraints that influence normal, athletic, and pathological movement. Primary systems of study are the skeletal, muscular, cardiovascular, and respiratory systems.

- 1993. Fundamentals of Human Movement** 3(3-0)
Introduction to the analysis and development of fundamental movement and sport skills. Emphasis on biomechanical, developmental and motor learning principles which relate to performing skills correctly, along with developmentally and instructionally appropriate teaching progressions.
- 2002. Exercise Leadership I** 2(1-2)
Prerequisites: Sophomore standing, Kinesiology department majors only. Required for Exercise Physiology majors.
A comprehensive theory and practice course to prepare students to function as a sports/exercise science practitioner with individuals and small groups in commercial, education, and clinical environments. Includes a combination of science-based theoretical lectures addressing the exercise programming of individuals, practical exercise leadership experience with individuals and small groups, and regular student participation in a variety of physical activity modalities according to ACMS/NSCA/ASEP/USOC recommendations. Satisfies one kinesiology activity course requirement.
- 2213. First Aid and Safety** (TCCNS = PHED 1306) 3(3-0)
Safety in the home, school, on the playground, and in traffic. Study of the physiology of injury and practice in first aid, bandaging, and care of common injuries. Students must pass a national CPR certification exam.
- 2333. Nutrition** 3(3-0)
Prerequisites: One year of biology.
A directed study of the effects of diet on health and physical activity. Topics addressed include nutrient metabolism, weight control, health-related fitness, supplementation, pharmacology, and drug interactions. Same as BIOL 2333.
- 2503 Physiology of Sport and Fitness** 3(2-2)
A study of human physiology relevant to coaches and fitness professionals. A secondary focus of the course is practical experience in field-based physiological measures of fitness and performance.
- 3103. Exercise Leadership II** 3(3-0)
Prerequisites: Junior or senior standing, Kinesiology department majors and minors only.
A comprehensive theory and practice course to prepare students to function as a group exercise instructor in commercial, educational and clinical environments. Includes a combination of science-based theoretical lectures, practical instructional experience in leading others safely through group exercise, and regular physical activity in accordance with ACSM recommendations. Satisfies one kinesiology activity course requirement.
- 3203. Programming for Fitness and Recreational Activities** 3(3-0)
Study of topics related to fitness and recreational activities, including history, existing programs, and the future of recreation and fitness programs. Provides students the opportunity to explore issues related to fitness and recreational activities with general and empiric discussions as well as practical applications.
- 3323. Coaching Theory and Practice** 3(3-0)
A study of philosophical, ethical, pedagogical, and scientific aspects of coaching youth, interscholastic, and intercollegiate sports.
- 3331. Sport and Exercise Pharmacology** 1(1-0)
Prerequisite: Junior standing in Exercise Physiology or Athletic Training.
A survey of important pharmacological concepts and agents relevant to health, sport, and fitness professionals.

3333. **Outdoor Education** (formerly 4333) 3(3-0)
Prerequisite: Permission of instructor.
Instruction and practice in sports not generally offered in traditional school programs such as sailing, canoeing, backpacking, camping, angling, and shooting.
3353. **Officiating** (formerly 2353) 3(3-0)
Rules of selected sports, their interpretation, and the mechanics of sports officiating. The course is designed to develop the skills and knowledge required for admission to the Southwest Officials Association in football, basketball, and other sports.
3363. **Motor Development** (formerly 2363) 3(3-0)
Prerequisite: Permission of instructor.
Motor and physical development from birth to adulthood, with an emphasis upon childhood. The course includes a study of the neurological, physiological, intellectual, social, and emotional factors that influence gross and fine movement abilities.
3423. **Team Sport Methods and Techniques** 3(3-0)
Prerequisite: Permission of instructor.
Methods of teaching team sport activities for K-12 programming. Emphasis on development and analysis of skills, progressions, error analysis and correction, lesson planning and teaching techniques, unit planning and assessment. For Kinesiology Teacher Certification majors. Satisfies one kinesiology activity course requirement.
3433. **Individual and Dual Sport Methods and Techniques** 3(3-0)
Methods of teaching individual and dual sport activities for K-12 programming. Emphasis on development and analysis of skills, progressions, error analysis and correction, lesson planning, teaching techniques, unit planning and assessment. For Kinesiology Teacher Certification majors. Satisfies one kinesiology activity course requirement.
3502. **Sport-Specific Coaching** 2(1-2)
Practical experiences in coaching various sports. May be repeated for credit.
3913. **Therapeutic Exercise** (formerly 4813) 3(3-0)
Prerequisites: KNES 4643 and permission of the instructor.
Theory and practice of methods of rehabilitating injured athletes and patients in order to return them to participation in exercise and sports in a safe and healthy manner. (Same as ATRN 3913.)
4033. **Sport and Exercise Psychology** 3(3-0)
Prerequisite: Junior or senior standing in Kinesiology.
An introduction into the scientific study of people and their behaviors in sport and exercise activities. Learning experiences emphasizing the practical application of concepts and techniques will be provided relative to understanding the effects of psychological factors on physical performance and the effects of participation in physical activity on psychological development, health and well-being. Focus populations include elite athletes, children and youth, individuals with physical and mental challenges, seniors, and average participants.
4513. **Physical Activity for Exceptional Individuals** 3(3-0)
A comprehensive study in planning and providing sport and exercise opportunities for individuals with physical, mental, and emotional disabilities. Sports and dance events, such as wheelchair sports and Special Olympics, will be included as well as a study of the kinesthetic and physiological differences of movement for handicapped individuals.
4523. **Organizational Management in Kinesiology** 3(3-0)
Prerequisite: KNES 3203.
Administrative concepts and practices associated with the management of fitness,

recreation, and sport programs. Broad areas of emphasis include human resource management, planning and programming, budgeting, promotions and fundraising, equipment management, marketing and public relations, management of facilities and events, as well as legal issues and risk management.

4663. Fundamentals of Elementary Physical Education 3(2-2)

Prerequisites: Permission of instructor (for Kinesiology majors only).

Study of the theoretical and practical knowledge and skills necessary to competently plan and implement developmentally appropriate physical education activities for elementary school students. The student will learn necessary planning and teaching methodologies, as well as skill progressions for fundamental motor skills. Lab required. Course required prior to all-level or elementary student teaching in kinesiology.

4671. Internship in Kinesiology 1 semester hour

Prerequisites: Major in kinesiology and permission of instructor.

Students must complete 48 hours of observation or work in an approved setting which offers professional experience in kinesiology.

4673. Internship in Kinesiology 3 semester hours

Prerequisites: Completion of 15 hours of major and permission of instructor.

Students must complete 144 hours work in an approved setting which offers professional experience in kinesiology. May be repeated for credit.

4676. Internship in Kinesiology 6 semester hours

Prerequisites: Completion of 15 hours of major and permission of instructor.

Students must complete 288 hours in an approved setting which offers professional experience in kinesiology.

4703. Exercise Physiology and Clinical Assessment 3(2-2)

Prerequisite: Junior standing in Exercise Physiology or Athletic Training.

An in-depth study of physiologic principles of exercise and exercise testing in clinical and research settings. Topics include: metabolism, diagnostic exercise assessment, cardiovascular physiology, ECG interpretation, American College of Sports Medicine guidelines for exercise testing and exercise prescriptions.

4991, 4992, 4993. Topics in Kinesiology 1-3 semester hours

Prerequisites: Junior or senior standing in kinesiology and permission of instructor.

Specialized studies in the scientific and applied areas of the exercise sciences.

SPORT AND FITNESS MANAGEMENT MAJOR

The requirements for the Bachelor of Science degree with a major in Sport and Fitness Management are as follows:

Academic Foundations and Core Curriculum - 54-55 semester hours (See page 103)

Bachelor of Science (See page 105)

Major (42 semester hours)

KNES 1053, 1203, 1983, 1993, 2503, 3103, 3203, 3353, 4033, 4513, 4523, 4673, ATRN 1073, and a three semester hour kinesiology elective (KNES 3323, 3333, 3423, 3433, 3913, or 4703).

Minor - minimum of 18 semester hours in a supporting discipline (see minor for specific requirements).

RADIOLOGIC SCIENCES

Nadia Bugg, Chair (J. S. Bridwell Hall 201F)

Professor: Bugg

Associate Professors: Morrison, Phifer, Vealé, Wright

Assistant Professors: Comello, Johnston, Killion, Watts

Professor Emeritus: Zembrod

Midwestern State University offers four separate programs in the Radiologic Sciences: An entry-level Associate of Applied Science in Radiography; a post-certification Bachelor of Science in Radiologic Sciences; a Radiologist Assistant Certificate program; and, one of the only discipline specific Master of Science in Radiologic Sciences in the United States with majors in Radiologic Education and Radiologic Administration.

ASSOCIATE OF APPLIED SCIENCE IN RADIOGRAPHY

(72 semester hours)

The Radiologic Sciences entry-level AAS Program is designed to prepare students in 2 years for careers as radiographers. At the successful completion of all program requirements, students may be eligible to take the national certification examination administered by the American Registry of Radiologic Technologists (ARRT). Additionally, graduates may be eligible for certification by the state of Texas as a Medical Radiologic Technologist.

The AAS Program in Radiography is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).

ADMISSION CRITERIA FOR THE AAS PROGRAM

1. Be eligible for admission to Midwestern State University.
2. Submit a program application to the Radiologic Sciences Department office.
3. Have a cumulative GPA of 2.0 or greater on all college-level work and be in good academic standing.
4. Complete BIOL1134 and BIOL1234 with grades of C or better.
5. Complete all remediation requirements.

ADMISSION PROCEDURES FOR THE AAS PROGRAM

The professional phase of the AAS program begins in the fall semester. Applications will be accepted any time after January 1 for entrance into the program the following fall semester. Due to the limited availability of clinical sites, qualified applicants will be accepted only until the class is full.

For additional information on application procedures and admission requirements, visit the department website at: <http://hs2.mwsu.edu/radsci>

PROGRESSION POLICY FOR THE AAS PROGRAM

1. All professional (RADS) courses must be taken in the sequence prescribed.
2. A student must earn a C (2.0) or above in all professional courses.
3. Failure to attain a minimum grade of C in any professional course will prevent the student from progressing in the program until the course(s) can be repeated.
4. Prior to enrollment in RADS 2114 Clinical Education I, the student must provide documentation of:

- a. Program approved student liability insurance
- b. Compliance with state mandated immunizations
- c. Completion of physical examination
- d. Health insurance
- e. CPR certification

CURRICULUM REQUIREMENTS FOR AAS PROGRAM

General Academic Courses (26 semester hours): BIOL 1134, 1234, ENGL 1113, 1123, College level math, Fine Arts/Humanities elective, PSYC 1103 or SOCL 1133, and CMPS 1023 or 2153 or EDUC 1023.

Major (46 semester hours): RADS 1012, 1223, 1312, 1413, 1423, 1513, 2112, 2114, 2123, 2215, 2224, 2232, 2315, 2332, 2711, and 2912.

BACHELOR OF SCIENCE IN RADIOLOGIC SCIENCES (130 semester hours)

The Bachelor of Science in Radiologic Sciences degree is a post-certification program designed to meet the unique needs of registered radiologic technologists currently working in the field. The program offers a variety of tracks designed to prepare students for advanced level examinations in specific modalities.

All BSRS courses are offered online as downloadable files or full Internet courses.

ADMISSION CRITERIA FOR THE BSRS PROGRAM

1. Meet all MSU admission requirements.
2. Have a cumulative GPA of 2.0 or higher.
3. Be certified by the ARRT, NMTCB, or be a second year student in an accredited Radiologic Sciences Program.
4. Document compliance with state mandated immunizations.
5. Have reliable Internet access and a working email address.
6. Meet Texas Success Initiative (TSI) requirements (see page 82), or submit a signed copy of the TSI Temporary Waiver Form for Distance Education Students found at <http://registrar.mwsu.edu/successdist.asp>.

ADMISSION PROCEDURES FOR THE BSRS PROGRAM

1. Submit all required admission materials to MSU Admissions.
2. Contact the Radiologic Sciences office for the name of your advisor.
3. Submit a working email address to your Radiologic Sciences advisor.
4. Request your PIN number from your advisor.
5. Complete the online BSRS Program Orientation.

ADVANCED PLACEMENT PROCEDURES

Technologists registered by the ARRT may receive 46 semester hours of credit for RADS 1012, 1223, 1312, 1413, 1423, 1513, 2112, 2114, 2123, 2215, 2224, 2232, 2315, 2332, 2711, and 2912 upon satisfactory completion of an advanced placement examination or graduation from an accredited Radiologic Sciences Program in Texas that has an articulation agreement with MSU.

Additional advanced standing credit is awarded to technologists certified in advanced registries. This credit is awarded as follows:

- ARRT (T) – RADS 3313
- ARRT (N) or NMTCB – RADS 3803

ARRT (M) – RADS 4753
 ARRT (QM) – RADS 4623
 ARRT (CV) – RADS 3413
 ARRT (CT) – RADS 4783
 ARRT (MR) – RADS 4743
 ARRT (S) or ARDMS – RADS 4713

For additional information on application procedures, admission requirements or advanced placement procedures, visit the department website at: <http://hs2.mwsu.edu/radsci>

CURRICULUM REQUIREMENTS FOR THE BSRS PROGRAM

Academic Foundations and Core Curriculum for the BSRS degree (27 semester hours)

POLS 1333, 1433
 ENGL 1113, 1123
 HIST 1133, 1233
 SPCH 1133 or 1233
 College Level Math
 CMPS 1023 or 2153 or EDUC 1023

Additional Basic Core for BSRS (6 semester hours)

Statistics
 Elective – 3 hours

Additional 18 hours

Select from at least four of the following areas: social sciences, natural sciences, fine arts, speech communication, humanities, economics, and kinesiology. Three hours must be from the fine arts or humanities areas.

Major (79 semester hours)

RADS 1012, 1223, 1312, 1413, 1423, 1513, 2112, 2114, 2123, 2215, 2224, 2232, 2315, 2332, 2711, 2912, 3203, 3213, 3503, 3773, 4633, 4643, 4913, plus at least 12 semester hours from the following: 3023, 3313, 3413, 3803, 4433, 4513, 4523, 4623, 4713, 4723, 4733, 4743, 4753, 4763, 4773, 4783, 4813, 4823, 4833, 4903, and 4923.

Core Courses - Students take ALL of these BSRS Core Courses:

RADS 3203, 3213, 3503, 3773, 4633, 4643, 4913

PLUS courses in ONE of these tracts:

Radiologic Sciences Administration

RADS 4433, 4513, 4523, 4623

Quality Management

RADS 4433, 4513, 4623, 4763

Radiologic Sciences Education

RADS 4513, 4813, 4823, 4833

Mammography

RADS 4433, 4753, 4763, and one RADS elective course

Computed Tomography

RADS 4433, 4723, 4733, 4783

Magnetic Resonance Imaging

RADS 4433, 4733, 4743, 4773

Or students may take the seven (7) Core Courses plus any combination of four (4) RADS Courses.

A student must earn a grade of C (2.0) or above in all RADS professional courses required for graduation.

Radiologist Assistant Certificate Program

The radiologist assistant certificate program has selective admission and is designed to provide an advanced clinical role for experienced radiologic technologists. A valuable feature of this curriculum model is its accommodation of students who already have baccalaureate degrees in radiologic sciences and those who will earn baccalaureate degrees while completing the requirements for the RA certificate program.

Admission Criteria for the RA Certificate Program

1. Meet all MSU admission requirements.
2. Have a cumulative GPA of 2.5 or higher.
3. Be certified and in good standing with ARRT.
4. Have completed all general education courses for the MSU BSRS degree.
5. Document a minimum of two (2) years clinical experience within the past ten (10) years.
6. Be a current ACLS provider.
7. Document compliance with Texas state mandated immunizations.
8. Document formal written agreement with Radiologist Preceptor.
9. Have reliable Internet access and a working email address.
10. Have completed RA Certificate Program Application.

Admission Procedures for the RA Certificate Program

Students must apply for admission to Midwestern State University and to the RA Certificate Program.

1. Submit all required university admission material to MSU Admissions.
2. Submit official copies of all transcripts to MSU Admissions.
3. Submit all required program admission materials to the Radiologic Sciences Department.
4. Submit student copies of all transcripts to the Radiologic Science Department.

Progression Policy for the RA Certificate Program

Satisfactory progression is defined as a 2.5 or better cumulative grade point average (CGPA) and no grade less than a "C" in any course included in the student's degree plan.

Curriculum Requirements for the RA Certificate Program

The RA curriculum consists of nineteen courses (72 semester credit hours). In addition to the preadmission general education courses required for an MSU Bachelor of Science in Radiologic Sciences degree (51 semester credit hours), students without a

previous baccalaureate degree take all of the courses listed below. Students with a Bachelor of Science in Radiologic Science degree prior to admission may have prior credits for some of the courses listed below:

Fall	Spring	Summer	Fall	Spring
RADS 3213	RADS 4633		RADS 3503	RADS 4913
RADS 3233	RADS 3203	RADS 3773	RADS 4643	RADS 4733
RADS 3253	RADS 3553	RADS 4053	RADS 4253	RADS 4553
RADS 3276	RADS 3576	RADS 4076	RADS 4276	RADS 4576

COURSES IN RADIOLOGIC SCIENCES (RADS)

1012. Introduction to Radiography 2(2-0)

Prerequisite: Admission to the program.

This course includes the historical development of radiography, basic radiation protection, an introduction to medical terminology, ethical and legal issues for health care professionals, and an orientation to the program and the health care system. Learning Outcomes: The student will define basic medical terms; exhibit ethical and legal standards; demonstrate basic radiation protection practices; and relate the role of radiography to health care. (WECM = RADR 1201)

1223. Patient Care 3(2-2)

Prerequisite: RADS 2224.

A course in patient assessment, infection control procedures, emergency and safety procedures, communication and patient interaction skills, and basic pharmacology. Learning Outcomes: The student will correctly assess patient conditions; demonstrate accepted infection control and general safety practices; respond appropriately to emergency situations; practice effective communication skills; and identify pertinent pharmaceuticals and their applications. (WECM = RADR 1303)

1312. Principles of Radiographic Imaging I 2(1-2)

Prerequisite: Admission to the program.

This course will analyze radiographic image qualities and the effects of exposure variables upon these qualities. Learning Outcomes: The student will define, recognize, and evaluate qualities of the radiographic image, and analyze the effects of exposure variables upon each image quality. (WECM = RADR 1213)

1413. Basic Radiographic Procedures 3(2-4)

Prerequisites: BIOL 1134 and 1234.

This course includes an introduction to radiographic positioning terminology, the proper manipulation of equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of basic anatomy and related pathology. Learning Outcomes: The student will define radiographic positioning terms; manipulate equipment properly; position and align anatomical structure and equipment; and evaluate images for proper demonstration of anatomy and pathology. (WECM = RADR 1311)

1423. Intermediate Radiographic Procedures 3(2-4)

Prerequisite: RADS 1413.

A continuation of the study of the proper manipulation of radiographic equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of intermediate anatomy and related pathology. Learning Outcomes: The student will manipulate equipment properly; position and align anatomical structure and equipment; and evaluate images for proper demonstration of anatomy and pathology. (WECM = RADR 2301)

1513. Radiographic Imaging Equipment 3(2-2)

Prerequisite: Admission to the program.

A study of the equipment and physics of x-ray production, basic x-ray circuits, and the relationship of equipment components to the imaging process. Learning Outcomes: The student will describe the equipment and physics of x-ray production; describe basic x-ray circuits; and relate equipment components to the imaging process. (WECM = RADR 2309)

2112. Radiation Biology and Protection 2(2-0)

Prerequisite: RADS 2232.

A study of the effects of radiation exposure on biological systems, typical medical exposure levels, methods for measuring and monitoring radiation, and methods for protecting personnel and patients from excessive exposure. Learning Outcomes: The student will describe the biophysical mechanisms of radiation damage and the somatic and genetic effects of radiation exposure on humans; state typical dose ranges for routine radiographic procedures; explain basic methods and instruments for radiation monitoring, detection and measurement; and apply appropriate radiation protection practices. (WECM = RADR 2213)

2114. Clinical I 4 semester hours

Prerequisites: RADS 1423 and 2224.

A method of instruction providing detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Learning Outcomes: As outlined in the learning plan, the student will apply the theory, concepts, and skills involving specialized materials, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the particular occupation and business/industry; demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry. (WECM = RADR 1460)

2123. Principles of Radiographic Imaging II 3(2-2)

Prerequisite: RADS 1312.

A continuation of the study of radiographic imaging technique formulation, image quality assurance, and the synthesis of all variables in image production. Learning Outcomes: The student will formulate techniques to optimize image quality, minimize patient exposure, and preserve equipment; apply methods of image quality assurance, and adapt technical variables to changing conditions. (WECM = RADR 2305)

2215. Clinical II 5 semester hours

Prerequisite: RADS 2114.

A method of instruction providing detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Learning Outcomes: As outlined in the learning plan, the student will apply the theory, concepts, and skills involving specialized materials, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the particular occupation and the business/industry; demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry. (WECM = RADR 2560)

2224. Advanced Radiographic Procedures 4(3-2)

Prerequisite: RADS 1413.

An advanced course including the proper manipulation of equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of advanced anatomy and related pathology. Learning Outcomes: The student will master the manipulation of equipment; and evaluate images for proper demonstration of anatomy and pathology. (WECM = RADR 2431)

2232. Advanced Medical Imaging 2(2-0)

Prerequisite: RADS 2123.

An introduction to the use of computers in medical imaging and a survey of specialized imaging modalities. Learning Outcomes: The student will formulate techniques to optimize image quality, minimize patient exposure, and preserve equipment; apply methods of image quality assurance; and adapt technical variables to changing conditions. (WECM = RADR 2233)

2315. Clinical III 5 semester hours

Prerequisite: RADS 2215.

A method of instruction providing detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Learning Outcomes: As outlined in the learning plan, the student will apply the theory, concepts, and skills involving specialized materials, equipment, procedures, regulation, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the particular occupation and the business/industry; demonstrate legal ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry. (WECM = RADR 2561)

2332. Radiologic Technology Seminar 2(2-0)

Prerequisites: RADS 2711 and 2912.

This is a capstone course focusing on the synthesis of professional knowledge, skills, and attitudes in preparation for professional employment and lifelong learning. Learning Outcomes: The student will synthesize professional knowledge, skills, and attitudes; demonstrate entry level competencies for professional employment; and demonstrate skills for lifelong learning. (WECM = RADR 2235)

2711. Radiographic Pathology 1(1-0)

Prerequisite: RADS 2224.

An overview of the disease process and common diseases and their appearance on medical images. Learning Outcomes: The student will classify types of diseases; explain the pathogenesis of common diseases; and identify the appearance of common diseases on medical images. (WECM = RADR 2117)

2912. Special Topics 2(2-0)

Prerequisite: RADS 2224.

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Learning Outcomes: The student will discuss the organization and structure of the modern day radiology department; explore the impact of emerging trends on the structure of the imaging department; and participate in problem solving and critical thinking activities. (WECM = RADR 1291)

2923. Special Problems (formerly 2423) 3(3-0)

Prerequisite: Consent of department chair.

This course includes directed studies in selected topics with emphasis on interests and needs of students. May be repeated once for credit.

3023. Advanced Medical Imaging Science 3(3-0)

Prerequisite: College level math.

This course includes a study of advanced physical principles of diagnostic radiology. Topics include x-ray generation, x-ray circuits, rectification, interactions, attenuation, filtration, beam restriction, and basic concepts related to digital imaging.

3203. Pathophysiology 3(3-0)

This course investigates general pathology and organ system pathology. It includes a brief review of normal structure and function, followed by more in-depth descriptions of specific pathologic processes. Students will use textbooks and Internet resources to learn the basic characteristics, etiology, pathogenesis, clinical features, diagnostic tools including medical imaging procedures, prognoses, and therapies for each of the specific pathologies. Virtual case study presentations are incorporated into this course.

3213. Advanced Clinical Practice Skills 3(3-0)

This course focuses on the current healthcare delivery environment including patient assessment, monitoring, infection control, and management. It includes working with multicultural patients, managing problem patients, and patient education. Additional topics include an overview of considerations when working in an increasingly digital imaging environment.

3233. Patient Interactions 3(3-0)

Prerequisite: Admission to the Radiologist Assistant Program and co-requisite with 3213.

This course helps the radiologist assistant develop more advanced and independent patient care skills. It includes direct patient care such as management of tubes and lines, advanced pharmacology interactions, and overall image observation skills. It also includes identifying appropriate imaging modalities for various clinical pathways, information management including clinical reporting, and auditing systems.

3253. RA Procedures I 3(3-0)

Prerequisite: Admissions to the Radiologist Assistant Program.

This course prepares the radiologist assistant for clinical procedures involving the chest and noncontrast studies of the abdomen.

3276. Clinical Preceptorship I 6(6-0)

Prerequisite: Admission to the Radiologist Assistant Program.

This clinical course will focus on chest and noncontrast abdomen imaging procedures. In addition to scheduled in-class activities, the student will observe and participate in radiographic procedures and imaging under the direct supervision of his/her preceptor radiologist at least twenty-four (24) clinical hours per week.

3313. Radiation Therapy 3(3-0)

This course provides an overview of the clinical practice of radiation therapy. Discussions of radiobiology, treatment modalities, basic radiotherapy physics, and malignant disease processes are provided.

3413. Cardiovascular and Interventional Procedures 3(3-0)

This course includes a survey of cardiovascular and interventional radiologic procedures with an emphasis on the anatomy demonstrated, equipment used as well as the role and responsibilities of the radiographer. Included is a general discussion of the applications of a variety of imaging modalities.

- 3503. Research** 3(3-0)
This course is an introduction to methods and techniques of research in the radiologic sciences. Topics include basic terminology of research, qualitative and quantitative methods, basic research designs, and data analysis techniques.
- 3553. RA Procedures II** 3(3-0)
Prerequisites: RADS 3253, 3233, and 3276.
This course prepares the radiologist assistant for clinical procedures involving the osseous system including the extremities, spine, skull, and facial bones.
- 3576. Clinical Preceptorship II** 6(6-0)
Prerequisites: RADS 3276, 3233, and 3253.
The clinical course will focus on the osseous system imaging procedure including extremities, spine, skull, and facial bones. In addition to scheduled in-class activities, the students will observe and participate in radiographic procedures and imaging under the direct supervision of his/her preceptor radiologist at least twenty-four (24) clinical hours per week.
- 3773. Radiobiology** 3(3-0)
Theories and principles of the interactions of ionizing radiation with living systems are the focus of this course. Radiation effects on biologic organisms and factors affecting biological responses are explored and applied to daily practice. Topics include acute and long term effects of ionizing radiation exposure. The student will explore applications in diagnostic and therapeutic settings.
- 3803. Introduction to Nuclear Medicine Physics** 3(3-0)
This course provides overview of nuclear medicine, with an emphasis on diagnostic radionuclide techniques within the context of medical imaging. The course will focus mainly on nuclear medicine procedures and how those procedures relate to the total context of diagnostic imaging.
- 4053. RA Procedures III** 3(3-0)
Prerequisites: RADS 3553 and 3576.
This course prepares the radiologist assistant for clinical procedures involving patient preparation, fluoroscopy, and filming for gastrointestinal and genitourinary systems.
- 4076. Clinical Preceptorship III** 6(6-0)
Prerequisites: RADS 3553 and 3576.
This clinical course will focus on imaging procedures of the gastrointestinal system and the genitourinary system including patient preparation, fluoroscopy, and filming. In addition to scheduled in-class activities, the student will observe and participate in radiographic procedures and imaging under direct supervision of his/her preceptor radiologist at least twenty-four (24) clinical hours per week.
- 4123. Statistics for the Health Sciences** 3(3-0)
The focus of this course is to provide a statistics course specifically for health science majors using techniques and data structures relevant to clinical investigations. General topics include choosing correct procedures and using statistics to understand clinical data. Specific topics include but are not limited to study design, central tendency and variability, probability, repeated measures analysis of variance, data association and prediction, and evaluating diagnostic procedures.
- 4253. RA Procedures IV** 3(3-0)
Prerequisites: RADS 4053 and 4076.
This course prepares the radiologist assistant for clinical procedures involving patient preparation, fluoroscopy, and filming for selective invasive procedures.

4276. Clinical Preceptorship IV 6(6-0)

Prerequisites: RADS 4053 and 4076.

This clinical course will focus on imaging procedures involving selective invasive procedures including patient preparation, fluoroscopy and filming. In addition to scheduled in-class activities, the student will observe and participate in radiographic procedures and imaging under the direct supervision of his/her preceptor radiologist at least twenty-four (24) clinical hours per week.

4433. Practicum 3 semester hours

Prerequisite: Consent of program advisor.

This course includes intensive clinical assignments for students within a special interest area related to radiologic sciences.

4513. Administration and Supervision of Diagnostic Imaging 3(3-0)

A study of general principles of supervision and administration of radiology departments that includes such topics as management techniques, in-service training, human relations, as well as identification of administrative and supervisory problems and solutions.

4523. PACS in Radiology 3(3-0)

This course investigates the use of picture archival and communications systems and its impact on healthcare. Topics include comparison of computer-based records to traditional film records, PACS impact on teleradiology, as well as the acquisition of a system, medical-legal, productivity, image compression, and image storage and retrieval issues.

4553. RA Procedures V 3(3-0)

Prerequisites: RADS 4253 and 4276.

This course prepares the radiologist assistant for clinical procedures involving select imaging modalities.

4576. Clinical Preceptorship V 6(6-0)

Prerequisites: RADS 4253 and 4276.

This clinical course will focus on imaging procedures involving selected modalities. In addition to scheduled in-class activities, the student will observe and participate in radiographic procedures and imaging under the direct supervision of his/her preceptor radiologist at least twenty-four (24) clinical hours per week.

4623. Radiographic Quality Control 3(3-0)

This course presents basic theories and principles related to the safe utilization of diagnostic radiographic equipment in a clinical setting. Theories and principles responsible for the production of quality radiographs with minimal patient exposure and production costs is a focus of the course. The student applies the theories and principles of safe radiation exposure by utilizing various strategies including projects and introductory laboratory experiments.

