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Southwestern

"100 years of Excellence"

1901-2001

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Southwestern Oklahoma State University
Graduate Catalog
2001-2003

Southwestern Oklahoma State University

Graduate Catalog 2001-2003



Dan Dill, Ph.D.
Dean of the Graduate School
100 Campus Drive
Weatherford, Oklahoma
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CURRICULA CHANGES

The University reserves the right to recommend changes in curricula, degree requirements, course offerings, and all academic regulations at any time. All changes must be approved by the Board of Regents of Oklahoma Colleges and the Oklahoma State Regents for Higher Education. Certain program modifications reflected in this publication are pending approval.

This catalog is current at the date of printing (Spring 2001). The official catalog can be found on the Southwestern Oklahoma State University Web Site: www.swosu.edu.

FEE STRUCTURE

Fees listed in this catalog are those in effect during the 2000-2001 academic year. A current schedule of fees is available upon request.

DIRECTORY OF GRADUATE PROGRAMS AND CONTACT PERSONS

GRADUATE PROGRAM	DEPARTMENT/PROGRAM COORDINATOR	OFFICE	TELEPHONE
Master of Business Administration	Dr. Elizabeth Ferrell	STF 347	(580) 774-3040
Master of Education			
Art	Mr. Joe London	ART 222	(580) 774-3757
Counseling	Ms. Sharon Neasbitt	EDU 214A	(580) 774-7135
Early Childhood Education	Dr. Judith Winchester	EDU 118C	(580) 774-3071
Educational Administration	Dr. Ronna Vanderslice	EDU 200B	(580) 774-3145
Elementary Education	Dr. Lowell Gadberry	EDU 123A	(580) 774-3288
Health, Physical Education, & Recreation	Dr. Ken Rose	HPE 10	(580) 774-3183
Language Arts	Dr. Victoria Gaydosik	CAM 202A	(580) 774-3070
Math	Dr. John Woods	CAM 324F	(580) 774-3038
Natural Science	Dr. Michael Kerley	SCI 214	(580) 774-3293
School Psychometry	Dr. Ronna Vanderslice	EDU 200B	(580) 774-3145
Secondary Education	Dr. Lowell Gadberry	EDU 123A	(580) 774-3288
Social Sciences	Dr. Stephen Burwood	SCI 201A	(580) 774-3151
Special Education	Dr. Joseph Nolan	EDU 120D	(580) 774-3140
Technology	Dr. Gary Bell	TSB 108	(580) 774-3162
Master of Music	Dr. Alan Spurgeon	MUH 104	(580) 774-3216

UNIVERSITY ACCREDITATION

ACCREDITED BY

ACCREDITATION COUNCIL FOR OCCUPATIONAL THERAPY EDUCATION (ACOTE)
OF THE AMERICAN OCCUPATIONAL THERAPY ASSOCIATION (AOTA)

ACCREDITING BUREAU OF HEALTH EDUCATION SCHOOLS (MLT/MT)

AMERICAN CHEMICAL SOCIETY

AMERICAN COUNCIL ON PHARMACEUTICAL EDUCATION

ASSOCIATION OF COLLEGIATE BUSINESS SCHOOLS AND PROGRAMS

COMMISSION ON ACCREDITATION IN PHYSICAL THERAPY EDUCATION
OF THE AMERICAN PHYSICAL THERAPY ASSOCIATION

TECHNOLOGY ACCREDITATION COMMISSION (TAC) OF THE ACCREDITATION BOARD FOR
ENGINEERING AND TECHNOLOGY (ABET)

THE COMMISSION ON ACCREDITATION OF ALLIED HEALTH EDUCATION PROGRAMS (CAAHEP) IN
COOPERATION WITH THE COUNCIL ON ACCREDITATION OF THE AMERICAN HEALTH INFORMATION
MANAGEMENT ASSOCIATION

JOINT REVIEW COMMITTEE-EDUCATION IN RADIOLOGIC TECHNOLOGY ACCREDITATION (JRCERT)

NATIONAL ASSOCIATION FOR MUSIC THERAPY

NATIONAL ASSOCIATION OF SCHOOLS OF MUSIC

*NATIONAL COUNCIL FOR THE ACCREDITATION OF TEACHER EDUCATION

NATIONAL LEAGUE FOR NURSING ACCREDITING COMMISSION

NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS

OKLAHOMA BOARD OF NURSING

OKLAHOMA STATE BOARD OF EDUCATION

OKLAHOMA STATE DEPARTMENT OF EDUCATION

OKLAHOMA STATE REGENTS FOR HIGHER EDUCATION

*Accredited by the National Council for Accreditation of Teacher Education for the preparation of elementary and secondary teachers with the master's degree as the highest degree approved.

AMERICANS WITH DISABILITIES ACT

The Americans with Disabilities Act (ADA) requires the provision of "reasonable accommodations" to those qualified individuals with disabilities by providing equal, non-discriminatory program access in the academic setting.

Students need to take the verifying documentation to the Dean of Students Office, where it will be kept confidential and private. In most cases, verifying documents can be obtained from doctors, licensed psychologists or other professionals licensed to determine the existence, severity of and characteristics of the disability or disabilities. This documentation should include the functional impact of the disability or disabilities. It is the student's responsibility to request documentation from such professionals, and to request a record of accommodations received at any other educational institution. If accommodations are needed by the student, the student should provide the information and documentation in a reasonably early manner to allow time for the development and arrangement of appropriate accommodations. In some cases, as when books on tape or sign language interpreters need to be requested, documentation should be provided several weeks prior to the beginning of each semester so accommodation arrangements can be made in a timely manner. A copy of Southwestern Oklahoma State University's documentation guidelines may be received in the Dean of Students Office, Room 214, Gen. Thomas P. Stafford Center, 580-774-3024.

AFFIRMATIVE ACTION COMPLIANCE STATEMENT

Southwestern Oklahoma State University in compliance with Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 503 of the Rehabilitation Act of 1973, Section 402 of the Readjustment Assistance Act of 1974, Americans With Disabilities Act of 1990 and other Federal laws and regulations does not discriminate on the basis of race, color, national origin, gender, age, religion, disability, or status as a veteran in any of its policies, practices, or procedures. This includes but is not limited to admissions, employment, financial assistance, and educational service.

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ACADEMIC CALENDAR

Summer Semester 2001

June 4	Enrollment for students who did not pre-enroll
June 5	Class work begins
June 7	Last day to add classes
June 11	Last day to drop a class or totally withdraw for a refund
July 4	Independence Day Holiday
July 30, 31	Final examinations

Fall Semester 2001

August 21	Enrollment for students who did not pre-enroll
August 22	Class work begins
August 27	Enrollment for Monday evening students who did not pre-enroll
August 31	Last day to add classes
September 3	Labor Day Holiday
September 5	Last day to drop a class or totally withdraw for a refund
October 18, 19	Fall break
November 21, 22, 23	Thanksgiving vacation
December 13, 14, 17, 18, 19	Final examinations
December 17	Final examinations for Monday evening classes

Spring Semester 2002

January 9	Enrollment for students who did not pre-enroll
January 10	Class work begins
January 14	Enrollment for Monday evening students who did not pre-enroll
January 18	Last day to add classes
January 23	Last day to drop a class or totally withdraw for a refund
March 18-22	Spring break
May 2, 3, 6, 7, 8	Final examinations
May 6	Final examinations for Monday evening classes
May 11	Convocation (11:00 a.m.)

Summer Semester 2002

June 3	Enrollment for students who did not pre-enroll
June 4	Class work begins
June 6	Last day to add classes
June 10	Last day to drop a class or totally withdraw for a refund
July 4, 5	Independence Day Holiday
July 30, 31	Final examinations

Fall Semester 2002

August 20	Enrollment for students who did not pre-enroll
August 21	Class work begins
August 26	Enrollment for Monday evening students who did not pre-enroll
August 30	Last day to add classes
September 2	Labor Day Holiday
September 4	Last day to drop a class or totally withdraw for a refund
October 10, 11	Fall break
November 27, 28, 29	Thanksgiving vacation
December 12, 13, 16, 17, 18	Final examinations
December 16	Final examinations for Monday evening classes

Spring Semester 2003

January 8	Enrollment for students who did not pre-enroll
January 9	Class work begins
January 13	Enrollment for Monday evening students who did not pre-enroll
January 17	Last day to add classes
January 22	Last day to drop a class or totally withdraw for a refund
TBA	Spring break
May 1, 2, 5, 6, 7	Final examinations
May 5	Final examinations for Monday evening classes
May 10	Convocation (11:00 a.m.)

Summer Semester 2003

June 2	Enrollment for students who did not pre-enroll
June 3	Class work begins
June 5	Last day to add classes
June 19	Last day to drop a class or totally withdraw for a refund
July 4	Independence Day Holiday
July 29, 30	Final examinations



THE UNIVERSITY

HISTORICAL BACKGROUND

Southwestern Oklahoma State University at Weatherford is located in Weatherford, 70 miles west of Oklahoma City. The University is authorized to offer curricula in arts and sciences, business, teacher education, and health sciences. A branch campus at Sayre is authorized to provide Associate of Science and Associate of Applied Science degrees in both general and specialized areas of study, as well as career and technical education.

The University was established by an act of the Oklahoma Territorial Legislature in 1901 as the Southwestern Normal School, authorized to offer two years of training for public school teachers. The first classes met in 1903. Initially, four years of preparatory work for pre-college students were offered.

In 1920, the preparatory (academy) courses were eliminated and two additional years of college work in teacher training were added. The State Legislature approved a change of name to Southwestern State Teachers College. The first baccalaureate degrees were awarded in May 1921. Other changes in name and purposes occurred in 1939 when the institution was designated as Southwestern State College of Diversified Occupations, and in 1941, when it became Southwestern Institute of Technology. During this two-year period, the college added a school of pharmacy, degree work in the arts and sciences, and trade schools.

In 1949, the Oklahoma State Legislature changed the name of the institution to Southwestern State College, and in 1974, to Southwestern Oklahoma State University, without altering its purposes and objectives. On July 1, 1987, Sayre Junior College was merged with Southwestern Oklahoma State University as a branch campus designated Southwestern Oklahoma State University at Sayre.

Southwestern Oklahoma State University at Sayre was founded as Sayre Junior College in 1938 under legislative authorization which permitted public high schools to add a 13th and 14th year of study to their curricula. Nineteen public schools took this step. In 1940, the college name was changed to Oklahoma Western Junior College; however, the original name was soon adopted again, and in May 1940 the first degrees were conferred. In 1956, Sayre Junior College moved from facilities occupied jointly with Sayre High School to its present location on old Highway 66. The merger with Southwestern Oklahoma State University marked the end of the Oklahoma community college system, since Sayre Junior College was the only such institution remaining of the original nineteen.

The Sayre campus is located 60 miles west of the Weatherford campus on Interstate 40. It serves western Oklahoma and the Texas panhandle within a 60 mile radius of Sayre. It offers open admission to high school graduates as well as to students who do not hold a high school diploma.

Southwestern Oklahoma State University offers four advanced degrees. The Master of Education degree was inaugurated in 1969. (The Master of Teaching Degree was offered during the period 1953-1969.) Graduate programs leading to the following degrees have been added since 1969: Master of Business Administration, 1977; Master of Music, 1981; and a professional doctorate, the Doctor of Pharmacy (PharmD), 1998.

MISSION AND PURPOSES

Southwestern Oklahoma State University is one of twenty-five institutions in the Oklahoma State System of Higher Education (Oklahoma Constitution, Article XIII-A, Section 1). The Oklahoma State Regents for Higher Education is the legal structure for public education at the collegiate level and is the coordinating board of all state institutions for higher education. Southwestern is one of six state supported regional universities governed by the Board of Regents of Oklahoma Colleges. Southwestern Oklahoma State University provides access to higher education for all individuals without discrimination on the basis of race, national origin, gender, or disability status.

The mission of Southwestern Oklahoma State University is to provide educational opportunities in higher education that meet the needs of the state and region; contribute to the educational, economic, and cultural environment; and support scholarly activity. Major areas of study on the Weatherford campus, associate degree programs on the Sayre campus, the general education curriculum, and participation in student activities/organizations provide opportunities for students to obtain skills, knowledge, and cultural appreciation that lead to productive lives and effective citizenship.

The mission and the purposes of the University are accomplished through the following:

- Insuring quality education, the University recruits qualified faculty without regard to national origin, race, gender, disability, age or religion. Faculty growth opportunities are provided through an organized faculty development program. Excellence in teaching, scholarship, and service are encouraged and recognized. An organizational and intellectual environment is provided that insures freedom of individual expression and inquiry, provides representative governance for all members of the University community, and promotes student/faculty interaction. An assessment program provides the basis for continuous evaluation and program improvement.
- Meeting its commitment to student development, the University recruits qualified students without regard to national origin, race, gender, disability, age, or religion and provides a community that encourages participation in intellectual and physical activities and leadership development. A curriculum is provided that develops communication and analytical skills; a comprehension of the arts, humanities, and cultural diversity; and knowledge of the scientific/technological world and of our historical heritage. Student orientation, advisement, enrichment, and participation in organizations and activities contribute to student growth and development.
- Fulfilling its role as a cultural and educational resource for western Oklahoma, the University provides distance learning opportunities, continuing education associated with career enhancement, personal development, and cultural growth. Performances, exhibitions, and research that enhance knowledge and enrich society are supported and services to communities are provided through academic departments and other university agencies.

Southwestern Oklahoma State University at Sayre enables the university to focus its mission on that campus to provide lower division programs and educational opportunities in higher education that meet the needs of the Sayre campus student body.

The following institutional functions have been approved by the Oklahoma State Regents for Higher Education, and are considered essential components of the mission on the Sayre campus:

- To provide a lower division program of higher education for traditional and non-traditional students in Western Oklahoma and the Texas Panhandle.
- To provide a general education that enables students to become informed responsible citizens.
- To provide programs of education in the liberal arts and sciences leading to the Associate in Science degree through campus-based and distance learning.
- To provide career and technical programs to enable students to seek employment in various job fields, with completion of such programs culminating in the awarding of the Associate in Applied Science degree or an appropriate certificate.
- To provide transfer programs which include liberal arts, sciences, and pre-professional subjects, thus enabling students to pursue completion of baccalaureate or professional degrees at four-year colleges and universities.
- To provide courses, services, and programs in remedial education for individuals who require such assistance in order to function effectively at the collegiate level.
- To provide guidance services and a program of student activities for the promotion of personal development and effective citizenship.

The University's academic organization includes schools of Arts and Sciences, Business, Education, Health Sciences, Graduate Studies, and a two-year branch campus at Sayre. Each of these entities and their subdivisions establish specific objectives that contribute to the achievement of University objectives.



UNIVERSITY ADMINISTRATION

TBA..... President

TBA..... Executive Vice President for Administration

William J. Kermis Vice President for Academic Affairs/Research Administration
Ph.D., Syracuse University

Paulette Woods Vice President for Student Services
Ph.D., University of Minnesota

Dan Dill..... Associate Vice President for Academic Affairs/Graduate Dean
Ph.D., University of Arkansas

Darin Behara Dean of Students
M.S., Oklahoma State University

Marvin Schoenecke..... Director of Student Housing & Activities
M.A. ED., Western Kentucky University

Bob J. Klaassen Registrar and Director of Admissions
M.S., Oklahoma State University

Bettie Becker..... Director of Assessment
Ph.D., Kansas State University

Tom Fagan Asst. Vice President for Adm./Comptroller
M.B.A., Southwestern Oklahoma State University

David G. Clark Bursar
B.S., Southwestern Oklahoma State University

Todd Boyd..... Director of High School/College Relations
M.Ed., Southwestern Oklahoma State University

Brian Adler..... Director of Public Information
B.A., University of Oklahoma

Jim Waites..... Director of Alumni and Development
M.Ed., Southwestern Oklahoma State University

Linda Pye Interim Director of Library
M.L.S., University of Oklahoma

David A. Gwinn Director of Conference Center and Continuing Education
M.S., Oklahoma State University

Thomas Ratliff Director of Student Financial Services
M.B.A., Kennesaw State College

GRADUATE COUNCIL

Dr. Dan Dill, Graduate Dean (Chair)

MEMBERSHIP

SCHOOL

Dr. Stephen Burgess	School of Arts and Sciences
Dr. Elizabeth Ferrell	School of Business
Dr. Lowell Gadberry	School of Education
Dr. Victoria Gaydosik	School of Arts and Sciences
Dr. Larry Godley	School of Education
Dr. Peter Grant	School of Arts and Sciences
Dr. Alan Spurgeon	School of Arts and Sciences
Dr. Ronna Vanderslice	School of Education
TBA	Student Representatives

DEANS AND DEPARTMENT CHAIRS

SCHOOL OF ARTS AND SCIENCES

Dean, Dr. Vilas Prabhu
Assistant Dean, Dr. Nancy McClain
Art, Mr. Joe London
Biological Sciences, Dr. Mike Kerley
Chemistry/Physics, (Interim) Dr. Nancy McClain
Computer Science, (Interim) Dr. Gary Bell
Health, Physical Education, and Recreation, Dr. Ken Rose
Language Arts, Dr. Victoria Gaydosik
Mathematics, Dr. Radwan Al-Jarrah
Music, Dr. Terry Segress
Psychology, TBA
Social Sciences, Dr. Stephen Burwood
Technology, Dr. Gary Bell

SCHOOL OF BUSINESS

Interim Dean, Dr. Ralph May
Accounting/Finance, Dr. Melody Ashenfelter
Business Administration, (Interim Chair) Dr. Les Crall

SCHOOL OF EDUCATION

Dean, Dr. Greg Moss
Assistant to the Dean, Dr. John Ludrick
School Service Programs, Dr. Ronna Vanderslice
Elementary/Secondary Programs, Dr. Lowell Gadberry

SCHOOL OF HEALTH SCIENCES

Dean, Dr. H. David Bergman
Associate Dean, Dr. Patricia Meyer
Associate Dean, Dr. Gary Wolgamott
Allied Health Sciences, Dr. Gary Wolgamott
Nursing, Dr. Patricia Meyer

SCHOOL OF PHARMACY

Dean, Dr. H. David Bergman
Associate Dean, Dr. David Ralph
Associate Dean, Dr. Dennis Thompson
Pharmaceutical Sciences, Dr. Michael Deimling
Pharmacy Practice, Dr. Dennis Thompson

UNIVERSITY INFORMATION

Research Facilities

Southwestern Oklahoma State University possesses supporting facilities for learning and research. The Al Harris Library has 275,000 bound volumes and subscribes to 1,400 periodicals. The collection is expanded by one million microform units. The library is both a U.S. and state government document depository and has 40,000 U.S. government documents. The library provides access to several electronic databases and to the Internet. The library provides electronic access to SWOSU's catalog and to other university library catalogs in Oklahoma and throughout the world. Additional facilities on campus include a computer center (ALPH 400, VAX 4100, VAX 4700); microcomputer labs; various tele-learning resources; laboratories for research in mathematics, physics, chemistry, biology, social science, child development, elementary education, early childhood education, counseling, psychology, business, educational administration, music library, and listening.

Financial Services

Students who need financial assistance should contact Student Financial Services (STF 224, 580-774-3786) to determine eligibility for assistance. Most financial assistance at the graduate level is limited to individuals who are enrolled at least as halftime students and who can demonstrate a financial need. Eligible students may apply for student loans and work study. Graduate assistantships are available through academic departments.

Veterans Affairs

The University is approved for the training of veterans of the military service under education assistance established by the Federal Government and administered by the Veterans Administration. The V.A. Education Programs are coordinated through the Office of the Registrar (Adm 108, 580-774-3778).

Housing and Food Service

Room and board is available in university residence halls. Charges range from \$2,094-\$2,996 per academic year. Room and board charges for the eight-week summer term range from \$523 to \$749. University and private apartments are available at varying rates. Applications for campus housing and information about available private housing may be obtained from the Office of Student Housing and Activities (STF 214, 580-774-3024). **Rates are subject to change.**

Admission Policy

Southwestern Oklahoma State University takes into account the following nonacademic criteria in admitting first-time, transfer or readmission students: (a) whether applicants have been expelled, suspended or denied admission or denied readmission by any other educational institution; (b) whether the applicants have been convicted of a felony or convicted of a lesser crime involving moral turpitude; and (c) whether the applicant's conduct has been such that if the applicant was a student at the time of the conduct in question, the conduct would have been grounds for expulsion, suspension, dismissal or denial of readmission at the university.

Tuition and Fees

Tuition and other fees are established by the Oklahoma State Regents for Higher Education. **The charges listed in this catalog are those in effect at the time of publication and are subject to change** (refer to academic schedule for current fees). A student's registration is complete only when all fees are paid or when payment arrangements have been made with the Business Office (ADM 111, 580-774-3018).

Graduate School Tuition:	Resident	Non-Resident
3000 and 4000 level courses	\$65.00 per credit hour	\$158.00* per credit hour
5000 level courses	\$81.00 per credit hour	\$190.00* per credit hour

Special Fees:

Application Fee (per application)	\$15.00
Student I.D. Cards (per semester)	\$1.50
Private Music Lessons (per credit hour)	\$30.00
Semi Private Lessons (per credit hour)	\$18.00
Safety Service Fee (per semester)	\$3.00
Interactive Video Course Fee	\$20.00
Electronic Media Fee (per credit hour)	\$5.00
Health Fee (per semester/fall and spring)	\$5.00
Health Fee (per semester/summer)	\$2.50

*Students with a 2.5 undergraduate grade point average (GPA) are eligible for resident tuition. Students must maintain a 3.0 graduate GPA to continue their eligibility.

Non-resident tuition waivers for international students will not exceed 2.5 percent of the total number of graduate students enrolled at the University. Furthermore, eligible students will meet these conditions:

- Admission into a degree program,
- Maintain acceptable academic standards (i.e. ≥ 3.0 cumulative GPA).

Refunds:

The refund policy is established by the Oklahoma State Regents for Higher Education. The refund procedure for total withdrawal is initiated in the Registrar's Office. Students will receive 100 percent refund for total withdrawal before the first day of class. The Regents' policy is in effect after classes begin.

Students will receive 85 percent refund for individual courses dropped during the first two weeks of class. No refunds will be made after this date. Contact Registrar's Office (ADM 108, 580-774-3778) for further information.

Placement Services

Placement Service is available at Southwestern Oklahoma State University to all graduating seniors, graduate students, and alumni. Individuals may file credentials, obtain job information, and schedule campus employment interviews at Student Development Services, 580-774-3233. Information concerning job openings in business, industry, government, and education is available upon request.

Release of Information

Southwestern Oklahoma State University complies with all provisions of the Family Educational Rights and Privacy Act of 1974. The administration of educational records at Southwestern is consistent with provisions of the Act.

ACADEMIC/ADMISSION POLICIES

Admission to Graduate School

For admission, the student must have the following:

1. A bachelor's degree from a college or university accredited by a regional accrediting association.
2. An overall undergraduate grade-point average of at least 2.5 on a 4.0 scale, an undergraduate grade-point average of at least 2.5 on the last 60 semester hours, or a combination of undergraduate and graduate grade-point average of 2.5.
3. An application for admission or readmission to the University.
4. An application for admission to the Graduate School.
5. Official transcript(s) of all credit earned.
6. A student for whom English is a second language wishing to be considered for admission must provide results of TOEFL with a minimum score of 550.
7. An international student must complete a Certification of Financial Resources Form showing sufficient resources to provide for the student's entire program of study and living expenses while at Southwestern. A minimum deposit of \$1500 is required. The student must also provide evidence of health insurance.

Admission to Degree Program

1. An overall undergraduate grade-point average of at least 2.5 on a 4.0 scale, an undergraduate grade-point average of at least 2.5 on the last 60 semester hours, or a combination of undergraduate and graduate grade-point average of 2.5.
2. Refer to the specific degree program for GRE or GMAT requirements.
3. Letters of recommendation as required by individual degree programs.
4. Specific admission requirements for each degree program are listed on the following pages.
5. When completed credentials are on file with the Graduate Office, the file will be evaluated to determine admissibility to a graduate program.
6. All application materials must be submitted by the following deadlines in order to be considered for admission that semester.

Fall Semester Admission – 1st Class Day in November

Spring Semester Admission – 1st Class Day in April

Summer Semester Admission – 1st Class Day in July

Applications submitted after these deadlines will not be considered until the following semester.

7. Incomplete application files will not be kept longer than two years.
8. Specific admission requirements for each program are found on the following pages:

Master of Business Administration..... 23

Master of Education..... 25

Master of Music 48

Policy on Inactive Students

1. Graduate students will become inactive if no coursework is taken within one year of admittance into a degree program.
2. Graduate students who have previously taken courses but have not completed any coursework for the past two years will receive a letter warning them that their status will change to inactive if no coursework is taken for three years in a row.
3. After three years have gone by with no coursework completed, students will be made inactive.
4. Students will have to reapply to graduate school once they are made inactive.

GENERAL INFORMATION

Seniors and Graduate Study

A senior student may enroll in a maximum of **nine (9)** graduate hours during the final undergraduate year if a full course load is not required to complete requirements of the bachelor's degree. The total undergraduate and graduate enrollment should not exceed sixteen (16) hours during a semester and nine (9) hours during a summer term. Graduate work may not be used to meet undergraduate requirements, but it may be applied toward professional certification in some instances. (Exception --None of the 5000-level courses in the School of Business can be taken by students who have not received a bachelor's degree.)

Advisement and Enrollment

Each student admitted to a degree program is assigned an advisor in his/her major area of interest when the application for admission to a graduate program is approved. Advisors are available to assist students with enrollments and to provide general program information. **The student, however, has the final responsibility of insuring that program requirements are met.** Exceptions to requirements outlined in the *Graduate Catalog* must be approved by the advisor and, when applicable, the dean of the academic unit and the Graduate Dean.

Graduate students may pre-enroll on any of the enrollment dates listed in the class schedule or enroll during regular registration. For the fall and spring semesters, a special registration is held on the first Monday night evening classes are scheduled.

Academic Load

All *full-time students* are enrolled in a minimum of nine (9) hours per semester and four (4) hours during a summer term. *Three quarter-time students* are enrolled in a minimum of seven (7) hours per semester and three (3) hours during a summer term. *Halftime students* are enrolled in a minimum of five (5) hours per semester and two (2) hours during a summer term. Enrollments that exceed sixteen (16) hours during the fall and spring semester and nine (9) hours during the summer term are exceptions and must be approved by the advisor and Graduate Dean. Additional credit may be earned via interim courses.

Course Numbering

5000 level courses Business courses may only be taken by MBA graduate students. Courses at the 3000 and 4000-level which are identified by an asterisk in the class schedule are dual enrollment courses open to most graduate and upper-division undergraduate students. The courses may be used to meet requirements of a graduate degree if part of an approved program. The student must indicate at the time of enrollment if s/he wants a course for graduate credit. Members of the faculty differentiate between the work of graduate and undergraduate students in 3000 and 4000 level courses. Courses completed for undergraduate credit may not be repeated for graduate credit, nor can the same class count toward undergraduate and graduate requirements.

Grading System

A grade is given as recognition of certain levels of accomplishment in a course and is to be interpreted as follows:

Graduate Courses--A (4.0), Excellent; B (3.0), Average; C (2.0), Below Average; D (1.0), not acceptable toward a degree; F (0.0), Failure; S (0.0), Satisfactory.

Incomplete--An incomplete grade may be used at the instructor's discretion to indicate that additional work is necessary to complete a course. To receive an "I" grade, the student should have satisfactorily completed a substantial portion of the required coursework for the semester. The time limit to satisfy the "I" will be at the discretion of the instructor. "I" grades not changed by the instructor to a credit-bearing grade or an "F" within the specified time limit will remain as a permanent "I" and not contribute to the student's GPA.

Withdrawal--Students may withdraw during the first eleven weeks of class work in a regular semester or during the first four weeks of class in a summer semester and receive a grade of "W." Students may also withdraw officially any time prior to and including Friday of the week before final examinations begin and receive a "W" for courses in which they are doing passing work. Students who withdraw from a course in which they are failing will receive an "F" if the withdrawal occurs during the last five weeks of a regular semester or the last four weeks of a summer semester. Students who leave school without officially withdrawing will receive grades of "F" for courses in which they were enrolled. A grade of "W" has no effect on the grade-point average.

Repeated Courses--When a course is repeated, both grades are used in computing the grade-point average, but only one course may be applied toward degree requirements.

Retention

A minimum graduate grade-point average of 3.0 (B) is required in all master's degree programs. No grade lower than a "B" on applied music courses will be accepted toward requirements of the Master of Music degree. A maximum of six semester hours of "C" may be applied toward requirements of the Master of Business Administration. No grade lower than a "C" may be applied toward the requirements of the Master of Education degree.

After being admitted to a graduate program, a student will be placed on academic probation if the graduate grade-point average falls below 3.0 (B) after the completion of twelve (12) semester hours, including transfer credit. During the first probation semester, a student must have a cumulative GPA and/or semester GPA of 3.0. If neither the cumulative nor semester GPA is a 3.0, the student will be allowed to register only as a part-time student (i.e., a maximum of five hours and three hours during the regular and summer term respectively) until a cumulative GPA of 3.0 is achieved. If a student during a second semester of probation does not earn a 3.0 semester average, s/he will be dismissed from the Graduate School. An academic reprieve is not applicable to graduate programs.