4633. Continuous Quality Improvement in Diagnostic Imaging 3(3-0)

This course is a study of the principles and methodologies of quality improvement. Comparison with traditional quality assurance are included as well as implementation standards to satisfy JCAHO. Students perform mind-set, departmental, and system evaluation, and use problem-solving techniques and tools to generate solutions to quality issues.

4643. Health Law in Medical Imaging 3(3-0)

This course is an introductory study of laws affecting medical imaging. Topics include administrative law, professional malpractice, patient rights, risk management, labor law, contract law, and ethical considerations.

4713. Medical Ultrasound 3(3-0)

A study of the physical and technical principles of medical ultrasound, that includes properties of ultrasound, transducers, modes of application, cross sectional anatomy, and techniques of medical diagnostic ultrasound applications.

4723. Principles of Computed Tomography 3(3-0)

This course explores the basic physical and technical principles of CT scanning. Computer technology, system components, image characteristics and quality control methods are introduced. Access to a CT scanner or instructor consent required.

4733. Sectional Anatomy 3(3-0)

This course is a study of human anatomy as viewed in sectional planes. Students will compare planar anatomy to sectional anatomy and recognize anatomical structures as seen in computed tomography and magnetic resonance imaging. Studies will include the cranium, brain, chest, abdomen, spine and pelvis.

4743. Magnetic Resonance Imaging 3(3-0)

This course explores the basic physical and technical principles of MRI scanning. Related clinical applications, system components, image characteristics, quality control methods, limitations, and future developments are introduced.

4753. Mammography 3(3-0)

The purpose of this course is to provide the technologist with guidelines for performing quality mammography examinations. Content includes the historical background of breast cancer and technical evolution of mammography, essentials of the "Imaging Chain", patient education, and introduction to quality assurance, troubleshooting, instrumentation and positioning.

4763. Mammographic Quality Practice 3(3-0)

This course introduces the student to the regulations established under the Mammography Quality Standards Acts of 1992 (MQSA), fully implemented in 1999. The focus of the course is based on MQSA principles and quality control procedures.

4773. Magnetic Resonance Imaging Applications 3(3-0)

This course provides a functional understanding of the basic MRI parameters and how they are used to image specific parts of the body in the axial, coronal, and sagittal planes. The focus of the course will be on MR sequences and presentation of anatomy and pathology.

4783. Computed Tomography Applications 3(3-0)

Prerequisites: RADS 4723 and 4733.

This course focuses on the use of computed tomography as an imaging tool from the technologist's perspective. Topics include a review of patient, contrast media and adverse reactions, and imaging protocols for the head, neck, chest, abdomen, pelvis, and spine. CT-guided interventional techniques will also be discussed. Access to a CT scanner or instructor consent required.

4813. Teaching Strategies in Radiologic Sciences 3(3-0)

This course enhances skills in teaching radiologic sciences by providing instruction in curriculum development, methods of instruction, and psychology of learning. Students learn how to develop performance objectives, organize a lesson plan, and effectively present a lesson.

4823. Student Teaching 3 semester hours

This course includes teaching activities under the supervision of an experienced educator in an accredited program of radiologic sciences.

4833. Evaluation Methods in Radiologic Sciences 3(3-0)

Prerequisite: RADS 4813.

This course provides instruction in test and measurement, analysis of tests results, and program evaluation based on accreditation standards.

4903. Selected Topics 3(3-0)

This course includes directed projects and intensive study of selected topics in radiologic sciences. May be repeated once for credit.

4913. Applied Research 3(3-0)

Prerequisite: RADS 3503.

This is a capstone course involving directed research culminating in a substantive paper based on the interest and needs of the student.

4923. Internship 3 semester hours

Prerequisites: 12 hours of advanced level radiologic science courses or consent of instructor.

This course enables students to gain experience in promotion of the radiologic sciences profession to staff technologists as well as the general public. Projects may include recruitment, public speaking and presentation techniques.

RESPIRATORY CARE

Annette O. Medford, Chair (J.S. Bridwell Hall 301C)

Martha Treber, Clinical Chair (J.S. Bridwell Hall 301B)

Assistant Professors: Helton, Medford, Treber

The Respiratory Care Department offers a curriculum leading to a Bachelor of Science in Respiratory Care degree. Following completion of the BSRC program, the graduates are eligible to sit for the credentialing examination for the Registered Respiratory Therapist (RRT). Registered Respiratory Therapists (RRT) may be admitted to the program through advanced standing as defined in the policy set up by the department. The BSRC program is accredited by the Committee on Accreditation for Respiratory Care. The program consists of 125 semester hours + 2 physical activities (68 semester hours in respiratory care and 57 non-respiratory care semester hours).

ADMISSION INTO THE RESPIRATORY CARE MAJOR (BSRC)

Admission in this policy refers to a formal evaluation of program prerequisites and other course work so that those students who gain formal admission can advance to the junior and senior level respiratory care courses. This policy should not be confused with freshman and sophomore students who are respiratory care majors. Being a respiratory care major does not imply or guarantee program admission. Three admission categories exist: full, conditional, and denied. Full program admission is granted to applicants who have completed all program prerequisites, required academic foundation courses and are in good academic standing. Conditional program admission is granted to applicants who have not completed but are presently enrolled in course work that will complete the prerequisites and required academic foundation courses. Once a conditionally admitted student successfully completes the required course work the admission status is automatically upgraded to full admission. If a student was conditionally admitted but does not successfully complete the prerequisites, their conditional status is denied. Ranking is determined by GPA on the completed program prerequisites at the time of program application. Due to limited availability of clinical sites, qualified applicants

will be accepted only until the class is full. The following rules apply to admission to the Respiratory Care Program:

1. Be admitted to the university.
2. Apply to the Respiratory Care Program; Applications can be obtained online. Applications will be accepted between January 2 and March 31 for entrance into the program the following summer II semester.
3. All program prerequisites must be completed before taking any respiratory care classes. The program prerequisites are: Anatomy and Physiology I and II, Chemistry, College Algebra, Microbiology, Rhetoric and Composition I and II, computer applications, speech communication, general psychology or sociology. A minimum grade of C is required for all program prerequisites.
4. The required academic foundation courses are humanities (6 hours), economics, American Government (6 hours), U.S. History to 1865, U.S. History Since 1865, fine arts and two kinesiology activity courses (see specific descriptions).
5. Notification of admission is made in writing and requires an acceptance form returned to the Respiratory Care Department. Return of a signed acceptance form signifies that the student agrees to all technical standards outlined in the admission packet.
6. Students will complete all BSRC degree requirements 22 months from beginning respiratory care course work. With the degree requirements completed in May the students are in the best position to be successful when they sit for the registry examination following graduation.

TIME LIMITATIONS

BSRC degree students must complete all respiratory courses within a three (3) year period of time beginning with the initial enrollment into Foundations of Patient Care.

PROGRESSION POLICY FOR BSRC DEGREE

Students must maintain satisfactory standards in classroom and clinical activities to be retained and to progress in the program. Requirements are as follows:

1. A minimum grade of C is required for all the following courses:

BIOL 1134, 1234, 3004	CHEM 1103
PSYC 1103 or SOCL 1133	MATH – 3 semester hours
ENGL 1113, 1123	college-level
SPCH 1133 or 1233	CMPS 1023

Failure to attain a minimum grade of C in each of these courses will prevent the student from being formally admitted to Respiratory Care. All of the above courses must be completed before starting the respiratory care curriculum.
2. A minimum grade of C is required in all respiratory courses. Failure to attain a minimum grade of C in these courses will prevent the student from progressing in the program. A student who fails to achieve a grade of C in any respiratory care course may repeat the course one time.
3. If the student withdraws from respiratory care courses and/or the University, he/she must go through the respiratory care admission process again.
4. A student on university scholastic probation may not enter or progress in the program.
5. Failure to achieve a minimum grade of C when repeating a respiratory care course will result in dismissal from the program and the student may not reapply to this respiratory care program.
6. As part of Clinical Practicum III, all students must pass a mock national certification examination. Students not passing the mock certification examination are

required to pass a certification review course in summer II before the start of the senior year. Passing either the mock certification or the review course is required to enroll in the fall and spring senior respiratory courses.

7. The BSRC Program's Admission Committee reserves the right to make exceptions to the above due to extenuating circumstances.
8. Respiratory care courses must be taken in the sequence prescribed.

ACADEMIC FOUNDATIONS AND CORE CURRICULUM FOR THE BSRC DEGREE:

BIOL 1134, 1234, 3004	HUMANITIES – 6 semester hours
CHEM 1103	SPCH 1133 or 1233
PSYC 1103 or SOCL 1133	ECON 1333
KNES – 2 physical activities	HIST 1133, 1233
MATH – 3 semester hours college-level	POLS 1333, 1433
ENGL 1113, 1123	FINE ARTS – 3 semester hours

GENERAL DEGREE REQUIREMENTS: Demonstrate computer literacy by taking a proficiency test or earning credit for CMPS 1023, 1043, 2153, or EDUC 1023.

MAJOR (68 semester hours)

RESP 3403, 3413, 3423, 3433, 3443, 3512, 3523, 3543, 3552, 3553, 3561, 3563, 3712, 3722, 4102, 4123, 4223, 4403, 4422, 4423, 4432, 4433, 4443, 4453, 4711, 4722, 4732.

Registered Respiratory Therapist-to-BSRC Program

This program refers to transfer of previously obtained training in Respiratory Care into the MSU Respiratory Care program. This policy specifically applies to individuals who possess the RRT credential and wish to pursue the BSRC degree at MSU. To document the RRT credential, the student must submit a notarized copy of their NBRC registry certificate to the Respiratory Care Department Chair. In addition, the student will submit an official transcript to the university that documents the completion of the Registry level program. The department will grant the holder of the RRT credential 43 semester hours toward the 68 required Respiratory Care semester hours. This block transfer of credit will be granted once the student has successfully completed 9 semester hours of MSU Respiratory Care course work.

- A minimum of 30 hours must be advanced level.
- A minimum of 32 hours must be taken from MSU to satisfy the residency requirement.
- Meet the University Writing Proficiency Requirement.

The RRT-BSRC student may choose any combination of the following courses:

RESP 3423	RESP 3433	RESP 3523	RESP 3553
RESP 3562	RESP 4102	RESP 4123	RESP 4223
RESP 4403	RESP 4422	RESP 4432	RESP 4433
RESP 4443	RESP 4453	RESP 4652	RESP 4663

COURSES IN RESPIRATORY CARE (RESP)

3403. Foundations of Patient Care

3(3-0)

The focus of this lecture course is to introduce basic principles of patient care to the respiratory care student. Many of these principles apply to other health care disciplines. Topics include health care systems, patient and health provider safety, medical records,

charting, ethical and legal implications, and components of a patient history and physical examination.

3413. Introduction to Respiratory Care 3(2-2)

Combined lecture and laboratory course focusing on basic procedures and techniques used by respiratory care practitioners. Emphasis is placed on correct set-up and application of the procedure and equipment. Topics include infection control, patient positioning, vital signs, breath sounds, chest assessment, oxygen therapy, aerosol drug delivery, and an introduction to pharmacology.

3423. Physics and Respiratory Care 3(3-0)

The focus of this lecture course is on application of basic principles of physics to the respiratory and cardiovascular systems. Emphasis is placed on the physics of fluids and gases. Topics include force, work, pressure, Bernoulli's theorem, Venturi tubes, flow patterns, viscosity, gas laws, diffusion, surface tension, gas solubility, and the equation of motion applied to the respiratory system.

3433. Cardiopulmonary Anatomy and Physiology 3(3-0)

The focus of this lecture course is on applied physiology of the respiratory and cardiovascular systems. Emphasis is placed on normal structure and function. Topics include mechanics of spontaneous breathing, pulmonary circulation, gas conduction and exchange, gas transport, cardiac output and its control, reninangiotensin-aldosterone system, basic ECG analysis, the cardiac cycle, and acid-base balance.

3443. Basic Respiratory Therapeutics 3(3-0)

Prerequisites: RESP 3403, 3413.

The focus of this lecture course is on the theoretical application of the basic therapeutic techniques used by respiratory care professionals. Topics include airway care, gas therapy, humidity and aerosol therapy, lung expansion therapy, chest physical therapy, and patterns of cardiopulmonary dysfunction.

3512. Therapeutic Procedures and Equipment 2(1-2)

Prerequisites: RESP 3403, 3413.

Combined lecture and laboratory class focusing on secretion removal, hyperinflation and an introduction to ventilatory support. Emphasis is placed on correct set-up and application of equipment and procedures. Topics include humidity and aerosol therapy, cough techniques, incentive spirometry, bedside pulmonary function testing, percussion and postural drainage, IPPB, manual resuscitation, arterial punctures, and venous access.

3523. Respiratory Pharmacology 3(3-0)

Prerequisites: RESP 3423, 3433.

The focus of this lecture course is a comprehensive review of the major medications used to promote bronchodilation and pulmonary hygiene, control airway inflammation, affect skeletal muscle tone and central nervous system activity, and support the failing cardiovascular system.

3543. Adult Critical Care 3(3-0)

Prerequisites: RESP 3423, 3433, 3443, 3512.

The focus of this lecture course is a thorough review of ventilatory support techniques. Emphasis is placed on adult applications; however, some neonatal and pediatric support techniques are covered. Topics include etiology of respiratory failure, physical implications of positive pressure ventilation, methods of providing support, prescribing machine settings and managing the patient-ventilator system, hemodynamic and gas exchange monitoring, weaning techniques, and non-invasive applications.

- 3552. Adult Critical Care Procedures and Equipment** 2(1-2)
Prerequisites: RESP 3423, 3433, 3443, 3512.
Combined lecture and laboratory course focusing on techniques and procedures used to support the adult patient in respiratory failure. Emphasis is placed on correct set-up and application of procedures and equipment. Topics include intubation and airway care, full and partial ventilatory support modes, patient-ventilator system checks, triggering, flow patterns, expired gas monitoring, and diagnostic and monitoring uses of the ECG.
- 3553. Neonatal and Pediatric Respiratory Care** 3(3-0)
Prerequisites: RESP 3423, 3433, 3443, 3512.
The focus of this lecture course is on the theoretical application of respiratory care to the pediatric and newborn patient. Topics include development of the pulmonary and cardiovascular systems, patient assessment, intrinsic lung diseases, congenital heart diseases, SIDS and apnea, applied pharmacotherapy, surfactant replacement therapy, and ventilatory support techniques.
- 3561. Neonatal Procedures and Equipment** 1(0-2)
Prerequisites: RESP 3423, 3433, 3443, 3512.
Laboratory course focusing on techniques and procedures used to support the neonatal patient in respiratory failure. Emphasis is placed on correct set-up and application of the procedure and equipment. Topics include nasal CPAP, continuous flow IMV, neonatal intubation and airway care, ventilatory support, PEEP, inspiratory time and mean airway pressure therapy, vital signs, chest assessment, apgar scoring, and resuscitation of the newborn.
- 3563. Respiratory Pathophysiology** (formerly 4463) 3(3-0)
Prerequisites: RESP 3523, 3543.
The focus of this lecture course is to review the etiology, pathology, pathophysiology, clinical features, and treatments for common pulmonary diseases. Disease topics include asthma, bronchitis, emphysema, cystic fibrosis, shock, pulmonary embolism, heart failure, smoke inhalation and burns, ARDS, chest trauma, atelectasis, neuromuscular disease, and pneumonia.
- 3712. Clinical Practicum I** 2 semester hours
Prerequisites: RESP 3403, 3413.
All clinical courses require the student to integrate theory and laboratory training in the patient care setting. The focus of this clinical course is application of basic therapeutic techniques and procedures. Topics include medical records, charting, patient history and physical examination, infection control, patient positioning, vital signs, breath sounds, chest assessment, oxygen therapy, humidity and aerosol therapy, cough techniques, incentive spirometry, and percussion and postural drainage.
- 3722. Clinical Practicum II** 2 semester hours
Prerequisites: RESP 3443, 3512, 3712.
All clinical courses require the student to integrate theory and laboratory training in the patient care setting. The focus of this clinical course is IPPB, manual resuscitation, arterial punctures and venous access, basic pulmonary function testing, pediatric respiratory care, and an introduction to adult critical care.
- 4102. Clinical Patient Management** 2(2-0)
Prerequisite: RESP 3563.
The focus of this lecture course is to train the student in the benefits and use of therapist-driven protocols. Topics include assessment skills and processing, SOAP charting, need for follow-up or reassessment, commonly used treatment protocols and diseases frequently treated with protocols. A case management format is used to simulate the clinical environment.

4123. Statistics for the Health Science 3(3-0)

Prerequisite: Senior respiratory care student.

The focus of this course is to provide a statistics course specifically for health science majors using techniques and data structures relevant to clinical investigations. General topics include choosing correct procedures and using statistics to understand clinical data. Specific topics include but are not limited to; study design, central tendency and variability, probability, repeated measures analysis of variance, data association and prediction, and evaluating diagnostic procedures.

4223. Education Theory and Practice 3(3-0)

Prerequisite: Senior respiratory care student.

The focus of this lecture course is to train the student in the basic processes of education. Emphasis is placed on classroom as well as a clinical instruction. Topics include learning styles, developing objectives, teaching methods, questioning and problem solving strategies, characteristics and roles of the clinical instructor, and use of appropriate evaluation instruments.

4403. Pulmonary Diagnostics 3(3-0)

Prerequisites: RESP 3423, 3433.

The focus of this lecture course is the study of standard methodologies used to diagnose and monitor patients with pulmonary disease. Emphasis is placed on technical aspects as well as disease presentation. Topics include measurement and analysis of lung volumes, ventilation, pulmonary mechanics, gas distribution, diffusion testing, exercise testing, quality assurance, and blood gas analysis.

4422. Rehabilitation and Health Promotion 2(2-0)

Prerequisite: Senior respiratory care student.

The focus of this lecture course is to educate the respiratory care student in the principles and practices used in pulmonary rehabilitation programs. Topics include organization and management, candidate assessment and selection, patient and family education, smoking intervention techniques, role of home and alternate care sites, and reimbursement for services.

4423. Research and Respiratory Care 3(3-0)

Prerequisite: Senior respiratory care student.

The focus of this lecture course is to instruct the respiratory care student in the role research plays in the practice of respiratory care. Quality improvement is used to emphasize the basic components of research. Topics include problem development, literature review, data analysis techniques and interpretation, institutional review boards, and communicating the results.

4432. Theoretical Applications 2(2-0)

Prerequisite: Senior respiratory care student.

The focus of this lecture class is to provide the student with an assessment of his/her educational strengths and weaknesses with respect to the practice of respiratory care. Topics include an assessment of the following examinations; written registry, clinical simulations, and if time permits, pulmonary function technology. Passing the Certified Respiratory Therapist (CRT) examination and mock written registry and clinical simulation examinations are required in this class.

4433. Cardiopulmonary Dynamics 3(3-0)

Prerequisites: RESP 3543, 3552.

The focus of this lecture course is to provide the student with a thorough understanding of cardiac electrophysiology and clinical hemodynamics. Emphasis is placed on rhythm recognition, and causes and treatments of common dysrhythmias. Other topics include advanced cardiac life support.

4443. Management of Health Care Services 3(3-0)

Prerequisite: Senior respiratory care student.

The focus of this lecture course is to introduce the student to managing health care services. Emphasis is placed on development of skills in leadership, communication, time management, problem solving, motivation, and other critical competencies. Topics include methods to achieve greater productivity, policy improvement, recruitment, selection, and training of new employees, as well as current issues facing the health care system.

4453. Advanced Health Assessment 3(3-0)

Prerequisite: Senior respiratory care student.

The focus of this lecture course is to provide the student with advanced physical assessment skills. The assessment of the major organ systems commonly affected by or associated with pulmonary diseases are explored. Topics include detailed assessment of the chest and lungs, heart and great vessels, skin, head and neck, nose and throat, and emergency and life threatening situations.

4652. Independent Study 2 semester hours

Prerequisite: Consent of chair.

The purpose of this course is to allow the student to pursue specific interest(s) within the field of respiratory care. Under faculty direction the student can participate in research, clinical experience, or other areas of directed study. May be repeated for credit when topics vary.

4653. Independent Study 3 semester hours

Prerequisite: Consent of chair.

The purpose of this course is to allow the student to pursue specific interest(s) within the field of respiratory care. Under faculty direction the student can participate in research, clinical experience, or other areas of directed study. May be repeated for credit when topics vary.

4663. Advanced Practice Problems 3 semester hours

Designed for advanced students to work in appropriate areas not otherwise available. May be repeated for credit when topics vary.

4711. Clinical Practicum III 1 semester hour

Prerequisites: RESP 3553, 3561, 3722.

All clinical courses require the student to integrate theory and laboratory training in the patient care setting. The focus of this clinical course is the application of therapies, techniques and procedures to the newborn patient. Topics include aerosol drug delivery, pulmonary hygiene, nasal CPAP, continuous flow IMV, neonatal intubation and airway care, ventilatory support, PEEP, inspiratory time and mean airway pressure therapy, vital signs, chest assessment, apgar scoring, and resuscitation of the newborn. Passing a mock CRT examination is required in this class.

4722. Clinical Practicum IV 2 semester hours

Prerequisite: RESP 4711.

All clinical courses require the student to integrate theory and laboratory training in the patient care setting. The focus of this clinical course is the application of therapies, techniques and procedures used to support the adult patient in respiratory failure. Topics include aerosol drug delivery, pulmonary hygiene, airway mucosa care, patient-ventilator system checks, prescribing machine settings, and managing the patient-ventilator system.

4732. Clinical Practicum V 2 semester hours

Prerequisite: RESP 4722.

All clinical courses require the student to integrate theory and laboratory training in

the patient care setting. The focus of this clinical course is the application of therapies, techniques and procedures used to support the adult patient in respiratory failure. Topics include hemodynamic and gas exchange monitoring, weaning techniques and non-invasive applications, intubation and airway care, full and partial ventilatory support modes, cardiopulmonary resuscitation, and diagnostic and monitoring uses of the ECG.

4803. Internship in Respiratory Care

3 semester hours

Prerequisites: Clinical I, II, and III, B average in lecture and laboratory major classes and permission of the chair.

To allow respiratory care students to participate in and experience the practice of respiratory care in geographic areas other than Wichita Falls. Field sites are chosen on the basis of the continuum of care supplied, willingness to accept students, and completion of a clinical affiliation agreement. Students are responsible for making initial contact with field site, transportation, room and board, and any other costs of the field site experience.

SOCIAL WORK

Jan Walker, Chair (Martin Hall 104)

Professor: Fashimpar

Assistant Professors: Bisbee, Walker

A Bachelor of Social Work degree (BSW) prepares a student for entry level practice as a generalist practitioner. The Social Work Program at MSU offers (1) a broad liberal arts foundation; (2) grounding in knowledge from the behavioral and social sciences concerning the characteristics and behavior of individuals, families, groups, organizations, and communities; (3) the opportunity to integrate and apply the components of social work education in a rigorous field practicum; and (4) content and experiences relative to values and ethics as applied to special populations and self. The educational focus for generalist practice utilizes an ecological approach to integrate both treatment and growth through conceptualizing transactions between people and their physical and psychosocial systems in the environment. The program supports individual and social change predicated on a humanitarian and social justice philosophy.

The Social Work Program is accredited by the Council on Social Work Education at the baccalaureate level. There is no minor offered with the BSW degree and no social work credit is awarded for life experience. Graduates from the program are prepared for graduate study in social work or other disciplines where the baccalaureate degree would be appropriate preparation. BSW graduates are eligible to take the Texas State Board of Social Work Examiners test for Licensed Social Worker (LBSW). Upon completing a 4000 hour counselor internship, BSW graduates are eligible to take the Licensed Chemical Dependency Counselor (LCDC) exam. The 400 hours of internship which all social work majors must complete can be applied toward the 4000 hour internship if the social work internship was in a chemical dependency treatment setting. Nine hours of specialized chemical dependency courses chosen from among SOWK 4413, 4323, 4333, 4343, or 4363 are the equivalent of the 135 classroom hours required for licensure by Texas Commission on Alcohol and Drug Abuse (TCADA).

Admission to the Social Work Program:

Students must have completed twenty-four (24) semester hours before applying for admission to the Social Work Program. This total includes the following courses:

ENGL 1113 and 1123; PSYC 1103; SOCL 1133; HIST 1133 and 1233; and POLS 1333 and 1433.

Students desiring to major in social work should complete the Social Work Application for Admission form during the semester they take Introduction to Social Work. Other students (transfers, etc.) should complete this form immediately upon admission to the University. The Social Work Admissions Committee reviews the application and notifies the student by letter as to his/her acceptance or non-acceptance to the program. A personal interview with a social work faculty member to discuss educational needs and expectations of the Social Work Program should be scheduled as soon as possible after completion of the form. In addition to general undergraduate requirements, students must maintain at least a 2.0 GPA and demonstrate suitability for professional social work practice with knowledge and adherence to the NASW Code of Ethics.

Academic Foundations and Core Curriculum (56 hours) (see page 103)

Major (44 hours)

SOWK 2423, 2544, 2554, 3313, 3533, 3643, 3833, 3943, 3953, 4213, 4236, and 4246.

For all social work majors, additional program requirements, as listed below, must be completed.

- A. Specific requirements in Academic Foundations Core.
 - SOCL 1133. Can be used to satisfy part of social environment requirement in Academic Foundations Core.
 - ECON 2333. Satisfies the Academic Foundations Core requirement in economics.
 - Two semesters in one foreign language (Spanish preferred) - satisfies the humanities part of Academic Foundations Core.
- B. Additional required support courses. (21 hours)
 - PSYC 1103, 3603 or SOWK 4313, and ENGL 2113, 3203, or 3523
 - Four (4) courses chosen from the following:
 - SOWK 3453, 4113, 4223, 4233, 4323, 4333, 4343, 4363, 4413, 4423,
 - or
 - SOWK 4313 if not taken in place of PSYC 3603 above.
- C. Three (3) hours of additional electives

COURSES IN SOCIAL WORK (SOWK)

*** Only social work students may take courses marked with an asterisk.**

2423. Introduction to Social Work 3(3-0)

This course is an introduction to the social work profession and is designed to assist students in clarifying and selecting social work as a major. It is required for all (but not limited to) social work majors and provides an overview of the profession's history, philosophy, values, ethics, knowledge base, skills, and areas of service. Generalist and social systems perspectives are emphasized as conceptual frameworks for practice. In addition, the course considers the institution of social welfare in contemporary American society, emphasizing human diversity and discusses policy and practice relevant to special populations. A 20-hour volunteer placement in a social service agency is required.

3233. Parenting: Family and Community 3(3-0)

Theories regarding raising mentally healthy children within a family environment. Policies and laws related to child abuse and neglect and foster care and adoptions. For B.A.A.S. majors only in distance education.

3313. Social Work Statistics 3(3-0)

Prerequisite: MATH 1003 or equivalent.

Introduction to descriptive and inferential statistics. Topics include data distributions, descriptive statistics, sampling distributions, interval estimation, one- and two-sample significant difference tests, one-way analysis of variance, correlation, and regression.

3453. Child Welfare Policy and Practice (formerly 2853) 3(3-0)

This course addresses the needs and problems (including abuse and neglect) of children and their families and considers possible solutions to these problems. Policies and practice issues are explored as they pertain to child welfare in diverse populations. The course is intended for students from a variety of disciplines.

***3533. Practice I** 3(3-0)

Prerequisite: SOWK 2423 or concurrent enrollment.

This course examines the theoretical base for generalist social work practice, the structure of the social work process, and the skills of assessment and intervention with emphasis on social work with individuals and families. Content includes women and minorities as well as ethnocultural factors.

***3544. Human Behavior and the Social Environment I** 4 semester hours
(formerly 2544)

Prerequisite: SOWK 2423 or concurrently with advisor's consent.

This course is a study of child development, beginning before conception and ending with early adolescence. Theories are presented on physical development, cognitive and social development, and emotional development. The many influences on child development within the context of family and their environment include the effects of diversity, oppression, discrimination, and social and economic injustice, and spirituality. A 40-hour practicum is required, 10-hours each in four different agencies.

***3554. Human Behavior and the Social Environment II** 4 semester hours
(formerly 2554)

Prerequisite: SOWK 3544.

This course focuses on the life-span from adolescence through death. It builds on the knowledge of the life cycle from conception through adolescence, the basic understanding of terminology and processes regarding the social and psychological nature of humans, and on the understanding of social work values learned in Human Behavior and the Social Environment I. It provides a framework for understanding the individual, group, organizational, institutional, and cultural contexts which influence human behavior. A 40-hour practicum is required, 10-hours each in four different agencies.

***3643. Social Work Research** 3(3-0)

Prerequisites: 6 hours of social work.

This course is designed to familiarize the student with basic terminology of research, basic research design, methods for evaluating practice and social programs through qualitative and quantitative methods. It is also designed for the student to be able to read and analyze research reports, to relate research to issues in professional practice, to gain experience in performing both cognitive and practical tasks in research, and to increase awareness of potential biases in research, particularly in issues involving women and minorities.