Inactive Policy

Students who are admitted to a graduate degree program and do not take any courses for one year immediately after admission will be dropped. Students who have taken courses since admission to a degree program but do not take any graduate coursework for three years will be dropped.

Transfer of Credits

A maximum of **nine (9)** applicable semester hours of graduate credit from accredited colleges and universities may apply toward requirements of a graduate degree at Southwestern Oklahoma State University (SWOSU). Only coursework with grades of "A" and "B" is eligible for transfer. **All applicable graduate credit earned at SWOSU prior to admission into a degree program is considered as transfer credit.**

Unclassified Graduate Students

Students who have previously completed a Master's Degree at Southwestern, or who do not wish to pursue a graduate degree may be admitted as Unclassified Graduate Students. These students must follow the procedure for Admission to Graduate School. A maximum of nine hours taken as an unclassified student may transfer into a degree program. The nine hour transfer policy includes any hours taken at another university as well as hours taken at Southwestern before admission to a degree program.

Degree Completion Time

Graduate courses taken more than six (6) years prior to graduation do not count toward the total number of credit hours required for a master's degree. Courses that are more than six (6) years old may count as degree requirements as recommended by the academic unit in which the master's degree is offered and approved by the Graduate Dean.

Individual Study

Graduate students may enroll in an individual study in areas not available in conventional classes. A maximum of **four (4)** semester hours of individual study may be applied toward requirements of the master's degree upon approval of advisor.

Seminar Credit

A maximum of **six (6)** semester hours of short seminar credit may be applied toward requirements of the master's degree.

Correspondence Study

Credit earned through correspondence study will **not** satisfy course requirements in a master's degree program. In some cases, correspondence study credit may count toward professional certification or to complete deficiency requirements.

Candidacy for the Master's Degree

Admission to the Graduate School and to a degree program is not the equivalent of Admission to Candidacy for the master's degree. It is the responsibility of the student to initiate the application for candidacy after the completion of 20-30 semester hours. The candidacy form must be submitted to the Graduate Office no later than mid-term of the semester in which the student intends to graduate. The degree candidacy form is to be completed by the student in consultation with his/her major advisor and forwarded to the Graduate Office. The degree candidacy form must include **only** the courses that apply to the graduate degree program.

Application for Graduation

Candidates for the master's degree are responsible for filing an application for graduation with the Registrar. Students are strongly encouraged to file this application during the first two weeks of the semester in which they plan to graduate.

Non-Discrimination Policy

Southwestern Oklahoma State University in compliance with Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 503 of the Rehabilitation Act of 1973, Section 402 of the Readjustment Assistance Act of 1974, Americans With Disabilities Act of 1990 and other Federal laws and regulations does not discriminate on the basis of race, color, national origin, gender, age, religion, disability, or status as a veteran in any of its policies, practices, or procedures. This includes but is not limited to admissions, employment, financial assistance, and educational service.



GRADUATE PROGRAM CHECKLIST

Sequential Steps to be Followed in A Master's Degree Program -- A Self Help Guide --

1. Admission to Graduate School and Degree Program

- ☐ File Application for Admission or readmission to the University with the Registrar (not required of students enrolled at Southwestern during the previous year).
- ☐ File Application for Admission to Graduate School with the Graduate Office.
- ☐ Provide official transcript(s) of all previous college work not already on file with the Registrar at Southwestern.
- ☐ Provide other credentials (GRE or GMAT scores, references, etc.) as required by the degree program for which you are applying.
- ☐ Submit Portfolio (for Educational Administration, School Counseling, & School Psychometry only)

2. Following Admission to a Degree Program

- ☐ Meet with your advisor and/or advisory committee and complete a Plan of Study. A copy should be submitted to the Graduate Office during the semester of admission.
- ☐ Enroll or pre-enroll on enrollment dates listed in the class schedules.

3. Admission to Degree Candidacy

- ☐ **With the assistance of your advisor**, complete an Application for Admission to Candidacy form after the completion of 24-30 semester hours of graduate work or at the beginning of the semester in which you intend to graduate.
- ☐ Obtain appropriate signatures and file copies of the degree candidacy form with the Graduate Office. The signed/completed form must reach the Graduate Office by mid-term of your final semester.
- ☐ Master of Education students sign up for the Capstone Experience through the School of Education at the beginning of their final semester.
- ☐ File an Application for Graduation with the Registrar. Students should submit the Application for Graduation to the Registrar's Office during the first two weeks of the semester in which they expect to graduate.
- ☐ Order cap and gown at University Bookstore.

4. Summary Checklist, Do You Have?

- ☐ Required number of semester hours for the degree.
- ☐ All required courses completed.
- ☐ An overall grade-point average of at least 3.0 (B) on graduate work.
- ☐ The Master of Music degree program with no *Applied Music* grades below "B" that count toward degree requirements.
- ☐ The Master of Education degree program with no grades below "C" applied toward degree requirements.
- ☐ The Master of Business Administration degree program with no more than six (6) semester hours of "C" applied toward the degree.
- ☐ Not more than four (4) semester hours of individual study may be applied toward the degree.
- ☐ Not more than six (6) hours of seminar credit may be applied toward the degree.
- ☐ No correspondence study credit may be applied toward the degree.
- ☐ Graduate credits completed beyond six (6) years are not applicable for semester hours required but may meet course requirements in a degree program.
- ☐ Not more than nine (9) approved semester hours of transfer credit. This includes courses from accredited institutions as well as courses taken at SWOSU prior to admission into a degree program. **Only courses with a grade of A or B may be transferred.**

MASTER OF BUSINESS ADMINISTRATION DEGREE

The Master of Business Administration degree is accredited by the Association of Collegiate Business Schools and Programs. It is designed for those:

who desire an immediate continuation of an advanced program in business commensurate with their career objectives;

who desire an updating of their professional training;

business entrepreneurs and/or managers of firms who desire advanced specialized experiences to anticipate and solve the challenge of individual occupational responsibilities;

who require an advanced degree in anticipation of further graduate level education.

ADMISSION

In addition to university and graduate school admission requirements, applicants for the Master of Business Administration degree must meet the following:

1. A satisfactory minimum score with respect to the combination of GPA and GMAT scores:
 $\text{GPA} \times 200 + \text{GMAT} = 1000$
2. Two recommendation forms from individuals qualified to rate the applicant's academic aptitude and motivation.
3. Evidence that the student has adequate background in the following areas within the business school to succeed in MBA courses required: Macroeconomics and Microeconomics, Financial and Managerial Accounting, Marketing, Management, Finance, Statistics, and Microcomputers. This requirement can be satisfied with evidence of satisfactory completion of undergraduate course work, CLEP, qualifying examinations or equivalency as determined by the offices of the MBA Director and Business School Dean.

For those applicants not having an adequate background in business as described above, the following courses or their equivalent must be completed:

Accounting 2213, 2313
Economics 2263, 2363, 2463
Management 3233
Marketing 3143
Finance 3343

COURSE OFFERINGS

5000 level business courses are offered from 6:30-9:10 p.m. Two courses are offered each fall and spring semester and one course in the summer semester. Specific semester offerings and course descriptions are listed in the back of this catalog.

GENERAL MBA REQUIREMENTS

Admission to the MBA Program.

Complete an approved 33 hour program of required and elective courses.

Maintain a grade-point average of 3.0 (4.0 scale) with no more than six hours of "C" grade accepted toward degree requirements.

Satisfactory completion of a written comprehensive examination administered by a committee of business school graduate faculty.

COURSE WORK REQUIREMENTS

All MBA students must complete a 30 hour professional core with an additional 3 hours from the list of restricted elective courses listed below:

- I. Professional MBA Core (30 hours all required)
 - ACCTG 5633 Financial Accounting For Decision Making
 - FINAN 5263 Advanced Financial Management
 - ECONO 5763 Advanced Business Statistics
 - ECONO 5653 Advanced Managerial Economics
 - MNGMT 5923 Business Strategy and Policy
 - MNGMT 5723 Operations Management
 - MNGMT 5433 Advanced Human Resources Management
 - MNGMT 5533 Management and Organizational Behavior
 - MNGMT 5643 Advanced Quantitative Methods
 - MRKTG 5623 Marketing Strategy
- II. Approved Elective Courses (3 hours required)
(Could be taken for graduate credit prior to being admitted to the MBA Program)
 - ACCTG 4513 Auditing II
 - ACCTG 4623 Accounting Theory
 - ACCTG 4643 International Accounting
 - ACCTG 5003 Independent Study in Accounting (Topic)
 - ACCTG 5013 Seminar in Accounting (Topic)
 - FINAN 4393 International Finance
 - FINAN 5003 Independent Study in Finance (Topic)
 - FINAN 5013 Seminar in Finance (Topic)
 - ECONO 4563 Economic Theory
 - GEBUS 5343 Topics in International Business
 - MNGMT 5003 Independent Study in Management (Topic)
 - MNGMT 5013 Seminar in Management (Topic)
 - MRKTG 4543 Industrial Marketing
 - MRKTG 4643 International Marketing
 - MRKTG 5003 Independent Study in Marketing (Topic)
 - MRKTG 5013 Seminar in Marketing (Topic)

Note - MBA students must have their schedule approved by the MBA Director prior to enrolling.

MASTER OF EDUCATION DEGREE

Areas of Specialization

Art	Natural Sciences
Community Counseling	School Counseling
Early Childhood	School Psychometry
Educational Administration	Social Sciences
Elementary Education	Special Education (Mild or Moderate Disabilities)
English	Special Education (Severe, Profound or Multiple Disabilities)
Health, Physical Education, and Recreation	
Mathematics	Technology

Purposes

The Master of Education degree program at Southwestern is designed to provide a professional course of study for students who have acquired a bachelor's degree in education and wish to improve their proficiency and skill as educators. The general cognitive performance outcomes for the Master of Education degree are as follows:

1. Extend and broaden teachers' knowledge base in subject specialization areas.
2. Increase competency mastery in the use of effective methods, teaching styles, materials, and technology.
3. Further develop teachers' skills in facilitating and evaluating the progress of children and adolescents in areas of human growth, learning, and development.
4. Assist teachers in the improvement of proficiency in analysis, synthesis, and evaluation.
5. Enhance teachers' understanding of the school's multiple roles in society and its responsibility for the preservation and improvement of the democratic process.
6. Foster attitudes that are conducive to improvement as a means of keeping professionally alert as well as raising the standards and prestige of the profession.

Admission

In addition to the university and graduate school admission requirements listed, applicants for the Master of Education degree must meet the following conditions:

1. An undergraduate GPA of 3.0 or above **OR** a satisfactory minimum score with respect to the combination of GPA and GRE scores:

$$\text{GPA} \times 150 + \text{GRE}^* = 1100$$

***The GRE score will be a sum of the scores on the verbal test and either the quantitative test or the analytical test.**

Students with an undergraduate GPA of 3.00 or better are exempt from taking the GRE.

2. Applicants must submit two professional recommendations (forms are available in the Graduate Office) completed by individuals who are in a position to rate academic aptitude and motivational factors. Documents should be sent directly from the reference to the Graduate Office.
3. Candidates in the areas of School Counseling, Psychometry, or Educational Administration must complete Entry Level Portfolios for Admission and Culminating Portfolios the final semester of graduate school. (Specific guidelines are available through the School Services Office on campus.)
4. Candidates in the areas of School Counseling, Psychometry and Educational Administration will successfully complete an interview with his/her advisor and complete a Plan of Study.
5. Complete requirements for graduate work in specific departments (prerequisites, recommendations by committee, etc.)
6. A minimum of 18 semester hours of work in professional education, including the Oklahoma requirement of twelve weeks in student teaching must have been completed, or applicant must hold an Oklahoma teaching license or certificate.

An adequate undergraduate background in the teaching field to be pursued at the graduate level must be demonstrated by a satisfactory undergraduate transcript. A student desiring to enter a field of study at the graduate level for which he does not have adequate undergraduate preparation will be required to make up deficiencies without credit toward the master's degree.

Professional Education Courses

A Professional Education Core is required in all Master of Education degree programs. The combined undergraduate and graduate hours in Professional Education must equal 38. The Professional Education Core for most degree programs is as follows:

EDUC 5113 Introduction to Research
ELEM 5693 Teaching in Elementary School
 OR SECED 5833 Teaching in Secondary School
COUN 5513 Introduction to Counseling and Guidance
EDPSY 5723 Advanced Psychology of Learning

Capstone Experience - EDUC 5950 – Required of all students admitted to a graduate degree program in education after August 23, 1995. This is a general exam which is taken in approximately the middle of the final semester of graduate coursework.

CERTIFICATION NOTE

The Master of Education degree programs DO NOT NECESSARILY reflect state certification requirements of the State Board of Education. Candidates are encouraged to consult with the certification specialist on campus regarding these requirements.

ELEMENTARY EDUCATION

Note: In order to complete this Master's Degree, the candidate must have completed an approved program in Elementary Education, Early Childhood Education, or Special Education **OR** hold a teaching certificate in one of those areas **OR** receive special permission from the deans of the School of Education and the Graduate School.

I. Professional Education Core (12 hours)

EDUC 5113	Introduction to Research	EDPSY 5723	Adv Psych of Learning
COUN 5513	Introduction to Couns & Guid	ELEM 5693	Teaching in Elem School

II. Subject Area Requirements

Completion of at least 12 undergraduate or graduate semester hours in each of the four core subject areas (math, science, language arts, social science).

III. Core Elementary Education Requirements (15 hours required)

RDNG 5413 Foundations of Reading
ELEM 5513 Tchng Math Elem School
EDUC 5423 Multicultural Concepts
EDPSY 5733 Advanced Psych of Childhood
EDAD 5703 Advanced Tests and Measurement

IV. Electives (5 hours required)

EDAD 5233	Fund of Curr. Plan	ECED 5162	Perc Dev Infants & Tod
EDAD 5983	Public School Law	ECED 5612	Pract in Early Childhood
EDAD 5133	Modern Phil of Educ	SPCED 5623	Instr Cont/Pract M/M
LIBED 5473	Adv Media & Tech	SPCED 5163	Instr Cont/Pract S/P
ECED 4533	Guid of the Preschool Child	SPCED 5223	Det/Corr Spec Prob
ECED 4583	Early Child & Kind Educ	SPCED 5862	Plan/Man Tchng Env
ECED 3423	Play Methods and Materials	SPCED 5362	Legal/Ethical Prac
ECED 3463	The Expressive Arts	PSYCH 4533	Language Develop
ECED 3483	Exploring Child's World		

V. CAPSTONE EXPERIENCE (for students admitted to a graduate degree program in education after August 23, 1995)

EDUC 5950 Capstone Experience (must be completed during the final semester)

CERTIFICATION REQUIREMENTS

1. Completion of required coursework (see certification officer for checksheet).
2. Successful passage of the appropriate Oklahoma Subject Area Test.
3. Successful passage of the Oklahoma General Education Test and the Oklahoma Professional Teaching Exam.
4. Upon completion of all requirements, certification applications shall be filed with the certification officer in Educ 122.

EARLY CHILDHOOD EDUCATION

Note: In order to complete this Master's Degree, the candidate must have completed an approved program in Elementary Education, Early Childhood Education, or Special Education **OR** hold a teaching certificate in one of those areas **OR** receive special permission from the deans of the School of Education and the Graduate School.

I. Professional Education (12 hours required)

EDUC 5113 Introduction to Research
COUN 5513 Intro to Counseling & Guidance
EDPSY 5723 Advanced Psych of Learning
ELEM 5693 Teaching in Elem School

II. Subject Area Requirements

Completion of at least 12 undergraduate or graduate semester hours in each of the four core subject areas (math, science, language arts, social science).

III. Core Early Childhood Education Requirements (20 hours required)

ECED 3423 Play Methods & Materials
ECED 3463 The Expressive Arts
ECED 3483 Exploring the Child's World
ECED 4533 Guidance of the Preschool Child
PSYCH 4533 Language Development
ECED 4583 Early Childhood & Kind Educ
ECED 5612 Practicum in Early Childhood Education

IV. Capstone Experience (for students admitted to a graduate program in education after August 23, 1995)

EDUC 5950 Capstone Experience (must be completed during the final semester)

Certification Requirements

1. Completion of required coursework (see certification officer for checksheet)
2. Successful passage of the appropriate Oklahoma Subject Area Test.
3. Successful passage of the Oklahoma General Education Test and the Oklahoma Professional Teaching Exam.
4. **Upon completion of all requirements, certification applications should be filed with the certification officer in EDU 122.**

ELEMENTARY/SECONDARY EDUCATION

Areas of Specialization

Art

Health, Physical Education, and Recreation

Special Education

I. **Prerequisites:** See specialization departmental requirements.

II. **Required Professional Education:**

EDUC 5113 Introduction to Research

EDPSY 5723 Adv Psych of Learning

COUN 5513 Introduction to Couns & Guidance

ELEM 5693 Teaching in Elem School

OR SECED 5833 Teaching in Sec School

III. **Required** courses in area of specialization - See departmental requirements.

IV. **Other** approved coursework to make a total of at least 32 semester hours.

V. **Capstone Experience** (for students admitted to a graduate degree program in education after August 23, 1995)

EDUC 5950 Capstone Experience (must be completed during the final semester)



SPECIALIZATION IN ART

I. **Prerequisites:** Completion of 24 undergraduate semester hours in art and submission of a portfolio of at least 15 examples of the student's work.

II. **Required professional education:**

EDUC 5113 Introduction to Research	EDPSY 5723 Adv Psych of Learning
COUN 5513 Introduction to Couns & Guid	ELEM 5693 Teaching in Elem School
OR SECED 5833 Teaching in Sec School	

III. **Required courses in art:** A minimum of 16 semester hours selected from the following courses, including at least one 5000 level course.

ART 3113 Watercolor Studio*	ART 4001-4 Independent Study in Art (Topic)
ART 3153 Figure Drawing*	ART 4011-4 Seminar in Art
ART 3213 Computer Graphics	ART 4163 Portfolio
ART 3353 Clay Studio*	ART 4253 Applied Design
ART 3413 Sculpture Studio*	ART 4313 Painting Studio*
ART 3483 Printmaking Studio	ART 4333 Studio Drawing*
ART 3513 Media for Artists	ART 4353 Modern Art History
ART 3613 History of Art I	ART 4383 Art History Since 1945
ART 3653 History of Art II	ART 4393 Non-Western Art Survey
ART 3683 Illustration Studio*	ART 4413 Package Design*
ART 3753 Life Drawing*	ART 4452 Content, Methods and Materials in Elementary School Art
ART 3783 Photographic/Digital Illustration*	ART 4553 Teachers' Course in Art
ART 3853 Typographic Design*	ART 5001-4 Independent Study in Art
ART 3883 Advertising Design*	ART 5011-4 Seminar in Art
ART 3923 Publication Design*	ART 5651 Graduate Exhibit
ART 3953 Professional Practice for Designers and Illustrators	

IV. **Other approved** coursework to make a total of at least 32 semester hours

V. **Capstone Experience** (for students admitted to a graduate degree program in education after August 23, 1995)
EDUC 5950 Capstone Experience (must be completed during the final semester)

VI. **Combined** undergraduate and graduate work in art must total at least 60 semester hours.

*Denotes upper-level studio courses repeatable twice for credit to fulfill requirements

SPECIALIZATION IN HEALTH, PHYSICAL EDUCATION, AND RECREATION

I. **Prerequisites:** Completion of 24 undergraduate semester hours in health, physical education, and recreation.

II. **Required professional education**

EDUC 5113 Introduction to Research	EDPSY 5723 Adv Psych of Learning	
COUN 5513 Introduction to Couns & Guid	ELEM 5693 Teaching in Elem School	
OR SECED 5833 Teaching in Sec School		

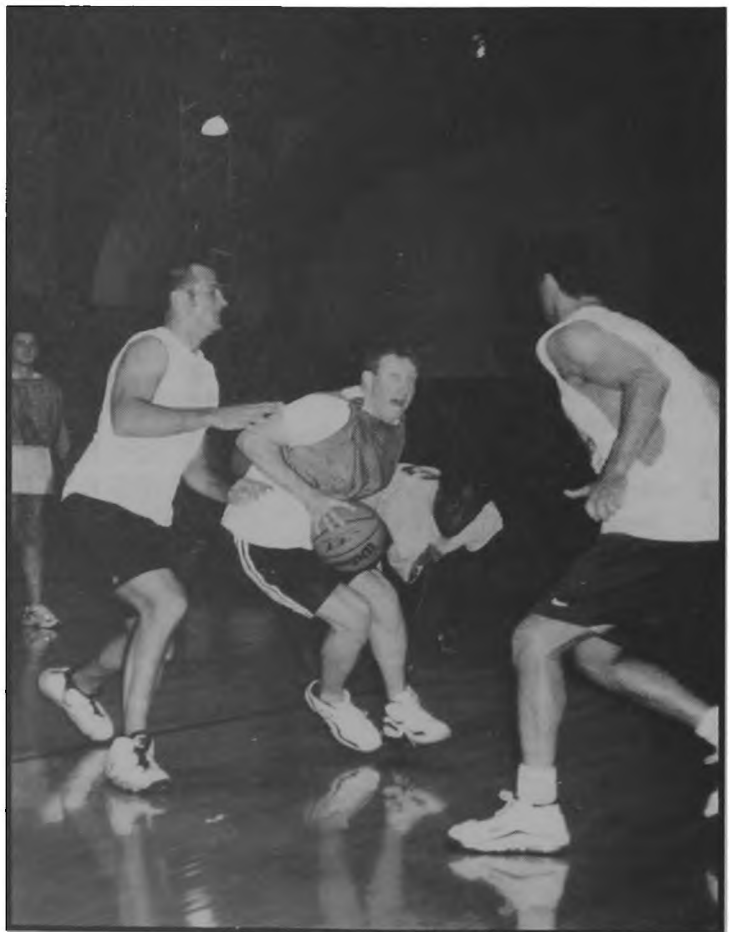
III. **Required courses in health, physical education, and recreation:** a minimum of 16 semester hours selected from the following courses, including at least one 5000 level course.

<p>HPE R 3133 Teaching Health in Public Schools</p> <p>HPE R 3333 Safety Education</p> <p>HPE R 3342 Innovations in Driver and Traffic Safety Education</p> <p>HPE R 3393 Nutrition for Children</p> <p>HPE R 3443 Kinesiology and Anatomy</p> <p>HPE R 3553 Methods and Materials in Elementary HPE R</p> <p>HPE R 3663 Recreation Leadership</p> <p>HPE R 3723 Advanced Athletic Training</p> <p>HPE R 3733 Practicum in Assessment of Injury</p> <p>HPE R 3743 Athletic Training Rehabilitation and Reconditioning</p> <p>HPE R 3753 Practicum in Therapeutic Intervention</p> <p>HPE R 4001-4 Individual Study in Health, Physical Education, and Recreation</p> <p>HPE R 4011-4 Seminar in Health, Physical Education, and Recreation</p> <p>HPE R 4052 Sociology of Sport</p> <p>HPE R 4063 Legal Aspects in Physical Education, Recreation and Athletics</p> <p>HPE R 4073 Evaluation in Physical Education</p> <p>HPE R 4113 Organization and Administration of Health, Physical Education, and Recreation</p> <p>HPE R 4122 Organization and Administration of Athletics</p> <p>HPE R 4163 Community Recreation</p> <p>HPE R 4222 Organization and Management of Intramurals</p> <p>HPE R 4233 Exercise Physiology</p> <p>HPE R 4243 Therapeutic and Prescriptive Physical Education</p>	<p>HPE R 4262 Motor Learning</p> <p>HPE R 4323 Athletic Training Pharmacology</p> <p>HPE R 4333 Principles and History of Health & PE</p> <p>HPE R 4344 Applied Kinesiology and Anatomy</p> <p>HPE R 4353 Motor Development</p> <p>HPE R 4362 Traffic Courts and Law Enforcement</p> <p>HPE R 4432 Athletic Training Modalities</p> <p>HPE R 4443 Methods of Teaching Safety Education</p> <p>HPE R 4541 Capstone Experience in HPER</p> <p>HPE R 4553 Teachers Course in Health and PE</p> <p>HPE R 4663 Camp Counseling</p> <p>HPE R 4712 Outdoor Leisure Education Seminar (Topic)</p> <p>HPE R 4722 Administrative Issues in Athletic Training</p> <p>HPE R 4773 Organization and Administration of Outdoor Education</p> <p>HPE R 4802 Theory of Coaching Football</p> <p>HPE R 4813 Application of Athletic Training I</p> <p>HPE R 4823 Application of Athletic Training II</p> <p>HPE R 4832 Theory of Coaching Basketball</p> <p>HPE R 4842 Theory of Coaching Women's Basketball</p> <p>HPE R 4862 Theory of Coaching Baseball</p> <p>HPE R 4873 Curriculum Construction in Health, Physical Education, and Recreation</p> <p>HPE R 4892 Theory of Coaching Track and Minor Sports</p> <p>HPE R 4991-8 Internship in Professional Recreation</p> <p>HPE R 5001-4 Individual Study in Health, Physical Education, and Recreation (Topic)</p> <p>HPE R 5011-4 Seminar in Health and Physical Education (Topic)</p> <p>HPE R 5223 Problems in Health, Physical Education, and Recreation</p> <p>HPE R 5553 Health Education in the Public Schools</p>
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IV. **Other Approved** coursework to make a total of at least 32 semester hours.

V. **Capstone Experience** (for students admitted to a graduate degree program in education after August 23, 1995)
EDUC 5950 Capstone Experience (must be completed during the final semester)

Combined undergraduate and graduate work in health, physical education, and recreation must total at least 56 semester hours. At least eight (8) hours of the undergraduate and graduate total shall be in health, and at least eight (8) hours in physical education.



SPECIAL EDUCATION (N-12)

Mild or Moderate Disabilities

Note: In order to complete this Master's Degree, the candidate must have completed an approved program in Elementary Education, Early Childhood Education, or Special Education OR hold a teaching certificate in one of those areas OR receive special permission from the Deans of the School of Education and the Graduate School.

I. Professional Education (12 hours required)

EDUC 5113 Introduction to Research
COUN 5513 Intro to Counseling & Guidance
EDPSY 5723 Advanced Psychology of Learning
ELEM 5693 Teaching in Elementary School
OR SECED 5833 Teaching in Secondary School

II. Subject Area Requirements

Completion of at least 12 undergraduate or graduate semester hours in each of the four core subject areas (Math, Science, Language Arts, Social Science)

III. Core Special Education Requirements (14 hours from the following)

SPCED 5213 Introduction to Special Education
PSYCH 3323 Abnormal Psychology (for graduate credit)
SPCED 5433 Assessment, Diagnosis and Eval of Exceptional Child
SPCED 5862 Planning and Managing the Teaching Environment
SPCED 5223 Detect/Corr Special Problems in the Inclusive Class
SPCED 5362 Legal and Ethical Practices in Special Education

IV. Specialization (6 hours required)

SPCED 5623 Instruc Content and Pract for Students with Mild/Moderate Disabilities
SPCED 5821 Practicum – Mild or Moderate Disabilities (Camp)

Complete one of the courses listed below:

ECED 5162 Perceptual Development in Infants/Toddlers
SPCED 5762 Technology in Special Education
SPCED 5852 Enhancing Communication and Collaboration in the Transitional Process

V. Capstone Experience (for students admitted to a graduate degree program in education after August 23, 1995)

EDUC 5950 Capstone Experience (must be completed during the final semester)

CERTIFICATION REQUIREMENTS

1. Completion of required coursework (see certification officer for checksheet).
2. Successful passage of the appropriate Oklahoma Subject Area Test.
3. Successful passage of the Oklahoma General Education Test and the Oklahoma Professional Teaching Exam.
4. Upon completion of all requirements, certification applications shall be filed with the certification officer in Education Room 122.

SPECIAL EDUCATION (N-12)

Specialization in Severe, Profound, or Multiple Disabilities

Note: In order to complete this Master's Degree, the candidate must have completed an approved program in Elementary Education, Early Childhood Education, or Special Education OR hold a teaching certificate in one of those areas OR receive special permission from the Deans of the School of Education and the Graduate School.