- *3833. Practice II** 3(3-0)
Prerequisite: SOWK 3533 or concurrent enrollment.
This course is designed to give students an understanding of group processes and to improve their skills as group members and leaders. The course provides an integration of group theory, research, and applied methods into the generalist practice model.
- *3943. Social Welfare Policy** 3(3-0)
This course introduces substantive issues of social welfare policy in the United States. It presents an historical overview of major policies as responses to social problems, and it explores the role of social work in policy development, implementation, and analysis. Emphasis is placed upon the ways in which policy informs practice at micro, mezzo, and macro systemic levels and upon the importance of policy in work with special populations.
- *3953. Human Diversity** 3(3-0)
This course provides content about differences and similarities in the experiences, needs, and beliefs of people. It provides theoretical content regarding differential assessment and intervention skills which will enable practitioners to serve diverse populations including minorities, multicultural, race, and ethnic groups, as well as socially and economically oppressed groups and populations-at-risk.
- 4113. Aging** 3(3-0)
The goal of this course is to promote a fuller understanding of the aging process as a normal, human, and social fact of life. This course will examine stereotypes and images that modern society often views older people. These stereotypes and images will be contrasted with demographics and basic information concerning aging. We will examine the issues that older people face and society's response to these issues.
- *4201, 4202, 4203. Special Projects** 1-3 semester hours
Prerequisites: 9 hours of social work.
Intensive study for the advanced student within a special area in the field of social work.
- *4213. Practice III** 3(3-0)
Co-requisite: Must have concurrent enrollment in SOWK 4236.
This course is designed to give social work majors the opportunity to learn basic theory and techniques related to social work practice in macrosystems. Specifically, the focus will be on theory and techniques related to administration, planning, evaluation, and community organization.
- 4223. Family Systems** 3(3-0)
This course focuses on the family life cycle and family development. Different theories regarding improvement of family functioning are covered such as structural problem solving and communication. Solution focused Bowens intergenerational systems theory.
- 4233. Parenting** 3(3-0)
Students will learn to assess parenting skills using standardized tests, interviews and observations. The major theories regarding how to rear a mentally healthy and socially skilled child will be taught. These will include behavioral, Adlerian and psychoanalytic. Attention will be given to the skilled social workers needs in order to manage certain family/parenting problems such as anger, family violence, chemical abuse, Attention Deficit Hyperactivity disorder, divorced and blended family parenting.
- *4236. Field Practicum and Seminar I** 6 semester hours
Prerequisites: SOWK 3533 and 3833, senior standing, and consent of instructor.
Integration of theory into generalist practice through placement in community social

service agencies for at least 200 hours. Micro practice experience will be emphasized in this placement. Course includes a weekly seminar. Students must secure liability insurance for all field work practicums.

***4246. Field Practicum and Seminar II** 6 semester hours

Prerequisites: Successful completion of Field Practicum and Seminar I and SOWK 4213.

Continuation of Field Practicum I. 200 hours per semester plus weekly seminar. Macro experiences will be included in Field II placement to enlarge the generalist practice experiences acquired in SOWK 4236.

4313. Community Mental Health 3(3-0)

This course utilizes the social work generalist practice approach to mental health services in communities. There is a strong emphasis on client empowerment and reducing the stigma of mental illness in our society. This is accomplished by examining society's response to mental illness, and examining the impact of this response on people that are affected by mental illness including special populations and families. (May be taken in place of PSYC 3603).

4323. Introduction to Substance Abuse 3(3-0)

This course will present an overall perspective on alcohol and drugs to include use, historical background, and current knowledge. The course will cover licit and illicit drugs, over-the-counter drugs, treatment, and legal issues associated with these drugs.

4333. Clinical Effects of Substance Abuse 3(3-0)

This course will present the physiological, psychological, and sociological aspects of substance abuse. Content includes aspects of family systems to include ethnocultural factors and relationships.

4343. Treatment Modalities in Substance Abuse 3(3-0)

This course will address self-help as well as other treatment modalities including inpatient and outpatient treatment. It will also give instruction on the use of community resources as adjuncts to treatment.

4363. Family Systems and Substance Abuse 3(3-0)

This course will present the different perspectives on the families and significant others of substance abusers. It will also include ethnocultural factors as well as women's issues.

4413. Social Work in Human Resources 3(3-0)

This course addresses the role of social work, employee assistance and human counselors in the workplace. The ways in which organizations assist troubled employees will be the major focus of the course. Organizational efforts to help troubled employees with family, mental health, alcohol, drug, financial, or other personal problems will be examined as to their effects on employee functioning and productivity. Laws affecting the civil rights of workers, including the Americans with Disabilities Act, the Rehabilitation Act, and Equal Employment Opportunity are covered.

4423. Selected Topics in Social Work 3(3-0)

Intensive study and coverage of selected topics in social work. May be repeated for credit when topics vary.

PROTHRO-YEAGER COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Samuel E. Watson, III, Dean (O'Donohoe Hall 121)

MISSION STATEMENT FOR THE PROTHRO-YEAGER COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

The purpose of the Prothro-Yeager College of Humanities and Social Sciences is threefold. First, the college provides for students throughout the university a broadly based liberal arts curriculum designed to empower them with the fundamental language and communication skills as well as the critical thinking skills necessary for a lifetime of learning and achievement. Secondly, the college offers general education courses in the modern languages, literature, history, philosophy, humanities, political science, sociology, and psychology, which provide a foundation of knowledge necessary in the development of those cultural and aesthetic values that enrich the individual and are essential for a meaningful and productive life. Lastly, the college affords preparation for careers in teaching and a wide range of further graduate and professional studies in fields such as English, history, political science, psychology, the law, the ministry, library science, and museum management.

The Prothro-Yeager College of Humanities and Social Sciences offers majors, minors, programs, and courses in Applied Arts and Sciences, Biblical History and Literature, English, Foreign Languages, History, Humanities, International Studies, Philosophy, Political Science, Psychology, Social Studies, and Sociology.

BACHELOR OF APPLIED ARTS AND SCIENCES

J. David Martin, Director (Bea Wood Hall 122)
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Charles Olson, Associate Director (Bea Wood Hall 100)
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(940) 397-4400 / FAX (940) 397-4918
<http://libarts.mwsu.edu/baas>

MISSION STATEMENT

The Bachelor of Applied Arts and Sciences (B.A.A.S.) degree is designed to offer students with workforce education, vocational-technical training and/or professional experience in occupational fields the opportunity to obtain a baccalaureate degree. Such experienced professional/vocational students may obtain credit toward this degree via regionally accredited college-level course work and/or certain types of professional and educational training. Students who pursue the degree are required to complete the academic core requirements, thirty hours of advanced credit that is complementary to the vocational-technical or professional area, and any additional hours necessary to meet the 124-hour university requirement as stated in the catalog.

ADMISSION TO PROGRAM

Before a student can be admitted, the student must arrange an interview with the Director or Associate Director of the B.A.A.S. Program.

B.A.A.S. students are limited to not more than twenty-five percent of their total semester credit hours in courses transferable to a program in a school of business and not more than fifteen semester credit hours in business school courses completed at Midwestern State University. However, students may select a minor in Business Administration with the approval of the Dean of the Dillard College of Business Administration.

Students currently enrolled at Midwestern State University in a designated degree program who satisfy the intent of the mission statement and have at least a 2.75 g.p.a. will be allowed to transfer to the B.A.A.S. degree program. Exceptions to this policy will be considered on an individual basis by the B.A.A.S. Advisory Committee. In such cases, the student must submit to the committee an application accompanied by a letter of recommendation from an advisor in the student's previous major.

DEGREE REQUIREMENTS

The student must complete a baccalaureate degree plan from residence and transfer credit hours by meeting the requirements as follows:

Option A: The Traditional B.A.A.S. Program

Academic Foundations and Core Curriculum (see page 103)

Occupational Specialty (24-36 semester hours)

Credits toward an area of coherent specialization may be earned from junior or community colleges, this university and other senior institutions, workforce education, vocational or technical schools, armed forces schools, work experiences, and non-traditional learning experiences that can be equated to college credit. Credit for work experience is limited to a maximum of 6 semester hours based on a maximum of 2 hours for each year of successful qualifying experience related to the student's occupational specialty. Credit for non-traditional experiences is granted on the basis of evaluation by the Director and the B.A.A.S. Advisory Committee utilizing the National Guide of the American Council on Education (A.C.E.) and other appropriate publications. Documentation will be placed in the student's permanent file in the Office of the Registrar. A minimum of 24 semester hours in the area of occupational specialty must be completed before the student can be accepted into the program. Cognate vocational-technical courses may be accepted within the area of occupational specialty or professional development.

Professional Development (36 semester hours, 30 of which must be advanced and may include 6 hours of B.A.A.S. Internship)

The courses taken in this area will be chosen on the basis that they will give academic depth or breadth to the area of specialization or will provide substantive developmental knowledge for the student's career or personal goals.

Option B: The B.A.A.S. Program with Criminal Justice Emphasis

The Criminal Justice emphasis provides students the background to pursue employment options in the criminal justice career field. The combination of courses such as law enforcement, political science, psychology, sociology, and social work prepares those already working in the field for career advancement. For those wishing to enter a criminal justice field, the degree offers the graduate the possibility of employment in a

variety of career fields such as federal, state, and local law enforcement, institutional and community-based corrections, and criminal investigations.

Academic Foundations and Core Curriculum (see page 103)

Occupational Specialty (24-36 semester hours)

Credits toward an area of coherent specialization may be earned from junior or community colleges, this university and other senior institutions, workforce education, vocational or technical schools, armed forces schools, work experiences, and non-traditional learning experiences that can be equated to college credit. Credit for work experience is limited to a maximum of 6 semester hours based on a maximum of 2 hours for each year of successful qualifying experience related to the student's occupational specialty. Credit for non-traditional experiences is granted on the basis of evaluation by the Director and the B.A.A.S. Advisory Committee utilizing the National Guide of the American Council on Education (A.C.E.) and other appropriate publications. Documentation will be placed in the student's permanent file in the Office of the Registrar. A minimum of 24 semester hours in the area of occupational specialty must be completed before the student can be accepted into the program. Cognate vocational-technical courses may be accepted within the area of occupational specialty or professional development.

Professional Development (36 semester hours, 30 of which must be advanced and may include 6 hours of B.A.A.S. Internship)

The B.A.A.S. Criminal Justice Option consists of 36 semester hours; at least 30 of which must be chosen from the following courses:

BAAS 3113
 CRJU 3103, 3113, 3123, 3133, CRJU/POLS 3213, CRJU 3223, 3313, 3323, 3463,
 3713, 3723, CRJU/SOCL 3733, CRJU 3913, 3923, CRJU/POLS 4133, CRJU
 4213, 4223, CRJU/POLS 4233, CRJU 4253, 4263, 4333, 4403, 4413, 4913,
 4923
 EDUC 4673
 ENGL 3203
 JOUR 4683
 PHIL 3533
 POLS 3233, 3443, 3933, 4013, 4163, 4173, 4243, 4653, 4953
 PSYC 3913
 SOCL 3333, 3353, 3433, 4633
 SOWK 3953, 4233, 4323, 4363
 SPCH 3023, 4133

NOTE: The B.A.A.S. Criminal Justice Option student may petition the B.A.A.S. Program Director or the Dean of the Prothro-Yeager College of Humanities and Social Sciences for permission to apply appropriate additional courses to fulfill the above 30 semester hour curriculum.

Option C: The B.A.A.S. Program with Liberal Arts Emphasis

The Liberal Arts emphasis is a gateway program that provides students with the critical thinking tools for a lifetime of learning and career achievement. The program is designed to fulfill the needs of students who wish to prepare for the challenges of today's world by acquiring the skills and tools provided by a broadly based liberal arts education. The goal of the program is to equip these students with that broad base of knowledge in the liberal arts and to provide them with the communication and language skills necessary for success in the marketplace and in life.

Academic Foundations and Core Curriculum (see page 103)

Occupational Specialty (24-36 semester hours)

Credits toward an area of coherent specialization may be earned from junior or community colleges, this university and other senior institutions, workforce education, vocational or technical schools, armed forces schools, work experiences, and non-traditional learning experiences that can be equated to college credit. Credit for work experience is limited to a maximum of 6 semester hours based on a maximum of 2 hours for each year of successful qualifying experience related to the student's occupational specialty. Credit for non-traditional experiences is granted on the basis of evaluation by the Director and the B.A.A.S. Advisory Committee utilizing the National Guide of the American Council on Education (A.C.E.) and other appropriate publications. Documentation will be placed in the student's permanent file in the Office of the Registrar. A minimum of 24 semester hours in the area of occupational specialty must be completed before the student can be accepted into the program. Cognate vocational-technical courses may be accepted within the area of occupational specialty or professional development.

Professional Development (36 semester hours, 30 of which must be advanced)

The Liberal Arts Option is 36 semester hours chosen from the following:

1. Two courses chosen from *any four* of the following six categories for a *total of twenty-four advanced hours*.
2. An *additional twelve hours* of courses chosen from any of the six subject areas listed below; at least six hours must be *advanced* courses (3000-4000).

English

History and Geography

Humanities/Philosophy

Political Science

Psychology

Sociology

NOTE: Any B.A.A.S. student may petition to apply lower or upper division foreign language courses to the above option; approval must be obtained from the Director of the B.A.A.S. program or the Dean of the Prothro-Yeager College of Humanities and Social Sciences.

COURSE IN APPLIED ARTS AND SCIENCES (BAAS)**3113. Internship in Public Administration**

3(0-3)

Prerequisite: Junior standing.

Students will be assigned jobs that can be demonstrated to be an integral learning portion of their career development in approved employment situations. Students will be supervised by their employer and the Director of the B.A.A.S. program. Applications for internship require the approval of the B.A.A.S. Director. Application for permission to enroll in the internship must be received by the Director no later than three weeks prior to registration. The internship may be repeated once for additional credit up to a maximum of six semester hours of internship for the degree. B.A.A.S. students enrolled in the internship should keep a journal relating to the internship, noting the tasks undertaken and relating how they relate to employment and future career goals. From that journal, students should write an internship report of no less than five double spaced pages relating learning experience to career objectives. The report is due no later than one week before the end of the applicable term.

BIBLICAL HISTORY AND LITERATURE

A maximum of 12 semester hours in religious studies may be counted as elective credit toward the bachelor's degree. Courses in religious studies are taught without regard to sect or creed. These courses are taught off-campus in campus ministry centers adjacent to the University.

COURSES IN BIBLICAL HISTORY AND LITERATURE (BIBL)

1133. **Introduction to the Old Testament** 3(3-0)
A study of the history, literature, and teachings of the Old Testament.
1233. **Introduction to the New Testament** 3(3-0)
A study of the history, literature, and teachings of the New Testament.
1333. **Life and Teachings of Jesus** 3(3-0)
A study of the life, teachings, and significance of Jesus of Nazareth as can be determined from the four Gospels and related historical and archaeological data.

ENGLISH

Thomas W. Galbraith, Chair (Bea Wood Hall 216)
Professors: J. Hoggard, L. Hoggard, Johnson, Smith
Associate Professors: Galbraith, Hoffman, Rogers, Stewart, Taylor
Assistant Professors: Barnett, Fields, Henson, Olson
Instructors: Giddings, Green, Henschel, Reynolds
Professors Emeriti: Brown, Campbell, Carpenter, Whitlock

Writing Proficiency Examination (formerly English Usage Test). Passing the Writing Proficiency Examination or passing English 2113 is required of all students seeking bachelor's degrees between 60 and 90 semester hours and after the completion of English 1113 and 1123. The test consists of a 300-500 word essay written on one of several topics, and passage requires competence in each of three areas: (1) organization and development, (2) clarity, and (3) mechanics. (See description of English 2113, page 270, and General Requirements for All Bachelor's Degrees, page 102.)

REQUIREMENTS FOR A MAJOR IN ENGLISH

The requirements for the degree of Bachelor of Arts with a major in English are as follows:

Academic Foundations and Core Curriculum (see page 103)

Bachelor of Arts (see page 104)

Program

Additional General

At least a C average in lower-level English courses

Major

(30 semester hours exclusive of 1113 and 1123)
Six hours sophomore literature; three hours chosen from language courses 3513, 4513, 4523, 4753, 4763; three hours chosen from 3000 level courses; nine hours chosen from 4000 level courses; and nine hours English electives (excluding 2113)

Minor is to be selected from an area of interest approved by the chair of the department involved.

TEACHER CERTIFICATION IN ENGLISH

The requirements for a Bachelor of Arts degree **with Grades 8-12 Certification in**

English Language Arts and Reading are found on page 154. The requirements for a Bachelor of Science in Interdisciplinary Studies **with Middle School English Language Arts and Reading (4-8) Certification** are found on page 147.

REQUIREMENTS FOR A MINOR IN ENGLISH

Eighteen semester hours, exclusive of English 1113 and 1123, including six hours of sophomore literature; three hours chosen from language courses 3513, 4513, 4523, 4753, 4763; three hours from 3000 level courses; three hours chosen from 4000 level courses; and three hours English elective (excluding 2113).

REQUIREMENTS FOR A MINOR IN ENGLISH: WRITING EMPHASIS

Eighteen semester hours, exclusive of English 1113 and 1123, including six hours of sophomore literature; three hours of either 4513 or 4523; and nine hours chosen from 3103, 3203, 3523 (3103 and 3523 may be repeated for credit).

The following list of undergraduate courses outlines the varying emphases offered by the English Department.

FRESHMAN ENGLISH

1113, 1123

SOPHOMORE LITERATURE

2413, 2423, 2613, 2623, 2723, 2813, 2823

Any of these courses can serve as a literature course in the core curriculum. See page 104.

WRITING COURSES

2113, 3103, 3203, 3523

GENERAL LITERATURE COURSES

3003, 3253, 3273, 3293, 3303, 3313, 3333, 3343, 3503, 3703, 3713, 3723, 4543

Any of the 3000-level courses above can substitute as a literature course in the core curriculum.

LANGUAGE AND LINGUISTICS COURSES

3513, 4513, 4523, 4753, 4763

THEORETICAL COURSES

3533, 4533

AMERICAN LITERATURE COURSES

4623, 4633, 4643, 4653

ENGLISH LITERATURE COURSES

4706, 4716, 4753, 4763, 4773, 4783, 4853, 4863, 4873, 4883, 4893

WORLD LITERATURE COURSES

4903, 4913, 4923, 4943, 4953

DIRECTED READING OR RESEARCH

4993

COURSES IN ENGLISH (ENGL)

1003. Introduction to College Composition 3(3-0)

The process and practice of essay writing. Emphasis on correct word usage, spelling, punctuation, sentence structure, paragraph writing, and the whole essay.

Required of those who have failed the writing section of the THEA (formerly TASP) test, MSU Placement Test, or other approved state alternative test.

1013. Introduction to College Reading 3(3-0)

The study and practice of reading comprehension through structure, meaning, and evaluation. Analysis of sentences, paragraphs, and whole pieces of writing. Attention given to making inferences, drawing conclusions, building vocabulary.

Required of those who have failed the reading section of the THEA (formerly TASP) test, MSU Placement Test, or other approved state alternative test.

1023. Advanced Oral Skills for International Students 3(3-0)

This course is designed to assist international students in the development of fluency and accuracy in spoken English. The course provides instruction and practice in listening comprehension, pronunciation, stress, intonation, and conversation at the academic level in North American English.

1033. Advanced Grammar for International Students 3(3-0)

This course is designed to assist international students in the development of the English writing skills and fluency needed to be successful in academic subjects at the university level. The course includes a comprehensive look at sentence-level grammatical units.

1113. Rhetoric and Composition (TCCNS = ENGL 1301) 3(3-0)

Prerequisites: Demonstrated readiness for college-level reading and writing. Reading readiness can be demonstrated either by passing the reading section of THEA (formerly TASP), or of an approved alternative test, or being exempt from the reading section of THEA on the basis of other examination scores. Reading readiness can also be demonstrated by earning a grade of C or better in ENGL 1013, Introduction to College Reading. Writing readiness can be demonstrated either by passing the writing section of THEA, or of an approved alternative test, or being exempt from the writing section of THEA on the basis of other examination scores. Writing readiness can also be demonstrated by earning a grade of C or better in ENGL 1003, Introduction to College Composition. Students who are THEA exempt by military service or associate's degree, or by the former exemptions of grandfathering or high school grade point average, may be required to demonstrate readiness by passing the reading and writing sections of the MSU Placement Test, unless other test scores and/or transfer courses provide such proof.

Training in skills involved in the writing process through the composition of short essays and the reading of prose selections. At least one essay—including all steps in the composition process—will involve instruction and practice in computer-assisted writing and editing.

1123. Rhetoric and Composition (TCCNS = ENGL 1302) 3(3-0)

Prerequisite: English 1113.

Continued training in skills involved in the writing process through composition and reading with the addition of particular skills needed for thoughtful research, including selection, analysis, integration, and documentation of both print and electronic sources. Preparation of a research paper of moderate length demonstrating these skills.

2113. Composition Skills 3(3-0)

Prerequisites: English 1123 and completion of 60 semester hours.

Skill in clear and forceful composition and in standard usage is the primary objective

of the course. The course is required of those who have failed the Writing Proficiency Examination (formerly English Usage Test). May not be counted toward an English major or minor, or toward English as a first or second teaching field or teaching emphasis.

2413. **World Literature** (TCCNS = ENGL 2332) 3(3-0)

Prerequisite: English 1123.

A study of the masterpieces of Western world literature from Homer through the Renaissance.

2423. **World Literature** (TCCNS = ENGL 2333) 3(3-0)

Prerequisite: English 1123.

A study of the masterpieces of Western world literature from the Enlightenment to the present.

2613. **Survey of American Literature** (TCCNS = ENGL 2327) 3(3-0)

Prerequisite: English 1123.

Survey of American literature with emphasis upon historical background as well as upon important writers from the beginnings through the rise of realism.

2623. **Survey of American Literature** (TCCNS = ENGL 2328) 3(3-0)

Prerequisite: English 1123.

Survey of American literature with emphasis upon historical background as well as important writers from realism to the present.

2723. **Selected Studies in Literature** 3(3-0)

Prerequisite: English 1123.

Concentrated study of selected authors, genres, or themes. May be repeated for credit with changed content.

2813. **Survey of English Literature** (TCCNS = ENGL 2322) 3(3-0)

Prerequisite: English 1123.

A survey of English literature from its seventh century beginnings through the neo-classical era. Emphasis is on the works of principal authors as they reflect literary and historical backgrounds.

2823. **Survey of English Literature** (TCCNS = ENGL 2323) 3(3-0)

Prerequisite: English 1123.

A survey of English literature of the Romantic, Victorian, and Modern periods. Emphasis is on the works of principal authors as they reflect literary and historical backgrounds.

3003. **Folklore** 3(3-0)

Prerequisite: English 1123.

An examination of the development of folklore as an academic discipline and of the uses made of folklore in a variety of cultures.

3103. **Creative Writing** 3(3-0)

Prerequisites: Six hours of English beyond 1123 or consent of chair.

Emphasis on the writing of fiction and poetry, the techniques and concerns of each. Ordinarily only one genre is dealt with in any given semester. May be repeated for credit with consent of instructor and chair.

3203. **Technical Writing** 3(3-0)

Prerequisite: English 1123.

The purposes and practice of expository writing in the professions, with particular emphasis on writing related to each student's major. Topics include audience analysis, technical editing, and elements of various types of technical reports. Each student will complete one major report as well as numerous shorter letters and reports.

3253. **Dramatic Literature** 3(3-0)
 Prerequisite: English 1123.
 A survey of major dramatic works in world literature.
3273. **Poetry** 3(3-0)
 Prerequisite: English 1123.
 Reading and analysis of selected poetry.
3293. **Short Story** 3(3-0)
 Prerequisite: English 1123.
 Reading and analysis of selected short stories.
3303. **Tragedy** 3(3-0)
 Prerequisite: English 1123.
 A study of the tragic view of man in literature from the classical Greeks to the present, including philosophical background.
3313. **Comedy** 3(3-0)
 Prerequisite: English 1123.
 A study of the comic vision of man in literature from the classical Greeks to the present, including philosophical background.
3333. **Satire** 3(3-0)
 Prerequisite: English 1123.
 Theory of satire and study of its application in representative literary works.
3343. **The Novel** 3(3-0)
 Prerequisite: English 1123.
 Reading and analysis of selected novels.
3503. **Advanced Survey of Literature** 3(3-0)
 Prerequisites: Six hours of English beyond 1123 or consent of chair.
 Instruction and practice in the written analysis of representative works from Western civilization with an emphasis on the major genres, especially poetry.
3513. **Advanced Grammar** 3(3-0)
 Prerequisites: Six hours of English beyond 1123 or consent of chair.
 Discussion and practice of techniques for the grammatical analysis of English sentence structures.
3523. **Advanced Composition** 3(3-0)
 Prerequisite: English 1123.
 For those who want to improve their writing skills beyond the basic composition courses. Various forms of exposition will include articles, essays, reviews, abstracts, summaries, and investigative writing. Attention given to structure, diction, and sentence style. For students preparing for teaching, professional work, graduate study, or general communication. May be repeated for credit with consent of instructor and chair.
3533. **The Theory of Composition** 3(3-0)
 Prerequisites: Six hours of English beyond 1123 or consent of chair.
 The theory and practice of composition, including process, rhetorical, and thematic models and their relation to individual and group writing.
3703. **Themes in American Literature and Life** 3(3-0)
 Prerequisite: English 1123.
 Thematic studies of the American literary, social, and cultural scene from the Puritans to the present.

3713. **Contemporary American Literature and Life** 3(3-0)
Prerequisite: English 1123.
Contemporary American culture as reflected in American literature, social backgrounds, and the arts.
3723. **Selected Studies in Literature** 3(3-0)
Prerequisite: English 1123.
Concentrated study of selected authors, genres, or themes. May be repeated for credit with changed content.
4513. **History of the English Language** 3(3-0)
Prerequisites: Six hours of English beyond 1123 or consent of chair.
The development of the sounds, forms, and structure of English and the implications of modern language problems.
4523. **Introduction to Linguistics** 3(3-0)
Prerequisites: Six hours of English beyond 1123 or consent of chair.
Methods and nature of language; the interlocking systems that make up language; methods of language analysis.
4533. **Literary Criticism** 3(3-0)
Prerequisites: Six hours of English beyond 1123 or consent of chair.
A survey of historical and contemporary methods of literary criticism and their application to selected texts. Recommended especially for those intending to teach literature or pursue graduate study in English.
4543. **Narrative Form in Film** 3(3-0)
Prerequisites: Six hours of English beyond 1123 or consent of chair.
A study of one or more of the elements of narrative as expressed in selected films. May be repeated for credit with changed content.

COURSES IN AMERICAN LITERATURE

4623. **American Romantic Movement** 3(3-0)
Prerequisites: Six hours of English beyond 1123 or consent of chair.
Emphasis on the poetry and prose of Emerson, Thoreau, Poe, Hawthorne, Melville, and Whitman.
4633. **American Realism and Naturalism** 3(3-0)
Prerequisites: Six hours of English beyond 1123 or consent of chair.
The realistic and naturalistic approaches in prose fiction with emphasis on Twain, Howells, James, Dreiser, Crane, and Norris.
4643. **Literature of the South and Southwest** 3(3-0)
Prerequisites: Six hours of English beyond 1123 or consent of chair.
The patterns of Southern and Southwestern themes and culture as exhibited in the works of representative writers.
4653. **Modern American Literature** 3(3-0)
Prerequisites: Six hours of English beyond 1123 or consent of chair.
A survey of the major American prose writers and dramatists of the first part of the 20th century.

COURSES IN ENGLISH LITERATURE

4706. **Chaucer in London** 6(3-3)
Prerequisites: English 1123 and junior standing.

The study in London principally of Chaucer's *Canterbury Tales* with emphasis on historical backgrounds, settings, and bibliographic resources. Other Middle English authors may be included. Fieldwork required.

4716. Shakespeare in London 6(3-3)

Prerequisites: English 1123 and junior standing.

The study in London primarily of Shakespearian drama with emphasis on historical backgrounds, settings, performances, and bibliographic resources. Other English Renaissance authors may be included. Fieldwork required.

4753. Old English Language and Literature 3(3-0)

Prerequisites: Six hours of English beyond 1123 or consent of chair.

Language, literature, and world view of Anglo-Saxon England. Emphasis on *Beowulf* and the epic tradition.

4763. Middle English Language and Literature 3(3-0)

Prerequisites: Six hours of English beyond 1123 or consent of chair.

Language, literature, and world view of medieval England. Emphasis on Chaucer.

4773. Shakespeare 3(3-0)

Prerequisites: Six hours of English beyond 1123 or consent of chair.

Shakespeare's art and thought as seen in drama and poetry.

4783. English Renaissance Period 3(3-0)

Prerequisites: Six hours of English beyond 1123 or consent of chair.

Renaissance thought and culture as revealed by the poetry, prose, and drama of the age.

4853. Eighteenth Century English Literature 3(3-0)

Prerequisites: Six hours of English beyond 1123 or consent of chair.

The literature and intellectual currents of the period with emphasis on Pope, Swift, and Johnson.

4863. The English Romantic Period 3(3-0)

Prerequisites: Six hours of English beyond 1123 or consent of chair.

The literature and intellectual currents of the period with emphasis on Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats.

4873. The Victorian Period 3(3-0)

Prerequisites: Six hours of English beyond 1123 or consent of chair.

The literature and major developments during the age of Tennyson, Browning, and Arnold.

4883. Twentieth Century English Literature 3(3-0)

Prerequisites: Six hours of English beyond 1123 or consent of chair.

Authors and trends in English literature of the 20th century.

4893. The English Novel 3(3-0)

Prerequisites: Six hours of English beyond 1123 or consent of chair.

Representative English novels with focus on the development of the genre, major themes, and techniques.

COURSES IN WORLD LITERATURE

4903. Selected Studies in Comparative Literature 3(3-0)

Prerequisites: Six hours of English beyond 1123 or consent of chair.

Comparative study of selected authors or themes of different cultures or times as reflected in literature. May be repeated for credit with changed content.

4913. **National Literatures in Translation** 3(3-0)
 Prerequisites: Six hours of English beyond 1123 or consent of chair.
 Selected topics and works in translation from one or more major national literatures.
 May be repeated for credit with changed content.
4923. **Modern Poetry** 3(3-0)
 Prerequisites: Six hours of English beyond 1123 or consent of chair.
 Major voices in 20th century poetry with emphasis on Pound, Eliot, Williams, Frost,
 and Stevens.
4943. **Modern World Literature** 3(3-0)
 Prerequisites: Six hours of English beyond 1123 or consent of chair.
 A survey of the major authors and trends in world literature of the first part of the
 20th century.
4953. **Contemporary Literature** 3(3-0)
 Prerequisites: Six hours of English beyond 1123 or consent of chair.
 A selective study of recent literature.