I. Professional Education (12 hours required)

EDUC 5113 Introduction to Research
COUN 5513 Introduction to Counseling & Guidance
EDPSY 5723 Advanced Psychology of Learning
ELEM 5693 Teaching in Elementary School
OR SECED 5833 Teaching in Secondary School

II. Subject Area Requirements

Completion of at least 12 undergraduate or graduate semester hours in each of the four core subject areas (Math, Science, Language Arts, Social Science)

III. Core Special Education Requirements (10 hours from the following)

SPCED 5213 Introduction to Special Education
SPCED 5862 Planning and Managing the Teaching Environment
SPCED 5223 Detect/Corr Special Problems in the Inclusive Class
SPCED 5362 Legal and Ethical Practices in Special Education

IV. Specialization (10 hours required)

SPCED 5613 Instruc Content and Pract for Students with Severe, Profound or Multiple Disabilities
SPCED 5811 Practicum – Severe, Profound or Multiple Disabilities (Camp)
ECED 5162 Perceptual Development in Infants/Toddlers
SPCED 5762 Technology in Special Education
SPCED 5852 Enhancing Communication and Collaboration in the Transitional Process

V. Capstone Experience (for students admitted to a graduate degree program in education after August 23, 1995)

EDUC 5950 Capstone Experience (must be completed during the final semester)

CERTIFICATION REQUIREMENTS

1. Completion of required coursework (see certification officer for checksheet).
2. Successful passage of the appropriate Oklahoma Subject Area Test.
3. Successful passage of the Oklahoma General Education Test and the Oklahoma Professional Teaching Exam.
4. **Upon completion of all requirements, certification applications shall be filed with the certification officer in Education Room 122.**

SECONDARY EDUCATION

Areas of Specialization

English
Mathematics
Natural Sciences

Social Sciences
Technology

- I. **Prerequisites:** See specialization departmental requirements.
- II. **Required Professional Education:**

EDUC 5113	Introduction to Research	EDPSY 5723	Adv Psych of Learning
COUN 5513	Introduction to Couns & Guid	SECED 5833	Teaching in Sec School
- III. **Required** courses in area of specialization: See departmental requirements.
- IV. **Other** approved coursework to make a total of at least 32 semester hours.
- V. **Capstone Experience** (for students admitted to a graduate degree program in education after August 23, 1995)
EDUC 5950 Capstone Experience (must be completed during final semester)



SPECIALIZATION IN ENGLISH

I. **Prerequisites:** Completion of 24 undergraduate semester hours in English.

II. **Required professional education:**

EDUC	5113	Intro to Research	EDPSY	5723	Adv Psych of Learning
COUN	5513	Intro to Coun & Guidance	SECD	5833	Teaching in Sec School

III. **Required courses in English:** A minimum of 16 semester hours selected from the following courses.

LIT	3113	World Literature Survey I	ENGL	4001-4	Individual Study in English (Topic)
LIT	3223	Romantic Movement	LIT	4001-4	Independent Study in Literature (Topic)
LIT	3443	Middle English/Chaucer	ENGL	4011-4	Seminar in English (Topic)
LIT	3453	Age of Reason	LIT	4011-4	Seminar in Literature (Topic)
LIT	3463	19th Century American Realism	ENGL	4353	Expository and Persuasive Writing
LIT	3473	Modern British Novel	ENGL	4423	Introduction to Linguistics
LIT	3483	Modern American Novel	LIT	4473	Modern British and American Poetry
LIT	3493	Modern Drama	LIT	4623	17th Century English Poetry
LIT	3513	Literature of The American West	ENGL	5001-4	Independent Study in English (Topic)
LIT	3523	Victorian Poetry	ENGL	5011-4	Seminar in English (Topic)
LIT	3533	British Renaissance Drama			
LIT	3543	Literature of the South			
ENGL	3603	English Grammar			
LIT	3613	American Romantic Period			
LIT	3643	Victorian Novel			

IV. **Required graduate project** to be determined by the candidate in conjunction with the Graduate Committee. The graduate project may be a research project, a creative writing project, a field study, or another scholarly project agreed upon by the candidate and the Graduate Committee.

V. **Other** coursework approved by the Language Arts chair to make a total of at least 32 semester hours.

VI. **Capstone Experience** (for students admitted to a graduate degree program in education after August 23, 1995)
EDUC 5950 Capstone Experience (must be completed during the final semester)

VII. **Combined** undergraduate and graduate work in language arts must total at least 59 semester hours, including freshman English and speech. The combined total shall also include a minimum of 50 hours in English. At least eight hours of the undergraduate and graduate total shall be in one or more of the following related fields: dramatics, journalism, library media, or speech.

SPECIALIZATION IN MATHEMATICS

I. **Prerequisites:** Completion of 24 undergraduate semester hours in mathematics.

II. **Required professional education:**

EDUC	5113	Introduction to Research	EDPSY	5723	Adv Psych of Learning
CCUN	5513	Introduction to Couns & Guid	SECED	5833	Teaching in Sec School

III. **Required courses in mathematics:** A minimum of 12 semester hours from the following (including at least one 5000 level course):

Mathematics Courses for Secondary Teachers

MATH 3113	Foundations in Mathematics	MATH 4223	Differential Equations II
MATH 3433	Statistics I	MATH 4233	Vector Analysis
MATH 3473	Introduction to Probability	MATH 4653	Modern Algebra
MATH 3493	Mathematical Statistics	MATH 4753	Intro to Point Set Topology
MATH 3553	Numerical Analysis	MATH 4853	Advanced Calculus
MATH 3653	Linear Algebra	MATH 4873	Complex Variables
MATH 3673	Elementary Number Theory	MATH 5011-4	Seminar in Mathematics (Topic)
MATH 3713	College Geometry	MATH 5612	Linear Algebra for Secondary Schools
MATH 4011-4	Seminar in Mathematics (Topic)	MATH 5632	Abstract Algebra for Secondary Schools
MATH 4133	Introduction to Mathematical Logic	MATH 5712	Current Trends in Secondary School Geometry
MATH 4152	History of Mathematics	MATH 5812	Real Numbers
MATH 4213	Differential Equations I		

IV. **Other approved course work** to make a total of at least 32 semester hours.

V. **Capstone Experience** (for students admitted to a graduate degree program in education after August 23, 1995)
EDUC 5950 Capstone Experience (must be completed during the final semester)

VI. **Combined** undergraduate and graduate work in mathematics must total at least 52 semester hours. The undergraduate and graduate total shall be on the level of College Algebra or higher. The combined total shall include Calculus III and at least one graduate course each in algebra and geometry.

SPECIALIZATION IN NATURAL SCIENCES

- I. **Prerequisites:** Completion of a minimum of 20 undergraduate semester hours in one area of the Natural Sciences (biology, chemistry, earth science, or physics) and a minimum of 20 undergraduate semester hours in one or a combination of the other three natural science areas. The total minimum prerequisite is 40 hours of approved science coursework.
- II. **Required professional education:**

EDUC	5113	Intro to Research	EDPSY	5723	Adv Psych of Learning
COUN	5513	Introd to Couns & Guid	SECED	5833	Teaching in Sec School
- III. **Specialization:** 16 semester hours (including one 5000 level course): Students must select a program to include courses from the biological sciences, chemistry, earth sciences, and/or physics.

Note: Courses in marine biological sciences are taught at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi, and may be taken for credit by applying to the Registrar at Southwestern.
- IV. **Other approved** course work to make a total of at least 32 semester hours.
- V. **Capstone Experience** (for students admitted to a graduate degree program in education after August 23, 1995)
EDUC 5950 Capstone Experience (must be completed during the final semester)
- VI. **Research project:** The student will be required to complete an approved research topic and submit a written paper and present a seminar to the faculty. This research may be taken for two to four hours credit. The research topic may be in one of the disciplines of the natural sciences or in the area of science education.

SPECIALIZATION IN SOCIAL SCIENCES

I. **Prerequisites:** Completion of 24 undergraduate semester hours in social sciences.

II. **Required professional education:**

EDUC 5113	Introduction to Research	EDPSY 5723	Adv Psych of Learning
COUN 5513	Introduction to Couns & Guid	SECED 5833	Teaching in Sec School

III. **Required courses in social sciences:** A minimum of 16 semester hours selected from the following courses, including at least one 5000 level course.

Criminal Justice

CRMJS 3153	Critical Issues in Crml Justice	CRMJS 4153	U.S. Corrections
CRMJS 3243	Comparative Crml Justice Sys	CRMJS 4163	Sociology of Dev and Crim Behvr
CRMJS 4011-4	Seminar in Criminal Justice	CRMJS 4413	Law Enforcement Policy
CRMJS 4103	Juvenile Justice		

Geography

GEOG 4011-4	Seminar in Geography	GEOG 4143	Geography of Europe
GEOG 4083	Environmental Studies	GEOG 4153	Urban Geography
GEOG 4103	World Geography by Regions	GEOG 4163	Geography of Eurasia
GEOG 4113	Geography of U.S. & Canada	GEOG 4901-4	Directed Reading in Geography
GEOG 4133	Geography of Latin America	GEOG 4933	World Political Geography

History

HIST 3033	Historians of the Middle Ages	HIST 4053	Civil War and Reconstruction: 1850-1877
HIST 3043	Early Modern Europe	HIST 4063	Emergence of Modern America: 1877-1920
HIST 3063	Modern Ireland		
HIST 3073	19 th Century Europe	HIST 4073	20th Century America: 1920-1960
HIST 3083	Hitler to Internet	HIST 4083	Contemporary America: 1960 - Present
HIST 3093	20th Century Europe	HIST 4093	Historical Research and Writing
HIST 3103	Medieval England	HIST 4103	American Indians
HIST 3113	Modern Britain	HIST 4133	Women in American History
HIST 3203	History of Germany, 9 A.D. - 1989	HIST 4313	American West
		HIST 4353	History of Oklahoma
HIST 3303	History of Imperial Russia	HIST 4503	Power to Superpower
HIST 3313	History of the Soviet Union	HIST 4603	American Social and Cultural History to 1865
HIST 3403	Modern France		
HIST 4011-4	Seminar in History	HIST 4613	American Social and Cultural History since 1865
HIST 4023	Colonial America, 1492-1765		
HIST 4033	Revolutionary America: 1765-1808	HIST 4901-4	Directed Readings in History
		HIST 5011-4	Seminar in History
HIST 4043	New Nation and Age of Jackson: 1808-1850	HIST 5901-4	Directed Readings in History

Political Science

POLSC 3023	Contemporary Problems in American Government	POLSC 4011-4	Seminar in Political Science
POLSC 3033	Political Parties	POLSC 4023	American Foreign Policy
POLSC 3043	Interest Groups	POLSC 4403	Public Policy
POLSC 3103	Election Techniques	POLSC 4463	Politics of Administration
POLSC 3133	Voting Behavior	POLSC 4503	Social Welfare Policy and Services
POLSC 3143	US Criminal Justice System	POLSC 4543	The Politics of Intergovernmental Relations
POLSC 3203	State and Local Govmt and Politics	POLSC 4553	Theories of Organization
POLSC 3233	Urban and Metropolitan Political System	POLSC 4603	Public Law: Federal Constitution
POLSC 3303	The American Presidency	POLSC 4613	Public Law: Civil Rights and Liberties
POLSC 3323	Legislative Process	POLSC 4623	Public Law: Criminal Law and Procedure
POLSC 3603	Government and Politics in Western Europe	POLSC 4901-4	Directed Reading in Political Science
POLSC 3683	Government and Politics in Eastern Europe	POLSC 4931-6	Government Internship
POLSC 3813	Political Development in Latin America		

Social Work

SOCWK 4313 Cultural Diversity

Sociology

SOCIO 4023	Comparative Family Systems	SOCIO 4333	Sociology of Mental Health/Illness
SOCIO 4033	Advanced Analysis of Social Problems	SOCIO 4523	Social Stratification
SOCIO 4233	Sociology of the American Family	SOCIO 4603	Social Psychology
SOCIO 4303	Racial and Cultural Minorities	SOCIO 4823	Sociological Theory

Social Sciences

SOCSC 4853	Statistics for the Social Sciences	SOCSC 4863	Fundamentals of Research
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IV. **Capstone Experience** (for students admitted to a graduate degree program in education after August 23, 1995)
EDUC 5950 Capstone Experience (must be completed during the final semester)

V. **Other approved** course work to make a total of at least 32 semester hours.

SPECIALIZATION IN TECHNOLOGY

- I. **Prerequisites:** Completion of 24 undergraduate semester hours in technology education.
- II. **Required professional education:** (See Master of Education section.)
- III. **Required courses in technology education:** a minimum of 8 semester hours including at least one 5000 level course.

TECH 3113	Industrial Safety	TECH 4293	Machine Design
TECH 3143	Technical Presentations	TECH 4313	Construction Systems I
TECH 3183	Statics and Strengths	TECH 4343	Estimating I
TECH 3203	Computer Aided Drafting I (CAD)	TECH 4364	Furniture and Cabinet Making
TECH 3253	Elementary Architecture	TECH 4373	Construction Planning and Scheduling
TECH 3263	Machine Drafting I	TECH 4383	Mechanical and Electrical Systems of Building
TECH 3323	Machine Woodwork	TECH 4433	Quality Control
TECH 3363	Surveying	TECH 4443	Materials Handling and Facility Planning
TECH 3413	Manufacturing Processes	TECH 4454	Computer Aided Manufacturing (CAM)
TECH 3433	Automation/Robotics	TECH 4493	Manufacturing Operations II
TECH 3453	Industrial Plastics	TECH 4514	Machine Tool Processes
TECH 3463	Manufacturing Operations I	TECH 4613	Automotive Information
TECH 3513	Materials Testing and Analysis	TECH 4783	Advanced Crafts
TECH 3523	Fabrication Processes II	TECH 4813	Networking Electronics II
TECH 3613	Power Systems	TECH 4823	Digital Electronics
TECH 3623	Fluid Power	TECH 4833	Microcomputer Electronics
TECH 3633	Energy Control Systems	TECH 4843	Programmable Controllers
TECH 3643	Energy, Power and Transportation	TECH 4883	Residential and Commercial Wiring
TECH 3743	Intermediate Arts and Crafts	TECH 4903	Manufacturing Enterprises
TECH 3813	Electro/Mechanical Controls	TECH 4943	Organization & Administration of Technology Systems
TECH 3823	Industrial Electronics	TECH 4974	Occupational Analysis and Instr Plan
TECH 3833	Communications Electronics	TECH 4983	Principles of Teaching Technology Education
TECH 3843	Networking Electronics I	TECH 4993	Organization and Mgmt of Lrng Fac
TECH 3853	Electronic Instrumentation	TECH 5000-4	Individual Study In Technology (Topic)
TECH 3863	Electronic Trouble Shooting	TECH 5010-4	Seminar In Technology (Topic)
TECH 3873	Electronic Devices	TECH 5903	Professional Problems of Technology Education Teachers
TECH 3902	Managing Student Organizations	TECH 5923	Project Development In Technology Education
TECH 3913	Career Education Delivery Systems	TECH 5933	History and Philosophy of Technology Education
TECH 4011-4	Seminar in Technology (Topic)	TECH 5942	Advanced Crafts For Elementary and Secondary Schools
TECH 4123	Industrial Supervision	TECH 5953	Curriculum Construction In Technology Education
TECH 4233	Graphic Communication Systems	TECH 5983	Evaluation in Technology Subjects
TECH 4243	Computer Aided Drafting II (CAD)		
TECH 4253	Machine Drafting II		
TECH 4273	Practical Photography		
TECH 4283	Advanced Photography		

- IV. **Capstone Experience** (for students admitted to a graduate degree program in education after August 23, 1995)
EDUC 5950 Capstone Experience (must be completed during the final semester)
- V. **Other approved course work** to make a total of at least 32 semester hours.
- VI. **Combined undergraduate and graduate work** in technology education must total at least 48 semester hours. The total shall include Communications, Manufacturing, Power, Construction, Student Organizations, and at least one graduate course in curriculum construction.

SCHOOL SERVICE PROGRAMS

Areas of Specialization

Community Counseling
Educational Administration

School Counseling
School Psychometry

- I. **Prerequisites:** See specialization departmental requirements.
- II. **Required professional education:**
See specialized departmental requirements.
- III. **Required** courses in area of specialization - See departmental requirements.
- IV. **Other** approved coursework to make a total of at least 32 semester hours for Educational Administration and School Psychometry or 48 semester hours for Community Counseling and School Counseling.
- V. **Capstone Experience** (for students admitted to a graduate degree program in education after August 23, 1995)
EDUC 5950 Capstone Experience (must be completed during final semester)



EDUCATIONAL ADMINISTRATION

- NOTES:**
- 1) Admission criteria for candidates seeking a degree and/or certification in an advanced program (Educational Administration, School Counseling, Psychometry) includes an entry professional portfolio.
 - 2) Program completion requirements shall include a culminating professional portfolio.
 - 3) For more information on the above entry and exit requirements contact the chair of the School Service Programs Dept.

I. Professional Education (12 hours required)

EDUC	5113	Introduction to Research
EDAD	5233	Fundamentals of Curriculum Planning
COUN	5513	Introduction to Counseling & Guidance
EDPSY	5723	Advanced Psychology of Learning

II. Public School Administration – Core Curricula Specialization (20 hours required)

EDAD	5613	Educational Administration Theory
EDAD	5983	Public School Law
EDAD	5813	Supervision of Instruction
EDAD	5933	The Principalship
EDAD	5973	Public School Finance
EDAD	5313	School Personnel Administration
EDAD	5412	Internship in Educational Administration (Principal)

III. Capstone Experience (for students admitted to a graduate degree program in education after August 23, 1995)

EDUC	5950	Capstone Experience (must be completed during the final semester)
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CERTIFICATION REQUIREMENTS:

1. Completion of Master's Degree.
2. Successful passage of the appropriate Oklahoma Subject Area Tests.
3. Hold an appropriate teaching certificate and have a minimum of two years teaching experience.
4. Upon completion of all requirements, certification applications should be filed with the certification officer in Education Room 122.

SCHOOL COUNSELING

- NOTES:**
- 1) Admission criteria for candidates seeking a degree and/or certification in an advanced program (Educational Administration, School Counseling, Psychometry) includes an entry professional portfolio.
 - 2) Program completion requirements shall include a culminating professional portfolio.
 - 3) For more information on the above entry and exit requirements contact the chair of the School Service Programs Department.

I. Professional Education Core (9 hours required)

EDUC	5113	Introduction to Research
EDPSY	5723	Advanced Psychology of Learning
COUN	5893	Ethical, Legal/Professional Standards

II. School Counseling – Core Curricula Specialization (39 hours required)

COUN	5513	Introduction to Counseling & Guidance
COUN	5543	Theory/Techniques Individual Counseling
COUN	5553	Theory/Techniques Group Counseling
COUN	5523	Career Education - Counselors/Teachers
COUN	5423	Multicultural Concepts
COUN	5503	Development of School Guidance Program
COUN	5583	Intervention Strategies
COUN	5313	Assessment and Appraisal
EDPSY	5733	Advanced Psychology of Childhood
EDPSY	5743	Advanced Psychology of Adolescence
EDAD	5703	Advanced Tests & Measurement
COUN	5563	Practicum
COUN	5603	Internship in Counseling

III. Capstone Experience (for students admitted to a graduate degree program in education after August 23, 1995)

EDUC	5950	Capstone Experience (must be completed during the final semester)
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CERTIFICATION REQUIREMENTS:

1. Completion of Master's Degree.
2. Successful passage of the appropriate Oklahoma Subject Area Test.
3. Hold an appropriate teaching certificate and have a minimum of two years teaching experience.
4. **Upon completion of all requirements, certification applications should be filed with the certification officer in Education Room 122.**

COMMUNITY COUNSELING

I. Professional Education (9 hours)

EDUC	5113	Introduction to Research
COUN	5893	Ethical, Legal/Professional Standards
EDUC	5423	Multicultural Concepts

II. Community Counseling – Core Curricula Specialization (39 hours required)

COUN	5513	Introduction to Counseling & Guidance
COUN	5543	Theory/Techniques Individual Counseling
COUN	5553	Theory/Techniques Group Counseling
COUN	5523	Career Education - Counselors/Teachers
COUN	5373	Theory/Techniques Family Counseling
COUN	5213	Community Counseling
EDPSY	3323	Abnormal Psychology (for graduate credit)
(Take 5000 level Abnormal Psychology if 3323 was taken at undergraduate level.)		
COUN	5313	Assessment and Appraisal
EDPSY	5733	Advanced Psychology of Childhood
EDPSY	5743	Advanced Psychology of Adolescence
EDAD	5703	Advanced Tests & Measurements
OR SPCED 5713 Wechsler Intelligence Scale		
COUN	5563	Practicum
COUN	5603	Internship

III. Capstone Experience (for students admitted to a graduate degree program in education after August 23, 1995)

EDUC	5950	Capstone Experience (must be completed during final semester)
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THIS PROGRAM DOES NOT LEAD TO CERTIFICATION AS A SCHOOL COUNSELOR

Completion of the Master of Education Degree in Community Counseling does not fulfill requirements for the Licensed Professional Counselor's Act. Check with your advisor on further academic requirements for the LPC or LMFT.

SCHOOL PSYCHOMETRY

- I. **Professional Education** (12 hours)

EDUC 5113 Introduction to Research	ELEM 5693 Teaching Elementary School
COUN 5513 Intro to Counseling & Guidance	OR SECED 5833 Teaching Sec School
EDPSY 5723 Advanced Psych of Learning	
- II. **Special Education** (6 hours)

SPCED 5213 Introduction to Special Educ	PSYCH 3323 Abnormal Psychology
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- III. **Measurement and Statistics** (5 hours)

SPCED 5562 Special Diagnostic Methods	SPCED 5433 Assmt of Exceptl Individuals
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- IV. **Individual Testing** (6 hours)

SPCED 5613 Stanford Binet/WJ	SPCED 5713 Wechsler Intelligence Scale
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- V. **Seminar and Practicum** (4 hours)

SPCED 5462 Psychometrical Services	SPCED 5782 Prac School Psychometry (150 clock hours included)
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- VI. **Capstone Experience** (for students admitted to a graduate degree program in education after August 23, 1995)

EDUC 5950 Capstone Experience (must be completed during final semester)	
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Certification Requirements

1. Completion of the following prerequisite courses at the undergraduate or graduate level:

a. Introduction to Psychology	c. Educational Psychology
b. Child or Adolescent Psychology	d. Exceptional Children
	e. Educational Foundations
2. Completion of Master's Degree.
3. Completion of the following courses in addition to the Master's Degree:

a. EDPSY 5733 Advanced Psych of Childhood	b. EDAD 5703 Advanced
OR EDPSY 5743 Advanced Psych of Adolescence	Tests and Measurements
OR PSYCH 3013 Developmental Psychology	
4. Successful passage of the appropriate Oklahoma Subject Area Test and Oklahoma Professional Teaching Exam.
5. The applicant must meet one of the following conditions (a or b):
 - a. Hold and maintain a certificate in one of the following areas: Early Childhood, Elementary, Library Media Specialist, Speech/Language Pathology, Elementary-Secondary, or Secondary.
 - b. If no teaching certificate is held, the applicant must have completed coursework in the teaching of reading and the teaching of mathematics. These courses must have been followed by a one hundred twenty (120) clock-hour pre-professional field experience in regular education and special education.
6. Upon completion of all requirements, certification applications should be filed with the certification officer in EDU 122.

MASTER OF EDUCATION DEGREE

Non-Certification Track

Individuals who do not have undergraduate professional education prerequisites for the regular Master of Education degree program may pursue the Master of Education program for non-education majors. The program is designed for individuals who do not plan to obtain teacher certification, but wish to improve their educational background in certain academic disciplines (e.g., Art, English, Mathematics, Natural Sciences, etc.).

Individuals interested in community college teaching or other types of nonpublic school employment may pursue graduate studies in the following areas:

Art	Natural Sciences
Community Counseling	School Counseling
Early Childhood	School Psychometry
Educational Administration	Social Sciences
Elementary Education	Special Education (Mild or Moderate Disabilities)
English	Special Education (Severe, Profound, or Multiple)
Health, Physical Education, & Recreation	Technology
Mathematics	

I. **Prerequisites:** Completion of required number of undergraduate semester hours in area of specialization.

II. **Required professional courses:**

The Professional Education Core for most degree programs is as follows:

EDUC 5113 Introduction to Research
COUN 5513 Introduction to Counseling and Guidance
ELEM 5693 Teaching in Elementary School
OR SECED 5833 Teaching in Secondary School
EDPSY 5723 Advanced Psychology of Learning

III. **Required** courses in the area of specialization.

The required minimum number of graduate semester hours in the field of specialization are the same as listed for that specialization and may be selected from 3000 and 4000 level courses (approved for graduate credit) and not completed for undergraduate credit.

IV. **Capstone Experience** (for students admitted to a graduate degree program in education after August 23, 1995)

EDUC 5950 Capstone Experience (must be completed during final semester)

V. **Other** approved course work to make a total of 32 graduate semester hours (or 48 hours for School and Community Counseling).

VI. **The combined total** of graduate and undergraduate semester hours in the field of specialization are the same as listed for that specialization in the regular Master of Education program.

MASTER OF MUSIC DEGREE

The Master of Music degree program provides advanced study in music education, solo and ensemble performance, conducting, and church music. Graduate programs in music are for those students who hold a baccalaureate degree in music. Objectives of the program are:

- To improve the quality of the student's musical performances through instruction and supervised experience in public performance;
- To improve the student's proficiency in composing and analyzing music;
- To help the student improve the knowledge and skills necessary to teach music in public schools and universities;
- To foster respect for the integral role music plays in contemporary society and in education and to develop the ability of professional musicians to communicate that role to the general public; and
- To help the student develop detailed knowledge of music research, music literature, music history, and music theory.

Admission

In addition to the University and Graduate School admission requirements listed, applicants for the Master of Music degree must meet the following multiple measures for admission to the degree program:

1. Two letters of recommendation from individuals qualified to rate the applicant's academic aptitude and motivation.
2. Advisory exams, administered by the department in music history, music theory, and music education, to be completed during the first period of enrollment.
3. For performance majors: An entrance audition of 30 minutes length, representing a variety of styles and composers.
4. For music education majors: A brief performance audition in the major applied area.
5. A bachelor's degree in music, music education, or music performance.

Information about exams and the graduate program in music may be obtained from the Director of Graduate Studies, Department of Music.

General Requirements

Candidates for the Master of Music degree must complete a minimum of 32 hours of approved course work and maintain a minimum graduate grade-point average of 3.0. Only applied music grades of "A" or "B" will count toward requirements of the degree. The student must remove all deficiencies identified by admission examinations. The deficiencies may be removed by satisfactorily completing additional coursework in deficiency areas as directed by the Graduate Committee. All candidates for the Master of Music degree must pass written and oral comprehensive exams. Performance majors must present at least one public recital. The recital content and length must be approved by the Graduate Committee.

Graduate Committee

The Director of Graduate Studies, with approval of the chair and advisement of the faculty, shall appoint for each student a Graduate Committee of not fewer than three faculty members from the Music Department. Members of the committee should represent the various areas of applied music, music theory, music history, and music education. The committee will review the candidate's advisory examinations, construct and approve a final form of the program, and administer the final comprehensive examination.

Music Education

- I. **Prerequisites** for admission: (1) A bachelor's degree in music, (2) completion of requirements for public school certification in music, and (3) completion of advisory examinations.
- II. **Course Requirements:**

CHORAL EMPHASIS

- A. Music Education (10 hours)
 - MUSIC 5112 Introduction to Music Research
 - MUSIC 5512 Advanced Vocal Methods
 - MUSIC 5762 Advanced Conducting
 - MUSIC 5882 Foundations of Music Education
 - Electives in Music Education (2 hours)
- B. Music History and Literature (6 hours)
 - MUSIC 5542 Advanced Choral Literature (Required)
 - (Choose two of the Music History courses below)
 - MUSIC 4162 History of American Music
 - MUSIC 4172 Music of the Baroque
 - MUSIC 4652 Music of the Renaissance
 - MUSIC 4702 Music of the Classic Era
 - MUSIC 4752 Music of the Romantic Era
 - MUSIC 4802 Music of the Twentieth Century
- C. MUSIC 4102 Forms and Analysis (2 hours)
- D. Individual Voice Lessons (3 to 6 hours)
- E. Choral Ensemble (2 to 4 hours)

F. Electives (5 to 10 hours)

These courses must be approved before enrollment by the student's graduate committee. Choices and approval will reflect the results of the advisory exams. No more than two hours may be from workshops. A thesis reflecting substantive scholarly activity is strongly recommended.

G. 5100 Final Comprehensive Examination

INSTRUMENTAL EMPHASIS:

A. Music Education (10 hours)

MUSIC 5112 Introduction to Music Research
MUSIC 5302 Band Administration
MUSIC 5762 Advanced Conducting
MUSIC 5882 Foundations of Music Education
Electives in Music Education 2 hours

B. Music History and Literature (6 hours)

MUSIC 5482 Advanced Instrumental Literature (Required)
(Choose two of the Music History courses below)
MUSIC 4162 History of American Music
MUSIC 4172 Music of the Baroque
MUSIC 4652 Music of the Renaissance
MUSIC 4702 Music of the Classic Era
MUSIC 4752 Music of the Romantic Era
MUSIC 4802 Music of the Twentieth Century

C. MUSIC 4102 Forms and Analysis (2 hours)

D. Individual Lessons-Major Instrument (3 to 6 hours)

E. Instrumental Ensemble (2 to 4 hours)

F. Electives (5 to 10 hours)

These courses must be approved by the student's graduate committee. Choices and approval will reflect the results of the advisory exams. No more than two hours may be from workshops. A thesis reflecting substantive scholarly activity is strongly recommended.

G. MUSIC 5100 Final Comprehensive Examination.

Performance

I. **Prerequisites** for admission: (1) a bachelor's degree in music, (2) completion of advisory examinations and entrance audition.