DIRECTED READING OR RESEARCH

4993. **Directed Reading or Research** 3 semester hours
 Prerequisites: Six hours of advanced English, senior standing, and consent of chair.
 Intensive study for the advanced student of a selected topic or area in language or lit-
 erature. May be repeated once for credit.

PERKINS-PROTHRO DISTINGUISHED PROFESSORSHIP OF ENGLISH

The Perkins-Prothro Distinguished Professorship of English was established in 2001 by the Perkins-Prothro Foundation to recognize truly outstanding scholarship in the Prothro-Yeager College of Humanities and Social Sciences.

James M. Hoggard, the professor holding this position, is recognized in the literary arts for his regional and national achievements. Professor Hoggard came to Midwestern in 1966. The author of fifteen books and numerous stories, poems, essays, and translations published nationally and internationally, he has won awards for his teaching and writing. Among his honors are a National Endowment for the Arts Creative Writing Fellowship grant, Hardin Professor of the Year award, The McMurtry Distinguished Professorship of English, the Texas Institute of Letters Short Story Award, the Soeurette Diehl Fraser Award for literary translation, finalist for the National Poetry Series competition, Texas Poet Laureate, the Stanley Walker Award for newspaper journalism, and citations of distinction in *The Best American Short Stories* and *The Yearbook of American Poetry* among others. He has also served two terms as president of The Texas Institute of Letters and is a former president of the Texas Association of Creative Writing Teachers. He has had seven of his plays produced, including two in New York. Among his books are *Medea in Taos & Other Poems*, *Riding The Wind & Other Tales*, *Elevator Man*, *Trotter Ross*, *Breaking An Indelicate Statue*, *The Shaper Poems*, *Two Gulls One Hawk*, *Eyesigns*, and six collections of translations, including *The Art of Dying*, *Love Breaks*, *Chronicle of My Worst Years*, *Stolen Verses & Other Poems*, *Alone Against the Sea: Poems from Cuba*, and *Splintered Silences*.

INTENSIVE ENGLISH LANGUAGE INSTITUTE

Leslie Penrose, Coordinator (Mercantile Building 102)

Instructors: McNeely, Penrose, Tirpak

The Intensive English Language Institute (IELI) offers intensive courses of English language instruction to non-native speakers of English who want to increase their English language proficiency for personal, academic, or professional reasons. The IELI's academic program is divided into eight levels. Each level's curriculum includes classes in grammar, listening and speaking, composition, and reading. The IELI's courses are available to full-time, non-native English speaking (F-1, J-1 visa) students and to members of the Wichita Falls community who wish to enhance their English language skills. Graduate and undergraduate Midwestern State University students who wish to improve their English language skills may enroll in English language courses through the IELI.

The purpose of the IELI curriculum is to provide quality instruction in English, develop academic skills, and provide exposure to American culture for individuals from a wide range of backgrounds and language experiences. Courses are primarily content-based and help prepare students for university studies, life in the United States, and/or work in the American business community.

Admission to the IELI does not constitute admission to the university for purposes of enrolling in courses for academic credit.

FOREIGN LANGUAGE

Adalberto Garcia, Chair (Bea Wood Hall 116)

Professor: Hoggard

Associate Professors: Fuertes-Manjón, Garcia, Hollabaugh, McClintock

Assistant Professor: Montoya

Instructor: Donovan

Professors Emeriti: Klein, Volk

Basic courses are offered in French, German, and Spanish. Spanish offers a major and a minor program. French offers a minor program. Students majoring or minoring in a foreign language may use foreign language literature survey courses to satisfy the humanities and B.A. requirements in literature. Students seeking Teacher Certification in Spanish or French must pass a qualifying exam prior to being admitted to student teaching.

Proficiency Exams: Students may earn credit by passing an examination (with a grade of C or better) prior to registration which would allow them to enroll in advanced courses. See page 71 concerning Proficiency Exams and contact the chair for more information.

FRENCH

The requirements for a minor in French are 12 semester hours beyond 2233.

The requirements for the degree of Bachelor of Arts with a teaching certificate may be found on page 159.

COURSES IN FRENCH (FREN)

1134. **Elementary French** (TCCNS = FREN 1411) 4(4-0)
For students who have had no previous instruction in the language or have had one year of high school French. Emphasis is placed on patterns of French pronunciation and grammar as well as the acquisition of basic reading, writing, and conversational skills. One hour of laboratory practice per week is required.
1234. **Elementary French** (TCCNS = FREN 1412) 4(4-0)
Prerequisite: French 1134.
Continuation of French 1134. One hour of laboratory practice per week is required.
2133. **Intermediate French** (TCCNS = FREN 2311) 3(3-0)
Prerequisite: French 1234.
Detailed study of French grammatical structures and practice in speaking, understanding, reading, and writing in French.
2233. **Intermediate French** (TCCNS = FREN 2312) 3(3-0)
Prerequisite: French 2133.
Continuation of French 2133.
3133. **Survey of French Literature I** 3(3-0)
Prerequisite: French 2233.
An historical survey of French literature of the Middle Ages, the Renaissance, and the Classical period.
3233. **Survey of French Literature II** 3(3-0)
Prerequisite: French 2233.
An historical survey of French literature of the period of the Encyclopedists and Philosophes, of Romanticism and Realism, and of modern trends in French literature.
3333. **French Conversation and Composition** 3(3-0)
Prerequisite: French 2233.
Intensive practice in conversation aimed at attaining fluency. Class discussion of compositions to improve grammar and style.
4013. **Topics in French Literature** 3(3-0)
Prerequisite: French 2233.
Topics will vary and may include such subjects as French Literature and Film, French-English Translation Studies, French Short Story, and French Civilization. This course may be repeated for credit when topics vary.
4533. **Selected Problems in French Literature** 3 semester hours
Prerequisite: French 3133 or 3233.
For advanced students with consent of instructor. Special topics assigned for research and investigation.

GERMAN

The department of Foreign Language also offers courses in German.

COURSES IN GERMAN (GERM)

1134. **Elementary German** (TCCNS = GERM 1411) 4(4-0)
For students who have had no previous instruction in the language or have had one year of high school German. Emphasis is placed on patterns of German pronunciation and grammar as well as the acquisition of basic reading, writing, and conversational skills. One hour per week of laboratory practice is required.

1234. **Elementary German** (TCCNS = GERM 1412) 4(4-0)
Prerequisite: German 1134.
Continuation of German 1134. One hour per week of laboratory practice is required.
2133. **Intermediate German** (TCCNS = GERM 2311) 3(3-0)
Prerequisite: German 1234.
A detailed study of German grammatical structures, synonyms, antonyms, and principles of composition. Study and use of the most common German idioms through conversation.
2233. **Intermediate German** (TCCNS = GERM 2312) 3(3-0)
Prerequisite: German 2133.
Continuation of German 2133.

SPANISH

The requirements for the Bachelor of Arts degree with a major in Spanish are as follows:

Academic Foundations and Core Curriculum (see page 103)

Bachelor of Arts (see page 104)

Program

Major (24 semester hours at the advanced level)

Spanish 3013 or 3023; 3003; 3333; 6 hours from 3133, 3233, 3533, 3633; 4133 or 4233; and 6 hours of electives

Minor (18 semester hours at the advanced level)

Spanish 3013 or 3023; 3003, 3333; and 9 hours of electives

The requirements for the degree of Bachelor of Arts with a teaching certificate may be found on page 165.

COURSES IN SPANISH (SPAN)

1134. **Elementary Spanish I** (TCCNS = SPAN 1411) 4(4-0)
A beginning course in the development of fundamental speaking, listening, reading, and writing skills in the Spanish language and an introduction to Hispanic cultures. One hour of laboratory practice per week is required.
1234. **Elementary Spanish II** (TCCNS = SPAN 1412) 4(4-0)
Prerequisite: Spanish 1134.
Continuation of Spanish 1134. One hour of laboratory practice per week is required.
2133. **Intermediate Spanish I** (TCCNS = SPAN 2311) 3(3-0)
Prerequisite: Spanish 1234.
Continued development of language skills. Grammar review and study of Hispanic cultures. Weekly lab practice required.
2233. **Intermediate Spanish II** (TCCNS = SPAN 2312) 3(3-0)
Prerequisite: Spanish 2133.
Continuation of Spanish 2133. Weekly lab practice required.
3003. **Introduction to Hispanic Literature** 3(3-0)
Prerequisite: Spanish 2233.

Readings in prose and poetry in Spanish with emphasis on methods of analysis and understanding of literary movements. Application of techniques through written and oral communication in Spanish. Required of Spanish majors and minors.

3013. Spanish Civilization 3(3-0)

Prerequisite: Spanish 2233.

Study of the history, geography, and culture of Spain. Use of media in the target culture. Continued development of oral and written communication in Spanish.

3023. Spanish American Civilization 3(3-0)

Prerequisite: Spanish 2233.

Study of the history, geography, and culture of Spanish America. Continued development of oral and written communication in Spanish.

3133. Survey of Spanish Literature I 3(3-0)

Prerequisite: Spanish 3003.

A history and general survey of the literature of Spain from the Middle Ages through the 17th century. Practice in critical analysis and language skills through class discussion, papers, and examinations.

3233. Survey of Spanish Literature II 3(3-0)

Prerequisite: Spanish 3003.

A history and general survey of the literature of Spain from the 18th century to the present. Practice in critical analysis and language skills through class discussion, papers, and examinations.

3333. Conversation and Composition 3(3-0)

Prerequisite: Spanish 2233.

Extended development of oral and written communication in Spanish. Intensive grammar review and vocabulary expansion for a variety of situations and topics. Required of Spanish majors and minors.

3533. Survey of Spanish American Literature I 3(3-0)

Prerequisite: Spanish 3003.

A history and general survey of the literature of Spanish America from Pre-Columbian times up to the 20th century. Practice in critical analysis and language skills through class discussion, papers, and examinations.

3633. Survey of Spanish American Literature II 3(3-0)

Prerequisite: Spanish 3003.

A history and general survey of the literature of Spanish America of the 20th century. Practice in critical analysis and language skills through class discussion, papers, and examinations.

4013. Topics in Hispanic Literature 3(3-0)

Prerequisite: Spanish 3003.

Concentrated study in a particular genre, sub-genre, or theme in Hispanic literature. Topics will vary and may include such subjects as Women's Studies, Golden Age Literature, Spanish or Spanish American Drama, Poetry, Novel, or Short Story. May be repeated for credit when topics vary.

4133. Advanced Oral Expression 3(3-0)

Prerequisite: Spanish 3333.

Further development of oral proficiency in formal and informal settings and study of phonetics. No student who has graduated from a secondary school in a Spanish-speaking country may enroll in this course.

4233. Advanced Grammar and Composition 3(3-0)

Prerequisite: Spanish 3333.

Further development of writing skills through intensive practice writing and re-writing. Includes grammar review and the study of writing and stylistics.

4433. Advanced Comprehensive Skills 3(3-0)

Prerequisites: 15 advanced hours of Spanish.

Consolidation of vocabulary and grammar through practice of language functions. Further development of listening and reading skills. Review of language structures, Hispanic culture, geography, history, and literature. Required of all students seeking teacher certification in Spanish.

4633. Selected Problems in Spanish Language, Literature, or Culture 3(3-0)

Prerequisites: 6 advanced hours of Spanish, senior standing, and consent of the instructor and chair.

Individual study in a topic selected by the student and the student's advisor. May be repeated once.

HISTORY

Kenneth E. Hendrickson, Jr., Chair (O'Donohoe Hall 222)

Professors: Collins, Hendrickson, Hewitt, Kindig

Associate Professors: King, Lindemann

Assistant Professor: Arnoult

The requirements for the degree of Bachelor of Arts with a major in history are as follows:

Academic Foundations and Core Curriculum (see page 103)

Bachelor of Arts (see page 104)

Program

Major (30 semester hours)

History 1133, 1233, 1333, 1433, and 18 additional semester hours

Minor to be selected in a field acceptable to the chairs of the major and minor programs

REQUIREMENTS FOR A MINOR IN HISTORY (21 semester hours)

History 1133, 1233, 1333, 1433, and nine additional semester hours, selected with approval of the chair.

COURSES IN HISTORY (HIST)

SURVEY COURSES

1133. Survey of American History to 1865 (TCCNS = HIST 1301) 3(3-0)

General survey of American History from its European origins to 1865. Required of all baccalaureate students.

1233. Survey of American History since 1865 (TCCNS = HIST 1302) 3(3-0)

General survey of American History from 1865 to the present. Required of all baccalaureate students.

1333. Survey of Western Civilization (TCCNS = HIST 2311) 3(3-0)

An examination of the traditions which contributed to the intellectual background of modern western society. The course spans the period beginning with the early civilization of Egypt and Mesopotamia through classical Greece and Rome to the western Middle Ages concluding with the Renaissance and Reformation and the dawn of the modern era.

1433. Survey of Western Civilization (TCCNS = HIST 2312) 3(3-0)

An examination of the traditions which have directly contributed to the formation of the intellectual and cultural structure of modern western society. The course begins with the Scientific Revolution and the emergence of modern nation states and examines the development of democratic movements and the Industrial Revolution continuing through the wars and disorders of the twentieth century.

HISTORY COURSES FOR ADVANCED UNDERGRADUATES**3003. Survey of Texas History 3(3-0)**

Prerequisites: Six hours of American History.

This course examines Texas history from the time of discovery to the late twentieth century. Topics examined include the Spanish colonial period, Anglo colonization, the Texas Revolution, early statehood, the Civil War and Reconstruction, the cattleman's frontier, the oil industry, and modern Texas politics.

3033. American Beginnings: From Discovery to the Revolution 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

After the migration of man across the Bering Straits, the great Indian civilizations appeared followed by the first European colonies in the sixteenth and seventeenth centuries. Settlement spread, and an American society flowered represented by such figures as William Byrd, Benjamin Franklin and Thomas Jefferson — until estrangement from England provoked a crisis that finally touched off the American Revolution.

3103. History of England 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

A survey of the forces and events which dominated English development from the times of the Romans to the Glorious Revolution of 1688. The course focuses on the constitutional development of England and discusses the contributions of the Anglo-Saxons and Normans as well as those of the Reformation and Elizabethan eras.

3123. History of England 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

A survey of modern England and the emergence of the United Kingdom and the development of the British empire. The course focuses on the developments of British democracy as well as the issues and events of the American Revolution, the Industrial Revolution, the Irish Question, and the impact of the wars of the twentieth century on Britain.

3133. Comparative World Religions and Cultures 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

A study of the major world religions and cultural traditions with an emphasis on Hinduism, Buddhism, Judaism, Christianity, and Islam.

3233. Ancient Greece and Rome 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

A study of the development of Greece and the Bronze Age through the Classical Age of Socrates, Plato, and Aristotle with the emergence of Rome as an imperial power and its expansion through the Mediterranean world. The course concludes with an examination of early Christianity and the collapse of the Roman political system.

- 3503. Early Russia and Tsardom** 3(3-0)
Prerequisites: Six hours of history or consent of the chair.
A survey of Russian history from earliest times to the peak of Romanov power and prestige.
- 3513. The Modern Russian State and Empire** 3(3-0)
Prerequisites: Six hours of history or the consent of chair.
Russian history from 1801 to the present. The crisis and collapse of autocracy, the revolutions, reaction, superpower status, and the decline and fall of empire are some of the major topics covered in this course.
- 3833. Latin American History, Colonial Period** 3(3-0)
Prerequisites: Six hours of history or consent of the chair.
This course investigates the Indian, White, and Black cultures which made up the ethnic and cultural diversity in Ibero-America. The discovery, conquest, and settlement of Ibero-America are covered in detail as are such institutions as the church, encomienda, and the military. The course concludes with a discussion of the impact of the reforms of Charles III as they affected Latin America and initiated the independence movement.
- 3843. Latin American History, Republican Period-Nineteenth Century** 3(3-0)
Prerequisites: Six hours of history or consent of the chair.
This course traces the independence of Ibero-American Nations and explains the factionalization caused by the collapse of Spain's empire and the power struggles which resulted. Institutions such as caudillismo, the church, the military, and their impact are discussed as they developed during the 19th century.
- 4023: United States Diplomatic History, 1898-1989** 3(3-0)
Prerequisites: Six hours of history or consent of the chair.
A study of United States diplomatic relations in the twentieth century, from the opening of the Spanish-American War to the conclusion of the Cold War. The course will survey the history of United States foreign policy, beginning with American emergence from a tradition of isolation to a position of world leadership and world power. Topics will include the diplomacy of both world wars, the policy of containment underlying the Korean and Vietnam conflicts, relations with the Soviet Union and China, U.S.-Latin American affairs, and American approaches to the Arab-Israeli conflict.
- 4043. The Old South** 3(3-0)
Prerequisites: Six hours of history or consent of the chair.
This course traces the growth of Southern culture; economics and politics from the establishment of the first Southern Colonies to the Civil War. Emphasis is placed upon such topics as social organization, slavery, states rights, and the creation of the Confederacy—always relating developments in the South to events in the nation at large.
- 4053. Civil War and Reconstruction** 3(3-0)
Prerequisites: Six hours of history or consent of the chair.
The bitter sectional conflicts touched off by slavery and westward expansion provoked a mounting crisis in the 1850's—ending in the election of 1860. The course then turns to the battlefield and the question of why the South lost. It concludes with an examination of the attempt to reintegrate the South into the Union and the angry social and political clash which was precipitated.
- 4073. The Era of Reform: Populism and Progressivism in America** 3(3-0)
Prerequisites: Six hours of history or consent of the chair.
A study of the background and development of the agrarian reform movements of the

late nineteenth century culminating in the rise and fall of the Populist party, the urban-industrial movements in America during the early twentieth century including municipal, general political, labor, child labor, social welfare, and other movements.

4083. The Age of Washington and Jefferson 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

Federalists and Jeffersonians struggled over the destiny of the young Republic—would it be a unitary, entrepreneurial nation, or an agrarian confederation? Complicating the battle were economic change, and the acquisition of the Louisiana territory, even as Europe began to threaten American commerce and ultimately the independence of the republic.

4093. The Jacksonian Era 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

Using Andrew Jackson as a symbol of his age, the course traces the acrimonious partisan conflict which gave birth to mass democracy and a new two-party system. This is related to such crucial issues as to the bank war, nullification, minority rights and the Mexican War, questions fostered by rapid industrialization, and the migration of pioneers to the Pacific.

4133. America: From the Jazz Age to the Nuclear Age 3(3-0)

Prerequisites: Six hours of American history or consent of the chair.

A study of American life from the end of World War I to the end of World War II with special emphasis upon the prosperity of the twenties, the Great Depression, the New Deal, and the domestic and foreign policy problems of the World War II period.

4143. The New South 3(3-0)

Prerequisites: Six hours of American history or consent of the chair.

The development of the New South from the legacy of the Civil War and Reconstruction. Southern politics, economics, cultural, and industrial development.

4163. Contemporary America: From the End of World War II to the Present 3(3-0)

Prerequisites: Six hours of American history or consent of the chair.

A study of American life and foreign policy trends since 1945 with special emphasis upon the major political, economic, and social changes which have affected the lives of all Americans.

4173. History of Mexico 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

A survey of Mexican history from Pre-Hispanic times to the present with emphasis on the National Period 1820-1967, which includes the age of Santa Anna, La Reforma, the Diaz Dictatorship, and the Revolution of 1910.

4183. Latin America: Nationalism in the Twentieth Century 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

Course will emphasize Vargas in Brazil, Peron in Argentina, Castro in Cuba, Allenda in Chile, and such currently popular problems as those found in Central America.

4213. Europe in the Middle Ages 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

A study of the social, political, and intellectual traditions of western society as they developed after the Germanic invasions. Emphasis will be placed on the evolution of feudal society and its interaction with the community of the Christian church.

4253. Renaissance and Reformation 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

A study of the development of European society in the era of the Black Death, of overseas discoveries, of the Renaissance and Reformation. The emphasis of the course will be a topical study of Renaissance humanism and a detailed analysis of the impact of the Reformation on the doctrines and structure of western Christianity.

4273. The Age of Enlightenment 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

A study of European culture during the age of Louis XIV and the Ancien Regime. The course will focus on the Scientific Revolution and its influence on European thought culminating with the Enlightenment.

4423. Nineteenth Century Europe, 1789-1914 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

Europe from the French Revolution to World War I. Emphasis upon the results of the French Revolution and the influence of Napoleon, the struggle for democratic principles, industrialization, the unification of Italy and Germany, the expansion of colonial empires, and the underlying causes of World War I.

4433. Twentieth Century Europe 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

Development of Europe from the beginning of the twentieth century to the present with emphasis on developments since World War I.

4523. Eastern Europe 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

An examination of the various Eastern European countries, including the Balkans, from earliest times to the present. Particular emphasis on nineteenth and twentieth century social, political, economic, and religious trends and institutions. The course will also include a discussion of the collapse of communism and accompanying regional conflicts.

4533. American Ideas 3(3-0)

Prerequisites: Six hours of history or the consent of the chair.

A survey of the major intellectual currents which have shaped American thought, including Puritanism, the Enlightenment, Romanticism, Transcendentalism, Utopian Idealism, Social Darwinism, and Pragmatism. This course traces the changing intellectual patterns which have characterized the development of American civilization.

4543. History of the Middle East 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

Includes a survey of pre-Islamic society, the rise and spread of Islam, the rise of the Ottoman and Safavid Empires, European Imperialism, and the contemporary Middle East.

4603. The American Frontier, 1607-1838 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

This course surveys the advancing Anglo-American frontier from the founding of Jamestown through the Indian Removal period and the Cherokee Trail of Tears. The course surveys westward expansion from the Atlantic to the Mississippi River with particular emphasis upon the ongoing clash between Anglo and Native American cultures.

4613. The American West, 1803-1890 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

This course surveys westward expansion from the Mississippi River to the Pacific. From Lewis and Clark to Wounded Knee, from the fur traders' frontier to the farmers' frontier, this course surveys the sweeping movement of the American people across the trans-Mississippi West.

4643. United States-Latin American Relations 3(3-0)

Prerequisites: Six hours each of history and political science, and consent of the chair.

Survey of the relations of the U.S. with Latin America from independence to the present. The course keys on the Monroe Doctrine and U.S. policy from the Latin American perception of that policy. The course also covers in some detail U.S. relations with Argentina, Chile, Cuba, and Mexico.

4653. United States Military History 3(3-0)

Prerequisites: Six hours of history or consent of the chair.

An analysis of the actions of the armed forces in five major conflicts. Emphasis will be placed on tactical and strategic decision making, personalities, force structures, and the application of technological innovations to warfare. Conflicts to be studied are: The Revolution, The Civil War, World Wars I and II, and Vietnam.

4663. Everyday Life in Europe, 1500-1950 3(3-0)

Prerequisites: HIST 1133, 1233; 1333, 1433 or consent of instructor.

This course covers the social history of Europe from the Reformation era through World War II. It examines how historical developments affected the lives of ordinary European men and women, including such areas as the life-cycle, material conditions, social issues and popular culture.

4673. History of Women in the United States and Great Britain 3(3-0)

Prerequisites: HIST 1133, 1233; 1333, 1433 or consent of chair.

This course examines the lives of women in the United States and Great Britain from around 1600 to the present. Its central focus is how the factor of gender, along with other factors such as class and race, affected the historical experience of women.

4953. Problems in History 3 semester hours

Prerequisites: Six hours of history or consent of the chair.

This is an undergraduate readings course available on a limited basis to advanced students. Topics will be selected by the student and his/her advisor.

GEOGRAPHY

The department of History also offers courses in geography.

COURSES IN GEOGRAPHY (GEOG)

3003. Geography of the World 3(3-0)

Regional, social, and economic characteristics of the geography of the world.

3013. Geography of North America 3(3-0)

Physiographic and natural resource characteristics of North America with emphasis on the United States.

HARDIN DISTINGUISHED PROFESSORSHIP OF AMERICAN HISTORY

For many years, the Hardin Foundation for Wichita County has supported Midwestern State University through grants and awards. These programs include the Hardin Scholar and the Hardin Professor Awards given each year respectively to the outstanding rising junior student and an outstanding member of the faculty. Additionally, the Foundation has supported the development of a truly outstanding American History Collection in Moffett Library. In 1987, the Foundation created the Hardin Distinguished Professorship of American History.

Dr. Kenneth E. Hendrickson, Jr., a regionally and nationally known historian, has been designated as the Hardin Distinguished Professor of American History. Dr. Hendrickson's primary research areas are in the New Deal, recent Texas history, natural resources and conservation history, and politics.

Among his nine books are *The Waters of the Brazos: A History of the Brazos River Authority, 1929-1979* (1983), *Profiles in Power: Twentieth Century Texans in Washington* (1993, 2nd ed., 2004), *The Chief Executives of Texas: From Stephen F. Austin to John B. Connally, Jr.* (1995), *The Spanish-American War* (2003), *The Life and Presidency of Franklin Delano Roosevelt: An Annotated Bibliography*, 3 Vols., (2005), *Primary Source Accounts of the Spanish-American War*, (2006), and his latest work is on *George Washington Armstrong: An Eccentric Texas Millionaire*. He has contributed to seven additional books and has published more than one hundred articles, essays, and reviews. His major articles appear in such journals as *The Pacific Historical Review*, *Agricultural History*, *Labor History*, *Journal of the West*, *South Dakota History*, *North Dakota History*, *Pennsylvania History*, *Chronicles of Oklahoma*, and *The East Texas Historical Journal*.

HUMANITIES

Advisor: Lynn Hoggard (Bea Wood Hall 217)

Associate Professor: King

Professor Emeritus: Campbell

REQUIREMENTS FOR A MAJOR IN HUMANITIES

The requirements for the degree of Bachelor of Arts with a major in humanities include the following three components:

- I. **Academic Foundations and Core Curriculum** (see page 103) (48 semester hours)
Bachelor of Arts (see page 104)
- II. **Humanities Interdisciplinary Major** (36 semester hours)

Humanities:	3-6 hours chosen from 2013, 2023, 2033, 2043 6-9 hours chosen from 4013, 4023, 4033, 4043 (Courses of the same title cannot be taken at both the 2000 and 4000 levels.)
English:	2413, 2423
History:	1333, 1433
Philosophy:	2233 or 3233
Art:	1413
Theatre:	1503
Music:	1033

(An advanced course in the history of the art form may be substituted for all but the Academic Foundations requirements; e.g., Art History for Art 1413; Music Survey for Music 1033; or History and Aesthetics of the Theatre for Theatre 1053.)
- III. **Field of Concentration** (18-24 hours, to make a total of 24 hours in one of the following fields, beyond Academic Foundations requirements)

The completion of any of the following fields of concentration satisfies the general requirement for a minor.

Art (21 semester hours)

ART 1113, 1313, 4433, 4443, plus 9 advanced studio hours chosen to survey studio options rather than achieve specialization.

English (18 semester hours)

18 hours from advanced English courses, but may include only one writing course and one English language course.

History (18 semester hours)

18 hours of advanced History courses; may include 4603 or 4613, but not both.

Music (21 semester hours)

21 hours including at least 12 advanced hours from Music History and Literature and Music Theory. May include 6 advanced hours in a performance area.

Philosophy (21 semester hours)

21 hours including 12 advanced hours from Philosophy listing.

Political Science (24 semester hours)

24 hours from advanced Political Science courses, but may include only one course from Law or Public Administration offerings.

Spanish (18 semester hours)

18 hours of courses beyond 2233; 3333 may not be repeated.

Theatre (21 semester hours)

21 hours from Theatre 4143, 4433, 4443; English 3253, 3303, 3313, and 4773; may include 6 hours of advanced acting or directing classes.

REQUIREMENTS FOR A MINOR IN HUMANITIES (18 semester hours)

Humanities: 3-6 hours chosen from 2013, 2023, 2033, 2043; 6-9 hours chosen from 4013, 4023, 4033, 4043; (courses of the same title cannot be taken at both the 2000 and 4000 levels); History 1333, 1433.

COURSES IN HUMANITIES (HUMN)**2013. Humanities: The Ancient World** 3(3-0)

Prerequisite: English 1123 or consent of instructor.

A study of the inter-relationships of literature, music, art, and philosophy in an historical context with emphasis on Mesopotamia, Egypt, Greece and Rome, Judaism, and early Christianity.

2023. Humanities: Medieval Cultures 3(3-0)

Prerequisite: English 1123 or consent of instructor.

A study of the inter-relationships of literature, music, art, and philosophy in an historical context with emphasis on Byzantine, Islamic, European, Indian, Chinese, Japanese, and North and South American cultures.

2033. Humanities: Renaissance through Realism 3(3-0)

Prerequisite: English 1123 or consent of instructor.

A study of the inter-relationships of literature, music, art, and philosophy in an historical context with emphasis on the Renaissance, the Baroque style, the Enlightenment, Romanticism, and Realism (fifteenth through late-nineteenth centuries).

2043. Humanities: Mid-Nineteenth through Twentieth Centuries 3(3-0)

Prerequisite: English 1123 or consent of instructor.

A study of the inter-relationships of literature, music, art, and philosophy in an historical context with emphasis on the Industrial Revolution, Modernism, Cultural Plurality, and Postmodernism.

2053. Humanities 3(3-0)

Prerequisite: English 1123 or consent of instructor.

A study of the inter-relationships of literature, music, art, and philosophy in an historical context.

2063. Humanities 3(3-0)

Prerequisite: English 1123 or consent of instructor.

A continuing study of the inter-relationships of art, myth, literature, and philosophy in an historical context.

4013. Humanities: The Ancient World 3(3-0)

Prerequisite: English 1123 or consent of instructor.

A study of the inter-relationships of literature, music, art, and philosophy in an historical context with emphasis on Mesopotamia, Egypt, Greece and Rome, Judaism, and early Christianity. Individual research and evidence of the ability to synthesize the expressions of the different art forms within a cultural period will be required. May not be taken if student has received credit for Humanities 2013.

4023. Humanities: Medieval Cultures 3(3-0)

Prerequisite: English 1123 or consent of instructor.

A study of the inter-relationships of literature, music, art, and philosophy in an historical context with emphasis on Byzantine, Islamic, European, Indian, Chinese, Japanese, and North and South American cultures. Individual research and evidence of the ability to synthesize the expressions of the different art forms within a cultural period will be required. May not be taken if student has received credit for Humanities 2023.