II. **Course Requirements:**

A. Applied Music (10 hours)

Applied Music study (individual lessons) in major area (8 hours)
MUSIC 5972 Graduate Recital and Research (2 hours)

B. MUSIC 5112 Introduction to Music Research (2 hours)

- C. Music History and Literature (6 hours)
 (Choose two of the Music History courses below)
 MUSIC 4162 History of American Music
 MUSIC 4172 Music of the Baroque
 MUSIC 4652 Music of the Renaissance
 MUSIC 4702 Music of the Classic Era
 MUSIC 4752 Music of the Romantic Era
 MUSIC 4802 Music of the Twentieth Century
 (Choose the one two-hour course below that is appropriate to your performance emphasis.)
 MUSIC 5482 Advanced Instrumental Literature (Orchestral Instrument Majors)
 MUSIC 5002 or 5012 Seminar or Individual Study in Solo Materials (Piano or Voice Majors)
- D. Music Pedagogy
 (Choose the one appropriate course from the list below)
 MUSIC 5012 Advanced Piano Methods Seminar (Piano Majors)
 MUSIC 5402 Advanced Instrumental Techniques (Orchestral Instrument Majors)
 MUSIC 5012 Seminar in Vocal Pedagogy (2 hours) (Voice Majors)
- E. MUSIC 4102 Forms and Analysis
- F. Ensemble (appropriate to degree emphasis; 2 to 4 hours)
- G. Electives (6 to 8 hours)
 These courses must be approved by the student's graduate committee. Choices and approval will reflect the results of the advisory exams.
- H. MUSIC 5100 Final Comprehensive Examination



COURSE DESCRIPTIONS

SCHOOL OF ARTS AND SCIENCES

(F = Classes offered in the Fall, S = Classes offered in the Spring, SU = Classes offered in the Summer, D = Classes offered upon demand) (O = Odd years, E = Even years)

ART

ART 3113 WATERCOLOR STUDIO

Study and practice of traditional transparent watercolor technique, and experimentation with contemporary methods. Emphasis on composition, color, process, and technique.

ART 3153 FIGURE DRAWING

Develop skills of draftsmanship and perception while studying the figure.

ART 3213 COMPUTER GRAPHICS

Basic concepts of computer graphics for artists, art teachers, and designers. Topics include Pixel and object-oriented graphics as well as 3-d concepts. Content is designed to provide a functional ability to maintain a graphics Macintosh, control image quality, scanners, and printers. **Prerequisites: ART 2133 and 2143.**

ART 3353 CLAY STUDIO

A study in ceramic design using both hand-built and wheel methods of construction. Firing and glazing procedures will also be covered.

ART 3413 SCULPTURE STUDIO

Three-dimensional work in the area of sculpture. Emphasis is placed on fundamental sculpture techniques and the elements of art and principles of design as applied in a three-dimensional composition.

ART 3483 PRINTMAKING STUDIO

Printmaking by hand transfer and with the press. Composition and personal expression are emphasized. Intaglio and relief methods are explored.

ART 3513 MEDIA FOR ARTISTS

Instruction in 35 mm slide documentation and black/white photography. Exploration of video and multimedia art.

ART 3613 HISTORY OF ART I

A survey of art from prehistory through the Gothic Era, this course considers the visual culture of Ancient Egypt, Mesopotamia, Greece and Rome, the influence of non-Western cultures on Christian art in the west, the art and architecture of Early Christian and Byzantine Europe, and the rise of the Romanesque and Gothic Styles.

ART 3653 HISTORY OF ART II

Continuing the survey of art begun in ART 3613, this course follows the Renaissance development of modern "ways of seeing," the rise of the Baroque and rococo, the battle between Neoclassicism and Romanticism during the early nineteenth century, and the optical experiments of the Impressionists and Postimpressionists.

ART 3683 ILLUSTRATION STUDIO

Visual communication is stressed, expressing both the artist and the subject matter. Traditional illustration media includes marker, colored pencil, airbrush, watercolor, acrylic, and oil paint. **Prerequisites: ART 2133 and 2143.**

ART 3753 LIFE DRAWING

Observational drawing with an emphasis on composition. Various techniques and subjects will be explored.

ART 3783 PHOTOGRAPHIC/DIGITAL ILLUSTRATION

This course will study photographic illustration beginning with the camera and moving to digital images on the computer. Illustration as an expressive form of communication is stressed. Projects will concern composition, lighting, darkroom techniques, and computer illustration in Adobe Photoshop. **Prerequisites: ART 2133 and 2143.**

ART 3853 TYPOGRAPHIC DESIGN

Course content includes the anatomy of typographical letter forms, fonts, and classifications. Syntax, space, visual hierarchy, typographical grids, function, expression, and communication theory. Course work will be done on Power Macintosh computers, using Quark Xpress and Adobe Illustrator software. **Prerequisites: ART 2133 and 2143.**

ART 3883 ADVERTISING DESIGN

Course work includes logo and corporate identity development. Traditional advertising formats are studied and applied to a fictional company created by the student. **Prerequisites: ART 2133 and 2143.**

ART 3923 PUBLICATION DESIGN

Layout and design of various types of publications including mailers, brochures, catalog, magazine and book design. **Prerequisites:** ART 2133 and 2143.

ART 3953 PROFESSIONAL PRACTICES OF GRAPHIC DESIGN

This course provides the student practical real-world experience in the field of design. It should be approached as an internship, and subsequently the requirements can be achieved effectively through a summer internship with an appropriate agency under supervision of an instructor. Not recommended for Design Studio Employees. **Prerequisites:** ART 2133 and 2143.

ART 4001-4 INDIVIDUAL STUDY IN ART (TOPIC)

Individual study of specified topic. Credit 1 to 4 semester hours.

ART 4011-4 SEMINAR IN ART (TOPIC)

Group study of specified topic. Credit 1 to 4 semester hours.

ART 4163 PORTFOLIO

The objective of this course is to prepare Graphic Design majors for the job market. Students will research the current job market and prepare a career plan. A portfolio will be created with a resume, a self-promotional mailer, and 35 mm slides. **Prerequisite:** Senior status.

ART 4253 APPLIED DESIGN

A studio course involving the design, execution and the study of contemporary trends in crafts.

ART 4313 PAINTING STUDIO

An exploration of opaque painting techniques and processes. The development of pictorial form and content is emphasized.

ART 4333 STUDIO DRAWING

Studio Drawing will explore creative and expressive approaches to drawing with an emphasis on diversity of techniques. Experiences utilizing a variety of media will be used to develop fundamental and advanced drawing concepts.

ART 4353 MODERN ART HISTORY

This course, continuing the survey of art begun in ART 3613 and 3653, investigates the history of painting, sculpture and architecture from the late nineteenth century through World War II. Symbolism, Postimpressionism, Cubism and Expressionism are among the trends discussed, as are the art of Picasso, Duchamp, Klimt and Dali.

ART 4383 ART HISTORY SINCE 1945

This survey, completing the series begun with ART 3613, 3653, and 4353, traces the development of art from the rise of the New York School through to the present day. Among the topics discussed are Abstract Expressionism, Pop and Op Art, and the art of Jackson Pollock, Mark Rothko, Andy Warhol, and Keith Haring.

ART 4393 NON-WESTERN ART SURVEY

Supplementing rather than replacing the traditional art survey, this course examines the history of art and visual culture of non-Western civilizations, with emphasis on Asia, Africa, Oceania and native America. Topics include the art of Japan, China, and Nigeria, as well as the visual legacy of the Aztec, Mayan and Incan civilizations.

ART 4413 PACKAGE DESIGN

Explores problems dealing with three-dimensional design and product identity. Projects include multi-piece product lines and site-specific displays. **Prerequisites:** ART 2133 and 2143.

ART 4452 CONTENT, METHODS & MATERIALS IN ELEMENTARY SCHOOL ART

Current methods of applying Discipline-Based Art Education will be used to explore ways to integrate the visual arts into the elementary grades. **Prerequisite:** Admission to Teacher Education Program.

ART 4553 TEACHERS' COURSE IN ART

This course teaches methods of teaching visual art at the secondary level. In depth attention will be given to the application of Discipline-Based Art Education assignments at this level. **Prerequisites:** Art major or endorsement and admission to the Teacher Education Program.

ART 5001-4 INDIVIDUAL STUDY IN ART (TOPIC)

Individual study of specified topic for graduate students. Credit 1 to 4 semester hours. **Prerequisite:** Admission to the Graduate Program.

ART 5011-4 SEMINAR IN ART (TOPIC)

Group study of specified topic in art for graduate students. Credit 1 to 4 semester hours. **Prerequisite:** Admission to the Graduate Program.

ART 5651 GRADUATE EXHIBIT

Students will prepare and present a body of work produced as a graduate. Emphasis will be on professionalism in presentation as well as artwork selected.

BIOLOGICAL SCIENCES

(F = Classes offered in the Fall, S = Classes offered in the Spring, SU = Classes offered in the Summer, D = Classes offered upon demand) (O = Odd years, E = Even years)

BIOL 3012 BIOLOGICAL TERMINOLOGY

The course is designed to familiarize the students with the terminology used in biological disciplines. This familiarization will be accomplished by learning root words, prefixes, and suffixes from Latin and Greek and by studying word analysis techniques. **F, S**

BIOL 3254 GENETICS

This course gives the student a thorough knowledge of the laws of heredity as applied to both plants and animals. **Prerequisites:** BIOL 1054, 2204, 2404, and CHEM 1203 and 1252. **F, S**

BIOL 3304 AQUATIC BIOLOGY

Areas of emphasis include ecology and characteristics of animal and plant inhabitants. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, and 3254. **FO**

BIOL 3403 PLANT MORPHOLOGY

A study of the structure of both living and fossil vascular plants. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, and 3254. **FO**

BIOL 3504 NATURAL HISTORY

This course will examine natural history and biodiversity with emphasis on principles of evolution, systematics, ecology, and behavior and the development of field biology techniques for the study of Oklahoma communities. Laboratory includes extended studies conducted on one of three departmental field areas and 2-3 required weekend field trips. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, and 3254. **FO**

BIOL 3604 GENERAL ENTOMOLOGY

This course will examine the basic biology of insects; their morphology, physiology, evolution, behavior, and ecology. The economic impact of insects and control measures will also be examined. The laboratory will emphasize the collection, curation, and identification of insects. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, and 3254. **FE**

BIOL 3704 HUMAN ANATOMY

A study of the normal functional anatomy of the human body. The laboratory includes extensive use of human models and cat dissection. A course designed for students pursuing health career majors. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, and 3254 or permission of instructor. **F, S, SU**

BIOL 3804 PLANT PHYSIOLOGY

A study of the life processes of plants. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, 3254, and CHEM 1203 and 1252. **SE**

BIOL 3904 HUMAN PHYSIOLOGY

A study of the normal function of the human body. Strong emphasis is placed on homeostasis. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, 3254 and CHEM 1203, 1252 or permission of instructor. **F, S, SU**

BIOL 4001-4 INDEPENDENT STUDY IN BIOLOGICAL SCIENCES (TOPIC)

Independent study of a specified topic for undergraduate students. Credit one to four hours. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, and 3254. **F, S, SU**

BIOL 4010-4 SEMINAR IN BIOLOGY (TOPIC)

Group study of specified topic for undergraduate students. Credit one to four semester hours. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, and 3254. **F, S, SU**

BIOL 4154 VERTEBRATE EMBRYOLOGY

A study of basic embryological processes of vertebrates from gametogenesis through organogenesis. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, 3254, and 3704. **SO**

BIOL 4284 ANIMAL PARASITOLOGY

A study of the animal parasites of man and the higher vertebrates; their life cycles; distribution, diagnosis, prevention and control measures. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, and 3254. **FO**

BIOL 4454 PLANT TAXONOMY

A study of the history, literature, and principles of plant taxonomy, with emphasis on the flowering plant flora of Oklahoma. **Prerequisites:** BIOL 1054, 2022, 2204, 2404 and 3254. **SE**

BIOL 4604 GENERAL ECOLOGY

This course will examine the interactions among organisms and the interactions between organisms and their environment that affect distribution and abundance. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, 3254, CHEM 1203, 1252, and MATH 1613. **SO**

BIOL 4622 ECONOMICALLY IMPORTANT PLANTS

A brief survey of plants of economic importance throughout the world. Essential food, drug, textile-fiber and industrially valuable plants will be discussed in relationship to world economy and human population. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, and 3254. **FE**

BIOL 4901 SENIOR SEMINAR IN BIOLOGICAL SCIENCES

Students in this departmental capstone course will demonstrate their knowledge of biology and research. In addition, students will write and present a review paper on some aspect of biological science. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, 3254, and senior standing. F, S

BIOL 4933 CELLULAR PHYSIOLOGY

A study of the fundamental life processes at the cellular level. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, 3254, and 3704 or 3804. FE

BIOL 4964 MOLECULAR BIOLOGY

This course will examine the structure and function of DNA, RNA and proteins at the molecular level. The laboratory experiments will incorporate a variety of techniques that are routinely used in genetic engineering. **Prerequisites:** BIOL 1054, 2204, 2404, and 3254. SO

BIOL 4974 HISTOLOGY

A study of the microanatomy and functional aspects of normal animal tissues. **Prerequisites:** BIOL 1054, 2022, 2204, 2404, 3254, and 3704. SE

BIOL 5001-4 INDIVIDUAL STUDIES IN BIOLOGY (TOPIC)

Individual study of specified topic for graduate students. Credit 1 to 4 semester hours. **Prerequisite:** Admission to the Graduate Program. F, S, SU

BIOL 5011-4 SEMINAR IN BIOLOGY (TOPIC)

Group study of specified topic for graduate students. Credit 1 to 4 semester hours. **Prerequisite:** Admission to the Graduate Program. F, S, SU

**GULF COAST RESEARCH
LABORATORY
COURSES (SUMMER)**

Ocean Springs, Mississippi

BIOL 3022 MARINE SCIENCE FOR ELEMENTARY TEACHERS

A course designed to enable students, particularly in-service teachers, to establish studies in the marine sciences in local school systems at all grade levels.

BIOL 3112 SALT MARSH PLANT ECOLOGY

Provides basic and advanced information that will enable the student to become competent in understanding the complex nature of salt marshes. Emphasis is on flowering plants of local marshes. Plant species composing tidal marsh are identified. Vegetational structure and distribution of salt marshes are covered. **Prerequisite:** BIOL 2404 or consent of instructor.

BIOL 3122 MARINE FISHERIES MANAGEMENT

An overview of practical marine fishery management problems. **Prerequisites:** 16 hours of biological sciences including BIOL 2204, 2404, and a course in invertebrate zoology.

BIOL 3142 MARINE SCIENCE FOR TEACHERS

A course designed to introduce students, particularly in-service teachers, to the study of marine science and to promote the teaching of marine biology at all grade levels. Course includes information on resources available to teachers. **Prerequisite:** Biology background or consent of instructor.

BIOL 3153 MARINE ECOLOGY

A consideration of the relationships of marine organisms to their environment. Includes the effects of temperature, salinity, light, nutrient concentration, currents, and food on the abundance and distribution of marine organisms. For graduate or undergraduate credit. **Prerequisites:** 16 hours of biological sciences including BIOL 2204, 2404, and a course in invertebrate zoology.

BIOL 3612 COASTAL MARINE GEOLOGY

A study of inshore and near shore geological processes, sedimentation patterns, and land form development. **Prerequisite:** 6 hours undergraduate geology.

BIOL 4001-4 SPECIAL PROBLEMS IN MARINE SCIENCE

Independent study of specified marine biology topic for undergraduate students. Credit one to four semester hours. A study of the parasites of marine animals with emphasis on morphology, taxonomy, life histories, and host-parasite relationships. Lecture, laboratory and field work are included. **Prerequisite:** Permission of instructor.

BIOL 4011-4 SPECIAL TOPICS IN MARINE SCIENCE (UNDERGRADUATE)

The course is to provide the opportunity for students to obtain credit for study in areas in which the laboratory offers no formal course.

BIOL 4113 PARASITES OF MARINE ANIMALS

A study of the parasites of marine animals with emphasis on morphology, taxonomy, life histories, and host-parasite relationships. Lecture, laboratory and field work are included.

Prerequisite: BIOL 4284 or permission of instructor.

BIOL 4122 MARINE PHYCOLOGY

A survey, based on local examples, of the principal groups of marine algae and marine flowering plants, treating structure, reproduction, distribution, identification and ecology.

Prerequisite: 10 hours of biological sciences including BIOL 2404.

BIOL 4133 MARINE MICROBIOLOGY

A study of marine microorganisms and their role in the overall ecology of the oceans and estuaries. To train students in the use of sampling equipment, processing of samples and laboratory techniques useful in studying marine microorganisms.

Prerequisites: ALHLT 4355 and 4523 or permission of instructor.

BIOL 4143 MARINE INVERTEBRATE ZOOLOGY

A concentrated study of the important free-living marine and estuarine invertebrates of the Mississippi Sound and adjacent shelf of the northeastern Gulf of Mexico. Emphasis on structure, classification, phylogenetic relationships, larval development and functional processes. **Prerequisites:** BIOL 2204 and a course in invertebrate zoology.

BIOL 4153 COASTAL ECOLOGY FOR TEACHERS

The purpose of this course is to provide teachers with a background in basic coastal ecology, thereby allowing the augmentation and infusion of interdisciplinary concepts involving the environment and its conservation. **Prerequisites:** Basic science courses as required for education.

BIOL 4162 EARLY LIFE HISTORY OF MARINE FISHES

Reproductive strategies and early developmental processes of marine fishes. Includes discussion of temporal and spatial distribution patterns, population dynamics and ecological interactions of fish eggs and larvae; role of early stages of fishes in fisheries oceanography, marine ecology, and systematics; methods of sampling and identifying fish eggs and larvae; data quantification and analysis; rearing experiments; and techniques for studying larval fish dynamics. **Prerequisites:** Courses in ichthyology, fisheries biology, ecology and/or consent of instructor.

BIOL 4171 FAUNA/FAUNISTIC ECOLOGY OF TIDAL MARSHES

Survey and discussion of the taxonomy, distribution, trophic relationships, reproductive strategies and adaptation of tidal marsh animals. **5 weeks**

BIOL 4172 FAUNA AND FAUNISTIC ECOLOGY OF TIDAL MARSHES, SEAGRASSES, AND SAND BEACHES

Primarily a field survey course dealing with the taxonomy, distribution, trophic relationships, reproductive strategies, and adaptations of animals commonly found associated with tidal marshes, seagrasses, and sand beaches with emphasis on those occurring in the northern Gulf of Mexico. Abiotic and biotic factors controlling or limiting the occurrence and distribution of fauna in these three habitat types will be compared and contrasted. **Prerequisites:** 16 semester hours of biological sciences and junior standing or permission of instructor.

BIOL 4183 MARINE ICHTHYOLOGY

General study of the marine Chordata, including lower groups and the mammals and birds, with most emphasis on the fishes. **Prerequisite:** 16 hours of zoology including a course in comparative anatomy or permission of instructor.

BIOL 4212 COASTAL VEGETATION

A study of general and specific aspects of coastal vegetation with emphasis on local examples. **Prerequisite:** 10 hours of biological sciences including BIOL 2404.

BIOL 4233 ENVIRONMENTAL ESTUARINE CHEMISTRY

This course is a study of the sources, reactions, transport, effects, and fates of environmental chemical species occurring in aquatic environments. The study includes the chemistry of toxic substances and their interactions with living organisms. **Prerequisites:** 16 hours of chemistry and 3-6 hours of general biology and geology or consent of instructor.

BIOL 4243 COMPARATIVE HISTOLOGY OF MARINE ORGANISMS

A detailed study of the histological organization of representative marine organisms. **Prerequisite:** Permission of instructor.

BIOL 4263 MARINE MAMMALS

This course will emphasize the natural history and population ecology of cetaceans. Topics will include life history, distribution, population dynamics, diet and feeding, social structure, evolution, and zoogeography. Additional topics may include physiology, communication and echolocation, and marine mammal conservation and management. Pinnipeds, sirenians, sea otters, and the polar bear will be covered. **Prerequisites:** 16 hours of biology including general and one of the following: BIOL 2133, 2313, or 4183.

BIOL 4283 MARINE CHEMISTRY

A study of the chemical aspects of the oceans and the interactions of chemistry, biology, and geology in a marine environment. **Prerequisites:** 16 hours of chemistry and 3-6 hours of general biology and geology or consent of instructor.

CHEMISTRY AND PHYSICS**ASTRO 4012 CURRENT TOPICS IN ASTRONOMY**

Study of topics of current interest such as extraterrestrial life, colonizing space, astrology, Bermuda Triangle, black holes, UFO's, etc. Special attention is given to the questions asked of science teachers. **D**

CHEM 3013 ORGANIC CHEMISTRY I

An introduction to organic chemistry. Emphasis is placed on structure and reaction mechanisms. The chemistry of hydrocarbons is developed in detail. **Prerequisites:** CHEM 1303 and 1352.

CHEM 3015 ORGANIC CHEMISTRY I

Same as CHEM 3013 except that theoretical principles are presented in more detail. The accompanying laboratory meets 6 hours each week and the instruction in modern instrumental techniques is more rigorous than in CHEM 3111. The course is designed for students majoring in chemistry and other science areas. Lab required. **Prerequisites:** CHEM 1303 and 1352. **F**

CHEM 3111 ORGANIC CHEMISTRY I LAB

Methods of separation of mixtures, and determination of the physical properties of compounds are emphasized. Spectroscopy and chromatography are introduced with some applications. **Prerequisites:** CHEM 1303 and 1352. **Corequisite:** CHEM 3013.

CHEM 3124 QUANTITATIVE ANALYSIS

An introductory course in analytical chemistry which includes sampling, separations (precipitation, solvent extraction, ion exchange, chromatography), and determinations (by titrimetry, gravimetry, colorimetry, and potentiometry techniques). Lab required. **Prerequisites:** CHEM 1303 and 1352. **F**

CHEM 3234 THEORETICAL INORGANIC CHEMISTRY

A study of advanced principles of inorganic chemistry. Both a theoretical and descriptive approach is used to investigate periodicity. **Prerequisite:** CHEM 4344 or departmental approval. **F**

CHEM 3244 ENVIRONMENTAL CHEMISTRY

Lecture, lab, and field course designed to provide broad-based general knowledge of environmental chemistry, biology, and geology, especially including chemistry dealing with origins, transport, reactions, effects, and fates of chemical species in the water, air, soil, and living environments. Laboratory will include a field component incorporating sampling techniques and methods of analysis. **Prerequisites:** CHEM 4113, 4115, 2114 or by consent of instructor. **SO**

CHEM 4001-4 INDEPENDENT STUDY IN CHEMISTRY

Individual students may arrange for a variety of laboratory research studies. Specified topic in chemistry. Credit 1-4 semester hours.

CHEM 4011-4 SEMINAR IN CHEMISTRY (TOPIC)

Credit is assigned for the completion of directed reading programs, seminars, and similar activities. Credit 1-4 semester hours. **Prerequisite:** Departmental approval.

CHEM 4021 ORGANIC CHEMISTRY II LAB

Preparation and identification of organic compounds is emphasized. Spectroscopic and chromatographic techniques are utilized. **Prerequisites:** CHEM 3013, 3111 or 3015. **Corequisite:** CHEM 4113.

CHEM 4113 ORGANIC CHEMISTRY II

A continuation of CHEM 3013. Preparations, properties, and reactions of organic functional groups with emphasis on biomolecules. **Prerequisites:** CHEM 3013 and 3111.

CHEM 4115 ORGANIC CHEMISTRY II

A continuation of CHEM 3015. Preparation, properties, and reactions of organic functional groups. The laboratory meets 6 hours each week and emphasizes the preparation and identification of organic compounds. Lab required. **Prerequisite:** CHEM 3015 or departmental approval. **S**

CHEM 4124 BIOCHEMISTRY

An introductory course involving the study of the physical and chemical properties of compounds associated with the chemistry of life processes and an introduction to metabolism, especially carbohydrate degradation and nucleic acid and protein biosynthesis. Lab required. **Prerequisite:** Eight hours of organic chemistry or approval of instructor.

CHEM 4223 POLYMER CHEMISTRY

The synthesis, testing and industrial application of intermediate and high molecular weight polymers. Includes three hours of laboratory/week. Lab required. **Prerequisites:** CHEM 4113 and 4021, or CHEM 4115 and concurrent or prior enrollment in 4344. **SO**

CHEM 4234 INSTRUMENTAL ANALYSIS

Theory and practice in the use of instrumental methods utilized in chemical analysis. Lab required. **Prerequisite:** CHEM 3124, 4454, or departmental approval. **S**

CHEM 4254 INDUSTRIAL CHEMISTRY AND ENVIRONMENTAL REGULATIONS

Critical examination of chemical innovation and emerging technologies in chemical production, use, and disposal for the protection of worker safety, public health, and the environment, including pollution prevention and remediation strategies, emissions monitoring and regulatory compliance, waste treatment, and resource conservation and recovery. **Prerequisites:** CHEM 4113, 4115 or 2114. **SE**

CHEM 4344 PHYSICAL CHEMISTRY I

A fundamental course in physical chemistry for students majoring in chemistry and related fields. Topics include gas laws, kinetic molecular theory, introduction to quantum theory, statistical thermodynamics, classical thermodynamics, thermochemistry, chemical equilibrium. Lab required. **Prerequisites:** CHEM 3124, 4115, MATH 3934 and ten hours of physics. **F**

CHEM 4454 PHYSICAL CHEMISTRY II

A continuation of 4344 physical chemistry. Topics include rates and mechanisms of chemical reactions, photochemistry, quantum mechanics and atomic structure, theory of chemical bonding, experimental study of molecular structure-spectroscopic methods, crystal structure, electrical and magnetic properties of molecules, electrolyte solutions, the electromotive force of chemical cells, molecular modeling, etc. Lab required. **Prerequisite:** CHEM 4344. **S**

CHEM 4563 ORGANIC QUALITATIVE ANALYSIS

Study of the methods of identification of organic compounds. The use of modern instrumental techniques is developed in depth. The laboratory work consists of the isolation, purification, and identification of organic compounds. Lab required. **Prerequisite:** CHEM 4115, 4344 or departmental approval. **SE**

CHEM 5001-4 INDIVIDUAL STUDY IN CHEMISTRY

Independent study of specified topic for graduate students. Credit 1-4 semester hours. **D**

CHEM 5011-4 SEMINAR IN CHEMISTRY

Group study of specified topic for graduate students. Credit 1 to 4 semester hours. **Prerequisite:** Admission to the Graduate Program. **D**

CHEM 5052 BASIC TOPICS IN CHEMISTRY

A course for secondary school teachers on the fundamental principles of chemistry. Selected topics are studies in considerable depth. **Prerequisite:** Admission to the Graduate Program. **D**

PHY 3013 MATERIALS SCIENCE

An introductory, interdisciplinary course about the fundamental properties of solid materials. Topics include: atomic and crystalline structure, diffusivity, imperfections, mechanical testing, deformation, hardening techniques; electrical magnetic, optical, thermal, corrosive and wear properties. Materials discussed include ferrous and nonferrous alloys, ceramics, polymers, and composites. **Prerequisite:** PHY 1054, PHY 1064, PHY 2155, CHEM 1203 or consent of the instructor. **SE**

PHY 3112 EXPERIMENTAL TECHNIQUES

Study of the techniques and devices used in experimental physics including lasers, vacuum systems, temperature measurements, photographic emulsions, spectrometers and particle detectors; procedures of data analysis. **Prerequisite:** PHY 2114 and MATH 2834. **S**

PHY 3303 HISTORY OF PHYSICS

A study of ideas, people, and events in the development of physics from the ancient Greeks to modern times, including discussions of the limitations of the scientific method and of how science is really done. **D**

PHY 3311 MODERN PHYSICS LAB

A laboratory course which teaches about equipment and techniques necessary, and then uses these to detect radiation and to measure fundamental properties of atoms, alpha and beta (electrons) particles, x-rays and gamma rays, etc. **Corequisite:** PHY 3403.