4033. Humanities: Renaissance through Realism 3(3-0)

Prerequisite: English 1123 or consent of instructor.

A study of the inter-relationships of literature, music, art, and philosophy in an historical context with emphasis on the Renaissance, the Baroque style, the Enlightenment, Romanticism, and Realism (fifteenth through late-nineteenth centuries). Individual research and evidence of the ability to synthesize the expressions of the different art forms within a cultural period will be required. May not be taken if student has received credit for Humanities 2033.

4043. Humanities: Mid-Nineteenth through Twentieth Centuries 3(3-0)

Prerequisite: English 1123 or consent of instructor.

A study of the inter-relationships of literature, music, art, and philosophy in an historical context with emphasis on the Industrial Revolution, Modernism, Cultural Plurality, and Postmodernism. Individual research and evidence of the ability to synthesize the expressions of the different art forms within a cultural period will be required. May not be taken if student has received credit for Humanities 2043.

4053. Humanities: World Civilizations 3(3-0)

Prerequisite: English 1123 or consent of instructor.

A study of inter-relationships in world civilizations of literature, philosophy, mythology, art, and architecture in an historical context with emphasis on the Western tradition, including relationships to Middle Eastern, African, Indian, and Chinese traditions.

4063. Problems in Humanities 3 semester hours

Intensive study by a student who has completed the Humanities sequence in a selected topic which deals with the inter-relationships of different cultural forms of expression.

INTERNATIONAL STUDIES

Advisor: Michael A. Preda (O'Donohoe Hall 204)

The interdisciplinary major in International Studies shall provide the student with a broadly based liberal arts foundation while at the same time developing the student's global perspective and understanding of cross cultural concerns. Specialization in advanced studies of Economics, History, and Political Science shall enhance the student's awareness of the wide range of global issues which transcend national and regional boundaries, thus insuring that the student is empowered with the expanse of knowledge which crosses disciplinary, cultural, economic, and geographic borders.

Academic Foundations and Core Curriculum (see page 103)

ECON 2333

Bachelor of Arts (see page 104)

REQUIREMENTS FOR A MAJOR IN INTERNATIONAL STUDIES:

Required Courses: 15 hour core for interdisciplinary major

HIST	1333, 1433, 3133	9 hours
GEOG	3003	3 hours
SOCL	3783	3 hours

Political Science, 6 hours chosen from the following: 6 hours

POLS	3533, 3543, 3553, 3563, 3573, 3583, 3653, 4333, 4453, 4653, 4853, 4933
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Economics, 6 hours chosen from the following: 6 hours

ECON	3553, 3713, 4633, 4723
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History, 6 hours chosen from the following: 6 hours

HIST	3103, 3123, 3503, 3513, 3833, 3843, 4023, 4173, 4183, 4213, 4253, 4273, 4423, 4433, 4523, 4543, 4643, 4663, 4673
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TOTAL 33 hours

In order to enhance the student's global awareness and perspective, a minor should be chosen from the following fields: Economics, History, Political Science, French, or Spanish.

REQUIREMENTS FOR A MINOR IN INTERNATIONAL STUDIES:

OPTION I: (18 semester hours)

GEOG 3003, six hours chosen from Category 1, six hours chosen from Category 2, plus three hours chosen from the student's area of specialization as approved by the international studies advisor.

Category 1: Six hours from the following:

ACCT 4023, BUAD 4763, ECON 3553, ECON 4723, MKTG 4643

Category 2: Six hours from the following:

POLS 3533, 3653, 4333, 4653, 4853, 4933

HIST 4183, 4433, 4523, 4543, 4643

ENGL 2413, 2423, 3003, 4903, 4913, 4943

For a minor with degrees other than the Bachelor of Arts the student must, in addition, complete two semesters of one foreign language.

OPTION II: (18 semester hours)

GEOG 3003, six hours chosen from Category 1, six hours chosen from Category 2, plus three hours chosen from the student's area of specialization as approved by the international studies advisor.

Category 1: Six hours from the following:

ECON 3553, 3713, 4633, 4723

POLS 3533, 3543, 3553, 3563, 3573, 3583, 3653, 4333, 4453, 4653, 4853, 4933

Category 2: Six hours from the following:

HIST 4183, 4433, 4523, 4543, 4643

ENGL 2413, 2423, 3003, 4903, 4913, 4943

FREN 3333, SPAN 3333

For a minor with degrees other than the Bachelor of Arts the student must, in addition, complete two semesters of one foreign language.

PHILOSOPHY

Advisor: Alfred D. Stewart (Bea Wood Hall 221)

Associate Professor: Stewart

REQUIREMENTS FOR A MINOR IN PHILOSOPHY (18 semester hours)

Philosophy 1033, 2033, 2233, and nine additional semester hours of which six must be advanced.

COURSES IN PHILOSOPHY (PHIL)

1033. **The Primary Concerns of Philosophy** (TCCNS = PHIL 1301) 3(3-0)
Prerequisites: English 1113 and 1123.
Methods and problems related to man's search for meaning in the Kosmos.
1533. **Logic** (TCCNS = PHIL 2303) 3(3-0)
Prerequisites: English 1113 and 1123.
The study of principal methods of organizing thought in ordinary language.
2033. **Ethics** (TCCNS = PHIL 2306) 3(3-0)
Prerequisites: English 1113 and 1123.
What is the "good" for man: an inquiry into the philosophy of morality.
2233. **Classical Philosophy** (TCCNS = PHIL 2316) 3(3-0)
Prerequisites: English 1113 and 1123.
A study of the pre-Socratics, Plato, and Aristotle. Discussion of the contemporary uses of classical philosophy.
2633. **Contemporary Philosophy** (formerly 3433) 3(3-0)
Prerequisites: English 1113 and 1123.
Twentieth century philosophers, including the methods and history of the various movements. May be repeated when topics vary.

3233. **Modern Philosophy** (formerly 2433) 3(3-0)
Prerequisites: English 1113 and 1123.
A survey of philosophical problems from Descartes through Kant.
3533. **Topics in Philosophy** 3(3-0)
Prerequisites: English 1113 and 1123.
Specialized studies in philosophy. May be repeated when topics vary.
4993. **Problems in Philosophy** 3(3-0)
Prerequisites: English 1113 and 1123.
Individual directed readings, with approval of philosophy chair and college dean.
May not be repeated.

POLITICAL SCIENCE

Vacant, Chair (O'Donohoe Hall)

Professors: Martin, Preda, Watson

Associate Professors: Dover, Flavin

Assistant Professors: Garrison, Glean

Professors Emeriti: Backhaus, Covert, Mertens, Sabota

The requirements for the degree of Bachelor of Arts with a major in political science are as follows:

Academic Foundations and Core Curriculum (see page 103)

Bachelor of Arts (see page 104)

Program Requirements

Major (30 semester hours)

Political Science 1333, 1433, 2523, 3213; 3 hours from: 3313, 4153, 4553; 3 hours from: 3533, 3543, 3553, 3563, 3573, 3583, 3653, 4333, 4453, 4653, 4853, 4933; 3 hours from 3933, 4133, 4173, 4233, 4243, 4953; 3 hours from: 3233, 3443, 3843, 4043, 4163, 4443; and 6 additional advanced hours. POLS 4903, 4923, and 4973 can be used to fulfill cluster requirements based on their subject matter in a given semester.

The minor field selected must be acceptable to the chairs of major and minor programs.

REQUIREMENTS FOR A MINOR IN POLITICAL SCIENCE (21 semester hours)

Political Science 1333, 1433, 2523 and 12 additional hours, of which nine must be advanced.

COURSES IN POLITICAL SCIENCE (POLS)

1333. **American Government** (TCCNS = GOVT 2301) 3(3-0)
This course, together with Political Science 1433, fulfills the legislative requirement of six semester hours of American government. A study of the American national and Texas governmental system. The American experiment in federalism and democracy; origin and development of the United States Constitution; federal state relations; the individual as a citizen; political parties and electoral campaigns.

1433. **American Government** (TCCNS = GOVT 2302) 3(3-0)
Legislative, executive, and judicial functions in the United States and Texas governments; foreign policy; the conduct of foreign relations; civil liberties and rights; national defense; government and the economy; governmental services. Special attention given to Texas.
2523. **Foundations of Government and Politics** 3(3-0)
Study of major concepts, theories, and principles of government and politics. Designed to provide a basic understanding of the institutions and processes of government.
3213. **Research Methods** 3(3-0)
Prerequisites: Six hours of political science.
Introduction to legal and social science research methods with emphasis on practical application. Includes basic procedures of survey research, quantitative analysis, and research design development.
3233. **American Political Parties and Pressure Groups** 3(3-0)
Prerequisites: Six hours of political science.
The American political system and pressure groups, with particular attention to their development, present structures, and roles in the American political system.
3313. **Introduction to Political Theory** 3(3-0)
Prerequisites: Six hours of political science.
A basic survey and evaluation of the major classical and contemporary theories of politics. Special emphasis on the influence of classical political philosophy on modern democratic theory.
3443. **Municipal Government and Metropolitan Problems** 3(3-0)
Prerequisites: Six hours of political science.
Study of the structure, functions, and politics of local government with special emphasis on the problems of governing metropolitan areas.
3533. **Government and Politics of Western Europe** 3(3-0)
Prerequisites: Six hours of political science.
A comparative study of modern political institutions and processes, with particular attention to the United Kingdom, France, and Germany.
3543. **Government and Politics of Eastern Europe** 3(3-0)
Prerequisites: Six hours of political science.
A comparative study of the political institutions and processes in the region, with particular attention to Poland, Hungary, and the Czech Republic.
3553. **Government and Politics of Central Eurasia** 3(3-0)
Prerequisites: Six hours of political science.
A comparative study of the political institutions and processes of the former Soviet republics with particular attention to the Russian Federation.
3563. **Government and Politics of the Middle East** 3(3-0)
Prerequisites: Six hours of political science.
A comparative study of the political institutions and processes with particular attention to Middle East nation states.
3573. **African Politics** 3(3-0)
Prerequisites: Six hours of political science.
This course introduces students to African politics and society by depicting in broad strokes the complexities and diversities of the African world since independence, and investigates new paths of understanding into intricate dynamics.

3583. **Government and Politics of Latin America** 3(3-0)
Prerequisites: Six hours of political science.
A comparative study of the political institutions and processes of eight Latin American countries. Special attention is given to contemporary topics that affect the region such as populism, bureaucratic authoritarianism, drug trafficking, human rights, and neo-Liberal reform.
3653. **International Relations** 3(3-0)
Prerequisites: Six hours of political science.
A study of the nation-state systems; critical analysis of principles, problems, and factors involved in the foreign policies and relations of the various states.
3843. **The Presidency** 3(3-0)
Prerequisites: Six hours of political science.
A study of the Presidency and the executive branch in the American system.
3933. **The Judicial System and Process** 3(3-0)
Prerequisites: Six hours of political science.
A study of the American judicial system and process at the local, state, and national levels. Topics include judicial selection and judicial policy-making.
4043. **Legislation** (formerly 4013) 3(3-0)
Prerequisites: Six hours of political science.
A study of the role of Congress and the state legislature in the American system.
4133. **Public Administration** 3(3-0)
Prerequisites: Six hours of political science.
Examination of the basic principles involved in the administration and execution of public policy. Includes such topics as organizational theory, personnel management, budgetary procedures, and the politics of administration.
4153. **Quantitative Methods** 3(3-0)
Prerequisites: Six hours of political science and POLS 3213.
Examines theory building and testing, statistical modeling, multivariate analysis, and applications for general social science research.
4163. **Federalism and Intergovernmental Relations** 3(3-0)
Prerequisites: Six hours of political science.
An analysis of the relationships among federal, state, and local governments in the United States with emphasis on the administrative aspects of the expanding area of inter-governmental cooperation.
4173. **Organizational Behavior and Decision Making** 3(3-0)
Prerequisites: Six hours of political science.
Examines individual, interpersonal, and group behavior in the organizational context utilizing both theoretical and quantitative approaches in the study of these concepts.
4233. **American Constitutional Law I** 3(3-0)
Prerequisites: Six hours of political science.
The development of the Constitution through the interpretations of the Supreme Court.
4243. **American Constitutional Law II** 3(3-0)
Prerequisites: Six hours of political science.
A continuation of Political Science 4233. Additional cases in constitutional development. A study of civil rights and civil liberties.

4333. **International Law** 3(3-0)
 Prerequisites: Six hours of political science.
 The role of the law of nations in world politics, with emphasis on the history, theories, sources, and enforcement of international law.
4443. **Black Politics** 3(3-0)
 Prerequisites: Six hours of political science.
 An examination of the political behavior of Black Americans in the United States by focusing on the relationship between Black Americans and the various actors, institutions and processes of the American Political System. Special emphasis on contemporary problems, trends, and developments of Black Politics.
4453. **Political Protest and Revolutions** 3(3-0)
 Prerequisites: Six hours of political science.
 An examination of the study of political protest concentrating on the dynamics of the interaction between the regime and the dissidents. This course provides students with both a factual background of modern political revolutions and protest movements as well as examining such theoretical issues as the collective action problem, relative deprivation and resource mobilization theory.
4553. **Twentieth Century Political Thought** 3(3-0)
 Prerequisites: Six hours of political science.
 An analysis of recent trends in political thought.
4653. **International Political Economy** 3(3-0)
 Prerequisites: Three hours of economics and six hours of political science.
 An examination of the interaction of economics and politics with specific attention to issues in international trade, international finance, and international economic and political development.
4853. **Contemporary American Foreign Policy** 3(3-0)
 Prerequisites: Six hours of political science.
 Study of policies and problems in United States foreign relations since World War II.
4901. **Problems in Government and Politics** 1 semester hour
 Prerequisites: Six hours of political science and consent of the department chair.
 Supervised reading and research in the field of government and politics.
4902. **Problems in Government and Politics** 2 semester hours
 Prerequisites: Six hours of political science and consent of the department chair.
 Supervised reading and research in the field of government and politics.
4903. **Problems in Government and Politics** 3 semester hours
 Prerequisites: Six hours of political science and consent of the department chair.
 Supervised reading and research in the field of government and politics. May be repeated for credit when topics vary.
4923. **Seminar** 3(3-0)
 Prerequisites: Six hours of political science and consent of the instructor.
 Study and research of problems in government and political science. May be repeated for credit when topics vary.
4933. **Issues in World Politics** 3(3-0)
 Prerequisites: Six hours of political science.
 Analyses of contemporary problems in international politics.
4953. **Public Personnel Administration** 3(3-0)
 Prerequisites: Six hours of political science.

An intensive examination of personnel administration in the public service including such topics as recruitment procedures, classification systems, promotion policies, and collective bargaining in a public merit system.

4973. **Internship in Political Science** 3 semester hours

Prerequisites: 12 hours of political science and approval of the department chair.

Field experience in selected government agencies.

PSYCHOLOGY

George M. Diekhoff, Chair (O'Donohoe Hall 122)

Professor: Diekhoff

Associate Professors: Guthrie, Vandehey

Assistant Professors: Carlston, Spiller

Professor Emeritus: Cuevas

Academic Foundations and Core Curriculum (see page 103)

A major in psychology has the option of obtaining a Bachelor of Arts or a Bachelor of Science degree. Requirements for the B.A. and B.S. degrees are on pages 104-105.

Program requirements remain the same for either degree and are as follows:

Major (33 semester hours)

PSYC 1103, 2203, 3023 or 3913, 3313, 3603 or 4203, 3703 or 4003, 4503 or 4703; and 12 advanced hours, selected with the approval of the student's advisor.

BIOL 1134 or 1144 (satisfies part of Natural Science requirement in Academic Foundations and Core Curriculum) is an additional program requirement.

All psychology majors must take a comprehensive examination during their senior year. Contact the Psychology Department office to make testing arrangements.

REQUIREMENTS FOR A MINOR IN PSYCHOLOGY

Eighteen semester hours including PSYC 1103 and 2203 plus 12 additional advanced hours chosen in consultation with the student's advisor and psychology faculty.

GRADUATE PROGRAM

The requirements for a degree of Master of Arts with a major in the field of psychology may be found in a separate graduate catalog.

COURSES IN PSYCHOLOGY (PSYC)

1103. **General Psychology** (TCCNS = PSYC 2301) 3(3-0)

Introduction and survey of the basic concepts of psychology as a science of behavior and mental processes. Includes research and current information in the areas of learning, states of consciousness, human development, personality, and abnormal behavior.

2203. **Human Behavior** 3(3-0)

Prerequisite: PSYC 1103.

A continuation of the introductory examination of psychology. Topics include biological psychology, sensation and perception, motivation, emotion, industrial/organizational psychology, and social psychology.

3023. **Human Sexuality** 3(3-0)
Prerequisite: PSYC 1103. May also be taken for sociology credit.
Basic study of human sexual behavior. Topics to be covered include psycho-sexual development, sexual attitudes and information, ethics, sexual deviations, sexual problems, therapy, and current issues.
3233. **Developmental Psychology** 3(3-0)
Prerequisite: PSYC 1103 or consent of instructor.
A study in the development of behavior and mental processes across the life span. Includes normal and abnormal behavior. Also offered for nursing credit.
3313. **Psychological Statistics** 3(3-0)
Prerequisite: MATH 1003 or equivalent.
Introduction to descriptive and inferential statistics. Topics include data distributions, descriptive statistics, sampling distributions, interval estimation, one- and two-sample significant difference tests, one-way analysis of variance, correlation, and regression. The course also examines computerized statistical analysis.
3403. **Social Psychology** 3(3-0)
Prerequisites: PSYC 1103, 2203. May also be taken for sociology credit.
Interdisciplinary experimental research linking psychology and sociology, which deals with the influence of groups and social situations on the individual. Includes as areas of study: social and person perception, intragroup and intergroup relations, attitudes and attitude change, conformity, prejudice, leadership, and power structures.
3603. **Abnormal Psychology** 3(3-0)
Prerequisites: PSYC 1103, 2203.
Historical views of mental disorders; the problems of identifying and classifying deviant behavior; current research concerning the background, development, symptoms, dynamics, and prognosis of the major categories of mental disorders.
3703. **Theories of Motivation** 3(3-0)
Prerequisites: PSYC 1103, 2203.
An examination of the concepts of needs, drives, and motives as they contribute to human behavior. Motivational processes are examined ranging from the primary, physiological drives, to higher-order motives like achievement, curiosity, and cognitive consistency.
3853. **Health Psychology** 3(3-0)
Prerequisites: PSYC 1103, 2203.
An examination of the contributions of psychology to the promotion and maintenance of health, the prevention and treatment of illness, and the improvement of the health care system and health policy formulation. Topics include the mind-body relationship, health-enhancing and health-compromising behaviors, stress and coping, patient-practitioner interaction, pain management, and psychological issues in chronic and terminal illnesses.
3863. **Sport Psychology** 3(3-0)
Prerequisites: PSYC 1103, 2203.
A survey of the literature concerning the relationship of psychological processes and motor performance. Topics include motivation, arousal, attention and personality of the athlete, anxiety and mood, cognitive and behavioral interventions, the social psychology of sport and the psychobiology of sport and exercise.
3873. **Psychology of Gender** 3(3-0)
Prerequisites: PSYC 1103, 2203.
The course focuses on the history, social customs, and biology of the development and expression of gender behaviors and attitudes within contemporary society.

- 3913. Personal Relations and Interactions** 3(3-0)
Prerequisites: PSYC 1103, 2203 or consent of instructor.
Learning and practice in personal and interpersonal skills. Emphasis is upon experiential role playing and practice in expression, listening, constructive confrontation, resolving conflicts, negotiation, and stress management.
- 4003. Learning** 3(3-0)
Prerequisites: PSYC 1103, 2203.
Scientific research in learning processes; methods and techniques of collecting data on learning; the application of learning procedures to normal and abnormal behavior.
- 4103. Clinical Psychology** 3(3-0)
Prerequisites: PSYC 1103, 2203, 3603.
A critical evaluation of the major theories and methods of psychological treatment and assessment.
- 4113. Industrial/Organizational Psychology** 3(3-0)
Prerequisites: PSYC 1103, 2203 or consent of instructor.
Psychological theories and psychometric principles as applied to the selection, training, and evaluation of workers, worker motivation and job satisfaction, the employee-employer relationship, and consumer psychology.
- 4123. History and Systems of Psychology** 3(3-0)
Prerequisites: 12 hours of psychology including 1103, 2203.
A survey of the historical development of psychology. Important schools of psychology, major contributors, and the shaping influence of the past on contemporary psychology are all considered.
- 4133. Perception and Cognition** 3(3-0)
Prerequisites: PSYC 1103, 2203.
The study of the human being as an information processing system. Topics include sensory aspects of information extraction, selective attention and concentration, problems related to perception and recognition of incoming stimulation, and the structures and processes of human memory systems.
- 4143. Psychology of Self** 3(3-0)
Prerequisites: PSYC 1103, 2203.
This high participation seminar is designed for Junior and Senior students. The course provides an opportunity for students to understand the self from an intrapersonal perspective. Concepts such as self-esteem, self-concept, and self-fulfilling prophecies will be discussed. Some self-disclosure is consistent with this seminar format.
- 4153. Child Clinical Psychology** 3(3-0)
Prerequisites: PSYC 1103 and 2203 or consent of instructor.
Introduction to clinical disorders observed in children and adolescents. Course covers concepts of developmental psychopathology and the etiology of disorders. Discussion of the assessment, diagnosis, and treatment of psychological disorders experienced by children and adolescents from a system of care perspective.
- 4203. Psychology of Personality** 3(3-0)
Prerequisites: PSYC 1103, 2203.
A survey of the major theories of personality development and functioning, including an introduction to personality assessment and current research.
- 4401, 4402, 4403. Special Projects** 1-3 semester hours
Prerequisites: PSYC 1103 and consent of instructor.
Intensive study for the advanced student within a special area. May be repeated for credit for a different area of study.

4503. Psychological Tests and Evaluation 3(3-0)

Prerequisites: PSYC 1103, 2203, and 3313.

The basic principles of psychological evaluation, test construction, and administration. Includes a survey of current intelligence, interest, aptitude, and personality tests and their evaluation.

4703. Experimental Psychology 3(3-0)

Prerequisites: 12 hours of psychology including PSYC 3313.

The theory and application of scientific methodology in psychological research.

4773. Selected Topics in Psychology 3(3-0)

Prerequisites: PSYC 1103, 2203.

Intensive study and coverage of selected topics in psychology. May be repeated for credit when topics vary.

4801. Senior Thesis I 1 semester hour

Prerequisites: PSYC 3313, 4703, must be a psychology major and have approval of department chair.

Outstanding students that receive department approval may undertake a research project for credit. The research project is expected to take two semesters to complete (register for 4801 first semester and 4802 the second semester). Summation of the project will include an oral presentation to the faculty and interested students. Ideally, the student will submit the findings to a regional or national conference or a refereed journal.

4802. Senior Thesis II 2 semester hours

Prerequisites: PSYC 4801 and approval of department chair.

Completion of the senior thesis begun as PSYC 4801. Summation of the project will include an oral presentation to the faculty and interested students. Ideally, the student will submit the findings to a regional or national conference or a refereed journal.

4903. Internship in Psychology 3(3-0)

Prerequisites: Open only to psychology majors. The student must have completed 21 hours of psychology and must be approved by the course instructor.

Field experience in selected agencies.

SOCIAL STUDIES

The Prothro-Yeager College of Humanities and Social Sciences offers a social studies course that is limited to students who are pursuing their teacher certification with a Bachelor of Science in Interdisciplinary Studies or a Bachelor of Arts with Secondary Certification. (See pages 150 and 156 for degree requirements.)

COURSE IN SOCIAL STUDIES (SOST)

3003. Concepts of Social Studies 3(3-0)

This course explores critical concepts and themes that have charted the course of human development. Emphasis shall be given to the major political, social, economic, religious, geographic, scientific, and cultural forces, which have shaped civilizations around the globe.

SOCIOLOGY

Emily E. LaBeff, Chair (O'Donohoe Hall 124)

Professors: Clark, LaBeff, Williams

Associate Professor: Stiles

Assistant Professor: van Blommestein

Academic Foundations and Core Curriculum (see page 103)

A student majoring in sociology has the option of obtaining a Bachelor of Arts or a Bachelor of Science degree. Requirements for the B.A. and B.S. degrees are on pages 104-105.

Major (B.A. and B.S.) (33 semester hours)

SOCL 1133, 2233, 3633, 4153, 4803, PSYC 3313, and 15 advanced semester hours selected with the approval of the student's advisor.

All sociology majors must take a written comprehensive examination during their senior year. Contact the Sociology Department office to make testing arrangements.

REQUIREMENTS FOR A MINOR IN SOCIOLOGY

Eighteen semester hours including SOCL 1133, 2233, plus 12 additional advanced semester hours.

COURSES IN SOCIOLOGY (SOCL)

1133. **Introductory Sociology** (TCCNS = SOCL 1301) 3(3-0)

A general survey course introducing students to the field of sociology. Emphasis is on people as products of groups, social interaction, and social forces. Topics covered include marriage and family, deviance, social class, minority relations, and collective behavior with an effort toward helping students understand the social world and their roles in it. May be counted toward degree requirements for sociology or social work, but not both.

2233. **Social Problems** (TCCNS = SOCL 1306) 3(3-0)

Prerequisite: SOCL 1133 or consent of instructor.

Issues such as poverty, social class, race, family, and aging are examined to determine causes and possible solutions.

3023. **Human Sexuality** 3(3-0)

Prerequisite: SOCL 1133.

For course description see psychology section. May be taken for either psychology or sociology credit, but not for both.

3333. **Criminology** 3(3-0)

Prerequisite: SOCL 1133 or consent of instructor.

An in-depth study of crime in the United States with an emphasis on major types of crime and factors in causation.

3353. **Total Institutions** 3(3-0)

Prerequisites: SOCL 1133, 3333 or 3733 or consent of instructor.

A study of total institutions with a primary focus on contemporary American prisons. The historical development of total institutions and the major problems inherent in such institutions are examined in detail.

- 3403. Social Psychology** 3(3-0)
Prerequisite: SOCL 1133.
For course description see psychology section. May be taken for either psychology or sociology credit, but not for both.
- 3433. The Family** 3(3-0)
Prerequisite: SOCL 1133 or consent of instructor.
A broad conceptual analysis of the American family, with some cross-cultural comparisons. Specific areas covered include sexual norms, sex roles, gender issues, dating and courtship patterns, mate selection, family formation, marital adjustment, family dissolution as well as an analysis of major historical changes and trends.
- 3633. Research Methods** 3(3-0)
Prerequisites: PSYC 3313, 9 hours of sociology, or consent of instructor.
An introduction to methods and techniques of sociological research; examination and application of quantitative and qualitative methods of data collection through selected research programs.
- 3733. Juvenile Delinquency** 3(3-0)
Prerequisite: SOCL 1133 or consent of instructor. May also be taken for criminal justice credit.
Nature, extent, and causes of juvenile delinquency: youthful offenders and their career patterns, institutional controls and correctional programs.
- 3783. Population and World Cultures** 3(3-0)
Prerequisites: SOCL 1133, 2233, or consent of instructor.
An examination of global population issues within the context of specific world cultures including the Middle East, the Pacific Rim, Asia, and Latin America.
- 3803. Medical Sociology** 3(3-0)
Prerequisite: SOCL 1133 or consent of instructor.
Social factors and institutional settings for physical and mental health care; public needs and group medical services; women's health issues; social interaction in hospitalization and institutions of rehabilitation.
- 4001, 4003. Special Projects** 1, 3 semester hours
Prerequisites: 9 hours of sociology including SOCL 1133 and consent of instructor.
Intensive study for the advanced student within a special area in the field of sociology. May be repeated for credit for a different area of study.
- 4133. Racial and Ethnic Relations** 3(3-0)
Prerequisites: SOCL 1133, 2233, or consent of instructor.
Critical analysis of some of the major issues on race in U.S. society (and across the world). Emphasis is placed on the theory of racial and ethnic adaptation patterns. We will develop a historical understanding and apply it to contemporary U.S. race relations. What does it mean to be Black, White, Latino, Asian, or mixed? What do these categories mean?
- 4153. Sociological Theory** 3(3-0)
Prerequisites: 9 hours of sociology or consent of instructor.
A survey and analysis of development of sociological theory from the time of Comte to the present. Particular schools and major paradigms are evaluated, and recent confluences in social anthropology, sociology, and social psychology are noted.
- 4233. Gender in Society** 3(3-0)
Prerequisites: SOCL 1133 and 2233.
Investigates the social organization of gender, especially interaction, cultural, and institutional arrangements that underlie gender inequality in American society.

4353. **The Sociology of Death and Dying** 3(3-0)
Prerequisites: 9 hours of sociology or consent of instructor.
An analysis of the social context of death and dying in American society. The impact of death on children, the family, and survivors is examined. Additional emphasis on the role of hospice as well as legal, moral, and medical ethics are included.
4413. **Deviance** 3(3-0)
Prerequisites: SOCL1133, 2233 or consent of instructor.
Understanding the occurrence of and reaction to deviant behavior in society. This course is a detailed review of the various forms of behavior which are often considered "deviant" in western society using various theoretical explanations. Some topics include: white collar and corporate crime, drug addiction, alcoholism, suicide, and sexual deviance.
4543. **Aging** 3(3-0)
Prerequisites: 9 hours of sociology or consent of instructor.
The emergence of aging as a problem in industrial societies. Analysis of specific problems and programs relating to older persons in American society.
4633. **The Sociology of Family Violence** 3(3-0)
Prerequisites: 9 hours of sociology or consent of instructor.
An examination of the various forms of family violence including child, sibling, courtship, marital, and elder abuse. Specific theoretical models explaining family violence will be examined along with the societal characteristics associated with violent situations and the various therapeutic approaches and current treatment programs available.
4733. **Selected Topics in Sociology** 3(3-0)
Prerequisites: 9 hours of sociology or consent of instructor.
Intensive study and coverage of selected topics in sociology. May be repeated for credit when topics vary.
4773. **Internship in Sociology** 3(3-0)
Prerequisites: 12 hours of sociology, majors in sociology, and permission of the instructor.
Field experience in selected agencies. May not be repeated for credit.
4803. **Applied Sociology** 3(3-0)
Prerequisites: 9 hours of sociology or consent of instructor.
This course is designed to incorporate previous course work within the discipline to facilitate a student's ability to apply sociology and sociological concepts to problem solving in the world of business and professional organizations. Students who are considering a career of professional development can explore the problem-solving skills necessary to the understanding of how issues that confront staff development such as race, social class, gender, and family impact the work environment.
- 4883, 4893. **British Culture and Society** 3(3-0)
Prerequisites: 3 hours of sociology and consent of instructor.
This class is part of MSU's study abroad program offered during the second summer term. This class compares major institutions within Great Britain and the United States. Institutional issues surrounding the family, government, religion, poverty, education, and sport will provide the context by which students can examine modern living in the U. K. as well as the U.S.