PHY 3383 MUSICAL ACOUSTICS

Fundamentals of vibratory motion, description of sound, the physiological and psychological aspects of sound, production of musical sound, electronics and music, room acoustics, and musical instruments. **D**

PHY 3403 MODERN PHYSICS FOR ENGINEERS

The topics of special relativity, atomic and molecular physics, solid state physics, statistical physics, and nuclear physics are introduced along with engineering applications. **Prerequisite:** PHY 2155. **Corequisite:** MATH 3934. **S**

PHY 3413 ANALOG ELECTRONICS

Lecture and laboratory study of basic network and semiconductor theory; Kirchhoff, Thevenin and Norton theorems, characteristics of solid-state components and their application in power supplies, amplifiers, oscillators, and operational amplifiers. **Prerequisites:** PHY 1072, 2155, and MATH 3934 or instructor approval. **FO**

PHY 3424 OPTICS

Lecture and laboratory study of geometrical and physical optics, including lenses, mirrors, interference, polarization, diffraction, dispersion and quantum optics. **Prerequisites:** PHY 2155 and MATH 3934. **SO**

PHY 3501 PHYSICS SEMINAR (TOPIC)

Course for students to gain experience in reporting a scientific and technical topic to peers; an oral and a written report on a subject of current interest in physics is required. **Prerequisite:** 18 hours of physics or approval of instructor. **S**

PHY 3523 SOLID-STATE AND NUCLEAR PHYSICS

Lecture and laboratory study of nuclear models, nuclear reactions, classical and quantum statistics, molecular spectroscopy, crystal structure and band theory of solids, and semiconductor devices. **Prerequisite:** PHY 3403 and MATH 4213. **D**

PHY 3544 DIGITAL ELECTRONICS

Lecture and laboratory study of logic gates and circuits; microprocessor programming and interfacing. **Prerequisite:** PHY 1072. **FE**

PHY 3563 THERMODYNAMICS

Study of thermal physics including the zeroth, first and second laws of thermodynamics; enthalpy, entropy, kinetic theory, Maxwell-Boltzmann distribution, specific heats, simple transport phenomena, and power cycle applications. **Prerequisites:** PHY 2155 and MATH 3934. **FO**

PHY 3573 HEAT TRANSFER

Study of conduction, convection and radiation heat transfer, properties of materials related to heat transfer; control volume analysis; laminar and turbulent fluid flow; Newton's law of cooling; boiling and cooling; and blackbody radiation. **Prerequisites:** PHY 2155 and MATH 3934. **FE**

PHY 3583 METHODS OF THEORETICAL PHYSICS

Study of the application of mathematical procedures to formulate and solve problems of physics; harmonic analysis, matrix theory, physical use of differential equations, functions of complex variables and numerical techniques. **Prerequisites:** PHY 2155 and MATH 3934. **D**

PHY 3603 MECHANICS I

Study of dynamics; conservative motion, central force problems, gravitation, harmonic oscillators, systems of particles, small vibrations, rigid-body dynamics, accelerated reference frames and Lagrange equations. **Prerequisites:** PHY 2155 and concurrent enrollment in MATH 4213. **SE**

PHY 3633 FLUID MECHANICS

Study of fluid properties, compressible and incompressible fluids and aerodynamic, fluid statics and dynamics including viscous effects, dimensional analysis, and fluid measurements. **Prerequisites:** PHY 2155 and concurrent enrollment in MATH 4213. **SO**

PHY 4001-4 PHYSICS RESEARCH (TOPIC)

Individual research under direction of an individual faculty member on a topic of mutual interest; 1 to 4 semester hours credit; topic, credit, and arrangements to be decided prior to enrollment. **Prerequisites:** Consent of instructor and department chair.

PHY 4011-4 PHYSICS SEMINAR (TOPIC)

Formal study of a topic of current importance in physics or engineering which is not normally included in other courses; Credit 1-4 semester hours. **Prerequisites:** Consent of instructor and department chair.

PHY 4644 ELECTRICITY AND MAGNETISM I

Lecture and laboratory study of electrostatics including Coulomb and Gauss laws, dielectric materials, electrostatic energy, steady currents and magnetic fields, and electromagnetic induction. **Prerequisites:** PHY 2155 and MATH 4213. **FO**

PHY 4663 ELECTRICITY AND MAGNETISM II

Continuation of 4644 including magnetic properties of matter, magnetic energy of slowly varying currents, Maxwell's equations with applications, and electro-dynamics. **Prerequisite:** PHY 4644. **SE**

PHY 4723 QUANTUM MECHANICS

An advanced course in modern physics including applications of the Schrodinger equation, spin and magnetic interactions, complex atoms, molecules, and quantum statistical physics and its applications. **Prerequisite:** PHY 3403. **Corequisite:** MATH 4214 or consent of the instructor. **D**

PHY 4743 SOLID-STATE PHYSICS

Study of the crystalline state of matter; Debye theory of specific heats, free electron and band theory of metals, insulators, and semiconductors. **Prerequisites:** PHY 3403 and MATH 4213. **D**

PHY 4763 NUCLEAR PHYSICS

Study of theories and applications of nuclear physics; binding energies, nuclear forces, nuclear particles and reactions, nuclear models, and reactor physics. **Prerequisites:** PHY 3403 and MATH 4213. **D**

PHY 5001-4 INDIVIDUAL STUDY IN PHYSICS (TOPIC)

Independent study of specified topic in physics for graduate students. Credit 1-4 semester hours.

PHY 5011-4 PHYSICS SEMINAR (TOPIC)

Group study of specified topic in physics for graduate students. Credit 1-4 semester hours. **Prerequisite:** Admission to the Graduate Program.

SCI 4011-4 SCIENCE SEMINAR (TOPIC)

Seminars of individual or group study are based on selected topics in science education. Credit 1-4 semester hours. **Prerequisite:** Senior standing. **D**

SCI 4352 TEACHING SCIENCE IN ELEMENTARY SCHOOLS

A course that emphasizes the inquiry-discovery approach to the teaching of elementary science. Course content includes: the structure and processes of science; thinking skills; intellectual development of children; organizing science activities and curricula; and teacher responsibilities. **Prerequisites:** SCI 3114, SCI 3214, and SCI 3314. **F, S**

SCI 4843 TEACHER'S COURSE IN SCIENCE

Methods, problems, and resources in teaching science in the secondary schools. Problems and topics in the middle school and high school are presented. Required for teacher certification in science areas. **Prerequisite:** Admission to Teacher Education Program. **F**

SCI 5001-4 INDIVIDUAL STUDY IN SCIENCE (TOPIC)

Individual study of specified topic for graduate students. Credit 1-4 semester hours. **D**

COMPUTER SCIENCE**COMSC 3013 COMPUTER ORGANIZATION**

Study of a modern computer system as a layered structure. Digital logic, micro programming, Von Neumann machines, operating systems, assembly and high-level virtual machines, emphasizing fundamental concepts of each layer in the hierarchy and relationships between the layers. **Prerequisite:** COMSC 1053. *Recommended:* COMSC 3033. **S**

COMSC 3033 DATA STRUCTURES

Representation of lists, stacks, queues, trees and graphs and their associated algorithms and applications. Recursion and backtracking. Analysis of algorithms. Sorting and searching algorithms. Development of programming techniques. **Prerequisite:** COMSC 1053. **F**

COMSC 3053 OPERATING SYSTEMS

Introduction to the design, implementation, and evaluation of computer operating systems. Emphasis on techniques for memory, processor, device, and file management. **Prerequisite:** COMSC 1053. **F**

COMSC 3133 SOFTWARE ENGINEERING

Techniques and procedures for developing software products and supporting documentation. Emphasis on software life cycle models and teamwork in the development of software products. **Prerequisite:** COMSC 1053. *Recommended:* COMSC 3033

COMSC 3153 DATA COMMUNICATIONS AND NETWORKS

Introduction to basic concepts of data communications and computer networks. Lab exercises include the wiring, installation and management of a network. Experience in use of microcomputer operating systems and software is assumed. **D**

COMSC 3233 SCIENTIFIC PROGRAMMING

Scientific applications include dynamic systems, fourier analysis, least squares analysis, solution of nonlinear equations and differential equations, and numerical integration. **Prerequisites:** COMSC 1053 and MATH 1814 or 2823. **D**

COMSC 3333 COBOL II

Advanced features of COBOL programming and computer applications in a business environment. Emphasis on file organization, processing techniques and structured program design. **Prerequisite:** COMSC 2353.

COMSC 3553 DISCRETE STRUCTURES

Introduction to discrete mathematics for computer science. Sets, functions, propositional and predicate logic, Boolean algebra, graph theory, matrices, proof techniques, combinatorics and finite state machines. **Prerequisites:** COMSC 1053 and MATH 1613.

COMSC 3733 SYSTEM SIMULATION

Principles and techniques for modeling and simulating physical, social, and business systems. Continuous, discrete, static, dynamic, deterministic, and stochastic systems. Use of simulation languages. **Prerequisites:** COMSC 1053 and MATH 1613. **D**

COMSC 4001-4 INDEPENDENT STUDY IN COMPUTER SCIENCE

Specified projects in computer science. One to four credit hours.

COMSC 4011-4 COMPUTER SCIENCE SEMINAR

Group study of specified advanced topics in computer science. One to four credit hours.

COMSC 4033 PROGRAMMING LANGUAGES

Fundamental concepts of modern programming languages and their implementations. Imperative, object-oriented, functional, and logic-based languages, and selected topics from unconventional languages, models and paradigms.

Prerequisite: COMSC 3033. *Recommended:* COMSC 3013. **S**

COMSC 4053 OBJECT-ORIENTED PROGRAMMING

Fundamental concepts of object-oriented programming. Abstract data types, objects, classes, inheritance, dynamic binding, and polymorphism. Study of an object-oriented language, and development of object-oriented programming techniques. **Prerequisite:** COMSC 2053. *Recommended:* COMSC 3033.

COMSC 4113 COMPUTER-ASSISTED INSTRUCTION

Techniques for evaluating, designing, and preparing software for computer based instruction. Emphasis on multimedia productions including sound, animation, video and graphics from various sources. Experience in use of microcomputer operating systems and software is assumed. **D**

COMSC 4123 ARTIFICIAL INTELLIGENCE

Introduction to basic concepts and current techniques used in automating artificial intelligence. Emphasis on knowledge representation, search strategies, automated reasoning, and expert systems with case studies using artificial intelligence computer languages and systems. **Prerequisite:** COMSC 3033. *Recommended:* COMSC 3553. **D**

COMSC 4133 ALGORITHMS AND COMPLEXITY

Basic techniques for design and analysis of efficient algorithms. **Prerequisites:** COMSC 3033 and 3553. **D**

COMSC 4153 COMPILER CONSTRUCTION

Fundamentals and practical considerations of programming language translation. Introduction to formal languages and automata, lexical analysis, top-down and bottom-up parsing, symbol tables, run-time storage management, semantic analysis, translation, and code generation. **Prerequisite:** COMSC 3033. *Recommended:* COMSC 3013 and 4033.

COMSC 4233 NUMERICAL ANALYSIS

Derivation, evaluation, and implementation of numerical algorithms. Numeric linear algebra, roots of non-linear equations, polynomial interpolation, numerical differentiation and integration, and solution of ordinary differential equations. **Prerequisites:** COMSC 1053. *Recommended:* MATH 2834. **D**

COMSC 4333 DATABASE MANAGEMENT SYSTEMS

Concepts and structures of database systems using the relational model. Design and implementation of databases using relational systems. **Prerequisite:** COMSC 2353. **S**

COMSC 4913 INTERNET PROGRAMMING

Introduction to JavaScript, Dynamic HTML, ActiveX Controls, and server-side processing using CGI programming with Perl. **Prerequisite:** COMSC 1053 & COMSC 3913. **F**

COMSC 4921-3 COMPUTER SCIENCE INTERNSHIP

Designed to prepare the student to cope with the professional challenges in the computer field. Students must complete two hundred forty hours of employment with an approved employer in the area of computer information systems support or development. Reports, meetings with other interns, and a presentation to the faculty are required. **Prerequisites:** COMSC 3013, 3033, and departmental approval.

HEALTH, PHYSICAL EDUCATION, AND RECREATION

HPE R 3133 TEACHING HEALTH IN PUBLIC SCHOOLS

A course designed to study the science of personal and community health, the psychology of teaching health elements of child growth and development and adolescent health problems; planning and organizing for teaching mental health, nutrition, disease control and program appraisal. Understanding the role of health education in the total educational effort.

HPE R 3333 SAFETY EDUCATION

Safety Education is a course of study designed to provide safety information of a general nature appropriate to today's living. A knowledge base is developed in the areas of home safety, driver safety, job safety, recreation safety, and skill development as well as coping techniques for each.

HPE R 3342 INNOVATIONS IN DRIVER AND TRAFFIC SAFETY EDUCATION

A survey of recent innovations in driver and traffic safety education. The course will bring together developments in automobile safety, and new techniques and skills in providing safety education to the driver.

HPE R 3393 NUTRITION FOR CHILDREN

A study of the basic knowledge of nutrition with emphasis on the nutritional needs of children and ways of implementing nutrition education.

HPE R 3443 KINESIOLOGY AND ANATOMY

The study of anatomy, osteology and the muscular system which affect and/or are affected by movement and sports related performance.

HPE R 3553 METHODS AND MATERIALS IN ELEMENTARY HEALTH, PHYSICAL EDUCATION AND RECREATION

Theory and practice in teaching physical education activities at the elementary level with emphasis on methods, materials, planning, and conducting elementary programs.

HPE R 3663 RECREATION LEADERSHIP

A study of leadership techniques and organizational and administrative procedures for conducting recreational programs.

HPE R 3723 ADVANCED ATHLETIC TRAINING

Foundational knowledge and skills necessary for comprehensive evaluation of athletic injury and illness. Recognition and management of medical conditions affecting athletic participants. Ascertaining medical history, the use of evaluative tools, knowledge of various conditions and diseases, and clinical evaluation techniques for neurological and musculoskeletal disorders.

HPE R 3733 PRACTICUM IN ASSESSMENT OF INJURY

Practical experience for the athletic training student pursuing grasp of advanced proficiencies. Emphasis in orthopedic assessment, manual testing techniques, and documentation of findings. 225 hours of clinical experience required. **Corequisite: HPE R 4344 for Athletic Training majors. F**

HPE R 3743 ATHLETIC TRAINING REHABILITATION

Essentials, principles, and concepts of rehabilitation/reconditioning. Specific exercise, examination, techniques, and record keeping pertaining to the process of rehabilitation are included in the course. With concurrent enrollment in Practicum in Therapeutic Intervention, the student will gain practical experiences pertaining to concepts presented in the class. **S**

HPE R 3753 PRACTICUM IN THERAPEUTIC INTERVENTION

Provision of a structured clinical environment to compliment didactic coursework for Therapeutic Interventions in the treatment and rehabilitation of athletic injury. 225 hours of clinical experience required. **Concurrent enrollment in HPE R 3743. S**

HPE R 4001-4 INDIVIDUAL STUDY IN HEALTH PHYSICAL EDUCATION AND RECREATION

Individual study of specified topic in health, physical education, and recreation. Credit 1 to 4 semester hours.

HPE R 4011-4 SEMINAR IN HEALTH, PHYSICAL EDUCATION AND RECREATION

Group study of specified topic for health, physical education and recreation. Credit varies from 1 to 4 hours.

HPE R 4052 SOCIOLOGY OF SPORT

Study of sports in society as they relate to: competition at all levels, sports for youngsters, women in sports, blacks in sports, and future of sports.

HPE R 4063 LEGAL ASPECTS IN PHYSICAL EDUCATION, RECREATION AND ATHLETICS

An in-depth analysis and study of legal liability for the practitioner as it relates to physical education, recreation and athletics. The course presents an overview of legal issues, duties and liability as they relate to student rights, teacher rights, and conduct of programs, as well as causes and preventions of accidents which would result in liability suits.

HPE R 4073 EVALUATION IN PHYSICAL EDUCATION

Knowledge and principles in techniques of evaluation and measurement and test construction in physical education.

HPE R 4113 ORGANIZATION AND ADMINISTRATION OF HEALTH, PHYSICAL EDUCATION AND RECREATION

A study of the organization and administration of physical education programs for the public schools, colleges, and special populations.

HPE R 4122 ORGANIZATION AND ADMINISTRATION OF ATHLETICS

A study of the organization and administration of athletic programs for the public schools and colleges.

HPE R 4163 COMMUNITY RECREATION

Instruction in methods and materials in community recreation leadership. Emphasis is placed on outdoor recreation education.

HPE R 4222 ORGANIZATION & MANAGEMENT OF INTRAMURALS

A study of the content and conduct of intramural sports. Practical experience.

HPE R 4233 EXERCISE PHYSIOLOGY

A study of conditions that are related to the learning of movement-oriented skills, improvement of motor performance and the physiological effects of exercise.

HPE R 4243 THERAPEUTIC AND PRESCRIPTIVE PHYSICAL EDUCATION

A course designed to increase knowledge and understanding of the uniqueness of individuals with special needs. Emphasis in modifying physical activities for exceptional children; motor testing; analyses of skill development and principles in techniques of evaluation/assessment in physical education.

HPE R 4262 MOTOR LEARNING

A study of the body of knowledge underlying the development of successful instruction and training strategies critical for skill acquisition. Motor learning issues are viewed from a behavioral perspective with emphasis on application and performance.

HPE R 4273 DRIVER EDUCATION I

The problems, techniques, and methods of teaching driver education in secondary school.

HPE R 4323 ATHLETIC TRAINING PHARMACOLOGY

Athletic Trainers will learn how various commonly used drugs and supplements can affect exercise performance in their patients and athletes. Practical guidelines are offered so that professionals can closely monitor and circumvent adverse reactions to drug therapies. The class covers cardiopulmonary agents, metabolic, and socially used drugs. **D**

HPE R 4333 PRINCIPLES & HISTORY OF HEALTH AND PHYSICAL EDUCATION

Introduction to physical education, history of physical education; concepts and principles related to biological, psychological, and sociological factors that affect development of the individual.

HPE R 4344 APPLIED KINESIOLOGY

A study of the practical application of general kinesiological and anatomical principles in the areas of physical education, sports, and sports medicine.

HPE R 4353 MOTOR DEVELOPMENT

The study of the acquisition and development of motor skills such as standing, balancing, moving, and manipulating objects as encountered in a child's environment. The further identification and study of the various developmental stages as children pass from early childhood, to middle childhood, and to late childhood.

HPE R 4362 TRAFFIC COURTS AND LAW ENFORCEMENT

The study of traffic courts and law enforcement at the local, state, and federal level in regard to methodology, jurisdiction, transition, and relationship to our lives and culture. The course will draw on local, state, and federal agents of the courts and our society for additional and recent changes.

HPE R 4373 DRIVER EDUCATION II

A practical application of theory from HPER 4273. Laboratory. **Prerequisite: HPER 4273.**

HPE R 4432 ATHLETIC TRAINING MODALITIES

An exploration of the many types of modalities available to treat athletic injuries, and to reduce the pain that is associated with a particular injury. Electrotherapy, electrical stimulation, infrared modalities, ultrasound, and other treatment types are surveyed. The course is designed for anyone desiring to achieve Athletic Training Certification, or anyone interested in the treatment of athletic injuries.

HPE R 4443 METHODS OF TEACHING SAFETY EDUCATION

Methods and materials in the conduct of public-school safety program.

HPE R 4541 CAPSTONE EXPERIENCE IN HPER

The Capstone Experience in Health, Physical Education and Recreation course is designed to be a capstone experience for the HPER major in Teacher Education. The course is the academic crowning point for the major. Information is offered to the student regarding entry into the teaching professional semester and the profession. State comprehensive testing and information is also covered. Additionally opportunities in the profession and the professional application of the knowledge they have acquired are addressed.

HPE R 4553 TEACHERS COURSE IN H&PE

Problems, methods, and materials for teaching physical education in grades K-12. **Prerequisite: Admission to the Teacher Education Program.**

HPE R 4663 CAMP COUNSELING

A study of philosophy, principles, and concepts of program planning, development of camping and outdoor recreation programs.

HPE R 4712 OUTDOOR LEISURE EDUCATION SEMINAR (TOPIC)

Group study in assigned topic of outdoor leisure education. Basic outdoor skills and techniques with emphasis on camping, adventure activities, and environmental education.

HPE R 4722 ADMINISTRATIVE ISSUES IN ATHLETIC TRAINING

Fosters acquisition of administrative and organizational techniques necessary to direct an athletic training facility. Basic concepts include financial management, legal liability, insurance processing, facility design, personnel management, and professional involvement. **F,S**

HPE R 4773 ORGANIZATION AND ADMINISTRATION OF OUTDOOR EDUCATION

A study of organization and administration methodologies, techniques, and the teaching of outdoor skills. Emphasis is placed on integration of outdoor teaching techniques and subject matter in the classroom. Field experience is required as a part of the class.

HPE R 4802 THEORY OF COACHING FOOTBALL

Knowledge and preparation in techniques and methods of coaching football.

HPE R 4813 APPLICATION OF ATHLETIC TRAINING I

Senior level application of techniques and knowledge acquired during the entire Athletic Training Educational Program. Focuses the integration of all systems and methods into the daily clinical practice of Athletic Training. 275 hours of clinical experience required. **F**

HPE R 4823 APPLICATION OF ATHLETIC TRAINING II

Senior level application of techniques and knowledge acquired during the entire Athletic Training Education Program. Focuses on the integration of all systems and methods into the daily clinical practice of Athletic Training. 275 hours of clinical experience required. **Concurrent enrollment in HPE R 4722. S**

HPE R 4832 THEORY OF COACHING BASKETBALL

Fundamentals and techniques applied to coaching basketball.

HPE R 4842 THEORY OF COACHING WOMEN'S BASKETBALL

Fundamentals and techniques applied to coaching women's basketball.

HPE R 4862 THEORY OF COACHING BASEBALL

Knowledge and preparation in techniques and methods applied to coaching baseball.

HPE R 4873 CURRICULUM CONSTRUCTION IN HEALTH, PHYSICAL EDUCATION AND RECREATION

A study of the methodology of developing curriculum materials in health, physical education and recreation.

HPE R 4892 THEORY OF COACHING TRACK AND MINOR SPORTS

A study of the techniques of coaching track and minor sports.

HPE R 4991-8 INTERNSHIP IN PROFESSIONAL RECREATION

A practical application, devoted to serving an apprenticeship in recreation. Students serve under selected recreational professionals in hospitals and state and local agencies.

HPE R 5001-4 INDIVIDUAL STUDY IN HEALTH, PHYSICAL EDUCATION, AND RECREATION (TOPIC)

Individual study of a specified topic in health, physical education, and recreation for graduate students. Credit 1 to 4 semester hours. **Prerequisite: Admission to the Graduate Program.**

HPE R 5011-4 SEMINAR IN HEALTH, PHYSICAL EDUCATION, AND RECREATION (TOPIC)

A group study of specified topic in health, physical education, and recreation for graduate students. Credit 1 to 4 semester hours.

HPE R 5223 PROBLEMS IN HEALTH AND PHYSICAL EDUCATION AND RECREATION

Problem identification and solution in these areas of specialization are pursued. **Prerequisite: Admission to the Graduate Program.**

HPE R 5553 HEALTH EDUCATION IN THE PUBLIC SCHOOL

Designed to acquaint teachers with areas of health education, health instruction, health services, and healthful school living; development of programs. **Prerequisite: Admission to the Graduate Program.**

LANGUAGE ARTS**English****ENGL 3603 ENGLISH GRAMMAR**

A rudimentary study of traditional English grammar designed for the elementary, secondary, or pre-law student who is interested in developing a better command of the English language. **Prerequisite: ENGL 1213. F**

ENGL 4001-4 INDIVIDUAL STUDY IN ENGLISH (TOPIC)

Independent study of specified topic in English. Credit 1 to 4 semester hours. **D**

ENGL 4011-4 SEMINAR IN ENGLISH (TOPIC)
Group study of specified topic in English. Credit 1 to 4 semester hours. **D**

ENGL 4343 WRITING FOR BUSINESS AND INDUSTRY
A practical course in writing memos, letters, resumes, cover letters, and various types of standard reports. **D**

ENGL 4353 EXPOSITORY AND PERSUASIVE WRITING
Advanced study in the methods and techniques of expository and persuasive writing. Much of the course is devoted to practice in writing expository and persuasive prose. **Prerequisites: ENGL 1113 and 1213. S**

ENGL 4423 INTRODUCTION TO LINGUISTICS
A survey of recent linguistic study, including historical development, dialects, usage, and structural and transformational grammar. **F**

ENGL 4675 TEACHING OF HIGH SCHOOL ENGLISH
Problems and methods for teachers in both junior and senior high school English classes. The course will emphasize teaching of language, literature, and composition, with emphasis on current trends as shown in recent textbooks, journal articles, experimental studies, and curriculum guides. **Prerequisite: Admission to Teacher Education Program. F**

ENGL 5001-4 INDEPENDENT STUDY IN ENGLISH (TOPIC)
Independent study of specified topic for graduate students. Credit 1-4 semester hours. **D**

ENGL 5011-4 SEMINAR IN ENGLISH (TOPIC)
Group study of specified topic for graduate students. Credit 1-4 semester hours. **D**

Communication

COMM 3213 ADVANCED NEWS EDITING
This continuation of COMM 3113 covers advanced newspaper design, copyediting, and proofreading with additional instruction in grammar, syntax, and writing style. **Prerequisite: COMM 3113. D**

COMM 3413 DESKTOP PUBLISHING
Electronic publishing using personal computers and software for word processing, page building, image manipulation, scanning, and editing. Includes personal web page building and web site management as a form of desktop publishing relevant to Mass Communication. **F**

COMM 4001-4 INDEPENDENT STUDY IN JOURNALISM (TOPIC)
Specified topic in journalism. Credit 1-4 semester hours. **D**

COMM 4011-4 SEMINAR IN JOURNALISM (TOPIC)
Group study of specified topic in journalism. Credit 1-4 semester hours. **D**

Literature

LIT 3113 WORLD LITERATURE SURVEY I
A survey of world literature from ancient literature through the Renaissance. **Prerequisite: ENGL 1213. F**

LIT 3133 ENGLISH LITERATURE SURVEY II
A survey of English literature from Milton through the romantic period. **Prerequisite: ENGL 1213 F**

LIT 3223 ROMANTIC MOVEMENT
History of the romantic movement, prose and poetry of the period with particular attention to the works of Wordsworth, Coleridge, Byron, Shelley, and Keats. **D**

LIT 3443 MIDDLE ENGLISH/CHAUCE
A study of the language and the literature of thirteenth and fourteenth century England, with emphasis on Chaucer. **D**

LIT 3463 19TH CENTURY AMERICAN REALISM
A course dealing with the broad outlines of the age of realism in American literature, with special emphasis on the contributions of the three great realists Mark Twain, William Dean Howells, and Henry James. **D**

LIT 3473 MODERN BRITISH NOVEL
A study, through selected readings, of the major British novelists and schools of fiction from Conrad to outstanding contemporary writers. **D**

LIT 3483 MODERN AMERICAN NOVEL
An intensive study of the works of such major American novelists as Fitzgerald, Wolfe, Hemingway, Faulkner, and Steinbeck. **D**

LIT 3493 MODERN DRAMA
Reading and study of American, British, and European plays since Ibsen, with emphasis on the social and political backgrounds, dramatic structure, and literary trends from nationalism to absurdism. **D**

LIT 3513 LITERATURE OF THE AMERICAN WEST

Selected reading in novels, short stories, poetry, criticism, and other works by writers of the trans-Mississippi frontier and the far west, emphasis on historical and cultural interpretation since 1890. **D**

LIT 3523 VICTORIAN POETRY

A study of the major poets of the Victorian era and of the conditions which shaped their work. Emphasis upon Tennyson, Browning, Arnold, Hardy, and Hopkins. **D**

LIT 3533 BRITISH RENAISSANCE DRAMA

A study of British theatre in the late 16th and early 17th centuries. Emphasis on Kyd, Marlowe, Johnson, Shakespeare, and the Jacobean. **D**

LIT 3543 LITERATURE OF THE SOUTH

Study of selected modern-day southern writers, with emphasis on the economic, sociological, and political backgrounds reflected in their works. **D**

LIT 3613 AMERICAN ROMANTIC PERIOD

Readings in the American romantic period, emphasizing selected works by Whitman, Emerson, Thoreau, Hawthorne, and Melville. **D**

LIT 3643 VICTORIAN NOVEL

Readings of selected works by 19th century British novelists with attention to the social, political, intellectual and economic conditions which helped produce the novels of Dickens, Thackeray, Trollope, Hardy, George Eliot, and their contemporaries. **D**

LIT 4001-4 INDEPENDENT STUDY IN LITERATURE (TOPIC)

Specified study of literature. Credit 1-4 semester hours. **D**

LIT 4011-4 SEMINAR IN LITERATURE (TOPIC)

Group study of specified topic in literature. Credit 1-4 semester hours. **D**

LIT 4113 WORLD LITERATURE SURVEY II

A survey of world literature from neoclassicism to the present. **Prerequisite: ENGL 1213. D**

LIT 4123 ENGLISH LITERATURE SURVEY III

A survey of English literature from the Victorian period to the present. **Prerequisite: ENGL 1213. S**

LIT 4232 BOOKS AND MATERIALS FOR YOUNG PEOPLE

A study of books, magazines, films, filmstrips and still pictures for young people in grades 7 through 12. Course provides guidelines for selection and evaluation of books for young people. **S**

LIT 4463 CHILDREN'S LITERATURE

Survey of appropriate children's literature and a study of interests and abilities governing the choice of literature for K-8 grades. **Prerequisite: Admission to the School of Education. F, S, SU**

LIT 4473 MODERN BRITISH & AMERICAN POETRY

Poetry of the twentieth century. **D**

LIT 4623 17TH CENTURY ENGLISH POETRY

Selected readings from the works of Jonson, Donne, and their followers, providing a background for the study of the poetry of Milton. **D**

MATHEMATICS**MATH 3113 FOUNDATIONS IN MATHEMATICS**

An introduction to basic concepts upon which mathematics is founded. A study of structure, pattern, and development. **Prerequisite: MATH 2834 or departmental approval. F**

MATH 3413 STATISTICAL METHODS I

Beginning techniques for students with modest mathematical backgrounds. Emphasis on applications to the biological and physical sciences, business, and education. Offered fall semesters and even summers. **Prerequisite: MATH 1513. F, SUE**

MATH 3433 STATISTICS I

An introductory probability and statistics course. Applications are emphasized. **Prerequisite: MATH 1513. S, SUO**

MATH 3473 INTRODUCTION TO PROBABILITY

Moment generating functions, classical probability theory, discrete sample spaces. Distributions, random variables. **Prerequisite: MATH 2834. SE**

MATH 3453 MATHEMATICAL STATISTICS

A beginning course in the mathematical theory of statistics. **Prerequisite: MATH 2834. FO**

MATH 3553 NUMERICAL ANALYSIS

Derivation, evaluation, and application of numerical methods of applied mathematics. Computer programming solutions to roots of equations, difference and differential equations, numerical integration, and linear algebra problems. **Prerequisites: MATH 2834 and any Scientific Programming Language. D**

MATH 3653 LINEAR ALGEBRA

An introductory course in vector spaces, matrices, determinants, characteristic roots, and quadratic functions. **Prerequisite: MATH 2834 or departmental approval. S, SUO**

MATH 3673 ELEMENTARY NUMBER THEORY

A study including primes and composites, number theoretic functions, diophantine equations, congruence classes, and mathematical induction. **Prerequisite:** MATH 2834 or departmental approval. SE

MATH 3713 COLLEGE GEOMETRY

An axiomatic development of the essentials of Euclidean geometry and an introduction to Non-Euclidean geometry. Content includes the foundations of Euclidean geometry (points, lines, angles, triangles, quadrilaterals, circles), parallelism in Non-Euclidean geometry (with the focus on hyperbolic geometry). **Prerequisite:** MATH 2834 or departmental approval. F, S

MATH 4133 INTRO TO MATHEMATICAL LOGIC

A basic course in mathematical thought, simple and compound sentences, truth tables, deductive logic, mathematical systems, quantification, application of logic to puzzles and games. **Prerequisite:** MATH 3834. D

MATH 4152 HISTORY OF MATHEMATICS

The historical development of mathematics. A chronological problem-type survey from past to present. D

MATH 4213 DIFFERENTIAL EQUATIONS I

Solutions of ordinary differential equations with applications. **Prerequisite:** MATH 3834 or departmental approval. S

MATH 4223 DIFFERENTIAL EQUATIONS II

Continuation of 4213. Transforms, existence of solutions, higher degree equations, series, orthogonal sets. D

MATH 4233 VECTOR ANALYSIS

A comprehensive course in theory and applications of vector analysis with an introduction to vector spaces. **Prerequisite:** MATH 3834. D

MATH 4653 MODERN ALGEBRA

An introduction to group, ring, and field theory. Emphasis on real and complex number fields and properties of special interest to teachers. **Prerequisite:** MATH 3834 or departmental approval. F, SUE

MATH 4753 INTRODUCTION TO POINT SET TOPOLOGY

Elements of set theory, the real number system, mappings, metric spaces and general topological spaces. **Prerequisites:** MATH 3834 and approval of instructor. SO

MATH 4853 ADVANCED CALCULUS

A course designed to strengthen and extend the theory beyond the usual beginning calculus sequence. **Prerequisite:** MATH 3834. S

MATH 4873 COMPLEX VARIABLES

Complex numbers and their algebra. Analytic functions. Cauchy-Riemann conditions, differential calculus of analytic functions. **Prerequisite:** MATH 3834. FE

MATH 4933 TEACHING SECONDARY MATHEMATICS

An analysis of subject matter and instructional processes in current secondary school mathematics. Teaching methods and techniques for the preparation of the professional teacher of mathematics. **Prerequisites:** Admission to Teacher Education Program and MATH 2834. F

MATH 5001-4 INDEPENDENT STUDY IN MATHEMATICS

Individual study of specified topic in mathematics for graduate students. **Prerequisite:** Admission to Graduate Program. D

MATH 5011-4 SEMINAR IN MATH

Group study of specified topic in mathematics for graduate students. Credit 1 to 4 semester hours. D

MATH 5612 LINEAR ALGEBRA FOR SECONDARY SCHOOLS

Understanding of the techniques of matrix algebra in the solutions of systems of linear equations and elementary transformations. **Prerequisite:** MATH 2834. SUO

MATH 5632 ABSTRACT ALGEBRA FOR SECONDARY SCHOOLS

Understanding of the algebraic concepts of homomorphism, isomorphism, decomposition and operators. **Prerequisite:** MATH 3834 and Admission to the Graduate Program. SUE

MATH 5712 CURRENT TRENDS IN SECONDARY SCHOOL GEOMETRY

Modern teaching techniques of secondary school geometry. **Prerequisite:** MATH 2834.

MATH 5753 INTRODUCTION TO METRIC AND NON-METRIC GEOMETRY

Undefined terms, definitions, postulates, and theorems of a logical system, and Euclidean geometry. Introduction to coordinate and vector geometries. **Prerequisite:** Admission to the Graduate Program. D

MATH 5812 REAL NUMBERS

The development of the real numbers. Peano's Postulates, natural numbers, relations, integers, rational numbers, real numbers, and extensions of the real number field. **Prerequisite:** MATH 2834 and admission to the Graduate Program. SU

MUSIC

MUSIC 3202 MUSIC METHODS FOR ELEMENTARY TEACHERS

Training in music for the non-musician teacher who will teach in a self-contained elementary classroom or who will support the work of a general music specialist. Activities include singing, listening, rhythmic and creative activities, and experience in playing instruments used in the K-6 classroom. Will not apply toward the Master of Music degree. **F, S, SU**

MUSIC 3331 JAZZ IMPROVISATION

Application of the elements of basic harmony and theory to jazz improvisation. **D**

MUSIC 3353 HISTORY OF MUSIC I

Study of the historical eras from antiquity through the eighteenth century A.D., with emphasis on analytical study of the musical forms and styles of these periods. Will not apply toward the Master of Music degree. **F**

MUSIC 3403 HISTORY OF MUSIC II

Continuation of MUSIC 3353 with emphasis on the eras from 1800 to the present. Will not apply toward the Master of Music degree. **S**

MUSIC 3452 HISTORY OF OPERA

History of the development of opera from 1600 to the present. **D**

MUSIC 3502 COUNTERPOINT

The study of polyphony through score analysis and recordings, writing in the five species, and the seventeenth- and eighteenth-century free style. Will not apply toward the Master of Music degree. **Prerequisite: MUSIC 3253. F**

MUSIC 4001-4 INDEPENDENT STUDY IN MUSIC (TOPIC)

Individual study in various areas of musical knowledge. Credit 1-4 semester hours. **By permission of chair only. D**

MUSIC 4011-4 SEMINAR IN MUSIC (TOPIC)

Group study of specified topic in music. Credit 1-4 semester hours. **D**

MUSIC 4021 WOODWIND ENSEMBLE

Performance of chamber music for woodwind instruments with emphasis on the woodwind choir. Two rehearsals a week. Enrollment by permission of the instructor. **F, S**

MUSIC 4031 BRASS ENSEMBLE

Performance of chamber music for brass instruments with emphasis on the brass choir. Two rehearsals a week. Enrollment by permission of the instructor. **F, S**

MUSIC 4041 PERCUSSION ENSEMBLE

Performance of music written for percussion ensemble with emphasis on 'total' percussion. Two rehearsals each week. Enrollment by permission of the instructor. **F, S**

MUSIC 4051 ORCHESTRA

Two rehearsals a week. Enrollment by permission of the instructor. **F, S**

MUSIC 4061 SMALL INSTRUMENTAL ENSEMBLES

Performance of chamber music for small instrumental ensembles. Two rehearsals each week. Enrollment by permission of the instructor. **F, S, SU**

MUSIC 4071 JAZZ ENSEMBLE

Performance of the literature of jazz. Two or three rehearsals a week, depending on ensemble assignment. Enrollment by audition and permission of instructor. **F, S, SU**

MUSIC 4081 BAND

Performance of band literature in an ensemble situation. **F, S, SU**

MUSIC 4102 FORMS AND ANALYSIS

A course which provides the basic tools for the analysis of music from any style period. Emphasis of study is upon forms developed by common practice in western music from 1700 to the present. **Prerequisite: MUSIC 1314. D**

MUSIC 4112 ORFF AND KODALY TECHNIQUES IN ELEMENTARY GENERAL MUSIC

A survey of methods and materials developed by Carl Orff, Zoltan Kodaly, and their interpreters for the elementary general music classroom. Emphasis is on rhythmic activities and music literacy. **D**

MUSIC 4122 BASIC ORFF I

Beginning detailed study of the music education system developed by Carl Orff. **D**

MUSIC 4132 BASIC ORFF II

Continuation of MUSIC 4122. **D**

MUSIC 4141 CHORUS

Choral ensemble performance. Students are placed in the five choirs by auditions held during the first scheduled class meetings. **F, S, SU**

MUSIC 4151 ORFF PRACTICUM

Supervised application of the general music procedures studied in MUSIC 4122 and 4132. **D**

MUSIC 4162 HISTORY OF AMERICAN MUSIC

A study of the history of music in America from colonial times until the present. **D**

MUSIC 4172 MUSIC OF THE BAROQUE

A study of musical styles of the seventeenth and early eighteenth century. **D**

MUSIC 4202 COMPOSITION

Practical experience in musical composition in various forms and styles. **Prerequisite:** MUSIC 3303. **F, S, SU**

MUSIC 4222 INSTRUMENTAL PEDAGOGY

Physical and psychological problems associated with teaching wind, percussion, and stringed instruments. **F**

MUSIC 4232 INSTRUMENTATION

A practical course in the technique of arranging for instrumental groups. **Prerequisite:** MUSIC 3303. **S**

MUSIC 4251 OPERA WORKSHOP

Practical experience in all phases of opera and musical theater production. **D**

MUSIC 4302 ELEMENTARY AND SECONDARY GENERAL MUSIC

A course for music majors which emphasizes materials and methods for teaching elementary and secondary music in general education. A portion of the course is devoted to discussion of various philosophies of music education and standardized testing in music. **F**

MUSIC 4352 PIANO METHODS

Teaching methods and materials for all levels of piano instruction, from elementary school through high school. Discussion of private and class techniques. **F**

MUSIC 4402 BAND METHODS

A study of techniques for teaching public school instrumental music. Emphasis is on methods and materials, marching band shows, and various problems of administration. **F**

MUSIC 4452 VOCAL METHODS

A study of music teaching techniques for junior and senior high school music programs, including large choral groups, small ensembles, the changing voice, vocal solos, the voice class, programming, and public relations. **F**

MUSIC 4502 CHORAL LITERATURE

A review of music written for choral ensembles. Emphasis is on compositions appropriate for use in public school music programs. **S**

MUSIC 4552 PIANO LITERATURE

A survey of compositions written for pianists of all ages. The review includes music from the sixteenth century to the present, including examples from standard works by representative composers. **S**

MUSIC 4602 INSTRUMENTAL LITERATURE

A review of music written for instrumental ensembles. Emphasis is on instructional material suitable for beginning, intermediate, and advanced students in the public schools. The class will review music for both private and group instruction. **S**

MUSIC 4652 MUSIC OF THE RENAISSANCE

Western musical style and literature from 1350 until 1600. **D**

MUSIC 4702 MUSIC OF THE CLASSIC ERA

Western musical style and literature from 1720 to 1820. **D**

MUSIC 4732 CHURCH MUSIC

A study of music as practiced by the various religious organizations in the U.S. which commonly employ professional musicians. Emphasis is on music literature and procedures used in formal worship. **D**

MUSIC 4752 MUSIC OF THE ROMANTIC ERA

A survey of the development of western musical forms and styles from 1820 to 1920. **D**

MUSIC 4802 MUSIC OF THE TWENTIETH CENTURY

Musical styles and literature from 1880 to the present. **D**

MUSIC 5001-4 INDEPENDENT STUDY MUSIC (TOPIC)

Independent study of specified topic for graduate students. Credit 1-4 semester hours. **D**

MUSIC 5011-4 SEMINAR IN MUSIC (TOPIC)

Group study of specified topic in vocal or instrumental music for graduate students. Credit 1-4 semester hours. **D**

MUSIC 5100 FINAL COMPREHENSIVE EXAM

Final comprehensive exam for graduate students in music. **Prerequisite:** Admission to the Graduate Program. **F, S, SU**

MUSIC 5112 INTRODUCTION TO MUSIC RESEARCH

An introduction to the techniques of research and writing in the various sub-specialties of music and music education. **Prerequisite:** Admission to the Graduate Program. **SE**

MUSIC 5252 INSTRUMENTAL PROBLEMS

An advanced study of teaching techniques for the various instruments of the band and orchestra. **Prerequisite:** Admission to the Graduate Program. **D**

MUSIC 5302 BAND ADMINISTRATION

The study of administrative procedures for the public school, university, or professional band and orchestra director. **Prerequisite:** Admission to the Graduate Program. SO

MUSIC 5352 MARCHING BAND TECHNIQUES

Study of techniques and styles for marching bands, including pageantry, precision drill, dance steps and parade. **Prerequisite:** Admission to the Graduate Program. D

MUSIC 5402 ADVANCED INSTRUMENTAL TECHNIQUES

The advanced study of techniques for playing and teaching orchestral instruments. **Prerequisite:** Admission to the Graduate Program. D

MUSIC 5452 ARRANGING FOR MARCHING BAND

An advanced study of the techniques of arranging for the marching band. **Prerequisites:** MUSIC 3303, 4152 or equivalent, and admission to the Graduate Program. D

MUSIC 5482 ADVANCED INSTRUMENTAL LITERATURE

An advanced study of music literature written for instrumental ensembles. The review will include music for solo winds and full band. **Prerequisite:** Admission to the Graduate Program. SO

MUSIC 5512 ADVANCED VOCAL METHODS

An advanced and detailed study of the various approaches to teaching solo and ensemble singing, with review of music literature suitable for secondary level students in the public schools. **Prerequisite:** Admission to the Graduate Program. SE

MUSIC 5542 ADVANCED CHORAL LITERATURE

A study of criteria for the evaluation and selection of choral music, including the review of a variety of choral music. **Prerequisite:** Admission to the Graduate Program. SO

MUSIC 5572 CHORAL ARRANGING

A study of the problems and techniques of voice leading and sonority in arranging music for the various choral music ensembles. **Prerequisite:** Admission to the Graduate Program. D

MUSIC 5762 ADVANCED CONDUCTING

The study and analysis of problems and procedures connected with conducting ensembles of all kinds. Emphasis is on problems of technique and communication. **Prerequisite:** Admission to the Graduate Program. SE

MUSIC 5782 LANGUAGE DICTION

Detailed study of the pronunciation of Latin, Italian, French, and German as they apply in both speech and singing. **Prerequisite:** Admission to the Graduate Program. D

MUSIC 5882 FOUNDATIONS OF MUSIC EDUCATION

A survey of the various specialties within music education, and a detailed study of the various philosophies and rationales which support music programs in public schools and universities. **Prerequisite:** Admission to the Graduate Program. SO

MUSIC 5971 GRADUATE RECITAL

A public recital elective for students in the Master of Music in Music Education degree. Enrollment by permission of applied music teacher. **Prerequisite:** Admission to the Graduate Program. D

MUSIC 5972 GRADUATE RECITAL AND RESEARCH

A public recital requirement for students in the Master of Music in Performance degree. Enrollment by permission of applied music teacher. **Prerequisite:** Admission to the Graduate Program. D

INDIVIDUAL MUSIC LESSONS (APPLIED MUSIC)

Individual lessons in piano, voice, organ, or any of the orchestral instruments. Enrollment by signature of the Chair of the Music Department. F, S, SU

PSYCHOLOGY**PSYCH 3201-4 CONTEMPORARY PROBLEMS IN PSYCHOLOGY (TOPIC)**

Analysis of current topics in psychology. This course offers the student and instructor an opportunity to explore in depth selected problems of current interest. Credit 1-4 semester hours. **Prerequisite:** PSYCH 1003 or 2413.

PSYCH 3213 DEVELOPMENTAL PSYCHOLOGY

A study of the physical, cognitive, psychological and social development of the individual from the prenatal period through the aging adult. **Prerequisite:** PSYCH 1003 or 2413.

PSYCH 3224 RESEARCH METHODS

Introduction to major types of designs and laboratory techniques employed in psychological experimentation. Emphasis is placed on methods used in memory and perception research. **Prerequisite:** PSYCH 1003 or PSYCH 2413; and PSYCH 2433. F, S

PSYCH 3233 LEARNING AND COGNITION

Overview of traditional and contemporary learning principles and theories. Coverage of the main issues in memory and thinking. **Prerequisite:** PSYCH 1003 or PSYCH 2413. S

PSYCH 3243 CROSS-CULTURAL PSYCHOLOGY
Identifies psychological similarities and differences among various cultural groups within American society and explores cultural issues in a psychotherapeutic setting. **Prerequisite: PSYCH 1003 or 2413.**

PSYCH 3253 PSYCHOLOGICAL TESTS
The construction, validation, and interpretation of psychological tests with emphasis on the application of tests to the clinical evaluation of the individual. **Prerequisite: PSYCH 1003 or 2413; and 2433.**

PSYCH 3323 ABNORMAL PSYCHOLOGY
A study of the history, theories, principles, and causes of abnormal behavior including an analysis of various therapy techniques. **Prerequisite: PSYCH 1003 or 2413.**

PSYCH 3333 BEHAVIOR MANAGEMENT
Provides an introduction to behavior modification techniques in applied settings. The major focus of the course is on the application of operant conditioning principles, the implementation of behavior modification techniques, and the measurement and evaluation of program effectiveness in schools, hospitals, and industry. **Prerequisite: PSYCH 1003 or 2413.**

PSYCH 3363 PSYCHOLOGY OF PERSONALITY
An analysis and comparison of major personality theories including a review of research that tests propositions from the various theories. **Prerequisite: PSYCH 1003 or 2413.**

PSYCH 3503 INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY
A study of psychological principles relevant to business and industry. Major topics include employee selection, training and evaluation, leadership, motivation, social groups, human factors, stress, and consumer psychology. **Prerequisite: PSYCH 1003 or PSYCH 2413. S**

PSYCH 4011-4 SEMINAR IN PSYCHOLOGY (TOPIC)
Seminar in selected areas of psychology with special emphasis placed upon theories and application in the topic areas. **Prerequisite: PSYCH 1003 or 2413.**

PSYCH 4113 ISSUES IN CHEMICAL DEPENDENCY TREATMENT
Explores issues related to chemical abuse, dependency, and addictive behaviors with a focus on current treatment approaches. **Prerequisites: PSYCH 1003 or 2413.**

PSYCH 4123 THEORIES AND PRINCIPLES OF PSYCHOTHERAPY
Fundamental skills and principles of therapy are derived from the major theories of psychotherapy. Includes experiential teaching such as role playing and simulated problems. **Prerequisite: PSYCH 2413 and 3323.**

PSYCH 4313 INTRODUCTION TO CLINICAL PSYCHOLOGY
Broad overview of diagnosis and treatment of major psychological disorders and psychotherapeutic interventions (treatment). Emphasis placed on professional and theoretical problems and goals of psychotherapy. **Prerequisite: PSYCH 1003 or 2413.**

PSYCH 4313 INTRODUCTION TO CLINICAL PSYCHOLOGY
Broad overview of diagnosis and treatment of major psychological disorders and psychotherapeutic interventions (treatment). Emphasis placed on professional and theoretical problems and goals of psychotherapy. **Prerequisite: PSYCH 1003 or PSYCH 2413. F**

PSYCH 4371-4 PSYCHOLOGICAL RESEARCH (TOPIC)
Directed research on a special problem in psychology. Research may be basically experimental or involve intensive study of the literature of a special problem. **Prerequisite: PSYCH 1003 or 2413 and departmental approval.**

PSYCH 4391-4 ADVANCED SEMINAR IN PSYCHOLOGY (TOPIC)
Intensive study of specific topics and problems in psychology by means of lecture, discussions, and supervised research conducted in the laboratory and the field. Credit 1-4 semester hours. **Prerequisite: Enrollment by departmental permission.**

PSYCH 4423 MARRIAGE/FAMILY DYNAMICS
A study of the contemporary American family and family interaction during the life cycle of the individual.

PSYCH 4533 LANGUAGE DEVELOPMENT
This course covers the general issues and theories pertaining to both normal and exceptional language development as well as an overview of language and speech disorders.

Educational Psychology

EDPSY 5723 ADVANCED PSYCHOLOGY OF LEARNING
An intensive application of learning systems and developmental psychology of the classroom situation. **Prerequisite: Admission to the Graduate Program.**

EDPSY 5733 ADVANCED PSYCHOLOGY OF CHILDHOOD

An intensive study of the relationship of maturational factors and learning at the primary and elementary school level. **Prerequisite:** Admission to the Graduate Program.

EDPSY 5743 ADVANCED PSYCHOLOGY OF ADOLESCENCE

An in-depth examination of the psychological foundations of adolescent development, the search for identity, sexuality, and self-concept, and adolescent socialization as they affect performance in the secondary school. Major objectives are also directed to competency mastery of the Competencies for Licensure and Certification, the objectives for the Professional Teaching Examination, and objectives for the Competencies for School Administrators as presented by the Oklahoma Commission for Teacher Preparation. **Prerequisite:** Admission to the Graduate Program. S, SU

SOCIAL SCIENCES**Criminal Justice****CRMJS 3143 U.S. CRIMINAL JUSTICE SYSTEM**

A survey of the structures and processes of the four criminal justice sub-systems: Law enforcement; courts; corrections; and juvenile justice. Credit may be awarded as CRMJ 3143 or POLSC 3143. **Prerequisite:** POLSC 1103. FE

CRMJS 3153 CRITICAL ISSUES IN CRIMINAL JUSTICE

Analysis of selected critical issues facing the criminal justice system.

CRMJS 3243 COMPARATIVE CRIMINAL JUSTICE SYSTEMS

A trans-national study of criminal justice systems focusing on law enforcement, adjudication, and corrections for comparison with U.S. system. **Prerequisite:** POLSC 1103.

CRMJS 4103 JUVENILE JUSTICE

The study of delinquency and agencies of delinquency control; juvenile courts, probation, institutions and community organizations. Credit may be awarded as CRMJS 4103 or SOCIO 4103. **Prerequisite:** SOCIO 1003. S

CRMJS 4153 U.S. CORRECTIONS

A study of corrective social responses to adult criminal behavior; focuses largely on the process of institutionalization, along with alternative treatment strategies. Credit may be awarded as CRMJS 4153 or SOCIO 4153. **Prerequisite:** SOCIO 1003. F

CRMJS 4163 SOCIOLOGY OF DEVIANT AND CRIMINAL BEHAVIOR

A general study of causes, effects and the nature of deviant behavior; special attention is given to criminal behavior as a type of deviance. Credit may be awarded as CRMJS 4163 or SOCIO 4163. **Prerequisite:** SOCIO 1003. F

CRMJS 4413 LAW ENFORCEMENT POLICY

Analysis of issues of formulation, implementation, and evaluation of policies concerning enforcement of laws in the U.S. Criminal Justice system. **Prerequisite:** POLSC 1103.

CRMJS 4853 STATISTICS FOR SOCIAL SCIENCE

Introduction to statistical methods in the social sciences. Emphasis on analyzing and presenting data utilized by social scientists; survey of descriptive techniques. F, S

CRMJS 4863 FUNDAMENTALS OF RESEARCH

Use of scientific method in social science research. F, S

Geography**GEOG 4011-4 SEMINAR IN GEOGRAPHY (TOPIC)**

Intensive study on selected topic in geography. Credit 1-4 semester hours. May be repeated with change of subject for a total of 4 hours. D

GEOG 4083 ENVIRONMENTAL STUDIES

Course examines impact of man on the environment. Specifically, it attempts to compare the relative stress man imposes upon the environment within various socio-economic structures. F

GEOG 4103 WORLD GEOGRAPHY BY REGIONS

Principles of regional geography and the classification and utilization of major world regions. Physiographic, climatic, economic, and cultural setting and economic foundations of each region. S

GEOG 4113 GEOGRAPHY OF U.S. & CANADA

Study of physical and economic regions of the United States and Canada. Emphasis placed on physical backgrounds, cultural settings and economic foundations of each region. F

GEOG 4133 GEOGRAPHY OF LATIN AMERICA

Study of relationships existing between physical environment of México, Central and South American countries, and cultural adaptations people have made to the environment. D

GEOG 4143 GEOGRAPHY OF EUROPE

Regional survey of Europe. Following a survey of the major physical and cultural patterns, each of the countries is examined with a view to understanding its individuality. **S**

GEOG 4153 URBAN GEOGRAPHY

Study of origin, development, and distribution of cities. Stress on importance of their hinterlands. **D**

GEOG 4163 GEOGRAPHY OF EURASIA

Survey of the physical and human geography of Eurasia. Topics covered include territorial growth of Eurasian state, physical environment, cultural diversity, natural resources and economic development. **D**

GEOG 4901-4 DIRECTED READINGS IN GEOGRAPHY

Scope of project determined by instructor. Credit 1-4 semester hours. May be repeated for a total of 6 hours. **Permission required. D**

GEOG 4933 WORLD POLITICAL GEOGRAPHY

Study of location, physical environment, population, ethnic groups, natural resources, and technological change in the evolution of nation-states. **D**

History

HIST 3033 HISTORIANS OF THE MIDDLE AGES

Detailed reading of the chronicles and histories written by medieval Europe's most prominent historians. Issues pertaining to content, themes, styles, and biases will be examined. **D**

HIST 3043 EARLY MODERN EUROPE

History of the European states from the late Renaissance through the Reformation with an emphasis on the religious and political turmoil of the period and a focus on the era's changing intellectual assumptions. **D**

HIST 3063 MODERN IRELAND

A history of Ireland with an emphasis on the period since the 17th century. **D**

HIST 3073 NINETEENTH CENTURY EUROPE

Study transformation of European society from an agrarian to an industrial regime. Responses and social consequences will also be discussed. **D**

HIST 3083 HITLER TO THE INTERNET

An examination of the theories of national and ethnic community, and the violent applications of such theories in 19th and 20th century Europe. **D**

HIST 3093 20TH CENTURY EUROPE: 1899-1989

Our own century in which the old order finally collapses, nationalists and capitalist societies compete in total wars and technological progress transforms western civilization.

HIST 3103 MEDIEVAL ENGLAND

Intensive examination of English history from the Anglo-Saxon era through the reign of King John with an emphasis on the detailed study of chronicles, laws, and other primary sources. **F**

HIST 3113 MODERN BRITAIN

Study of select topics in 19th and 20th Century British history.

HIST 3203 HISTORY OF GERMANY: 9 A.D.-1989

The history of the German people and states from ancient tribal society, through the Holy Roman Empire, the Reformation of Martin Luther, to modern nationalism, Hitler's Reich, and the divided Germany of the Cold War. **F**

HIST 3303 HISTORY OF IMPERIAL RUSSIA

Social, political, economic, and cultural developments from Muscovy to Bolshevik Revolution of 1917; emphasizing principal Muscovite regimes, Russian expansion, revolutionary movements, and World War I. **D**

HIST 3313 HISTORY OF THE SOVIET UNION

Study of 19th century radical populist movements, the Russo-Japanese war, the Bolshevik revolution, Age of Stalin, the Cold War, the age of Brezhnev and Gorbachev. **D**

HIST 3403 MODERN FRANCE

Surveys developments of modern France from the collapse of the ancien regime through the French Revolution, the Napoleonic empire, the rise of the bourgeoisie, the Third Republic, the First and Second World Wars, the Fifth Republic, and contemporary French Society as part of the European Economic Community.