COLLEGE OF SCIENCE AND MATHEMATICS

Betty H. Stewart, Dean (Bolin Hall 111A)

MISSION STATEMENT FOR THE COLLEGE OF SCIENCE AND MATHEMATICS

The College of Science and Mathematics has as its major mission teaching of the highest quality at both the undergraduate and graduate levels. The college offers 10 undergraduate degrees: B.S. in Biology, B.S. in Chemistry, B.A. or B.S. in Computer Science, B.A. or B.S. in Geosciences, B.S. in Environmental Science, B.S. in Manufacturing Engineering Technology, B.S.M.E. in Mechanical Engineering, B.A. or B.S. in Mathematics, B.S.C.L.S. in Clinical Laboratory Science, and B.S. in Physics. Master's degrees are offered in biology and computer science. The college has 42 well-educated faculty members who are excellent teachers and professionals in their disciplines.

Through its faculty and programs, the College of Science and Mathematics provides students with the knowledge and skills for life-long learning, the ability to understand the world in which they live, and to comprehend engineering, scientific, and mathematical advancements and their benefit to future generations. To further assist in the accomplishment of this mission, the College of Science and Mathematics fosters research and scholarship of high quality among the faculty, undergraduate, and graduate programs. To provide outreach as an educational institution, the College of Science and Mathematics assists its faculty in utilizing their expertise to the benefit of the university community and regional, state, national, and international communities.

The College of Science and Mathematics offers the following degrees:

Bachelor of Arts with a major in Computer Science	see page 313
Bachelor of Arts with a major in Geosciences	see page 322
Bachelor of Arts with a major in Mathematics	see page 325
Bachelor of Science with a major in Biology	see page 303
Bachelor of Science with a major in Chemistry	see page 308
Bachelor of Science in Clinical Laboratory Science	see page 312
Bachelor of Science with a major in Computer Science	see page 313
Bachelor of Science with a major in Environmental Science	see page 320
Bachelor of Science with a major in Geosciences	see page 322
Bachelor of Science with a major in Manufacturing Engineering Technology	see page 330
Bachelor of Science with a major in Mathematics	see page 325
Bachelor of Science in Mechanical Engineering	see page 334
Bachelor of Science with a major in Physics	see page 338
Dental Early Acceptance Program (DEAP)	see page 317
Teacher Certification programs for Grades 8 - 12 in Composite Science, Life Science, Mathematics, and Physical Science	see page 156
Master of Science with a major in Biology	see graduate catalog
Master of Science with a major in Computer Science	see graduate catalog

BIOLOGICAL SCIENCE

William B. Cook, Chair (Bolin Hall 218D)

Professors: Cook, Horner, Stangl

Associate Professor: Rincón-Zachary

Assistant Professors: Mills, Scales, Shipley, Vogtsberger

Instructor: Javed

Professors Emeriti: Scott, Grimes

The requirements for the degree of Bachelor of Science with a major in biology may be satisfied in any of three areas of emphasis.

- A. Molecular-cellular option
- B. Organismal option
- C. Pre-Professional (pre-medicine, pre-dentistry, pre-veterinary) option

Academic Foundations and Core Curriculum (all options see page 103)

Major

Option A

Biology 1144, 1544, 3054, 3064, 3331, 3333, 4001, 4714, three advanced hours in both botany¹ and zoology²; three additional advanced hours (34 hours)

Option B

Biology 1144, 1544, 3054, 3064, 3331, 3333, 4001; three advanced hours in both botany¹ and zoology²; twelve additional advanced hours (39 hours)

¹Advanced Botany 3534, 4463, and 4564.

²Advanced Zoology 3024, 3033, 3133, 3234, 3344, 3434, 3644, and 4523.

Option C

Biology 1144, 1544, 3054, 3064, 3144, 3234, 3331, 3333, 4001; 8 additional advanced hours (37 hours)

Minor

Option A

CHEM 1141, 1143, 1241, 1243, 3001, 3003, 3011, 3013, 3603, 4243 (22 hours)

Option B

Consult advisor for approved minor and specific courses, or may select Interdisciplinary minor: GEOS 1134, 1233, 3133, 3534; MATH 1233 or 1533; STAT 3573 (19 hours)

Option C

Consult advisor for approved minor and specific courses.

Program Requirements (see Options, above)

Option A: MATH 1433 or 1533, 1634, 1734, 2534; PHYS 1624, 2644

Option B: CHEM 1141, 1143, 1241, 1243, 3001, 3003; MATH 1433;
Either PHYS 1144 and 1244 or 1624 and 2644

Option C: MATH 1634; CHEM 1141, 1143, 1241, 1243, 3001, 3003, 3011, 3013; Either PHYS 1144 and 1244 or 1624 and 2644

Foreign Language 1134 and 1234 are required for options A-C.

REQUIREMENTS FOR A MINOR IN BIOLOGY (20 semester hours)

Biology 1144 and 1544 and an additional 12 semester hours, of which 6 must be advanced. Courses must be selected in consultation with chair.

COURSES IN BIOLOGY (BIOL)

1113. Introduction to Clinical Laboratory Science 3(2-2)

An introduction to medical technology, professional ethics and the major disciplines in clinical laboratory sciences. Students perform basic laboratory experiments and learn the correlation between test results and common disease states.

1134. Anatomy and Physiology I (TCCNS = BIOL 2401) 4(3-2)

Structure and function of the human body. Anatomical terminology, chemical and cellular bases of life, tissues, the integumentary, skeletal, muscular, and nervous systems, including sense organs. Concurrent laboratory participation with animal dissection required.

1144. General Zoology (TCCNS = BIOL 1413) 4(3-2)

Survey of the animal world emphasizing the morphology, life cycles, and distribution of major phyla. Dissection of representative animals.

1234. Anatomy and Physiology II (TCCNS = BIOL 2402) 4(3-2)

Prerequisite: BIOL 1134.

Structure and function of the endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive systems of humans. Concurrent laboratory participation with animal dissection required.

1544. General Botany (TCCNS = BIOL 1411) 4(3-2)

An introduction to the plant world including structure and physiology of flowering plants, survey of plant diversity and ecological roles of plants.

2333. Nutrition (formerly 1333) (TCCNS = BIOL 1322) 3(3-0)

Prerequisites: One year of biology.

(Same as KNES 2333, page 238)

3004. Microbiology 4(3-3)

Prerequisites: One year of biology and one year of chemistry.

Introduction to the study of medically important bacteria, protozoa, viruses, helminths, and fungi. May not be applied to biology major.

3024. Vertebrate Zoology 4(3-2)

Prerequisites: BIOL 1144 and 1544.

Survey of the zoogeography, systematics, and natural history of fishes, amphibians, reptiles, birds, and mammals. Emphasis on Texas species. Field trips required.

3033. Field Zoology 3(1-4)

Prerequisites: BIOL 1144, 1544, and consent of instructor.

Introduction to vertebrate field studies, involving data recording and collection/preservation of study specimens. Emphasis on non-game species of mammals. Field trips required.

3044. Bacteriology 4(3-3)

Prerequisites: One year of biology, CHEM 1241, 1243, or equivalent.

Morphology, physiology, and classification of bacteria; their economic relation to man. Laboratory exercises emphasize culture techniques and identification of bacteria.

3054. **Principles of Biology I** 4(3-3)
Prerequisites: BIOL 1144 and 1544; one year General Chemistry or concurrent enrollment.
A study of the cellular basis of life, principles of inheritance, and principles of evolution.
3064. **Principles of Biology II** 4(3-3)
Prerequisite: BIOL 3054.
A survey of the diversity of living organisms; a consideration of structures and functions unique to plants; an overview of mammalian systems and processes; an examination of ecological interactions among living organisms.
3104. **Fundamental Genetics** 4(4-0)
Prerequisites: One year of biology.
Principles of Mendelian inheritance. Introduction to the molecular basis of genetics. Application of genetic principles to agricultural, medical, and evolutionary questions. May not be applied to biology major.
3113. **Biogeography** 3(3-0)
Prerequisites: BIOL 1144 and 1544.
Study of the biological and physical factors which influence the present and historical distribution patterns of plants and animals.
3133. **Wildlife Management** 3(3-0)
Prerequisites: One year of biology.
Recognition, distribution, and importance of game birds, mammals, and fish of the United States. Principles of management of wildlife resources. The commercial freshwater fishery and fur industry. Non-game wildlife.
3144. **Physiology** 4(3-3)
Prerequisites: BIOL 3054, 3064; CHEM 3001 and 3003; BIOL 3234 and 3333 recommended.
General principles of physiology including the functional analysis of the nervous, muscular, cardiovascular, endocrine, digestive, and respiratory systems.
3234. **Comparative Anatomy of the Vertebrates** 4(3-3)
Prerequisites: One year of biology; BIOL 3064 recommended.
Organ systems of chordates considered in relation to each other with emphasis on mammalian groups. Dissection of representative animals.
3331. **Genetics Laboratory** 1(0-3)
Prerequisite: Prior or concurrent enrollment in BIOL 3333.
Laboratory exercises illustrating basic principles of genetics using plant and animal model systems.
3333. **Genetics** 3(3-0)
Prerequisites: One year of biology; BIOL 3054 recommended.
Fundamental principles of genetics and their application to living organisms.
3344. **Developmental Biology** (formerly 3343) 4(3-3)
Prerequisites: BIOL 3054, 3064, and 3333.
Embryogenesis, including fertilization, embryonic patterning, and organogenesis, emphasizing molecular mechanisms. Laboratory overview of classical embryology, introduction of current techniques and survey of primary literature.
3434. **Entomology** 4(2-4)
Prerequisites: One year of biology.
Principles of insect life. Classification, life histories, and economic relations.

3534. **Systematic Botany** 4(2-4)
Prerequisite: BIOL 1544 or equivalent.
Identification and taxonomic classification of plants using local flora as examples. Survey of major plant families indigenous to North America.
3644. **Invertebrate Zoology** (formerly 3643) 4(3-3)
Prerequisites: One year of biology.
A survey of the structure, function, systematics and habitats of the protist and invertebrate phyla.
3993. **Cooperative Biology Education Practicum** 3(0-3)
This course is designed to provide students with opportunities to integrate the basic principles of biology obtained from biology courses to field applications or a research laboratory. The course provides professional experiences in biology prior to graduation, allowing students to have a better understanding of basic principles applications.
4001. **Seminar in Biology** 1(1-0)
Prerequisite: Restricted to senior biology or general science majors.
Recent advances in the biological sciences.
4021. **Immunology Laboratory** 1(0-3)
Prerequisite: Credit or concurrent enrollment in BIOL 4023.
Immunological and molecular techniques used for the diagnosis and identification of bacteria, parasites, and viruses in animals and humans.
4023. **Immunology** 3(3-0)
Prerequisites: One year of biology; one year of chemistry; BIOL 3333 and either BIOL 4714 or CHEM 4243 recommended.
Fundamental principles of immunology to include cells and tissues of the immune system, immunoassays, humoral and cell-mediated immune responses, molecular biology of the immune system, immune regulation, and application to clinical diagnostic procedures.
4043. **Human Genetics** 3(3-0)
Prerequisites: BIOL 3144, 3333; CHEM 3011, 3013.
Principles of genetics as applied to human beings. Special reference to causation of heritable disorders and to gene flow in populations.
4143. **Evolution and Systematics** 3(3-0)
Prerequisites: BIOL 3054, 3064, and 3333.
Study of organic evolutionary processes, including mutations, genetic drift, patterns and rates of change, and how this knowledge is used to determine systematic relationships of taxa.
4231. **Molecular Biology Laboratory** 1(0-3)
Prerequisite: Concurrent enrollment in BIOL 4233.
Laboratory experience in the practices of genetic engineering.
4233. **Molecular Biology** 3(3-0)
Prerequisites: BIOL 3333, CHEM 3011, 3013; CHEM 4243 recommended.
Structure and function of nucleic acids in the storage, transmission, and expression of genetic information. Proteins as the primary structural and catalytic agents of cellular and organismal biology. Prokaryotic, eukaryotic, and viral model systems. Principles of genetic engineering.
4443. **Histology** 3(2-2)
Prerequisites: One year of biology.

Cytology and histology of epithelium, connective tissue, muscular tissue, nerve tissue, and organology.

4463. Plant Anatomy 3(1-4)

Prerequisite: BIOL 1544.

Examination of cells and tissues that constitute the plant body. Primary tissues and their functions in the root, stem and leaf; secondary tissues: vascular cambium, cork cambium, wood; reproductive structures: structure and function of the flower, fruit and seed; sporogenesis and gametogenesis; embryogenesis; secretory structures, ecological plant anatomy.

4523. Animal Parasitology 3(2-3)

Prerequisites: One year of biology.

Host-parasite relationships in representative groups, with emphasis on taxonomic, ecological, and preventive aspects.

4564. Plant Physiology 4(3-3)

Prerequisites: BIOL 3054, 3064, and CHEM 3003.

Study of physiological processes in higher plants. Dormancy, germination; mechanisms of transport in the phloem and xylem; mineral nutrition; hormones; role of light on growth and development: phytochrome and cryptochrome, tropic responses; photosynthesis: C3, C4, CAM and photorespiration; nitrogen fixation; flowering: photoperiodism and vernalization; senescence and abscission.

4684. Ecology 4(3-3)

Prerequisites: One year of biology, MATH 1233; BIOL 3534 recommended.

Distribution of organisms in the world: biomes; the physical environment; energy flow in ecosystems; population structure and dynamics; growth, distribution, dispersal patterns; species interactions; community structure: species abundance and diversity, theories of diversity; community changes: succession.

4693. Tropical Rainforest Ecology 3 semester hours

An introduction to the neotropical rainforest which includes topics on biodiversity of plants and animals, climate, deforestation and conservation, ecotourism, and other pertinent topics. An organized 10-14 day field trip to a neotropical rainforest is required.

4714. Cell Biology 4(3-3)

Prerequisites: BIOL 3054, 3064, and 3333.

Organization, structure, function, and evolution of eukaryotic cells; intermediary metabolism and biosynthesis: respiration and photosynthesis; membrane composition, function and synthesis; cytoskeleton structure and function; signal transduction; regulation of the cell cycle; programmed cell death; gene function and regulation of information flow; growth, and reproduction.

4900. Research Orientation

Prerequisites: Consent of the instructor and department chair.

An introduction to research topics and methods.

4911, 4912, 4913. Special Problems 1-3 semester hours

Prerequisites: A major in the program of biological sciences and consent of the college dean. (Also see prerequisites on page 93.)

Directed research and study in the field of the student's interest and preparation. A minimum of 45 laboratory hours per one semester hour credit.

CHEMISTRY

Rodney L. Cate, Chair (Bolin Hall 307B)

Professors: Cate, Rogers

Assistant Professors: Hallford, Hansen, Shao

Instructor: Fulton

Professor Emeritus: Sund

Programs of study leading to the degree of Bachelor of Science with a major in chemistry are as follows:

A. Professional option.

This program provides the academic foundation for students who may wish to continue their studies in graduate chemistry, chemical engineering, or biochemistry. Students completing this program with three additional advanced chemistry hours and a chemistry GPA of 2.5 or better will be certified by the Committee on Professional Training of the American Chemical Society.

B. Interdisciplinary option.

This program provides the academic foundation for students who may wish to continue their studies in professional schools of medicine, dentistry, or veterinary medicine or those who desire an emphasis in business, computer science, or other areas.

The requirements for the degree of Bachelor of Science with a major in chemistry are as follows:

General: (see page 101)

Academic Foundations and Core Curriculum: (see page 103)

Bachelor of Science: (see page 105)

Major

Option A

CHEM 1141, 1143, 1241, 1243, 3001, 3003, 3011, 3013, 3305, 3405, 3603, 3705, 4243, 4305, two hours of 4001. (Those students who wish to continue their studies in graduate biochemistry should take CHEM 4242 and 4253. Those students who wish to obtain ACS certification must take three additional advanced hours in chemistry, exclusive of 3504, 4233, and 4505.)

American Chemical Society Certification—With Honors

This designation will be awarded to students fulfilling the following:

1. All regular requirements for the Bachelor of Science with a major in chemistry (Option A) and all the requirements for certification by the Committee on Professional Training of the American Chemical Society.
2. Minimum GPA: 3.0 overall; 3.3 in chemistry courses.
3. A minimum of four semester hours must be earned in independent research (CHEM 4911, 4922, 4933); this should be commenced in the junior year or earlier.
4. Acceptance of a B.S. research paper (covering the undergraduate independent research project) by the chemistry faculty and the chair of the Honors Committee.

5. Presentation of a public lecture on the research paper to the chemistry faculty.

Option B

CHEM 1141, 1143, 1241, 1243, 3001, 3003, 3011, 3013, 3305, 3603, two hours of 4001, and either 3405 or 4242 and 4243.

Minor

Option A

Professional Chemistry or Prechemical Engineering:

Mathematics (See page 325 and the Chemistry Program Advisor for specific course requirements.) OR

Physics (see page 338 and the Chemistry Program Advisor for specific course requirements); OR

Other (see the Chemistry Program Advisor for specific course requirements); OR

Professional Biochemistry - Biology (See page 303 and the Chemistry Program Advisor for specific course requirements.)

Option B

Pre-Medical, Pre-Dental or Pre-Veterinary - Biology (See page 303 and the Health Professions Advisor for specific course requirements.); OR

Business Emphasis - Business Administration (See page 123.); OR

Computer Science Emphasis - Computer Science (See page 313.)

Others (See your academic advisor.)

Additional Requirements:

Requirements common to both optional degree plans:

MATH 1233 and 1433 or MATH 1533; MATH 1634 and 1734; STAT 3573; PHYS 1624 and 2644; and one year of a foreign language.

Option A

MATH 2534, three additional advanced hours in the physical sciences or mathematics of which one hour represents laboratory or problems credit.

Option B

See the Health Professions Advisor for additional Pre-Veterinary medical requirements.

Electives

Additional hours to total a minimum of 124 (including kinesiology requirements).

REQUIREMENTS FOR A MINOR IN CHEMISTRY (22 semester hours)

CHEM 1141, 1143, 1241, 1243, and fourteen additional hours of which six must be advanced, exclusive of organic and introductory environmental chemistry.

Special Problems in CHEM 4911, 4922, 4933 may not be counted toward the minor in chemistry.

COURSES IN CHEMISTRY (CHEM)

1101. **Introductory Chemistry Laboratory** (TCCNS = CHEM 1105) 1(0-2)
 Prerequisite: Credit or concurrent enrollment in CHEM 1103.
 Laboratory experiments and demonstrations to accompany CHEM 1103.

- 1103. Introductory Chemistry (Essentials of Chemistry)** 3(3-0)
(TCCNS = CHEM 1305)
Prerequisite: MATH 1003.
Recommended for students majoring in business, criminal justice, education, liberal arts, and allied health science programs. An introduction to chemical principles and concepts, environmental chemistry, nuclear chemistry, nutritional chemistry, and other topics.
- 1141. General Chemistry Laboratory** (TCCNS = CHEM 1111) 1(1-3)
Prerequisite: Concurrent enrollment in CHEM 1143.
Basic laboratory practice in chemistry.
- 1143. General Chemistry** (TCCNS = CHEM 1311) 3(3-0)
Prerequisite: Credit or concurrent enrollment in MATH 1233 or 1533.
Atomic and molecular structure, periodic law, states of matter, reactions.
- 1203. Introductory Chemistry** (TCCNS = CHEM 1307) 3(3-0)
Prerequisites: CHEM 1103, 1143, or high school chemistry within 4 years.
Recommended for students in nursing and the allied health sciences. A continuation of CHEM 1103, essentials of organic and biochemistry.
- 1241. General Chemistry Laboratory** (TCCNS = CHEM 1112) 1(1-3)
Prerequisites: CHEM 1141 and concurrent enrollment in CHEM 1243.
Qualitative and quantitative analysis.
- 1243. General Chemistry** (TCCNS = CHEM 1312) 3(3-0)
Prerequisites: CHEM 1143 and credit or concurrent enrollment in MATH 1233 or 1533.
Solutions, chemical thermodynamics, equilibrium, electrochemistry, and kinetics.
- 3001. Organic Chemistry Laboratory** 1(1-3)
Prerequisites: CHEM 1241 and concurrent enrollment in CHEM 3003.
Laboratory experiments to accompany CHEM 3003. Separation and purification techniques and quantitative methods in organic chemistry. An introduction to organic synthesis.
- 3003. Organic Chemistry** 3(3-0)
Prerequisite: CHEM 1243 with a grade of C or better.
A comprehensive study of the physical and chemical characteristics of compounds of carbon. Reaction mechanisms, synthesis, and reactions of hydrocarbons, alkyl halides, and alcohols.
- 3011. Organic Chemistry Laboratory** 1(1-3)
Prerequisites: CHEM 3001 and concurrent enrollment in CHEM 3013.
Laboratory experiments to accompany CHEM 3013. Methods of organic synthesis, qualitative analysis, and spectroscopic techniques.
- 3013. Organic Chemistry** 3(3-0)
Prerequisite: CHEM 3003 with a grade of C or better recommended.
A continuation of CHEM 3003. Includes properties, synthesis, and reactions of aldehydes, ketones amines, carboxylic acids, and derivatives, multi-functional, and aryl compounds. Spectroscopy of organic compounds.
- 3305. Analytical Chemistry I** 5(3-4)
Prerequisites: CHEM 1241 and 1243.
Theory and laboratory applications of methods of quantitative analysis. Topics include statistical analysis of data, gravimetric analysis, volumetric analysis, potentiometry, basic electrochemistry, spectroscopy, and analytical separations.

3405. **Analytical Chemistry II** 5(3-4)
Prerequisite: CHEM 3305.
Theory and laboratory applications of modern instrumental methods of analysis. Topics include signal processing, advanced spectroscopy, mass spectrometry, electroanalysis, chromatography, and electrophoresis.
3504. **Introductory Environmental Chemistry** 4(3-3)
Prerequisites: CHEM 1241 and 1243.
A systematic study of the important chemical principles applicable to environmental systems, including considerations of the sources, detection, treatment and prevention of air, water, and soil pollution.
3603. **Physical Chemistry/Thermodynamics** 3(3-0)
Prerequisites: CHEM 1241, 1243; MATH 1734; PHYS 1624 and 2644 or consent of instructor.
Classical and statistical thermodynamics, kinetic molecular theory and chemical kinetics.
3705. **Physical Chemistry** 5(3-4)
Prerequisites: CHEM 3405, 3603, and credit or concurrent enrollment in MATH 2534.
Atomic and molecular structure, experimental physical methods, electrochemistry, theory of reaction rates, and physical chemistry laboratory practice.
4001. **Seminar** 1 semester hour
Prerequisites: Six advanced hours in chemistry and four seminar attendance credits. (See your chemistry advisor for details.)
Participation in seminar presentations and discussions.
4133. **Advanced Organic Chemistry** 3(3-0)
Prerequisite: CHEM 3013.
Reaction mechanisms, structure elucidation, stereoisomerism, and conformational analysis.
4233. **Molecular Biology** 3(3-0)
(Same as BIOL 4233, page 306.)
4242. **Biochemistry Laboratory** 2(0-4)
Prerequisites: CHEM 3011 and credit or concurrent enrollment in CHEM 4243.
Experimental methods in biochemistry, including quantitative and qualitative techniques, enzyme kinetics, and separation methods for biomolecules.
4243. **Biochemistry** 3(3-0)
Prerequisite: CHEM 3013.
The structures and properties of biomolecules, enzyme kinetics and mechanism of action, and metabolic energy-yielding pathways.
4253. **Biochemistry** 3(3-0)
Prerequisite: CHEM 4243.
Oxidative phosphorylation, intermediary metabolism, membrane transport, hormone action, replication, transcription, and translation of genetic information.
4305. **Advanced Inorganic Chemistry** 5(3-4)
Prerequisites: CHEM 3405 and 3705 (may be concurrent).
A systematic study of the basic principles applicable to inorganic chemistry and the chemistry of selected main group elements, transition metal complexes, organometallic compounds, bioinorganic systems, and inorganic chemistry laboratory practice.

4353. **Quantum Physics** 3(3-0)
(Same as PHYS 4353, page 339.)

4505. **Environmental Chemical Technology** 5(3-4)
Prerequisites: CHEM 3305 and 3504.

A survey of chemical principles applicable to the properties and toxicology of hazardous wastes, and prevention and pretreatment strategies for pollution sources, and instruction in advanced techniques in environmental chemical analysis.

4900. **Research Orientation**

Prerequisites: Consent of the instructor and department chair.
An introduction to research topics and methods.

4911, 4922, 4933. **Special Problems in Chemistry** 1-3 semester hours
Prerequisites: CHEM 4900; consent of instructor and department chair. See problem course restrictions in general information section of catalog.

Directed chemical research in problems of interest to the student and instructor. Minimum of 54 hours of laboratory work per semester hour credit. Requires a formal written research report. May not be counted toward the minor in chemistry.

4941, 4942, 4943. **Chemical Topics** 1-3 semester hours
Prerequisites: Consent of the instructor and junior standing.
Advanced topics in chemistry selected according to interests and needs of students.

CLINICAL LABORATORY SCIENCE

Asma Javed, Coordinator (Bolin Hall 220B)

The Bachelor of Science in Clinical Laboratory Science degree consists of 130 semester hours. Upon successful completion of an AMA approved curriculum, the student is eligible to take the National Certification examination for Medical Technologist.

This is a special academic program that has a separate academic foundations curriculum. (See page 112.)

Basic Core (27 semester hours)

Political Science 1333, 1433
English 1113, 1123
Mathematics 1233
History 1133, 1233
Speech Communication - 3 hours
Demonstrate computer literacy by taking a proficiency test or earning credit for CMPS 1023, 1043, 2153, or EDUC 1023.

Additional 18 hours

Select from at least four of the following areas: Social and Behavioral Sciences, Sciences, Fine Arts, Speech Communication (cannot be same course used in Basic Core), Humanities, Economics, and Kinesiology.

NOTE: BSCL students may choose 12 hours from three of the areas listed above and count the other 6 hours from the sciences below.

Major - CLINICAL LABORATORY SCIENCE

Academic Course Work (50 semester hours)
Biology 1113, 1144; 1134 and 1234 or 2034; 3004, 4023

Chemistry 1141, 1143, 1241, 1243, 3001, 3003; 3305
 Statistics 3573

Additional hours to be selected from Biology or Chemistry to bring total to 50 hours.

Practicum (41 semester hours)

Successful completion of a clinical practicum in a medical technology program approved by the Committee on Allied Health Education and Accreditation of the American Medical Association. Forty-one advanced semester hours are awarded in the following areas of instruction: hematology, chemistry, urinalysis, serology, microbiology, blood banking, laboratory rotation.

The coordinator of the clinical laboratory science program will receive and approve syllabi and text materials describing the content of the clinical phase of the clinical laboratory science program. Additionally, the coordinator will review test materials and routinely observe the student in the clinical setting before practicum credit is validated. Practicum credit will be posted upon written approval of the University's coordinator of the clinical laboratory science program.

COMPUTER SCIENCE

Ranette H. Halverson, Chair (Bolin Hall 126A)
Professors: Carpenter, Donovan, Halverson, Passos
Associate Professor: Stringfellow
Assistant Professor: Simpson
Instructors: Greening, Griffin

The requirements for the degree of Bachelor of Science with a major in computer science are as follows:

Academic Foundations and Core Curriculum (see page 103)

Bachelor of Science (see page 105)

Program Requirements

Major

Computer Science 1043, 1053, 2084, 2133, 3023, 3233, 4103, 4113, 4143, 4991, and fifteen hours of computer science electives (twelve advanced hours). Computer Science 1023, 2153, and 3533 may not be counted toward a major in computer science.

Minor to be selected in a field approved by the Chair of the Computer Science program.

Additional Requirements

ECON 2333
 MATH 1634, 1734, 2333, and 3 hours from 3533, 3833, or 4243
 PHYS 1624, 2644
 STAT 3573
 Computer Science Exit Exam

The requirements for the degree of Bachelor of Arts with a major in computer science are as follows:

Academic Foundations and Core Curriculum (see page 103)

Bachelor of Arts (see page 104)

Program Requirements

Major

Computer Science 1043, 1053, 2084, 2133, 3233, 3493, 4103, 4113, 4123, 4991, and fifteen hours of computer science electives (twelve advanced hours). Computer Science 1023, 2153, and 3533 may not be counted toward a major in computer science.

Minor to be selected in a field approved by the Chair of the Computer Science program.

Additional Requirements

ACCT 2143, 2243

MATH 1233 and 1433, or MATH 1533

MATH 2333

MATH 1634 *or* 4243 *or* other approved math course

STAT 3573

Computer Science Exit Exam

Minor in Computer Science

The requirements for a minor in computer science are Computer Science 1043, 1053, 2084, 2133, and twelve hours computer science electives (nine advanced hours) to be approved by Chair. Computer Science 1023 and 2153 may not be counted toward a minor in computer science.

COURSES IN COMPUTER SCIENCE (CMPS)

1023. **Introduction to Computing** (TCCNS = COSC 1300) 3(2-2)

Study of topics related to the use of computers, including history of computing, hardware, software, socioeconomic impact, data communications, the Internet, and World Wide Web. Hands-on laboratory introduces system operation and application of micro-computer-based software packages and World Wide Web. (May not count toward a CMPS major or minor.)

1043. **Computer Science I** 3(3-0)

Prerequisite: Concurrent enrollment in MATH 1233 or 1533 or MATH 1203 (for Business majors).

Introduction to methods of problem solving and algorithm development. A high-level programming language is taught with an emphasis on program design, coding, debugging, testing, and documentation. Discussion of ethical, social, and legal issues related to computing.

1053. **Computer Science II** 3(3-0)

Prerequisites: Minimum grades of C in CMPS 1043 and MATH 1233 or 1533 or MATH 1203.

A continuation of the development of a disciplined approach to the design, coding, debugging, and testing of programs. Introduction to algorithmic analysis, recursion, data structures, and sorting mechanisms using a high-level language.

2084. **Introduction to Computer Architecture** (formerly 2083) 4(3-2)

Prerequisite: Minimum grade of C in CMPS 1043.

An introduction to the components, functions, and logical relationships present in

current scalar computers, including the central processing unit, different levels of memory, control signals, bus systems, data channels, and input/output devices. Also covered are instruction sets and assembly language programming.

2133. Data Structures 3(3-0)

Prerequisites: Minimum grades of C in CMPS 1053 and MATH 2333.

Object-oriented approach to design and analysis of algorithms, particularly those related to the processing of data structures, including trees, graphs, and linked lists. Other techniques include searching, sorting, and merging. Discussion of legal, social, and ethical issues.

2153. Microcomputer Applications for Business (formerly BUAD 2153) 3(3-0)
(TCCNS = BCIS 1301)

An introduction to common software programs and terminology for business applications. Emphasis is on the use of electronic spreadsheets, preparing the student for subsequent business courses. Topics also include word processing and presentation software. (For business majors. May not count toward a CMPS major or minor.)

3023. Logic Design 3(3-0)

Prerequisite: Minimum grade of C in CMPS 2084.

Study of topics related to the design of modern microprocessors, including Boolean algebra, logic gates, design simplification techniques, memory design, programmable control units, and use of hardware description languages.

3233. Theory of Computation 3(3-0)

Prerequisites: Minimum grades of C in CMPS 2133 and MATH 2333.

Study of the fundamental mathematical properties of hardware, software, and their applications. Emphasis is on the capabilities and limitation of computers, including finite automata, push-down automata, and Turing machines.

3493. Internet Programming 3(3-0)

Prerequisite: Minimum grade of C in CMPS 2133.

This class introduces the technologies and issues involved with programming Internet and Intranet applications. It involves the study of several Internet languages such as Dynamic HTML and Javascript, file format types, basic database access, SQL, and common tasks such as representing, storing, compressing, manipulating, interacting with, and presenting text, drawings, still images, animations, audio and video in web pages.

3533. Numerical Analysis 3(3-0)

Prerequisites: CMPS 1043 and MATH 1734.

Use of numerical methods to solve problems including but not limited to the following: function approximation solutions of equations, numerical calculus, and differential equations. Includes analysis and the design and writing of programs. (May not be counted toward a major in computer science for the BS degree. MATH 3533 and CMPS 3533 cannot both be taken for credit.)

4103. Introduction to Operating Systems 3(3-0)

Prerequisites: Minimum grades of C in CMPS 2084 and CMPS 2133.

An introduction to operating systems for contemporary multitasking, single processor computers. Topics include processes, process management and scheduling, inter-process synchronization and communication, memory management, and file management. Selected theory and concepts are supplemented with an examination of their implementation in contemporary operating systems. Discussion of legal, social, and ethical issues.

- 4113. Software Engineering** 3(3-0)
Prerequisites: CMPS 2133 and 6 advanced hours in computer science.
Application of structured methodology and formal methods to the design, implementation, and documentation of computer software systems. Includes an introduction to the management of software development teams, requirements analysis, testing procedures, and user interface design. Discussion of legal, social, and ethical issues.
- 4123. Data Base Management Systems** 3(3-0)
Prerequisite: CMPS 2133.
A study of concepts, characteristics, design, and implementation of database management systems. Hierarchical, network, and relational approaches to DBMS designs are examined. Advanced models such as object-oriented databases and image retrieval systems are also discussed. Query languages are presented.
- 4143. Topics in Contemporary Programming Languages** 3(3-0)
Prerequisites: CMPS 2084 and 2133.
A study of the syntax, semantics, and implementation of a contemporary programming language with emphasis on program development, program structuring, and the program development environment of the language. Assignments focus on representative applications of the language. May be repeated for credit with approval of the department chair.
- 4213. Introduction to Computer Graphics** 3(3-0)
Prerequisites: CMPS 2133 and MATH 1634.
A study of computer graphics hardware and software with an emphasis on interactive real-time rendering. Topics include but are not limited to mathematics of graphics, 2D and 3D transformations, 3D viewing, polygonal meshes, hidden line and surface algorithms, collision detection, and surface shading and texturing.
- 4223. Introduction to Simulation** 3(3-0)
Prerequisites: CMPS 2133 and STAT 3573.
Introduction to techniques and special purpose languages for the simulation of discrete systems, with an emphasis on queuing systems. Methods for the statistical analysis of the results is included.
- 4233. Artificial Intelligence** 3(3-0)
Prerequisite: CMPS 2133.
Topics to be studied include but are not limited to the following: classical problems in artificial intelligence, knowledge representation, state space search techniques, image processing, neural networks, pattern matching, machine reasoning, and problem solving using LISP.
- 4313. Interactive 3D Game Graphics** 3(3-0)
Prerequisite: CMPS 4213.
Introduction to design and programming of real-time 3D graphics. The course will include, but not be limited to, a study of 3D file formats, model design using 3D modeling tools, model rendering, texturing and animation, high speed terrain rendering, billboard, skyboxes, collision detection, and game engine design. In addition the course will utilize contemporary graphics API's in development of 3D virtual environments frequently encountered in modern, interactive games.
- 4433. Computer Communications and Networks** 3(3-0)
Prerequisites: CMPS 2084 and CMPS 2133.
A study of hardware and software used in data communication systems; the seven OSI network layers are discussed and compared to other implementations. Consideration is given to communication media, protocols, packet switching networks,

local- and wide-area networks, high speed networks, the Internet, and the World Wide Web. Applications such as file transfer, interactive access, web browsers, and server mechanisms are also presented.

4453. Computer Architecture 3(3-0)

Prerequisite: CMPS 2084.

A study of the organization and interconnection of components of computer systems. Emphasis is given to the study of the instruction set and performance analysis of different computer architectures. Also included in the study are microprogramming, pipeline, overlap processing, superscalar, parallel, and massively parallel architectures. Current trends in computer design are also discussed.

4883. Topics in Computer Science 3(3-0)

Prerequisite: Consent of the instructor.

Selected topics from advanced computer science. May be repeated for credit with consent of chair.

4991. Seminar in Social Responsibility 1 semester hour

Prerequisite: Must be in last year prior to graduation.

A self-study in the ethical, legal, and social issues related to computing. Students research, prepare, and present a talk on a related issue.

4993. Special Problems 3 semester hours

Prerequisite: Consent of the chair.

Directed research in computer science.

DENTAL EARLY ACCEPTANCE PROGRAM (DEAP)

Rodney L. Cate, Chair (Bolin Hall 307B)

Professors: See Biology and Chemistry

3 + 4 Dual Degree and Dental Early Admissions Program (DEAP)

Joint Agreement between Midwestern State University and The University of Texas
Health Science Center at San Antonio Dental School

PURPOSE OF PROGRAM

The *3+4 Dual Degree and Dental Early Admission Program (DEAP)* offers outstanding freshmen students with an interest in dentistry an opportunity to receive early acceptance to the University of Texas Health Science Center at San Antonio Dental School and to receive both a Bachelor of Science Degree in Biology or Chemistry at Midwestern State University and a Doctor of Dental Surgery Degree at The University of Texas Health Science Center at San Antonio (UTHSCSA) within seven years.

DESCRIPTION AND POLICY OF THE PROGRAM

1. The student must be admitted to Midwestern State University.
2. When the student has completed no less than 12 and no more than 32 semester hours of academic work, he/she must be accepted to the DEAP program as described below.
 - a. The student must be accepted for admission to DEAP by Admissions Advisor or Health Professions Advisor at Midwestern State University.

- b. The student must have an acceptable pre-entry interview by faculty of the UTHSCSA Dental School. This interview is to determine the student's motivation for the dental profession, and qualities of character and personality of value to the future dentist.
- c. The student must have Texas resident status or a waiver for entry to DEAP from the Associate Dean for Student Affairs of the Dental School.

Acceptance will not be granted to individuals who have been charged with or convicted of a felony or misdemeanor other than minor traffic violations. (A waiver may be granted by the Dental School in exceptional situations.)

3. The student must complete an accelerated curriculum designed by Midwestern State University that consists of 106-111 semester hours of specified coursework. (Course requirements are listed in the *Undergraduate Curriculum at Midwestern State University* section below.)
4. The student must attend a *DEAP Orientation* workshop at the Dental School during the summer between the second and third undergraduate years. Summer research opportunities at the UTHSCSA will be made available to interested students whenever possible.
5. The student must take the Dental Admission Test (DAT) and must submit an application to the University of Texas Dental Application Center before November 1 of the third undergraduate year.
6. Following successful completion of the three year Midwestern State University curriculum, the student will enroll in the UTHSCSA Dental School contingent on the following:
 - a. A grade of "C" or above in all required pre-dental courses and at least 106-111 semester hours of specified courses.
 - b. A cumulative GPA of 3.4 or above for all courses taken in the three years of Midwestern State University DEAP curriculum.
 - c. A science GPA of 3.4 or above for all science courses required in the three-year Midwestern State University DEAP curriculum.
 - d. A score on the Dental Admission Test (DAT) of 18 or above.
 - e. A positive recommendation from the Admissions Advisor or Health Professions Advisor from Midwestern State University.
 - f. A positive record of ethical behavior while a pre-dental student.

NOTE: Students who fall below the GPA requirements will have their application considered by the Dental School Admissions Committee and will be given favorable consideration whenever possible.

7. Following successful completion of the freshman academic year of the Dental School, the student will be granted a B.S. Degree - Biology or Chemistry from Midwestern State University in accordance with the option chosen below.
8. Following successful completion of the four-year curriculum of Dental School, the student will be granted a D.D.S. degree by the Dental School.

TERMINATION OF JOINT AGREEMENT

Termination of this joint agreement may be initiated by either party. Written notice of intent to terminate must be delivered to the other party at least six months prior to the effective date of termination. Students enrolled in the program at the time of termination of this joint agreement will be given the opportunity to complete the program in its entirety.

UNDERGRADUATE CURRICULUM AT MIDWESTERN STATE UNIVERSITY

1. The student must complete 106-111 hours of undergraduate course work as specified below. Upon the successful completion of the first year of dental school, 16-20 hours of credit from the dental school will be transferred to Midwestern State University and counted toward the Midwestern State University B.S. degree in Biology or Chemistry.
2. Courses to be taken at Midwestern State University:

A. Biology Degree**Freshman Year****Fall**

BIOL 1144
 CHEM 1141/1143
 ENGL 1113
 MATH 1533
 KNES (2 hours)

Spring

BIOL 1544
 CHEM 1241/1243
 ENGL 1123
 MATH 1634
 KNES (2 hours)

Summer Session

HIST 1133
 PSYC 1103 or SOCL 1133

HIST 1233

Sophomore Year**Fall**

BIOL 3054
 POLS 1333
 CHEM 3001/3003
 SPCH 1133
 Fine Arts (3 hours)

Spring

BIOL 3064
 POLS 1433
 CHEM 3011/3013
 ECON 1333
 CMPS 1023

Summer Session

Dental Enrichment Program at Dental School

Junior Year**Fall**

BIOL 3331/3333
 BIOL or CHEM (3 adv. hours)
 PHYS 1144
 Foreign Language (4 hours)

Spring

BIOL 3144
 BIOL or CHEM (3 adv. hours)
 PHYS 1244
 Foreign Language (4 hours)

TOTAL MSU HOURS: 106

TOTAL UTHSCSA HOURS: 20 (to be applied to the MSU degree requirements at the end of the first year of dental school)

B. Chemistry Degree**Freshman Year****Fall**

BIOL 1144
 CHEM 1141/1143
 ENGL 1113
 MATH 1533
 KNES (2 hours)

Spring

BIOL 1544
 CHEM 1241/1243
 ENGL 1123
 MATH 1634
 KNES (2 hours)

Summer Session

HIST 1133
Fine Arts (3 hours)

HIST 1233
PSYC 1103 or SOCL 1133

Sophomore Year**Fall**

BIOL 3054
POLS 1333
CHEM 3001/3003
MATH 1734

Spring

BIOL 3064
POLS 1433
CHEM 3011/3013
ECON 1333

Summer Session

Dental Enrichment Program at Dental School
SPCH 1133

CMPS 1023

Junior Year**Fall**

BIOL 3333
CHEM (5 adv. hours)
PHYS 1624
Foreign Language (4 hours)

Spring

BIOL 3144
CHEM (3 adv. hours)
PHYS 2644
Foreign Language (4 hours)

TOTAL MSU HOURS: 111

TOTAL UTHSCSA HOURS: 16 (to be applied to the MSU degree requirements at the end of the first year of dental school)

3. Courses to be completed at the Dental School during the first year and transferred to Midwestern State University to satisfy the requirements of the B.S. degree in Biology or Chemistry
- | | |
|------------------|----------------------------|
| 5.0 hours | Dental Histology |
| 7.5 hours | Gross Head & Neck Anatomy |
| 1.5 hours | Dental Anatomy |
| 2.5 hours | Preclinical Dental Anatomy |
| 5.5 hours | Biochemistry |
| 1.0 hour | Nutrition |
| 6.5 hours | Physiology I |
| <u>4.0 hours</u> | Pharmacology |
| 33.5 hours | |

GEOSCIENCES DEPARTMENT

Pamela Buzas Stephens, Chair (Bolin Hall 102A)

Associate Professor: Elliott

Assistant Professors: Seeley, Stephens

Professor Emeritus: Kocurko

ENVIRONMENTAL SCIENCE

A program of study leading to the degree of Bachelor of Science with a major in environmental science is as follows:

The degree is an interdisciplinary program that covers the basic sciences. Environmental problems are multifaceted and require problem-solving skills that cover breadth in each of the sciences.

General: (see page 101)

Academic Foundations and Core Curriculum: (see page 103)

Bachelor of Science: (see page 105)

Major:

Interdisciplinary - ENSC 1114, 3103, 4103; BIOL 1144, 1544, 3113; CHEM 1141, 1143, 1241, 1243, 3504; GEOS 1134, 3634 or 3644, 4001.

Minor:

Option A – Biology: BIOL 3133, 3534, 4684, plus 7 additional hours

Option B – Chemistry: CHEM 3305, 4505, plus 8 additional hours

Option C – Geosciences: GEOS 1233, 3134, 4233, plus 8 additional hours

Program Requirements:

PHYS 1144 and 1244; MATH 1433 or 1533, 1634; STAT 3573; one year of a single foreign language.

COURSES IN ENVIRONMENTAL SCIENCE (ENSC)

1114. **Foundations of Environmental Science** 4(3-2)

A survey of topics in environmental science including natural resources, populations, ecosystems, biodiversity, and the impact of humans on the environment.

3103. **Environmental Policies and Laws** 3(3-0)

Prerequisites: Two science courses which include ENSC 1114; POLS 1333, 1433.

An analysis of contemporary problems in establishing policy, legislation, and regulation to protect the environment at all levels of government from the international to the local level.

4103. **Internship** 3(3-0)

Prerequisites: Seven hours ENSC and two years of biology, chemistry, or geosciences either combined or separately.

Field experience in selected agencies.

GENERAL SCIENCE

Courses in general science are offered to students who are pursuing their teacher certification with a Bachelor of Science in Interdisciplinary Studies or a Bachelor of Science (with a science major) with Secondary certification. (See pages 146-153 and 157-159.)

COURSES IN GENERAL SCIENCE (GNSC)

1104. **Life/Earth Science** 4(3-2)

A basic course designed to introduce students to the scientific methods and topics in biology and earth science. Creditable only for students seeking grades 1-4 and 4-8 education certification. This course may not be substituted to fulfill science core requirement for other majors.

1204. **Physical Science** 4(3-2)

An introductory survey of topics in physics and chemistry. Creditable only for students seeking grades 1-4 and 4-8 education certification. This course may not be substituted to fulfill science core requirement for other majors.

3104. Concepts of Science

4(3-2)

Prerequisites: GNSC 1104 and 1204, or equivalent.

The curriculum will emphasize the interaction of the science disciplines and feature the fundamental principles of physical, biological and earth sciences for all levels of teaching science. Creditable only for students seeking an education certification in science.

GEOSCIENCES

A program of study leading to the
Bachelor of Arts Degree with a major in Geosciences

General: (see page 101)

Academic Foundations and Core Curriculum: (see page 103)

Major

GEOS 1134, 1233, 3134, 3234, 3434, 3534, 3634 or 3644, 3734 or 4034, 4001, 4534.

Minor

To be chosen in consultation with the student's advisor, and approved by the department chair.

Program Requirements

CHEM 1141, 1143, 1241, 1243; PHYS 1144, 1244; MATH 1233 and 1433 or 1533; six hours of sophomore literature, and two years of a single foreign language (or the equivalent of one language through the second year).

A program of study leading to the
Bachelor of Science Degree with a major in Geosciences

General: (see page 101)

Academic Foundations and Core Curriculum: (see page 103)

Major

GEOS 1134, 1233, 3134, 3234, 3434, 3534, 3634 or 3644, 3836, 4001, 4233 or 4034, 4534.

Minor

Minor to be chosen in consultation with the student's advisor, and approved by the department chair. A minor in biology, chemistry, physics, mathematics, computer science, or engineering technology is strongly recommended.

Program Requirements

CHEM 1141, 1143, 1241, 1243; PHYS 1144, 1244 or 1624, 2644; MATH 1634 and 1734; one year of a single foreign language.

Requirements for an Interdisciplinary Minor

Geosciences majors only: BIOL 1144 and 1544; CHEM 1141, 1143, 1241, and 1243; plus six additional advanced hours from Biology or Chemistry (exclusive of organic chemistry).

Requirements for a minor in Geosciences

GEOS 1134, 1233, and 11 additional hours in geosciences, six of which must be advanced.

COURSES IN GEOSCIENCES (GEOS)

(formerly courses in Geology - GEOL)

1134. **Physical Geology** (TCCNS = GEOL 1403) 4(3-2)
Elements of earth science including the study of earth materials, interpretation of geologic evidence, and study of geological processes.
1233. **Historical Geology** (TCCNS = GEOL 1304) 3(2-2)
Origin and physical evolution of the Earth along with origin and organic evolution life. Plate tectonics, mountain building events, major evolutionary events, and extinctions.
3133. **Oceanography** 3(2-3)
Prerequisite: GEOS 1134 or consent of the instructor.
An introduction to the physical, chemical, geological, and biological processes of the oceans; history of ocean exploration. Laboratory includes weekend field trip to the Texas coast.
3134. **Mineralogy** (formerly 2134) 4(3-3)
Prerequisites: GEOS 1134, CHEM 1141 and 1143 or 1101 and 1103, or consent of the instructor.
An integrated study of the physical and chemical characteristics of minerals and the conditions under which they form, including crystallography and crystal structure, crystal chemistry and variability, mineral associations and genesis, and systematic description and identification.
3234. **Petrology** 4(3-3)
Prerequisite: GEOS 3134 or consent of the instructor. CHEM 1241 and 1243, and MATH 1433 are recommended.
An examination of the characteristics and origins of igneous, sedimentary, and metamorphic rocks, including the application of experimental and theoretical studies of rock genesis. Laboratory work emphasizes the systematic description, classification, and identification of rocks in hand specimen and thin section.
3434. **Structural Geology** 4(3-3)
Prerequisites: GEOS 3234, MATH 1433, or consent of the instructor.
A survey of topics in structural geology, including rock mechanics, classification of structural features, and geotectonics. Laboratory work emphasizes techniques in the solution of both surface and subsurface problems, field mapping, and geophysical techniques.
3534. **Invertebrate Paleobiology** 4(3-3)
Prerequisite: GEOS 1233 or BIOL 1144.
Theoretical and descriptive invertebrate paleobiology. Topics covered include speciation, extinction, paleoecology, biostratigraphy, and systematics.
3634. **Fundamentals of Remote Sensing** 4(3-3)
Prerequisite: GEOS 1134 or consent of the instructor.
An introduction to the principles and concepts of digital remote sensing, including an introduction to electromagnetic radiation, remote sensing instrumentation, sensor technology (multispectral, hyperspectral, radar, etc.), earth resource satellites, digital image interpretation and processing, and GIS integration. Course emphasis will include

an analysis of remote sensing images (photographs, satellite imagery, radar imagery, etc.) and their interpretation and use for a variety of applications specific to geologic, biologic, and environmental assessment.

3644. Introduction to Geographic Information Systems 4(3-3)

Prerequisite: GEOS 1134 or consent of the instructor.

An introduction to the basic concepts and fundamentals of Geographic Information Systems (GIS) and their relevant applications. Concepts needed to use GIS effectively for manipulating, querying, analyzing, and visualizing spatial-based data are introduced. Industry-standard GIS software is utilized to analyze patterns in geospatial data, and to generate cartographic output from the analysis. Emphasis is placed on the assessment and interpretation of geologic, biologic, and environmental data.

3734. Applied Geomorphology 4(3-3)

Prerequisites: GEOS 1134 and 1233, GEOS 3634 or 3644, or consent of the instructor.

A systematic analysis of the morphology of the Earth's surface—both the continents and the sea floor—and of the processes which shape that surface. Laboratory work emphasizes the use of paper and digital topographic maps and remotely sensed imagery for geomorphic and geologic interpretation.

3836. Field Geology 6(3-6)

Prerequisite: GEOS 3434 or consent of the instructor.

Techniques of geologic surveying utilizing Brunton compass, barometer, air photos, plane table, and alidade. Measuring, mapping, and interpretation of geologic structures and stratigraphy as observed in the field.

4001. Geosciences Seminar 1(1-0)

Prerequisite: Senior Geosciences major or consent of the instructor.

This course will expose students to current research in environmental science through participation in discussion, presentation of literature or research topics, and interaction with invited speakers.

4034. Petroleum Geology 4(2-4)

Prerequisites: GEOS 1134, 3134, and 3434, or consent of the instructor.

Teaches the fundamental skills routinely used by petroleum geologists, including basic well log analysis, log and geologic section correlation, cross section construction, and building of data contour and reservoir maps. Exposure to geophysical seismic data, rock sample evaluation, and well drilling operations. Focus on lab exercises as well as integration of computer applications.

4233. Groundwater Hydrology 3(2-3)

Prerequisites: GEOS 1134, 1233, or consent of the instructor.

An introduction to subsurface groundwater movement and physical properties, emphasizing geological controls on groundwater flow, quantitative methods of the analysis of aquifer systems, regional hydrogeology, water quality, and pollution. Water resources are examined based on their occurrence, movement, and chemistry.

4334. Advanced Topics in Geosciences 4(3-3)

Prerequisite: Consent of the instructor.

Lectures, discussion, reading, and/or laboratory work on advanced topics in geosciences.

4534. Sedimentology and Stratigraphy 4(3-3)

Prerequisite: GEOS 1134 or consent of the instructor.

Analysis of depositional environments based on the physical and chemical formation of sediment, the physics of sediment transport, and post-depositional diagenetic changes. Also includes the study and interpretation of stratified sedimentary rocks,

including their identification, description, and modes of origin. Fundamental principles of lithostratigraphic and sequence stratigraphic analysis, mapping, and correlation are also presented.

4911, 4912, 4913. **Special Problems in Geosciences** 1-3 semester hours

Prerequisites: Upper level classification and consent of the department chair and instructor.

Directed field and laboratory research in problems of geological interest.

PROTHRO DISTINGUISHED PROFESSORSHIP OF GEOLOGICAL SCIENCE

The Prothro Distinguished Professorship of Geological Science was established in 1986 to support the work and research of a professor in the Department of Geosciences.

In 2005, Pamela Buzas Stephens was awarded this professorship in recognition of her teaching and research achievements. Dr. Stephens' research focuses on using unicellular foraminifers along the Texas coast for environmental assessment. Results of her research have been presented at national and international scientific meetings, and published in renowned scientific journals.

MATHEMATICS

Patrick Mitchell, Chair (Bolin Hall 118)

Professors: Donovan, Farris, Mitchell, Tucker

Associate Professors: Fosnaugh, Schmitter, Slavens

Assistant Professors: Belcher, Bernard, Hood, Knox, May

Instructors: Johnson, Richardson

Professors Emeriti: Hinds, Huffman, Meux, Newton, Rowell, Warndof

The requirements for the Bachelor of Arts and Bachelor of Science degrees with majors in mathematics are as follows:

Academic Foundations and Core Curriculum (see page 103)

Bachelor of Science (see page 105)

Bachelor of Arts (see page 104)

Program Requirements

Major

Mathematics 1634, 1734, 2133, 2534, 3293, 3833, either (4733 and 4833), or (4133 and 4143), plus nine additional advanced hours exclusive of Math 3033, 3113, 3123, and 4033.

Additional Requirements

Consult advisor for approved minor and specific courses.

CMPS 1043, 1053

STAT 3573 or MATH 4143

Requirements for a minor in Mathematics.

Eighteen hours of mathematics to include 1634, 1734, 2534, and six advanced hours exclusive of 3033, 3113, 3123, 3133 and 4033.

CREDIT BY EXAMINATION

Proficiency examinations are given for MATH 1233, MATH 1433, MATH 1533, MATH 1634, and MATH 1734. For more information, students may contact the Chair of Mathematics.

COURSES IN MATHEMATICS (MATH)**0003. Beginning Algebra** 3(3-0)

Properties of integers, fractions, decimals, percentages, linear equations and inequalities and their graphs, integer exponents, polynomials, deductive and inductive reasoning; interpretation of data from graphs and charts, and geometric problems.

1003. Intermediate Algebra 3(3-0)

Prerequisite: MATH 0003 with a grade of C or better, math THEA score of 230, math Accuplacer score of 63, or satisfactory score on placement exam.

Factoring polynomials, quadratic equations and their graphs, rational expressions, rational exponents, radicals, and systems of linear equations.

1053. Contemporary Mathematics (TCCNS = MATH 1332) 3(3-0)

Prerequisite: MATH 1003, math THEA score of 270, math Accuplacer score of 90, or satisfactory score on placement exam.

A survey of the use of mathematics in the modern world. Topics include: theory of elections and apportionment, graphs and networks, growth and symmetry, or statistics.

1203. Mathematical Analysis for Business 3(3-0)

Prerequisite: MATH 1003 with a grade of C or better, math THEA score of 270, math Accuplacer score of 90, or satisfactory score on placement exam.

Review of algebra, linear and quadratic equations, graphs, progressions and mathematics of finance, and matrix operations. Each student must have a graphing calculator.

1233. College Algebra (TCCNS = MATH 1314) 3(3-0)

Prerequisite: MATH 1003 with a grade of C or better, math THEA score of 270, math Accuplacer score of 90, or satisfactory score on placement exam.

Equations, inequalities, rational expressions, exponents, logarithms, radicals, functions, graphs, and systems of equations. Each student must have a graphing calculator. (This course is designed for students planning to take additional mathematics.)

1433. Plane Trigonometry (TCCNS = MATH 1316) 3(3-0)

Prerequisite: MATH 1233 with grade of C or better.

Trigonometric functions, identities and equations, complex numbers. Each student must have a graphing calculator.

1533. Precalculus (TCCNS = MATH 2312) 3(3-0)

Prerequisite: MATH 1003 with a grade of C or better, math THEA score of 270, math Accuplacer score of 90, or satisfactory score on placement exam.

Applications of algebra and trigonometry to the study of elementary functions and their graphs including polynomial, rational, exponential, logarithmic and trigonometric functions. Each student must have a graphing calculator. This course is intended for students planning to take MATH 1634.

1634. Calculus I (TCCNS = MATH 2413) 4(4-0)

Prerequisite: MATH 1433 or 1533 with grade of C or better.

Differentiation of functions of one variable with applications, integration including simple substitution and numerical evaluation, and applications of integration. Each student must have a graphing calculator.

1734. **Calculus II** (TCCNS = MATH 2414) 4(4-0)
Prerequisite: MATH 1634 with a grade of C or better.
Elementary transcendental functions, techniques of integration, sequences, series, Taylor's formula, conic sections, parameterized curves, and polar coordinates. Each student must have a graphing calculator.
2033. **Structure of the Number System I** 3(3-0)
Prerequisite: MATH 1003 with a grade of C or better, math THEA score of 270, math Accuplacer score of 90, or satisfactory score on placement exam.
Patterns and sequences, sets, the structure of various numeration systems, the four fundamental operations of arithmetic, integers, rational numbers, and elementary number theory. This course stresses conceptual understanding of mathematics through concrete examples, models, multiple representations of ideas and concepts, and processes of mathematical reasoning.
2043. **Structure of the Number System II** 3(3-0)
Prerequisite: MATH 2033 with a grade of C or better.
Decimals, ratio and proportion, percents, real numbers; properties of basic geometric figures in two and three dimensions; congruence, construction, similarity, and basic geometric proof; measurement, perimeter, area, surface area, volume, and unit conversions; Pythagorean theorem and distance formula. This course stresses conceptual understanding mathematics through concrete examples, models, multiple representations of ideas and concepts, and processes of mathematical reasoning.
2053. **Structure of the Number System III** 3(3-0)
Prerequisite: MATH 2043 with a grade of C or better.
Probability and statistics; transformations and symmetries; algebraic concepts to include function and relation as it pertains to the K-8 TEKS objective "*Patterns, relationships, and algebraic thinking*"; properties and applications of linear, quadratic, and exponential functions. This course stresses conceptual understanding of mathematics through concrete examples, models, multiple representations of ideas and concepts, and processes of mathematical reasoning.
2133. **Introduction to Modern Mathematics** 3(3-0)
Prerequisite: MATH 1734 or concurrent enrollment.
Introduction to logic and methods of proof, set operations, equivalence relations, functions, mathematical induction, and cardinality. Other topics related to the study of the structure of mathematical proof may be included.
2333. **Discrete Mathematical Structures** 3(3-0)
Prerequisite: MATH 1233 or 1533.
Logic, combinatorics, functions, graphs, Boolean algebra, logic networks, algebraic structures, finite state machines, and computability.
2534. **Calculus III** (TCCNS = MATH 2415) 4(4-0)
Prerequisite: MATH 1734 with a grade of C or better.
Space geometry and vectors, vector-valued functions, partial differentiation with applications, and multiple integration with applications. Each student must have a graphing calculator.
3033. **Modeling** 3(3-0)
Prerequisites: MATH 1233 and 2043 with grades of C or better.
Geometric and algebraic models, functions, graphs, limits, rates of change, and techniques for approximating length, area, and volume.
3113. **Techniques in Problem Solving** 3(3-0)
Prerequisites: MATH 1233 and 2043 with grades of C or better.