HIST 4011-4 SEMINAR IN HISTORY

Intensive study on selected topic in history. Credit 1-4 semester hours. May be repeated with change of subject for total of 12 hours. **D**

HIST 4023 COLONIAL AMERICA, 1492-1765

A study of the European Colonies north of Mexico from earliest European exploration to the victory of the British in the Wars for North American Empire. **D**

HIST 4033 REVOLUTIONARY AMERICA: 1765-1808

A study of the revolutionary process in the British colonies and the Revolutionary War, the creation of the 1st American Republic under the Articles of Confederation and a 2nd under the Constitution, the revolution 1800 and the stabilization of the republic in the presidency of Thomas Jefferson. **D**

HIST 4043 NEW NATION AND AGE OF JACKSON, 1808-1850

America from the Age of Good Feeling through the Age of Jackson--including the War of 1812, the second Great Awakening, the rise of social reform movements, the rise and decline of the second party system and developing tensions between nationalism and sectionalism. **D**

HIST 4053 CIVIL WAR AND RECONSTRUCTION: 1850-1877

Causes of Civil War, forming of Southern Confederacy, major events of war, political, economic, and social problems associated with restoration of The Union. **D**

HIST 4063 EMERGENCE OF MODERN AMERICA: 1877-1920

Study of transformation of America from rural society "isolated" from world affairs into highly industrialized power. Social change will be stressed. **D**

HIST 4073 20TH CENTURY AMERICA: 1920 TO 1960

The 1920's, depression and New Deal, WWII, Cold War, Korea, and McCarthyism. **D**

HIST 4083 CONTEMPORARY AMERICA: 1960 TO PRESENT

Study of the Kennedy and Johnson years, Civil Rights, Vietnam, Counterculture, Nixon, Watergate, "me generation", Ronald Reagan's America, and the contemporary scene. **D**

HIST 4093 HISTORICAL RESEARCH AND WRITING

The process of historical research, including methods of locating materials, criticizing sources, analyzing and organizing notes, writing results, and presenting findings. **F**

HIST 4103 AMERICAN INDIANS

Emphasis is on Native American cultures and societies in the United States and federal Indian policy from 1830 to the present. **D**

HIST 4133 WOMEN IN AMERICAN HISTORY

The changing role of women in American society from colonial times to the present. Emphasis on cultural values and attitudes, the suffrage movement, feminism and anti-feminism in the 20th century as well as the contemporary economic, legal, political, social, and intellectual issues facing women today. **D**

HIST 4313 AMERICAN WEST

Study of the Trans-Mississippi West with emphasis on the impact of the frontier on American life, environmental issues, and the 20th Century West. **D**

HIST 4353 HISTORY OF OKLAHOMA

Oklahoma history from its beginning to present, including Indian background, formation into territories, achievement of statehood, and general cultural, economic, and political development. **S, SU**

HIST 4503 POWER TO SUPERPOWER

Power, force, and diplomacy. A study of the "American Century". Emphasis on U.S. foreign relations and entanglements, American influence in the 20th Century World including culture, business, and government. **D**

HIST 4603 AMERICAN SOCIAL AND CULTURAL HISTORY TO 1865

A non-political analysis of American ideas and attitudes related to religion, reform, education, immigration, and other such influences. **D**

HIST 4613 AMERICAN SOCIAL AND CULTURAL HISTORY SINCE 1865

Continuation of HIST 4603; may be taken independently of HIST 4603. Emphasis on non-political aspects of American society and thought, and on world influences. **D**

HIST 4901-4 DIRECTED READINGS IN HISTORY (TOPIC)

Scope of project determined by instructor. Credit 1-4 semester hours. May be repeated for a total of 6 hours. **Permission required. D**

HIST 5011-4 SEMINAR IN HISTORY (TOPIC)

Intensive study of selected topic in history. Credit 1-4 semester hours.

HIST 5901-4 DIRECTED READING IN HISTORY (TOPIC)

Scope of project determined by instructor. Credit from 1-4 semester hours. May be repeated for a total of 6 hours. **D**

Political Science

POLSC 3023 CONTEMPORARY PROBLEMS IN AMERICAN GOVERNMENT

Current issues and policies in such areas as civil rights, urban problems, foreign relations, science and technology, etc. Emphasis on participation and discussion. **Permission required. D**

POLSC 3033 POLITICAL PARTIES

Survey of the origin and development of the parties of the United States, including an analysis of contemporary policies and issues. **D**

POLSC 3043 INTEREST GROUPS

An analysis of interest groups, their organization, structure, and their relation to the political system and to the public interest. **D**

POLSC 3103 ELECTION TECHNIQUES

Designed to acquaint students with the operational aspects of political campaigns. Includes experience in election techniques involving participation in a campaign. Offered fall semester of election years. **D**

POLSC 3133 VOTING BEHAVIOR

An analysis of the act of voting in the political process. Particular attention will be paid to those factors, both individual and group, which influence electoral choice. **D**

POLSC 3143 U.S. CRIMINAL JUSTICE SYSTEM

A survey of the structures and processes of the four criminal justice sub-systems: law enforcement, courts, corrections, and juvenile justice. Credit may be awarded as CRMJS 3143 or POLSC 3143. **FE**

POLSC 3203 STATE AND LOCAL GOVERNMENT AND POLITICS

Study of politics in the American States. Topics include leadership, structure, state behavior and responsibility, and state power. **D**

POLSC 3233 URBAN AND METROPOLITAN POLITICAL SYSTEM

A study of the role of the city in an urbanizing America and the effect of the city on the American political system. **D**

POLSC 3303 THE AMERICAN PRESIDENCY

An analysis of the modern American presidency with emphasis upon its power and its interrelationships with the coordinate branches of government. **FE**

POLSC 3323 LEGISLATIVE PROCESS

The study of the organization and functioning of legislative bodies, with particular attention to Congress and state legislature. **D**

POLSC 3603 GOVERNMENT AND POLITICS IN WESTERN EUROPE

Comparative analysis of the political systems of selected European countries, giving attention to political environment, constitutional structure, and legislative, executive, and judicial processes. **Prerequisite: POLSC 2303. D**

POLSC 3683 GOVERNMENT AND POLITICS IN EASTERN EUROPE

Analysis of economics, politics, government, and culture of Russia and the countries of Eastern Europe. Governmental institutions and non-governmental mass organizations are examined in detail. **Prerequisite: POLSC 2303. D**

POLSC 3813 POLITICAL DEVELOPMENT IN LATIN AMERICA

A comparative treatment of selected Latin American nations utilizing the concept of political development with the objective of predicting future problems. **Prerequisite: POLSC 2303. D**

POLSC 4011-4 SEMINAR IN POLITICAL SCIENCE (TOPIC)

Intensive study on selected topic in political science. Credit 1-4 semester hours. May be repeated with change of subject for total of 12 hours. **D**

POLSC 4023 AMERICAN FOREIGN POLICY

An analytical and conceptual study of the major problems, concepts, and instruments of American foreign policy since World War II. **Prerequisite: POLSC 2503. D**

POLSC 4253 INTERNATIONAL LAW

Sources and principles of international law; relationship to international politics; strengths and weaknesses of law in regulating the relations of states. **Prerequisite: POLSC 2503. D**

POLSC 4303 INTERNATIONAL ORGANIZATIONS

Development and operation of international organizations from League of Nations to present, with emphasis on UN but including regional and non-governmental organizations. **Prerequisite: POLSC 2503. D**

POLSC 4403 PUBLIC POLICY

A survey of the development and administration of public policy. **D**

POLSC 4463 POLITICS OF ADMINISTRATION

Effect of the administrative environment on individuals involved in public administration at the federal, state and local levels. **Prerequisite: POLSC 2703. D**

POLSC 4503 SOCIAL WELFARE POLICY & SERVICES

Study of major social welfare policies and programs. Examination of the impact of socio-economic-political climates on social policy. Critical thinking and analytical skills will be emphasized. Credit may be awarded as SOCWK 4503, or POLSC 4503. **Prerequisite:** SOCWK 2503. **F**

POLSC 4543 THE POLITICS OF INTERGOVERNMENTAL RELATIONS

An examination of the federal relationships among the national, state, metropolitan, and local units of government. Current trends, issues, administrative structures, public policies, and procedures are emphasized. **Prerequisite:** POLSC 2703 or 3203. **D**

POLSC 4553 THEORIES OF ORGANIZATION

History and development of modern administrative theories. Emphasizing the final half of the twentieth century. **Prerequisite:** POLSC 2703. **SE**

POLSC 4603 PUBLIC LAW: FEDERAL CONSTITUTION

Decisions through which the Supreme Court has developed judicial review and defined the scope of federal power. **Recommended:** POLSC 2803. **SE**

POLSC 4613 PUBLIC LAW: CIVIL RIGHTS AND LIBERTIES

Limitations placed on federal and state governments by the Constitution. Emphasizes First Amendment freedoms and the Fourteenth Amendment. **Recommended:** POLSC 2803. **D**

POLSC 4623 PUBLIC LAW: CRIMINAL LAW AND PROCEDURE

Elements of the criminal law and procedural rights of defendants. **Recommended:** POLSC 2803. **SE**

POLSC 4853 STATISTICS FOR SOCIAL SCIENCE

Introduction to statistical methods in the social sciences. Emphasis on analyzing and presenting data utilized by social scientists; survey of descriptive techniques. **F, S**

POLSC 4863 FUNDAMENTALS OF RESEARCH

Use of the scientific method in social science research. **F, S**

POLSC 4901-4 DIRECTED READING IN POLITICAL SCIENCE (TOPIC)

Scope of project determined by instructor. Credit from 1-4 semester hours. May be repeated for total of 6 hours. **Permission required. D**

POLSC 4931-6 GOVERNMENT INTERNSHIP

Qualified students will be assigned to cooperating governmental offices during appropriate academic periods to observe and to apply previous coursework. **Permission required. D**

Social Work**SOCWK 4313 CULTURAL DIVERSITY**

Study of similarities and differences in cultural patterns and institutions in traditional and modern societies worldwide. Examination of cultural transmission, continuity, adaptation, and change. **F**

Sociology**SOCIO 4023 COMPARATIVE FAMILY SYSTEMS**

A cross-cultural examination of the family as an institution; a study of marriage, family and kinship in preliterate and modern societies.

SOCIO 4033 ADVANCED ANALYSIS OF SOCIAL PROBLEMS

Contemporary U.S.A. and international social problems are examined through use of contemporary sociological theories. (The course is designed to give an in-depth understanding of a structural approach to a changing social milieu.) **D**

SOCIO 4233 SOCIOLOGY OF THE AMERICAN FAMILY

Sociological study of the American family as an institution; interrelationships of the family and society; analysis of premarital, marital and postmarital relationships.

SOCIO 4303 RACIAL AND CULTURAL MINORITIES

An interdisciplinary examination of the causes and consequences of prejudice and discrimination.

SOCIO 4333 SOCIOLOGY OF MENTAL HEALTH/ILLNESS

A societal and cultural approach (rather than a psychological one) to define personal mental and behavioral health, identify its causes and changing nature, and to evaluate the alternative therapies.

SOCIO 4523 SOCIAL STRATIFICATION

An examination of theories of class and caste: status, power, occupation, wealth, and other elements of stratification.

SOCIO 4603 SOCIAL PSYCHOLOGY

A sociological examination of the perspectives of personality formation and behavior.

SOCIO 4823 SOCIOLOGICAL THEORY

The development of sociological theory from Comte to present with special emphasis on various European and American "schools of thought."

SOCIO 4853 STATISTICS FOR SOCIAL SCIENCE

Introduction to statistical methods in the social sciences. Emphasis on analyzing and presenting data utilized by social scientists; survey of descriptive techniques.

SOCIO 4863 FUNDAMENTALS OF RESEARCH

Use of the scientific method in social science research.

Social Sciences

SOCSC 4853 STATISTICS FOR THE SOCIAL SCIENCES

Introduction to statistical methods in the social sciences. Emphasis on analyzing and presenting data utilized by social scientists; survey of descriptive techniques. Credit may be awarded as CRMJS 4853, POLSC 4853, SOCIO 4853, or SOCWK 4853. **F, S**

SOCSC 4863 FUNDAMENTALS OF RESEARCH

Use of scientific method in social science research. Credit may be awarded as CRMJS 4863, POLSC 4863, or SOCWK 3863. **F**

TECHNOLOGY

The Technology Department schedules all major courses at night on a rotating semester basis.

TECH 3113 INDUSTRIAL SAFETY

Course emphasizes the recognition and prevention of unsafe working conditions. OSHA regulations are emphasized. **F, S**

TECH 3143 TECHNICAL PRESENTATIONS

Extensive practical exercises in research, reading and writing of technical descriptions, explanations of processes, instructions, service manuals, progress reports and industrial proposals. **Prerequisite: ENGL 1213. S**

TECH 3172 ENVIRONMENTAL REGULATIONS

A study of the significant acts of environmental legislation, the role of various federal agencies, the history of environmental regulation and other environmental concerns. **SE**

MFET 3183 STATICS AND STRENGTHS

The study of force systems in two dimensions, equilibrium, moments, bending, stress, and strain. **Prerequisites: MATH 1513 and 1613; or 1715 and 2823. FO**

TECH 3203 COMPUTER AIDED DRAFTING I

A study of computer applications for drafting, including software selection, drawing commands, and plotting. MS-DOS computers will be used to produce orthographic, pictorial, and chart drawings. **F, S**

TECH 3253 ELEMENTARY ARCHITECTURE

An introductory course in architecture which includes architectural history, housing design, drawing plans, methods of construction, and cost estimation. **D**

TECH 3263 MACHINE DRAFTING I

Drawing machine parts with emphasis on auxiliary views, sections and dimensioning. Computers will be used for producing drawings. **Prerequisites: TECH 1203 and 3203. S**

TECH 3323 MACHINE WOODWORK

The application of the safe and economic use of power equipment, tools, jigs, and fixtures in the manufacture of wood products. **Prerequisite: TECH 1313. D**

TECH 3363 SURVEYING

Use and care of instruments; elementary surveying operations; topographical lay-outs. **D**

TECH 3413 MANUFACTURING PROCESSES

The study of industrial materials and processes from an engineering viewpoint. **Prerequisite: TECH 2513. S**

MFET 3433 AUTOMATION/ROBOTICS

A survey of automated manufacturing and related activities. **FE**

TECH 3453 INDUSTRIAL PLASTICS

A general overview of industrial plastic materials and processes including vacuum and pressure forming, molding and lay-up of selected media such as fiberglass, expandable polystyrene epoxy resins, and sheet materials. **SO**

TECH 3463 MANUFACTURING OPERATIONS I

The study of management, productivity, quality, design, and work measurement in industry. **FO**

TECH 3513 MATERIALS TESTING AND ANALYSIS

Testing materials for compression, tension and shear, using modern testing and measuring equipment. **Prerequisites: MATH 1513 and TECH 2513. FO**

TECH 3523 FABRICATION PROCESSES II

Application of precision measuring instruments, foundry practices, ferrous metal heat treating, traditional industrial machine tools and a study of powder metallurgy. **Prerequisite: TECH 2513. S**

TECH 3613 POWER SYSTEMS

A study of energy sources, the devices that convert energy into useful work, and the control and transmission of power through mechanical units and fluids. **F, S**

TECH 3623 FLUID POWER

An in-depth study of hydraulics, pneumatics, and mechanical systems. **D**

TECH 3633 ENERGY CONTROL SYSTEMS

Study of measuring instruments for mechanics, temperature and fluids, and automatic control systems dealing with energy efficiency for heating, cooling, and ventilation. **D**

TECH 3643 ENERGY POWER AND TRANSPORTATION

A technology teacher education course which addresses the application of the universal systems model to transportation and how transportation has impacted the American life. Emphasis is placed on planning, organizing, and directing and controlling management functions as related to transportation systems. The problem solving system model will be used as the technology inquiry method for analyzing and developing an efficient transportation system. **FO**

TECH 3743 INTERMEDIATE CRAFTS/MATERIAL PROCESS

The application of tools, materials and processes as they relate to constructional activities and projects. Units include techniques in ceramics, graphics, metals, polymers and wood. **D**

TECH 3813 ELECTRO/MECHANICAL CONTROLS

A study of control electronics and control systems. Topics include: solenoids, relays, sensors, contactors, switches, timers, counter, PID controls, Programmable Logic Controllers, and servomotors. The course also includes an in-depth study of ladder logic programming. **Prerequisites: TECH 2813 and MATH 2823. F**

TECH 3823 INDUSTRIAL ELECTRONICS

A study of the different types of A.C. and D.C. motors and controls. Generator principles and A.C. rectification will be a part of the course along with single phase and three phase electricity as it applies to motors and generators. **Prerequisite: TECH 1813. SO**

TECH 3833 COMMUNICATIONS ELECTRONICS

A study of radio transmission and reception (AM & FM). Complex circuitry will be developed to implement the use of signal generators, oscilloscopes, digital meters and transistors tests in the analysis of transistor characteristics as well as trouble-shooting of the circuitry. **Prerequisite: TECH 2813. FO**

TECH 3843 NETWORKING ELECTRONICS I

A study of the concepts and terminology of networking. Topics include data communications, modems, Local Area Networks, satellite systems, and telephone technology. **Prerequisite: TECH 3833. SE**

TECH 3853 ELECTRONIC INSTRUMENTATION

A study of various pieces of equipment used to measure current, voltage, and resistance of electronic circuits. **Prerequisite: TECH 3813. SE**

TECH 3863 ELECTRONIC TROUBLE SHOOTING

Use of test equipment to find defects in typical electronic industrial circuits. **Prerequisite: TECH 3813. SO**

TECH 3873 ELECTRONIC DEVICES

A study of semiconductor biasing, feedback, amplification, comparison and filtering. Such devices as bipolar transistors, diodes, JFET's, MOSFET's, Darlington Pairs, differential amplifiers, and operational amplifiers will be examined in lab experiments. **Prerequisite: TECH 3813. D**

TECH 3902 MANAGING STUDENT ORGANIZATIONS

Technology Education and Vocational youth and adult organizations are studied in depth with relation to leadership training skills, parliamentary procedures, and the administration of school organizations. Membership and active participation in Vocational or Technology Education Collegiate Organization is required. **FE**

TECH 3913 CAREER EDUCATION DELIVERY SYSTEMS

A course for elementary and secondary education majors that provides information on career awareness, career exploration, career decision-making, and career majors. Local, state, and national occupational, educational, and labor market needs, trends, and opportunities will be emphasized. **D**

TECH 3923 CARE AND INSTALLATION OF INDUSTRIAL EQUIPMENT

Selection and installation of industrial machinery and tools; sharpening and maintenance. **D**

TECH 4000-4 INDEPENDENT STUDY IN TECHNOLOGY (TOPIC)

Specified topic in technology. Credit one to four semester hours. **D**

TECH 4011-4 SEMINAR IN TECHNOLOGY (TOPIC)

Group study of specified topics in technology for undergraduate students. Credit one to four semester hours. **D**

TECH 4113 HISTORY AND PHILOSOPHY OF VOCATIONAL AND ADULT EDUCATION

Study of history, philosophy, and legislation affecting vocational education. Emphasis includes advisory committee, student organizations, work experiences and adult education. **SO**

TECH 4123 INDUSTRIAL SUPERVISION

Principles and practice of industrial supervision and leadership are presented. Topics include the duties and responsibilities of the supervisor in an industrial setting. Specifically communication, group dynamics, employee behavior, ethics, current training techniques, health and safety, labor relations, and the supervisor's responsibility for productivity and quality are addressed. **SO**

TECH 4133 CURRICULAR ISSUES IN VOCATIONAL EDUCATION

Current curricular issues in vocational education will be studied. Topics include occupational analysis, task analysis, cooperative education and career education. **D**

TECH 4161 SOCIETY OF MANUFACTURING ENGINEERS (SME)

Student will gain membership and become actively involved in the Society of Manufacturing Engineers Student Chapter #181. **D**

TECH 4203 TECHNICAL ILLUSTRATION

A class in pictorial drawing which includes isometric, diametric, and perspective drawing. Exploded and section drawings are made using pencil and ink. Shading and rendering techniques are studied. **D**

TECH 4223 ELECTRICAL CIRCUIT DESIGN

A study of electrical symbolism and the designing of schematic layouts of electrical circuits and systems. Conventional drafting practices and techniques related to electronic drafting are included. **D**

TECH 4233 GRAPHIC COMMUNICATION SYSTEMS

A study of the processes and techniques used to create, store, and retrieve information. Activities include drafting, duplicating, printing, photography, and telecommunications. **SE**

TECH 4243 COMPUTER AIDED DRAFTING II (CAD)

An advanced course in computer applications that includes 3D modeling, symbol libraries, and assembly drawings. A variety of design software packages will be used. **Prerequisite: TECH 3203. D**

TECH 4253 MACHINE DRAFTING II

Preparation of detail and assembly drawings using computer-aided drafting systems. **Prerequisite: TECH 3263. D**

TECH 4273 PRACTICAL PHOTOGRAPHY

A course in basic photography including camera operation, developing and printing black and white pictures, and purchasing photography equipment. **D**

TECH 4283 ADVANCED PHOTOGRAPHY

A course in advanced black and white photography techniques including high contrast printing, toning, reversals, and stabilization. The use of various films, papers, and chemicals is explored. **Prerequisite: TECH 4273. D**

TECH 4293 MACHINE DESIGN

A class in the design, analysis, and development of industrial products with emphasis on machine components and mechanisms. Design teams will manufacture a prototype product. **Prerequisite: TECH 3263. D**

TECH 4313 CONSTRUCTION SYSTEMS I

A study of the methods and techniques used in residential construction with emphasis on sequences of assembling the materials and components. **Prerequisite: TECH 1313. FO**

TECH 4343 ESTIMATING I

Materials, equipment, bids, cost controls, and labor estimates relating to the residential construction industry are analyzed. **Prerequisite: TECH 4313. D**

TECH 4364 FURNITURE AND CABINET MAKING

Advanced machine woodworking incorporating modern methods and materials used in furniture and cabinet construction. **Prerequisite: TECH 1313. D**

TECH 4373 CONSTRUCTION PLANNING AND SCHEDULING

A study of the principles, methods, economic considerations, and tools of management such as the time-value of money, cost reporting and scheduling. Work methods of scheduling to include resource allocation and least cost expediting are emphasized. **Prerequisite: TECH 4313. D**

TECH 4383 MECHANICAL AND ELECTRICAL SYSTEMS OF BUILDING

Survey of basic principles, methods, operations, and equipment of plumbing, heating, air conditioning, and electrical systems in residential and commercial buildings. **Prerequisite: TECH 4313. D**

TECH 4413 INSTRUCTIONAL PROCEDURES IN VOCATIONAL EDUCATION

A study of the methods and techniques employed in teaching vocational education courses. **FE**

TECH 4433 QUALITY CONTROL

The study of statistical process control and quality management techniques. **Prerequisites:** MATH 3413 and TECH 3523. **FE**

MFET 4443 MATERIALS HANDLING AND FACILITY PLANNING

A study of the factors influencing location, layout, and planning of industrial facilities. **Prerequisite:** TECH 3203. **SO**

TECH 4454 COMPUTER AIDED MANUFACTURING (CAM)

Applications, operations, and evaluation of computer-integrated manufacturing and design systems. **Prerequisites:** TECH 3203 and 3523. **S**

TECH 4493 MANUFACTURING OPERATIONS II

Economic aspects of industry and manufacturing processes. **Prerequisites:** MATH 2823 and TECH 3463. **SE**

TECH 4514 MACHINE TOOL PROCESSES

Provides advanced activities related to industrial processes, machines and characteristics of machine tools. Additional topics include safety operating procedures, precision measuring instruments, advanced foundry practices, and characteristics of metals and their behavior during manufacturing processes. **Prerequisite:** TECH 3523. **F**

TECH 4573 ADVANCED WELDING

Theory and laboratory application of advanced techniques in welding of industrial materials. Emphasis is placed on the design of weld for static impact and fatigue loading. **Prerequisite:** TECH 2543. **D**

TECH 4583 METROLOGY AND METALLURGY

A combined study of the various types, uses and calibration of precision measuring instruments, and the effects of various heat treating processes on ferrous and non-ferrous materials. **Prerequisite:** TECH 3523. **D**

TECH 4613 AUTOMOTIVE INFORMATION

The general study of the automobile and its parts and systems. The course includes consumer type information necessary in understanding the exhaust emission systems as well as technical knowledge about the automobile. **D**

TECH 4643 SMALL GASOLINE ENGINES

Theory of internal combustion engines with emphasis on small two-stroke and four cycle engines. Laboratory activity will include disassembly and reassembly of live engines and motor overhaul of student-provided engines. **D**

TECH 4783 ADVANCED CRAFTS

Includes work in forming, shaping and finishing art metals, plastics, and other craft materials. **D**

TECH 4813 NETWORKING ELECTRONICS II

A study of Local Area Network basics. Topics include advanced network concepts, network protocol and topologies, LAN operating systems, LAN installation and maintenance, linking standards, and network management operations. **Prerequisite:** TECH 3843. **D**

TECH 4823 DIGITAL ELECTRONICS

A study of digital principles as they apply to computers, microprocessors, communications, and instrumentation. Such areas as binary octal and hexa-decimal number systems, codes, Boolean Algebra, Karnaugh Maps, DeMorgan's Theorem, AND, NAND, NOR gates and combinational logic will be included. **Prerequisite:** TECH 3813. **FE**

TECH 4833 MICROCOMPUTER ELECTRONICS

A thorough examination of bus-oriented systems, input/output devices, flowcharts, high-level language programming and telecommunications. **Prerequisite:** TECH 4823. **SO**

TECH 4843 PROGRAMMABLE CONTROLLERS

The study of interfacing microcomputers with electronic devices used in industry. The microcomputer is connected to typical industrial input and output devices. **Prerequisite:** TECH 3813. **SE**

TECH 4883 RESIDENTIAL AND COMMERCIAL WIRING

A study of the different methods of wiring residential and commercial buildings and the materials common to those industrial areas. Also, local and national codes will be studied. **Prerequisite:** TECH 1813. **D**

TECH 4900 ORIENTATION TO INDUSTRIAL INTERNSHIP

Non-credit course to be completed before internship. Students will develop: personal resume, letter of application, cover letter, and formulate positive interviewing techniques to be used in obtaining an internship. **Prerequisite:** Senior standing. **S**

TECH 4903 MANUFACTURING ENTERPRISES

A study of the manufacturing industry that emphasizes planing and production aspects. Students will establish a manufacturing corporation then develop, produce & market a product. **FE**

TECH 4916 INDUSTRIAL INTERNSHIP

Student must complete a minimum of 320 clock hours of employment with an approved industry, submit a formal report of experience & a supervisor's evaluation. Students with documented industrial experience may select approved elective courses in lieu of internship. **Prerequisite:** TECH 4900. **SU**

TECH 4943 ORGANIZATION AND ADMINISTRATION OF TECHNOLOGY SYSTEMS

Principles of school facility planning; requisitioning equipment, tools and supplies; techniques of administration. **FO**

TECH 4974 OCCUPATIONAL ANALYSIS AND INSTRUCTIONAL PLANNING

Analysis of trades and occupational job activities; development of course outlines and specific instructional materials for shop and laboratory courses. **FE**

TECH 4983 PRINCIPLES OF TEACHING TECHNOLOGY EDUCATION

A study of the methods and techniques employed in teaching technology education courses. **Prerequisite: Admission to Teacher Education Program. SO**

TECH 4993 ORGANIZATION AND MANAGEMENT OF LEARNING FACILITIES

Techniques and procedures for organizing and managing shop and laboratory facilities. Special emphasis on enhancement of learning activities, quality of instruction, and equipment and space utilization. **FO**

TECH 5001-4 INDIVIDUAL STUDY IN TECHNOLOGY (TOPIC)

Individual study of specified topic in technology for graduate students. Credit one to four semester hours. **Prerequisite: Admission to the Graduate Program. D**

TECH 5011-4 SEMINAR IN TECHNOLOGY (TOPIC)

Group study of specified topic in technology for graduate students. Credit one to four semester hours. **Prerequisite: Admission to the Graduate Program D**

TECH 5313 CURRICULAR ISSUES IN VOCATIONAL EDUCATION

Current curricular issues in vocational education will be studied which may include occupational analysis, task analysis, cooperative education and career education. **D**

TECH 5903 PROFESSIONAL PROBLEMS OF TECHNOLOGY EDUCATION TEACHERS

A study of problems encountered by technology education teachers and methods of solving these problems. **Prerequisite: Admission to the Graduate Program. SO**

TECH 5923 PROJECT DEVELOPMENT IN TECHNOLOGY EDUCATION

A study of project development, design, drawing, and construction with emphasis on modern and technological trends. **Prerequisite: Admission to the Graduate Program. FE**

TECH 5933 HISTORY AND PHILOSOPHY OF TECHNOLOGY EDUCATION

A study of philosophies and background of laboratory and craft instruction which have influenced the place of technology education in public education. **D**

TECH 5942 ADVANCED CRAFTS FOR ELEMENTARY AND SECONDARY SCHOOLS

Practical creative experience in a variety of suitable crafts; selection of materials; techniques in teaching skills and in development of student concepts. **Prerequisite: Admission to Graduate Program. D**

TECH 5953 CURRICULUM CONSTRUCTION IN TECHNOLOGY EDUCATION

Plan systematically the logical steps and procedures for the development of a curriculum in technology education. **Prerequisite: Admission to the Graduate Program. D**

TECH 5983 EVALUATION IN TECHNOLOGY SUBJECTS

The application of available measuring instruments to technology subject matter areas. Design and criticism of instructor-made tests. Development and use of evaluation techniques. **D**

School of Education

(F = classes offered in the fall; SP = classes offered in the spring; SU = classes offered in the summer; D = offered on demand)

EDUCATIONAL FOUNDATIONS

VOCED 4113 HISTORY AND PHILOSOPHY OF VOCATIONAL EDUCATION

A study of the historical development of vocational/technical education in America and the educational philosophies which serve as the foundation of vocational education.

VOCED 4313 CURRICULAR ISSUES IN VOCATIONAL EDUCATION

A study of various curriculum issues, problems, and areas relevant to vocational education.