Problem solving techniques and strategies using patterns, logic, number theory, algebra, geometry, combinatorics, strategy games, and network theory.

3123. Concepts of Geometry 3(3-0)

Prerequisites: MATH 1233 and 2043 with grades of C or better.

This course covers standard concepts from Euclidean geometry, including congruence, similarity, parallel postulates, constructions, transformations, area postulates, and constructions using software such as Geometer's Sketchpad. This course is appropriate for those seeking 4-8 mathematics teacher certification.

3133. Foundations of Geometry 3(3-0)

Prerequisite: MATH 2133.

Elementary geometry from an advanced point of view. An axiomatic study of Euclidean geometry plus additional topics which may include finite geometries and non-Euclidian geometries. Students will use a geometry software package. This course is appropriate for those seeking 8-12 mathematics teacher certification.

3293. Algebraic Structures 3(3-0)

Prerequisite: MATH 2133.

Introduction to algebraic structures, groups, rings, fields.

3353. Discrete Dynamical Systems 3(3-0)

Prerequisite: MATH 1734.

Iteration of functions, quadratic maps on the line and on the plane, orbit diagrams, Julia sets, Mandelbrot sets, iterated function systems.

3433. Differential Equations 3(3-0)

Prerequisite: MATH 1734.

Introduction to the theory of and applications of ordinary differential equations; solution techniques for linear and separable equations; numerical approximation of solutions; introduction to phase plane analysis and non-linear problems; Laplace transforms.

3533. Numerical Analysis 3(3-0)

Prerequisites: MATH 1734 and CMPS 1043.

Use of numerical methods to solve problems including but not limited to the following: function approximation, solutions of equations, numerical calculus, and differential equations. Includes analysis of problems and the design and writing of programs. (MATH 3533 and CMPS 3533 cannot both be taken for credit.)

3833. Linear Algebra 3(3-0)

Prerequisite: MATH 1634.

Vector spaces, linear equations and matrices, linear transformations and matrices, determinants, polynomials and matrices. Each student must have a calculator with matrix capabilities.

FOR UNDERGRADUATES AND GRADUATES

4003. History of Mathematics 3(3-0)

Prerequisite: MATH 1734.

A survey of the development of major mathematical topics, including geometry, algebra, calculus, and advanced mathematics. Philosophical and cultural aspects will be integrated with the structure, theorems and applications of mathematics.

4033. Foundations of Discrete Mathematics 3(3-0)

Prerequisites: Six hours of advanced mathematics.

Set theory, mathematical induction, difference equations, number theory, graph the-

ory, and introduction to proofs. (This course is designed for students planning to teach grades 4-8 mathematics.)

4133. **Mathematical Statistics I** 3(3-0)

Prerequisite: MATH 2534 or consent of instructor.

Probability theory, random variables, distributions, generating functions, and limit theorems.

4143. **Mathematical Statistics II** 3(3-0)

Prerequisite: MATH 4133.

Sampling distributions, point and interval estimation, hypothesis testing, goodness of fit, ANOVA, correlation, and regression.

4223. **Discrete Mathematics** 3(3-0)

Prerequisite: MATH 2133.

Combinatorics, graph theory, and difference equations.

4243. **Operations Research** 3(3-0)

Prerequisites: MATH 1734 and CMPS 1043.

A study of linear programming including convex sets, geometric solutions, simplex methods, duality, sensitivity analysis, and integer programming.

4293. **Introduction to Ring Theory** 3(3-0)

Prerequisite: MATH 3293.

Foundations of ring theory including properties of modular rings, integral domains, ideals, quotient rings, ring homomorphisms, polynomial rings, and fields.

4453. **Theory of Numbers** 3(3-0)

Prerequisite: MATH 2133.

Divisors and prime numbers; congruences; primitive roots; quadratic residues; continued fractions; elliptical curves; cryptography.

4573. **Complex Analysis** 3(3-0)

Prerequisites: MATH 2133 and 2534.

Functions of one complex variable, Cauchy integral formula, Taylor series.

4733. **Introductory Analysis I** 3(3-0)

Prerequisites: MATH 1734 and 2133.

Foundations of the calculus to include sequences, series, continuity, differentiation, and integration.

4833. **Introductory Analysis II** 3(3-0)

Prerequisite: MATH 4733.

A continuation of MATH 4733.

4933. **Topics** 3(3-0)

Prerequisite: Consent of the instructor.

Selected topics from advanced mathematics. May be repeated for credit with consent of chair.

4991, 4992, 4993. **Special Problems** 1-3 semester hours

Prerequisite: Consent of the chair (see page 93).

Directed research in mathematics.

MCCOY SCHOOL OF ENGINEERING

Idir Azouz, Chair (McCullough Hall 101)

Professor: Sutko

Associate Professors: Azouz, Brink, Faulk

MISSION STATEMENT FOR THE MCCOY SCHOOL OF ENGINEERING

The McCoy School of Engineering supports the missions of the University and the College of Science and Mathematics by providing quality undergraduate education to students and professional expertise for the local and regional industry, government agencies, and other educational entities. This is accomplished in the context of a four-year mechanical engineering program and a four-year manufacturing engineering technology program, and major design experiences which prepare graduates for successful professional careers and the pursuit of advanced degrees in engineering or other related fields.

The McCoy School of Engineering offers the following degrees:

Bachelor of Science with a major in Manufacturing

Engineering Technology see page 330

Bachelor of Science in Mechanical Engineering see page 334

MANUFACTURING ENGINEERING TECHNOLOGY

Mission

The mission of the Manufacturing Engineering Technology Program is to graduate highly trained manufacturing engineering technologists who are able to find jobs suitable to their degree. They will be able to contribute to the local, national, and international manufacturing base with their technical skills. The program also provides them with the opportunity to develop a broad background in basic science, mathematics, and liberal arts, and to become educated citizens of the United States and the world.

Program Education Objectives

Students completing the baccalaureate degree in Manufacturing Engineering Technology will be:

1. able to analyze an assortment of manufacturing methods and make recommendations to their employers regarding the best method for manufacturing a product, based upon quality, desired properties, and engineering economic principles;
2. trained to work in a team environment and to solve problems encountered in the manufacturing process;
3. able to engage in effective communication;
4. able to integrate design, analysis, and synthesis experiences;

In addition,

5. the Manufacturing Engineering Technology program and the Greater Wichita Falls Industrial Manufacturers will encourage collaborative partnerships which will actively involve faculty and students solving current engineering technology problems; and
6. the Manufacturing Engineering Technology program will instill a commitment for life-long learning in its graduates.

Program Outcomes

The outcomes of the Manufacturing Engineering Technology Program include those established by ABET and additional outcomes that are specific to manufacturing engineering technology. Upon completion of the baccalaureate degree in manufacturing engineering technology students will be:

- a) familiar with an extensive variety of materials used in manufacturing;
- b) able to apply engineering economy in the analysis of the selection of machines, materials, and manufacturing methods;
- c) able to apply statistical quality control principles as related to manufacturing;
- d) able to work with and contribute to a team environment;
- e) able to demonstrate effective written graphical and oral communication skills;

In addition,

- f) graduates will have successfully completed design experiences integrated throughout the curriculum;
- g) graduates are able to analyze and interpret data in the manufacturing discipline;
- h) faculty will work with local manufacturers to make available part time job opportunities for junior and senior level students; and students will perform satisfactorily in regard to employers' expectations;
- i) faculty and local manufacturers will cooperate to provide capstone projects for senior students;
- j) students regularly participate in professional society activities, especially the Student Chapter of the Society of Manufacturing Engineers; and
- k) graduates will engage in life-long learning activities by taking short courses; and by joining professional societies; and by seeking Professional Registration as an Engineer and/or Certification as a Certified Manufacturing Engineer.

The curriculum of the Bachelor of Science degree with a major in manufacturing engineering technology includes 132 semester credit hours, with the following requirements:

Academic Foundations and Core Curriculum (see page 103)

Bachelor of Science (see page 105)

Program Requirements:

Major

MENT 1334, 1342, 2123, 2134, 2143, 3103, 3134, 3333, 3403, 3503, 4103, 4113, 4213, 4603, and 4742.

Additional Requirements

MENG 1133
 MATH 1233, 1433, 1634, 1734
 PHYS 2104, 2204
 CHEM 1141, 1143
 PHYS 1144, 1244 (or PHYS 1624, 2644)
 CMPS 1043
 ENGL 3203
 STAT 3573, 3583

(Note: MATH 1533 can be substituted for MATH 1233 or MATH 1433.)

(MENT majors meet the core requirements for economics with MENT 3333, Engineering Economy and Cost Analysis.)

Mathematics-Statistics minor for this degree will consist of MATH 1233, 1433, 1634, 1734, and STAT 3573, 3583.

Minor in Manufacturing Engineering Technology

The requirements for a minor in Manufacturing Engineering Technology are MENT 1334, 2123, 2143, 3134, and six additional hours of MENT courses, at least three of which must be advanced.

The Manufacturing Engineering Technology program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.

COURSES IN MANUFACTURING ENGINEERING TECHNOLOGY (MENT)

1334. **Fluid Power I** (formerly 2334) 4(2-4)
The study of components used in hydraulic and pneumatic systems. The students will also learn to size components, analyze, and design fluid power circuits using ANSI fluid power diagrams.
1342. **Fluid Power II** (formerly 2343) 2(1-2)
Prerequisite: MENT 1334.
The study and design of hard-wired electrical ladder logic as applied to fluid power circuits. The student will also learn to analyze cartridge valve circuits. The students work in groups and design and build a machine tool using fluid power and mechanical components with electrical ladder logic.
2123. **Manufacturing Processes I** (formerly 1123) 3(2-3)
General introduction to materials, processes, and equipment used in manufacturing. Includes industrial tours. Laboratory emphasis will be on machine tool processes.
2134. **Computer Aided Drafting** (formerly ENDR 2134) 4(2-4)
Prerequisite: MENG 1133.
Introduction to hardware, software, and nomenclature used in computer aided drafting. Instruction in CAD operations and commands including applications and hands-on use.
2143. **Manufacturing Processes II** (formerly 1143) 3(2-3)
Theory of welding, casting, powder metallurgy, and other processes. Includes industrial tours. Laboratory emphasis will be on welding processes.
3103. **Statics** 3(3-0)
Prerequisite: MATH 1433 or 1533.
Composition and resolution of forces. Equilibrium of forces acting on structures and machines. Friction, moments, couples, centroids, and moments of inertia.
3134. **Material Science** 4(2-4)
Prerequisites: MATH 1233, CHEM 1143 or high school chemistry.
The study of the physical and mechanical characteristics of materials and an emphasis on building and manufacturing materials. The effect of chemical composition, mechanical treatment, and thermal or heat treatment upon material properties will be discussed.
3333. **Engineering Economy and Cost Analysis** 3(3-0)
Prerequisites: Junior standing, MATH 1233.
Application of economic analysis to engineering decisions. Considerations include cost, value, depreciation, interest, worth, rate of return, and inflation. Use of a computer to solve problems will be required.

3403. Automation I (formerly 4403) 3(2-2)

Prerequisites: MENT 1342 or a knowledge of electrical ladder logic. The student must have a knowledge of a high level computer language such as taught in CMPS 1043.

The study of PLC's, robotics, design for automation, automated material handling and storage systems, automated inspection, fixed and flexible automation.

3503. Automation II (formerly 4502) 3(2-2)

Prerequisites: MENT 3403.

The study of CNC, DNC, servo feedback systems (in particular servo hydraulic feedback systems), computer integrated manufacturing, shop floor control, flexible manufacturing systems, and additional PLC programming.

3993. Cooperative Manufacturing Engineering Technology Education Practicum 3(0-3)

Prerequisites: Junior standing and a practicum agreement with a selected manufacturer or other industry.

This course provides students with opportunities to integrate the basic principles of manufacturing engineering technology obtained from the program's courses to actual applications in manufacturing or related environment. The course provides professional experiences in manufacturing or related technology prior to graduation, allowing students to have an understanding of basic principle applications.

4103. Strength of Materials 3(3-0)

Prerequisites: MATH 1634, MENT 3103.

Stress and strain and their relation to loads. Axial, torsional and bending loads, beam deflection, columns and combined stresses. Applications emphasized.

4113. Basic Instrumentation (formerly 3113) 3(2-2)

Prerequisite: PHYS 1244 or 2104.

Measurement of temperature, pressure, flow and other variables. Study of sensing and transmission of pneumatic and electrical signals for use in industrial control systems. Use of a computer for word processing and graphing will be required.

4213. Thermodynamics (formerly 3213) 3(3-0)

Prerequisites: PHYS 1144, MATH 1634.

Basic scientific principles of energy and behavior of substances as related to engines and systems. Gas laws, vapors, and engine cycles.

4603. Production Planning and Control 3(3-0)

Prerequisite: MENT 2134.

Forecasting, motion and time study, inventory control, ergonomics, learning curves, optimization techniques, safety, plant layout, concurrent engineering, design for manufacturing, and related topics such as maintenance.

4742. Capstone Project 2(0-4)

Prerequisites: Senior standing and written permission of the department chair. (Student must be within two regular semesters of graduation, or must have finished all required MENT courses.)

A senior project utilizing the knowledge the student has gained from MENT courses. The project will be conducted at a local manufacturer and will require a report and a presentation.

MECHANICAL ENGINEERING

Mission

The mission of the Mechanical Engineering Program is to support and realize with excellence the overall mission of the University and to provide each graduate with a foundation of knowledge and training upon which to build successful careers in mechanical engineering and related fields. Graduates of the program are well grounded in scientific, mathematical, and engineering knowledge through curricular activities that keep pace with technological advances and hone their ability to analyze, synthesize, design systems, communicate information, and understand and appreciate the need for life-long learning.

Program Education Objectives

Students completing the baccalaureate degree in Mechanical Engineering will:

1. attain a solid understanding of the fundamentals of mathematics, physical science, and engineering science, which form the foundation for work in all fields of engineering;
2. be able to practice engineering design and analysis to solve engineering problems requiring a disciplined process of critical thinking;
3. be able to work individually and in teams, both in their disciplines and beyond disciplinary boundaries, and communicate effectively in oral, written, and visual forms;
4. be able to pursue advanced studies and/or assume leadership roles along diverse career paths; and
5. have a strong appreciation for and commitment to ethical responsibilities, professionalism, life-long learning, and a concern for society and the environment.

Program Outcomes

The outcomes of the Mechanical Engineering Program include those established by ABET and additional outcomes that are specific to mechanical engineering. Upon completion of the baccalaureate degree in mechanical engineering, each graduate will have:

- a) an ability to apply knowledge of mathematics, science, and engineering;
- b) an ability to design and conduct experiments, as well as to analyze and interpret data;
- c) an ability to design a system, component, or process to meet desired needs;
- d) an ability to function on multidisciplinary teams;
- e) an ability to identify, formulate, and solve engineering problems;
- f) an understanding of professional and ethical responsibility;
- g) an ability to communicate effectively;
- h) the broad education necessary to understand the impact of engineering solutions in a global and societal context;
- i) a recognition of the need for, and an ability to engage in life-long learning;
- j) a knowledge of contemporary issues;
- k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice;
- l) a knowledge of chemistry and calculus-based physics with depth in at least one;
- m) the ability to apply advanced mathematics through multivariate calculus and differential equations;
- n) a familiarity with statistics and linear algebra; and
- o) the ability to work professionally in both thermal and mechanical systems areas including the design and realization of such systems.

The Bachelor of Science in Mechanical Engineering is a special academic program that has a separate academic foundations curriculum. (See page 112.)

Basic Core (25 semester hours)

POLS 1333, 1433

ENGL 1113, 1123

MATH 1634

HIST 1133, 1233

SPCH 1133 or 1233

(MENG majors demonstrate computer literacy by taking MENG 3243 in the major.)

Additional Academic Course Work (33 semester hours):

PHIL 2033

ENGL 3203

PHYS 1624 and 2644

CHEM 1141 and 1143

MATH 1734, 2534 and 3433

Four semester hours to be selected from Kinesiology activity courses or from Visual and Performing Arts as shown on page 104.

(MENG majors meet the core requirement for economics with MENG 2413, Engineering Economics.)

Mechanical Engineering Major Course Work (73 semester hours):

MENG 1101, 1133, 1202, 2103, 2104, 2113, 2203, 2204, 2213, 2413, 3104, 3114, 3123, 3203, 3212, 3222, 3234, 3243, 4123, 4134, 4143, 4203, 4243, and 4253.

COURSES IN MECHANICAL ENGINEERING (MENG)**1101. Introduction to Engineering** 1(0-2)

An introduction to engineering as a career. The major fields of engineering and the typical responsibilities of an engineer are introduced through the use of guest speakers and field trips. Development of skills in teamwork, problem solving, and basic computer applications as related to engineering.

1133. Engineering Graphics (formerly ENDR 1133) 3(1-4)

Essentials of drafting and blueprint reading: orthographic projections, sectional views, pictorial drawing, geometric and dimensional tolerancing, finishing symbols. Introduction to sketching, computer-aided-drafting, and technical graphs.

1202. Solid Modeling (formerly 1203) 2(0-4)

Prerequisite: MENG 1101 and 1133.

Computer-aided design and problem solving. Use of solid modeling to work with the concepts associated with the design of machine elements such as nuts, bolts, chains and gears.

2103. Mechanics of Solids (formerly 3103) 3(3-0)

Prerequisite: MENG 2113.

Analysis of structures using stress-strain diagrams, generalized Hooke's law, stress and strain due to axial, torsional, shear, and flexural loads.

2104. Electric Circuits 4(3-2)

Prerequisite: MATH 1433 or 1533. PHYS 2644 is recommended.

Units, electric fields, DC series and parallel circuits, Kirchoff's Laws, network analysis, and AC circuits.

2113. Statics 3(3-0)

Prerequisites: PHYS 1624, MATH 1634.

A study of forces and force systems, resultants and components of force systems, forces due to friction, conditions of equilibrium, and forces acting on frame structures.

2203. **Thermodynamics** (formerly 3113) 3(3-0)
Prerequisite: MATH 2534 or concurrent enrollment therein.
The fundamental laws of thermodynamics; properties of systems, solids, gases and liquids; and thermodynamic tables.
2204. **Electronics** 4(3-2)
Prerequisite: MENG 2104.
Introduction to semiconductor devices, basic amplifiers and feedback, symbolic logic, Boolean algebra, basic TTL gates, counters and flip-flops, shift registers.
2213. **Dynamics** 3(3-0)
Prerequisite: MENG 2113.
Kinematics and kinetics of particles and rigid bodies in plane motion. Work-energy and impulse-momentum principles.
2413. **Engineering Economics** (formerly 4213) 3(3-0)
Prerequisite: MATH 1634.
The time value of economic resources such as cash flow diagrams, simple and compound interest, present worth, future worth, equal payment series, and the economic evaluation of engineering projects.
3104. **Fluid Mechanics** (formerly 4103) 4(3-3)
Prerequisites: MENG 2203, 3123, and MATH 3433 or concurrent enrollment therein.
Fundamental principles of fluid mechanics. Properties of fluids. Fluid statics. Control volume and transport theorem. Bernoulli's equation. Continuity, momentum, and energy equations. Inviscid and viscous flows. Laminar and turbulent flows. Incompressible and compressible flows. Internal and external flows. Companion lab.
3114. **Materials Science** (formerly 2214) 4(3-3)
Prerequisites: MENG 2103 and CHEM 1143.
Study of the physical and mechanical characteristics of materials, and the effects of chemical composition, mechanical treatment, and thermal or heat treatment upon material properties. Companion lab.
3123. **Measurements and Instrumentation** (formerly 3223) 3(2-3)
Prerequisites: MENG 2204, and MATH 3433 or concurrent enrollment therein.
Fundamentals of measurement systems, standards, treatment of data, statistics, uncertainty analysis, data acquisition, transducers, strain, force, acceleration, pressure, temperature, and fluid flow. Companion lab.
3203. **Applied Fluid Power Design** 3(2-2)
Prerequisite: MENG 2204.
The fundamentals of fluid mechanics as applied to hydraulic and pneumatic hardware. Mathematical models of pumps, motors, pistons, accumulators, valves and transmission lines. Design and analysis procedures for implementing total fluid power systems with high operating efficiencies and adequate dynamic response. Companion lab.
3212. **Introduction to Engineering Design** 2(2-0)
Prerequisites: MENG 1202, 2413, and ENGL 3203.
Introduction to the concepts of engineering design and problem solving. Course emphasizes creative and critical thinking, project planning, design functionality, design economics, ethics, technical reporting techniques, computer graphics skills, and team design project activities.
3222. **Mechanisms** 2(2-0)
Prerequisite: MENG 2213.
Kinematic and dynamic analysis of mechanical devices and machines.

Displacement, instantaneous center of zero velocity, velocity and acceleration of linkages, cams, and gear trains. Introduction to synthesis of mechanisms. Design and computer problems.

3234. **Heat Transfer** (formerly 4233) 4(3-3)

Prerequisite: MENG 3104.

Fundamental laws relating to heat transfer, including steady and transient conduction, convection, and radiation. Introduction to heat exchanger design. Experimental and computational methods. Companion lab.

3243. **Computer Aided Engineering** (formerly 3143) 3(2-3)

Prerequisites: MENG 1133, 2103, and 2204.

Use of CAD/CAM software to generate codes for CNC machine tools. Other topics include the use of software tools to design programmable and hardwired electric logic circuits, and to perform finite element modeling of force-loaded structures, robotics. Companion lab.

4123. **Mathematical Methods for Engineering** 3(3-0)

Prerequisite: MATH 2534.

The use of Fourier series, linear algebra, transforms, and other advanced mathematical methods for the solution of a variety of engineering problems.

4134. **Dynamics of Machines** (formerly 4133) 4(3-3)

Prerequisite: MENG 3222.

Kinematics and kinetic analysis of common machines and machine elements. Vibration isolation, balancing, critical speed, flywheel design, and dynamic measurement. Design and computer problems. Companion lab.

4143. **Senior Design I** 3(1-4)

Prerequisites: MENG 3114, 3203, 3212, 3243. Student must also be within one calendar year of graduation with a major in MENG.

Coursework emphasizes creative and critical thinking, planning, design, execution and statistical evaluation of experiments, team work, and project management. This course integrates knowledge gained from most of the required courses in a major design project. Students will design, build, and formally present their completed projects to a panel of professional reviewers. Students will ideally work on projects from local industry. If not available, the students or the instructor may propose projects.

4203. **Mechanical Engineering Analysis** 3(3-0)

Prerequisites: MATH 2534 and advanced standing in Mechanical Engineering.

Mathematical modeling, simulation, and statistical analysis of engineering systems and problems.

4243. **Senior Design II** 3(1-4)

Prerequisite: MENG 4143.

A continuation of MENG 4143.

4253. **Control Systems** (formerly 4113) 3(3-0)

Prerequisites: MENG 3123, 3234, and 4134.

Feedback control of mechanical systems. Emphasis on thermal, fluid, and motion systems under feedback control. Topics include programmable logic controllers, PID control, Laplace transforms, system modeling and performance analysis, stability theory, s-plane, and root locus and/or frequency-based design. Design and computer problems.

PHYSICS

Richard Fleming, Chair (Bolin Hall 307C)

Associate Professor: Fleming

Assistant Professor: Rhoads

Professors Emeriti: Holverson, Sims

The requirements for the degree of Bachelor of Science with a major in physics are as follows:

Major (32 hours)

Physics 1624, 2644, 3313, 3323, 3333, 3343, 4303, 4323, 4343, 4353

Minor (18 hours)

Mathematics 1634, 1734, 2534, 3433, 3833

Academic Foundations and Core Curriculum (see page 103)

Program Requirements

CHEM 1141, 1143, 1241, 1243

Requirements for a Minor in Physics

PHYS 1624, 2644, and twelve additional hours of which six must be advanced.

COURSES IN PHYSICS (PHYS)

1144. **General Physics** (TCCNS = PHYS 1401) 4(3-2)

Prerequisite: MATH 1433 or consent of department chair.

Mechanics, heat, and sound. The first part of a two semester course in classical and modern physics designed for students who desire a quantitative understanding of physics without calculus.

1244. **General Physics** (TCCNS = PHYS 1402) 4(3-2)

Prerequisite: PHYS 1144.

Electricity and magnetism, optics, and modern physics. The second of a two semester course in classical and modern physics designed for students who desire a quantitative understanding of physics without calculus.

1533. **Descriptive Astronomy** 3(2-2)

Prerequisite: MATH 1003 or equivalent.

A survey course in astronomy designed to meet the needs of students majoring in liberal arts, business, and education. Lectures, films, demonstrations, and laboratory work, including the use of the planetarium and telescopes, will be utilized.

1624. **Mechanics, Wave Motion, and Heat** 4(3-2)

Prerequisite: Credit or registration in MATH 1634.

The first part of a two-semester course in classical and modern physics for students majoring in science.

2104. **Electric Circuits** (formerly 2014) 4(3-2)

Prerequisite: MATH 1433 or 1533.

Units, electric fields, DC series and parallel circuits, Kirchoff's Laws, network analysis, and AC circuits.

2204. **Electronics** (formerly 2114) 4(3-2)
Prerequisite: PHYS 2104.
Introduction to semiconductor devices, basic amplifiers and feedback, symbolic logic, Boolean algebra, basic TTL gates, counters and flip-flops, shift registers.
2644. **Electricity and Magnetism and Optics** 4(3-2)
Prerequisites: PHYS 1624 and credit for or registration in MATH 1734.
The second part of a two-semester course in classical and modern physics for students majoring in science.
3313. **Mechanics** 3(3-0)
Prerequisites: PHYS 1624 and credit for or registration in MATH 2534 or 3433.
A mathematical treatment of classical mechanics. Topics includes vector analysis, Newtonian mechanics, oscillations, calculus of variations, and Lagrangian and Hamiltonian dynamics.
3323. **Electromagnetic Field Theory I** 3(3-0)
Prerequisites: PHYS 2644, MATH 2534 and 3433.
A mathematical treatment of classical electromagnetic theory. Topics include vector analysis, electrostatics, methods for solving Laplace's and Poisson's Equations, electric and magnetic fields in matter, and electrodynamics.
3333. **Thermodynamics** 3(3-0)
Prerequisites: PHYS 2644 and credit for or registration in MATH 2534.
A mathematical treatment of the fundamentals of thermal physics. Topics include the concept of temperature, equations of state, first and second laws of thermodynamics, entropy, change of phase, and thermodynamic functions.
3343. **Modern Physics I** 3(3-0)
Prerequisites: PHYS 2644 and credit for or concurrent enrollment in MATH 2534 or 3433.
A course in relativity and elementary quantum mechanics. Topics include space-time, relativistic energy and momentum, Heisenberg's Uncertainty Principle, Schrodinger's Equation, observables and operators, bound states, potential barriers, and the hydrogen atom.
4303. **Mathematical Methods of Physics** 3(3-0)
Prerequisite: MATH 2534 or 3433.
A course presenting mathematical techniques used in physics and engineering. Topics include infinite series, integral transforms, complex variables, matrices and tensors, special functions, partial differential equations, Green's functions.
4323. **Electromagnetic Field Theory II** 3(3-0)
Prerequisites: PHYS 3323, MATH 2534 and 3433.
A continuation of PHYS 3323. Topics include Maxwell's Equations, Conservation Laws, Electromagnetic Waves, Potentials and Fields, Radiation and Relativistic Electrodynamics.
4343. **Modern Physics II** 3(3-0)
Prerequisite: PHYS 3343.
The constitution of the atomic nucleus; natural radioactivity; artificially induced nuclear transmutations; alpha, beta, and gamma decay; nuclear reactions; nuclear structure and nuclear forces; nuclear fission; neutron physics.
4353. **Quantum Physics** 3(3-0)
Prerequisite: PHYS 3343, MATH 3433, or consent of instructor.
The Schroedinger Equation, one dimensional systems; the Heisenberg Uncertainty

Principle; angular momentum; two and three dimensional systems; approximation methods; scattering theory.

4833. **Theoretical Problems** 3 semester hours
Prerequisite: Permission of the chair of Physics.

4911, 4933. **Experimental Problems** 1, 3 semester hours
Prerequisite: Permission of the chair of Physics.

STATISTICS

Associate Professor: Schmitter

Professor Emeritus: Hinds

The College of Science and Mathematics offers courses in statistics.

COURSES IN STATISTICS (STAT)

3573. **Probability and Statistics** 3(3-0)
Prerequisite: MATH 1233 or 1533.

Descriptive analysis, probability, variability, confidence intervals, hypotheses testing, analysis of variance, correlation and regression, nonparametric statistics.

3583. **Statistical Quality Control** 3(3-0)
Prerequisite: STAT 3573.

Control charts, tolerance limits, acceptance sampling, reliability, and process capability.

3593. **Design of Experiments** 3(3-0)
Prerequisite: STAT 3573.

Basic ideas of experimental design, completely randomized design, randomized block design, Latin squares, factorial designs, confounding, factorial replication, and incomplete block designs.