EDUC 5001-4 INDEPENDENT STUDY IN EDUCATION (TOPIC)

Directed intensive study on a selected problem or a special topic. Credit one to four semester hours. **Prerequisite:** Admission to Graduate Program.

EDUC 5011-4 SEMINAR IN EDUCATION (TOPIC)

Directed intensive study on a selected problem or a special topic. Credit one to four semester hours. **Prerequisite:** Admission to Graduate Program.

EDUC 5113 INTRODUCTION TO RESEARCH

Provides the student with an introduction to literature and techniques of research, with application in individual study projects. Primary emphasis is on application of research in education to the classroom setting. **F, SP, SU**

EARLY CHILDHOOD

ECED 4423 PLAY METHODS AND MATERIALS IN PRESCHOOL AND KINDERGARTEN

A survey of the use of play as a learning and socializing process. Special emphasis will be given to topics such as theories, types, stages of play, and play materials and equipment in relationship to various play environments. **Prerequisite:** Admission to School of Education. **F, SU**

ECED 4463 THE EXPRESSIVE ARTS

Development of concepts and methods in art, music and literature appropriate for early childhood education. **Prerequisite:** Admission to School of Education. **SP, SU**

ECED 4483 EXPLORING THE CHILD'S WORLD

Development of concepts and methods in math, science and social studies appropriate for early childhood education. **Prerequisite:** Admission to School of Education. **F, SU**

ECED 4533 GUIDANCE OF THE PRESCHOOL CHILD

An introduction to developmentally appropriate practice in the guidance of young children; emphasis on developmental needs, behavior of preschool children, methods and principles of guidance. Two hours laboratory participation per week. **Prerequisite:** Admission to School of Education. **SP, SU**

ECED 4583 EARLY CHILDHOOD AND KINDERGARTEN EDUCATION

A survey of current practices, programs, and innovations in early childhood education. Emphasis is placed upon the young child's cognitive, social, emotional, and physical development. **Prerequisite:** Admission to School of Education. **F, SU**

ECED 5162 PERCEPTUAL DEVELOPMENT IN INFANTS AND TODDLERS

Study of hereditary and environmental determinants of perceptual development of infants and toddlers and their effects on the learning process of children with and without disabilities. **Prerequisite:** Admission to Graduate Program.

ECED 5612 PRACTICUM IN EARLY CHILDHOOD EDUCATION

Observation experiences; planning and conducting the early childhood education program under instructor's supervision. (Four hours per week laboratory participation and one hour conference.) **Prerequisites:** Admission to Graduate Program and ECED 4533. **SU**

ELEMENTARY EDUCATION

ELEM 3453 LANGUAGE ARTS IN THE ELEMENTARY SCHOOL

A course considering the scope and nature of an exemplary program of instruction in the language arts. **Prerequisite:** Admission to School of Education. **F, SP, SU**

ELEM 3513 CONTENT, METHODS AND MATERIALS IN MATHEMATICS FOR ELEMENTARY TEACHERS

Study of the scope of mathematics in the elementary school with emphasis on developmental learning, methods and materials for teaching. **Prerequisite:** Admission to School of Education. **F, SP, SU**

ELEM 3522 CONTENT, METHODS AND MATERIALS IN SOCIAL STUDIES FOR ELEMENTARY TEACHERS

Emphasis is placed upon organization of a unified and correlated social studies program and the development of resource units. **Prerequisite:** Admission to School of Education. F, SP, SU

ELEM 4222 PHONICS AND PENMANSHIP

A study of the phonetic elements in the English language, in addition to instruction in cursive and manuscript writing. **Prerequisite:** Admission to School of Education. F, SP, SU

LIT 4463 CHILDREN'S LITERATURE

Survey of appropriate children's literature and a study of interests and abilities governing the choice of literature for K-8 grades. **Prerequisite:** Admission to School of Education. F, SP, SU

ELEM 5513 TEACHING MATHEMATICS IN THE ELEMENTARY SCHOOL

Problems, trends, issues and research in elementary mathematics and their relationship in modern educational practices. **Prerequisites:** Admission to Graduate Program and ELEM 3513. D

ELEM 5693 TEACHING IN THE ELEMENTARY SCHOOL

Identification and analysis of the prevalent problems, including trends and issues encountered while teaching in the elementary school. Individual investigation of problems is performed by the students. F, SP, SU

READING

RDNG 3423 THE TEACHING OF READING I

Basic principles of reading instruction; techniques and materials for teaching reading; a study of readiness, word recognition skills, comprehension, critical reading, study skills, and vocabulary development. **Prerequisite:** Admission to School of Education. F, SP, SU

RDNG 3432 THE TEACHING OF READING II

A continuation of RDNG 3423, with emphasis on word recognition, vocabulary, and comprehension. **Prerequisites:** Admission to School of Education and RDNG 3423. F, SP, SU

RDNG 4443 DIAGNOSTIC PRACTICES IN TEACHING OF READING

Practice course with actual reading disability cases with whom the techniques of diagnosis and treatment of reading difficulties are used. **Prerequisites:** Admission to School of Education and RDNG 3423, RDNG 3432. F, SP, SU

RDNG 5413 FOUNDATIONS OF READING

Comprehensive study of the physical, sociocultural, and psychological foundations of reading and principles of language relationships and their creative understandings. **Prerequisite:** Admission to Graduate Program. D

SPECIAL EDUCATION

SPCED 3132 EXCEPTIONAL CHILDREN

An overview of the development of special education, with a major focus on the intellectual, psycho-social behavior, educational need and programs for exceptional children and adolescents. F, SP, SU

SPCED 5163 INSTRUCTIONAL CONTENT AND PRACTICES FOR STUDENTS WITH SEVERE, PROFOUND OR MULTIPLE DISABILITIES

A field based course which concentrates on the study, development, and practice of teaching techniques, instructional strategies and curriculum models for teaching students with severe or profound levels of disability in a variety of educational settings throughout the lifespan. Note: This course includes a requirement of 16 hours of supervised field experience. **Prerequisite:** Admission to Graduate Program. F

SPCED 5213 INTRODUCTION TO SPECIAL EDUCATION

Study of the causative-correlation factors, physical and emotional characteristics of students with disabilities at each developmental level. Special emphasis is placed on the issues and trends surrounding the identification and educational need of the students with disabilities. **Prerequisite:** Admission to Graduate Program. F, SP, SU

SPCED 5223 DETECTING & CORRECTING SPECIAL PROBLEMS IN THE INCLUSIVE CLASSROOM

Strategies to prevent, alter, improve, and maintain social, emotional, and academic behaviors of the exceptional child in the inclusive classroom and community. **Prerequisite:** Admission to Graduate Program. F, SU

SPCED 5362 LEGAL & ETHICAL PRACTICES IN SPECIAL EDUCATION

Study of Special Education law as it affects teachers and professionals in the public school. Special emphasis is placed on policies and procedures, Manifestation Determinations, alternate placements, Individual Education Planning (IEP) and due process. This course is team taught by administration and special education faculty. **Prerequisite:** Admission to Graduate Program. SP

SPCED 5433 ASSESSMENT OF EXCEPTIONAL INDIVIDUALS

Study of formal and informal assessment procedures appropriate for the evaluation of all ages with special learning needs. Students construct, administer, score and/or interpret norm-referenced tests, and informal assessment procedures. **Prerequisites:** Admission to Graduate Program. F, SU

SPCED 5462 PSYCHOMETRICAL SERVICES

Study of the ethics, legal responsibilities, role, and functions of psychometrists in various settings. **Prerequisites:** Admission to Graduate Program, Advisor Approval, SPCE 3433, SPCE 5562, SPCE 5613, and SPCE 5713. F, SP, SU

SPCED 5562 SPECIAL DIAGNOSTIC METHODS (SCHOOL PSYCHOMETRY)

Study of procedures utilized in a comprehensive evaluation for placement in special education. Students will administer, score, and interpret assessment instruments to determine handicapping conditions. **Prerequisite:** Admission to Graduate Program and Advisor Approval. SP

SPCED 5613 THE STANFORD BINET/ WOODCOCK-JOHNSON

Study of the historical development, validation procedures, & test content of the Stanford Binet Intelligence Scale. Students will administer, score, and interpret the Stanford Binet Intelligence Scale-R and the Woodcock Johnson. **Prerequisites:** Admission to Graduate Program, Advisor Approval, and SPCE 3433. SP

SPCED 5623 INSTRUCTIONAL CONTENT AND PRACTICES FOR STUDENTS WITH MILD OR MODERATE DISABILITIES

A field based course concentrating on the study, development and practice of teaching techniques, instructional strategies and curriculum models for teaching students with mild or moderate levels of disability in a variety of educational settings throughout the lifespan. Note: This course includes a requirement of 16 hours of supervised field experience. **Prerequisite:** Admission to Graduate Program. F

SPCED 5713 WECHSLER INTELLIGENCE SCALES

Study of the historical development, validation procedures, and test content of the various Wechsler Intelligence Scales. Students will administer, score and interpret the various Wechsler Intelligence Scales. **Prerequisites:** Admission to Graduate Program, Advisor Approval, and SPCE 3433. F, SU

SPCED 5762 TECHNOLOGY IN SPECIAL EDUCATION

Study of assistive technology utilized in schools to enable children with disabilities to maximize their learning potential. The student is familiarized with all dimensions of AT from computer assisted instruction to cause effect switches. **Prerequisite:** Admission to Graduate Program. SP

SPCED 5782 PRACTICUM SCHOOL PSYCHOMETRY

Supervised experience in the administration, scoring, and interpretation of various individual intelligence scales and other diagnostic assessment instruments. Credit 1-4 semester hours. **Prerequisites:** Admission to Graduate Program, Advisor Approval, SPCE 3433, SPCE 5562, SPCE 5613, and SPCE 5713. F, SP, SU

SPCED 5811 PRACTICUM - SEVERE, PROFOUND OR MULTIPLE DISABILITIES (CAMP)

Supervised outdoor camp experience in designing and implementing educational, recreational, and leisure time activities. **Prerequisite:** Admission to Graduate Program. SU

SPCED 5821 PRACTICUM - MILD OR MODERATE DISABILITIES (CAMP)

Supervised outdoor camp experience in designing and implementing educational, recreational, and leisure time activities. **Prerequisite:** Admission to Graduate Program. SU

SPCED 5852 ENHANCING COMMUNICATION AND COLLABORATION IN THE TRANSITIONAL PROCESS

Study of educational strategies and curriculum models for secondary special needs students, and transitional programs from birth to adulthood. **Prerequisite:** Admission to Graduate Program. F, SU

SPCED 5862 PLANNING AND MANAGING THE TEACHING ENVIRONMENT

Study of curriculum issues and instructional strategies for teaching special needs students in a variety of classroom settings. Emphasis is placed on writing the Individual Education Plan and its components (transition plans, Behavior plans and modification to instruction). **Prerequisite:** Admission to Graduate Program. SP

SECONDARY EDUCATION**SECE 5833 TEACHING IN SECONDARY SCHOOL**

Intensive study of teaching methods, current problems, and implications of newer practices in secondary education. F, SP, SU

EDUCATIONAL ADMINISTRATION**EDAD 5233 FUNDAMENTALS OF CURRICULUM PLANNING**

A course designed to acquaint the student with basic sources of data underlying public school curricula decision-making, the dynamics of processes of curriculum study with particular implications for planning and organizing curricula, and to assess, analyze, and evaluate current curricula in schools. **Prerequisite:** Admission to Graduate Program. F, SU

EDAD 5313 SCHOOL PERSONNEL ADMINISTRATION

Fundamental concepts of the personnel function in the public school with emphasis on recruitment, selection, placement, professional development, and dismissal of teachers, certified and non-certified staff. **Prerequisite:** Admission to Graduate Program. SP, SU

EDAD 5412 INTERNSHIP IN EDUCATIONAL ADMINISTRATION (PRINCIPAL)

This course is designed to give practical, current experiences at the school site to the student who aspires to be a public school principal. Administrator activities such as finance, personnel, facilities, organization, and curriculum and others guided by the sponsoring school site administrator and the university supervisor will be emphasized. **Prerequisite:** Completion of 12 hours in Educational Administration. F, SP

EDAD 5613 EDUCATIONAL ADMINISTRATION THEORY

The course provides the student with the theoretical aspects of educational administrative theory. The students will use studies and reading activities to explore theoretical aspects of leadership, organizational climate, social changes, school power structures, decision making, and communication. SP, SU

EDAD 5813 SUPERVISION OF INSTRUCTION

Theory and concepts of modern school supervision applied to situations in which administrators, supervisors, coordinators, and teachers are working in the public schools today. **Prerequisite:** Admission to Graduate Program. SP, SU

EDAD 5933 THE PRINCIPALSHIP

Public school management systems are emphasized including patterns of development/organization, activities, theories and practices, staff development, and reporting procedures, e.g., accreditation, attendance child count, transportation and federal regulations. **Prerequisite:** Admission to Graduate Program. F, SU

EDAD 5973 PUBLIC SCHOOL FINANCE

A study of the theories and practices of public school finance including budgeting, cost analysis, supplies, and financial controls from the local, state, and national levels. **Prerequisite:** Admission to Graduate Program. F, SU

EDAD 5983 PUBLIC SCHOOL LAW

Critical study of the legal aspects of public school education with special reference to continuing and contemporary statutes of immediate concern to public school teachers, administrators, counselors, and staff. **Prerequisite:** Admission to Graduate Program. SP, SU

COUNSELING

COUN 5011-4 SEMINAR IN COUNSELING (TOPIC)

Group study of specified topic. One to four credit hours. **Prerequisite:** By permission only. SU

COUN 5213 COMMUNITY COUNSELING

A course for prospective community counselors designed to investigate the special characteristics and functions of community counseling. SP, SU

COUN 5223 FAMILY RESOURCE MANAGEMENT

Application of counseling and management principles for maximization of family resources. Emphasis on human, non-human, time and environmental resources of the contemporary family. SP

COUN 5313 ASSESSMENT AND APPRAISAL

Includes group and individual appraisal techniques to be used to support career, education, psychological, and personal planning and development. Standardized and non-standardized data information gathering methods, validity, reliability, psychometric statistics, factors, influencing appraisals, and use and interpretation of appraisal results with a variety of populations will be discussed. **Prerequisites:** COUN 5513, COUN 5543, & COUN 5553, Admission to Graduate Program. F, SU

COUN 5363 PARENTING PERSPECTIVES

A study of the roles and responsibilities of parents and the parenting process throughout the lifespan. The course includes information pertaining to styles of parenting; special parenting concerns; differing lifestyles; cross-cultural families; techniques and methods for parents, clinicians, and teachers; and available resources and programs. SP

COUN 5373 THEORIES/TECHNIQUES OF FAMILY COUNSELING

A survey of family counseling theories and techniques with special emphasis on family relationships, assessment, intervention, and treatment. F, SU

COUN 5423 MULTICULTURAL CONCEPTS

This course is designed to prepare individuals for multicultural competence in a global society. The curriculum will engage students in theoretical, experiential, and research-oriented experiences in order to develop a comprehensive multicultural understanding that will lead to effective and ethical practice. **Prerequisite:** Admission to Graduate Program. SP, SU

COUN 5503 DEVELOPMENT OF SCHOOL GUIDANCE PROGRAM

Designed for prospective school counselors to improve interpersonal skills, investigate the characteristics and functions of school counseling and program development. **Prerequisite:** Admission to Graduate Program. F, SU

COUN 5513 INTRODUCTION TO COUNSELING AND GUIDANCE

Introduction to guidance programs in community counseling centers and the elementary and secondary school as it involves the teacher, counselor, and administrators. **F, SP, SU**

COUN 5523 CAREER EDUCATION FOR COUNSELORS AND TEACHERS

A course designed for counselors, teachers, guidance directors, school administrators, media specialists, and persons working in employment assistance, vocational, and life planning and development areas. Course information is oriented relative to educational and world-of-work opportunities including knowledge relative to labor market information & including current and projected economic trends. **Prerequisite: Admission to Graduate Program. SP, SU**

COUN 5543 THEORIES AND TECHNIQUES OF INDIVIDUAL COUNSELING

Designed to teach individual counseling theories and techniques. Application to community and public school counseling programs is stressed. **Prerequisite: F, SU**

COUN 5553 THEORIES AND TECHNIQUES OF GROUP COUNSELING

Designed to teach group counseling techniques appropriate to group counseling. Application to agency and public school counseling programs stressed. **Prerequisite: Admission to Graduate Program. F, SU**

COUN 5563 PRACTICUM IN COUNSELING

Course includes practical application of knowledge and techniques learned in previous course work to be applied in schools and/or community agency settings. Requires 100 hours of field experience and a grade of "B" or better for successful completion. **Prerequisites: 30 credit hours in Counseling and/or instructor approval, Admission to Graduate Program. F, SP**

COUN 5583 INTERVENTION STRATEGIES

Designed to teach counselors prevention, crises, and intervention strategies and techniques in community family, and school settings. **Prerequisite: Admission to Graduate Program. F, SU**

COUN 5593 ADVANCED TESTS AND MEASUREMENTS

A course designed to give educators and counselors advanced understanding of tests and measurement issues, design, development and interpretation for diagnosis and/or educational purposes. **Prerequisite: Admission to Graduate Program. SP, SU**

COUN 5603 INTERNSHIP IN COUNSELING

Provides an opportunity for students to perform, under supervision, a variety of counseling activities that a professional counselor is expected to perform in a community or school setting. CACREP guidelines require 600 hours of field experience. Successful completion of each internship course requires a grade of "B" or better. **Prerequisites: Completion of Practicum with a minimum grade of "B", Admission to Graduate Program. F, SP**

COUN 5773 THE DYNAMICS OF SMALL GROUPS

Study of basic elements in the group process with a focus on stages of group development, group dynamics, and group leadership development with a supervised practice facilitating groups. **Prerequisite: Admission to Graduate Program. F**

COUN 5783 PRACTICUM IN COUNSELING/TESTING

Supervised classroom and field experience in the administration and interpretation of various individual and group assessment instruments. **Prerequisite: By permission only. SP**

COUN 5873 FAMILY VIOLENCE

An examination of family stress and violence, causative factors, preventative and intervention methods, and assessment/ treatment. **SP**

COUN 5883 FAMILY CRISES AND RESOURCES

A survey of crisis situations common to the families and the examination of resources and intervention methods. **F**

COUN 5893 ETHICAL, LEGAL AND PROFESSIONAL STANDARDS

An examination of the objectives of professional organizations, codes of ethics, legal aspects of practice, family law, standards of preparation and the role identity of persons providing direct counseling services. **SP, SU**

LIBRARY MEDIA**LIBED 5472 ADVANCED MEDIA AND TECHNOLOGY**

Students will develop advanced skills in the utilization of media equipment and materials production using the computer. Microsoft Office and the Internet will be utilized as an instructional technique. Techniques will also be developed in teaching methods to utilize multimedia in an educational setting. **Prerequisite: Admission to Graduate Program. D**

SCHOOL OF BUSINESS

NOTE: 5000 LEVEL COURSES ARE OFFERED IN THE SEMESTER AND YEAR INDICATED.

ACCOUNTING AND FINANCE

ACCOUNTING

ACCTG 4213 AUDITING I

Audit procedure, classification of audits, audit working papers and reports, methods of verification of financial statements, practical applications, maintenance and improvement of internal controls. **Prerequisites:** ACCTG 3323 and ACCTG 3713. **F**

ACCTG 4613 ADVANCED ACCOUNTING

A study of accounting topics of an advanced nature including partnerships, fiduciaries, parent and subsidiary accounting. **Prerequisite:** ACCTG 3323. **F**

ACCTG 4643 GLOBALIZATION OF ACCOUNTING, FINANCE & INVESTMENTS

A study of accounting for operations of multinational enterprises as they relate to a wide variety of regulatory, social and environmental influences. Subjects include the foreign currency translation, foreign exchange risk management, financing tools, and investments related to global entities. **Prerequisites:** ACCTG 2313 and FINAN 3343. **F**

ACCTG 4763 ADVANCED COST/MANAGERIAL TOPICS

Topics of an advanced nature dealing with special cost analyses and decision-making techniques. **Prerequisite:** ACCTG 3713. **D**

ACCTG 5003 INDEPENDENT STUDY IN ACCOUNTING (TOPIC)

Independent study of specified topics for graduate students under the supervision of an accounting faculty member. **Prerequisites:** Admission to MBA Program and Department Chair approval. **D**

ACCTG 5013 SEMINAR IN ACCOUNTING (TOPIC)

Seminar for graduate students in selected accounting topics. **Prerequisites:** Admission to MBA Program and Instructor approval. **D**

ACCTG 5213 ADVANCED AUDITING

Continuation of Auditing I (ACCTG 4213) to include advanced preparation for auditors and CPA applicants, audit transaction cycles, workpaper documentation, and completion of the audit. Current issues and case analysis will be used. **Prerequisites:** ACCTG 4213 and Admission to MBA Program. **S**

ACCTG 5413 FINANCIAL STATEMENT ANALYSIS & REPORTING

The course stresses the evaluation and interpretation of published financial statements and the impact of various accounting methods on the reported results of companies. Students will learn to utilize key information contained in footnote disclosures. **Prerequisites:** ACCTG 3333 or equivalent and Admission to MBA Program. **F**

ACCTG 5523 RESEARCH AND PLANNING IN FEDERAL TAXATION

Development and administration of federal tax law with emphasis on skills for tax research, advanced analysis and application of techniques to tax planning. **Prerequisites:** ACCTG 3523, ACCTG 3613 (recommended) and Admission to MBA Program. **F**

ACCTG 5633 FINANCIAL ACCOUNTING FOR DECISION MAKING (MBA ONLY)

Core course for MBA students not pursuing the 'Accounting Emphasis'. Emphasis is upon use of financial and managerial accounting with special attention placed on interpretation of financial statements and their significance in making business decisions. **Prerequisite:** ACCTG 2313 and Admission to MBA Program. **F**

FINANCE

FINAN 4063 FINANCIAL INSTITUTIONS AND MARKETS

The study of financial markets and institutions, government regulation, planning, and analysis. **Prerequisite:** FINAN 3343. **S**

FINAN 5003 INDEPENDENT STUDY IN FINANCE (TOPIC)

Independent study of selected topics for graduate students under the supervision of a finance faculty member. **Prerequisite:** Admission to MBA Program and Department Chair approval. **D**

FINAN 5013 SEMINAR IN FINANCE (TOPIC)
Seminar for graduate students in selected finance topics. **Prerequisite: Admission to MBA Program and Instructor approval. D**

FINAN 5263 ADVANCED FINANCIAL MANAGEMENT
An advanced study of the function of finance in the business enterprise: financial planning, capital budgeting, cost-of capital, return-on investment, management of cash and other current assets, capital structure, sources of financing. **Prerequisites: FINAN 3343 and Admission to MBA Program. F**

BUSINESS ADMINISTRATION

GENERAL BUSINESS

GEBUS 5343 TOPICS IN INTERNATIONAL BUSINESS

A course designed to familiarize students with fundamental aspects and differences of conducting business outside the U.S. Topics will vary but include differences in theories of trade, monetary systems, cultural issues, management operations and special problems facing multinational managers. **Prerequisite: Admission to MBA Program. D**

MANAGEMENT

MNGMT 4433 ENTREPRENEURSHIP & NEW VENTURE

A comprehensive course that examines entrepreneurial attitudes and understandings. It focuses on the application of management functions to the operation of small firms: feasibility of owning a business; financial planning and credit management; production and marketing decision making; the role of e-commerce; and human resources management. It focuses on the various steps and procedures necessary for the building of a successful venture. Students are introduced to the theory and practice of entrepreneurship through readings, case studies, Web assignments, and a business plan project. **Prerequisites: FINAN 3343 (required) or Instructor approval. F**

MNGMT 4633 INTERNATIONAL MANAGEMENT

A course designed to involve the student with the theories, concepts, problems, and practices encountered in managing the multi-national business firm. **Prerequisite: Department Chair approval. D**

MNGMT 5003 INDEPENDENT STUDY IN MANAGEMENT (TOPIC)

Independent study of selected topics for graduate students under the supervision of a management faculty member. **Prerequisite: Department Chair Approval. D**

MNGMT 5013 SEMINAR IN MANAGEMENT (TOPIC)

Group study of selected topics in management for graduate students. **Prerequisite: Instructor approval. D**

MNGMT 5433 ADVANCED HUMAN RESOURCE MANAGEMENT

Course involves advanced study of Human Resource Management functions including job analysis, recruitment, selection, performance appraisal, training and development, compensation, benefits administration, employment laws and employee relations. Course will focus on enhancing students' ability to effectively address problems with HRM implications. **Prerequisite: Admission to MBA Program. S, Even Numbered Years**

MNGMT 5533 MANAGEMENT AND ORGANIZATIONAL BEHAVIOR

An advanced study of contemporary theories of individual and group behavior in organizations. Emphasis will be placed on topics including motivation, development, and change management. Course will be geared towards helping students develop managerial skills. **Prerequisite: MNGMT 3233 and Admission to MBA Program. S Even Numbered Years.**

MNGMT 5643 ADVANCED QUANTITATIVE METHODS AND OPERATIONS ANALYSIS

This course emphasizes the study of quantitative techniques which support effective decision making. It focuses on the formulation, analysis, and interpretation of optimization models for various applications in management including marketing, accounting, finance, and operations. In addition, topics may include aggregate planning, queuing theory, inventory control, scheduling and decision theory. **Prerequisites: Admission to MBA Program. SU Even Numbered Years**

MNGMT 5923 BUSINESS STRATEGY AND POLICY

This course is designed to enable students to draw upon and integrate the various MBA courses. Numerous cases calling for a variety of MBA skills are used. **Prerequisites: MBA Admission, Instructor approval. S, Odd Numbered Years**

MARKETING

MRKTG 4243 MARKETING RESEARCH

The course is designed to prepare the student to be an informed, effective user of marketing research; to acquaint the student with the importance of well-developed research questions; to address those questions using the appropriate basic research design; and, to select an adequate sample with which to answer those questions. Therefore, the orientation of the course is managerial. **Prerequisite: MRKTG 3143. F**

MRKTG 4443 CHANNELS OF DISTRIBUTION

The focus of this course is on supply chain management from the perspectives of suppliers, intermediaries, and ultimate organizational users of goods, ideas, and services. The importance and impact of relationship marketing is examined and analyzed. Case studies and oral presentation are utilized. **Prerequisite: MRKTG 3143. D**

MRKTG 4543 INDUSTRIAL MARKETING

The course examines the terminology, principles, practices, and processes involved in marketing goods and services to businesses, governmental agencies, and institutions. Extensive case studies, group work, and oral presentations are involved. **Prerequisite: MRKTG 3143. D**

MRKTG 4643 INTERNATIONAL MARKETING

The course expands the scope of marketing principles from a domestic market to the considerably broader and increasingly important and competitive international arena. The course emphasizes such major topics as cultural differences, legal and monetary considerations, and adaptations to the domestic marketing mix. **Prerequisite: MRKTG 3143. D**

MRKTG 5003 INDEPENDENT STUDY IN MARKETING (TOPIC)

Independent study of specified topics in marketing for graduate students. **Prerequisite: Department Chair approval. D**

MRKTG 5013 SEMINAR IN MARKETING (TOPIC)

Group study of selected topics in marketing for graduate students. **Prerequisite: Instructor approval. D**

MRKTG 5623 MARKETING STRATEGY

Provides students with a broad perspective of environmental conditions (enabling and restraining variables) within which marketers must operate as they develop policies, plans, strategies, and evaluation procedures. **Prerequisites: MBA Admission, and Instructor approval. S, Even Numbered Years**

ECONOMICS

ECONO 4563 MANAGERIAL ECONOMICS

An application of economic analysis and theory to the decision-making process which faces the manager. Topics covered include consumer and business firm behavior; demand theory; production; cost analysis; market structure; pricing. **Prerequisites: ECONO 2263 and 2363.**

ECONO 4963 INTERNATIONAL ECONOMICS

Fundamentals of trade theory and international finance. Survey of important current economic problems of an international nature. **Prerequisites: ECONO 2263 and 2363. D**

ECONO 5653 ADVANCED MANAGERIAL ECONOMICS

An advanced application of economic analysis and theory to the decision making process which faces the manager. Topics covered include consumer and business firm behavior; demand theory; production; cost analysis; market structure; pricing; the determination of interest rates; aggregate income and output determination; monetary and fiscal policies. **Prerequisites: MBA Admission. F, Even Numbered Years**

ECONO 5763 ADVANCED BUSINESS STATISTICS

Analysis, summarization, and interpretation of data for use in managerial decision-making. Includes the study of variance, linear regression and correlation, multiple regression and correlation analysis, nonparametric methods, time series, chi-square applications, and index numbers. Emphasis will be on problem solving and analysis using actual business data. **Prerequisite: MBA Admission, undergraduate statistics course. SU, Odd Numbered Years**

GRADUATE FACULTY MEMBERS

RADWAN AL-JARRAH (1991).....Mathematics
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MELODY ASHENFELTER (1987).....Accounting/Finance
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ARDEN ASPEDON (2000).....Allied Health Sciences
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- GERARD EAST (1997) Mathematics
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