

Graduate Bulletin 1998-99

The University of Southern Mississippi
Hattiesburg, Mississippi 39406

GENERAL BULLETIN ISSUE
GRADUATE PROGRAMS
ANNOUNCEMENTS
1998-1999

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The University of Southern Mississippi offers equal educational and employment opportunities to all persons without regard to age, sex, religion, color, or national origin. These provisions also apply to disabled individuals pursuant to current federal and state regulations subject to reasonable standards of admission and employment. All inquiries concerning discrimination should be directed to the Vice President for Administrative Affairs, 103 Administration Building, The University of Southern Mississippi, Hattiesburg, Mississippi 39406-5177.

Information contained in this publication is subject to change without prior notice. Any changes in this publication are on file in the President's Office. Information contained herein shall not constitute a binding agreement on the part of The University of Southern Mississippi.

Students at The University of Southern Mississippi are responsible for knowing and complying with all requirements for their respective degrees as stated herein.

The colors of the University are black and gold.

The mascot is the Golden Eagle.

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Correspondence

Requests for a **Bulletin**, an application form, or information concerning admissions policies and procedures, room and board, and tuition may be addressed to:

Graduate Admissions
The University of Southern Mississippi
Box 10066
Hattiesburg, Mississippi 39406-0066

Website address: www-dept.usm.edu/~gradsch
e-mail address: gradsch@www-dept.usm.edu

Other correspondence may be addressed as follows:

Dean, Graduate School
Box 5024

Dean, College of the Arts
Box 5031

Dean, College of Business Administration
Box 5021

Dean, College of Education and Psychology
Box 5023

Dean, College of Health and Human Sciences
Box 10075

Dean, College of International and Continuing Education
Box 10047

Dean, College of Liberal Arts
Box 5004

Dean, College of Nursing
Box 5095

Dean, College of Science and Technology
Box 5165

Dean, Honors College
Box 5162

The University of Southern Mississippi
Hattiesburg, Mississippi 39406

Academic Calendar

SUMMER 1998

Friday, May 15	Application deadline for new students
Thursday, May 28	Residence halls open
Friday, May 29	Registration for new graduate, reapplying, and continuing students
Monday, June 1	Classes begin
Tuesday, June 30	Mid-point in Summer Term
Friday, July 3	Independence Day Holiday
Friday, July 24	Last day to file application for degree for Fall, 1998 Commencement
Monday-Friday August 3-7	Examinations for full-term and second-term (SS) classes (including night classes)
Friday, August 7 6:30 pm	Commencement, Green Coliseum
Saturday, August 8	Residence halls close

FALL 1998

Friday, August 7	Application deadline for new students
Thursday, August 20	Residence halls open
Friday, August 21	Registration for new graduate, reapplying, and continuing students
Monday, August 24	Classes begin
Monday, September 7	Labor Day Holiday (Monday day and night classes will not meet)
Friday, October 16	Mid-point in Fall Semester
Friday, November 6	Last day to file application for degree for Spring, 1999 Commencement
Wednesday, November 25 6:00 p.m.	Thanksgiving Holidays begin Night classes do not meet
Monday, November 30	Classes resume
Tuesday, December 8	Tuesday night examinations
Monday-Friday December 14-18	Examinations for full-term and second-term (SS) classes (including Monday, Wednesday, and Thursday night classes)
Friday, December 18 6:30 pm	Commencement, Green Coliseum
Saturday, December 19	Residence halls close

SPRING 1999

Friday, December 18, 1998	Application deadline for new students
Thursday, January 8, 1999	Residence halls open
Friday, January 9	Registration for new graduate, reapplying, and continuing students
Monday, January 11	Classes begin
Monday, January 18	Martin Luther King, Jr.'s Birthday (observed) (Monday day and night classes will not meet)
Tuesday, February 16	Mardi Gras Holiday (Tuesday day and night classes will not meet)
Friday, March 5	Mid-point in Spring Semester
Monday - Friday March 8 - 12	Spring Holidays
Monday, March 15	Classes Resume
Tuesday, March 30	Second-term (SS) classes begin
Friday, April 2	USM Day
Friday, April 16	Good Friday Holiday
Wednesday, May 5	Last day to file application for degree for Summer 1999 Commencement
Thursday, May 6	Wednesday night class examinations
Friday, May 7	Thursday night class examinations
Monday-Friday May 10-14	Final exams for second-term (SS) classes
Monday, May 10	Examinations (day classes)
Tuesday, May 11	Monday night class examinations
Friday, May 14 6:30 pm	Tuesday night class examinations
Saturday, May 15	Commencement, Green Coliseum
	Residence halls close

SUMMER 1999

Friday, May 14	Application deadline for new students
Thursday, May 28	Residence halls open
Friday, May 28	Registration for new graduate, reapplying, and continuing students
Monday, May 31	Classes begin
Tuesday, June 29	Mid-point in Summer Term
Monday, July 5	Independence Day Holiday (observed) (Monday night classes will meet)
Friday, July 23	Last day to file application for degree for Fall 1999 Commencement
Monday-Friday August 2-6	Examinations for full-term and second-term (SS) classes (including night classes)
Friday, August 6 6:30 pm	Commencement, Green Coliseum
Saturday, August 7	Residence halls close

Introduction

Historical

The University of Southern Mississippi and its Board of Trustees were established by an act of the Legislature approved on March 30, 1910, by Governor Edmund F. Noel. Its first name was the Mississippi Normal College, and its original purpose was to train teachers for the rural schools of Mississippi. On February 2, 1932, the Legislature established the Board of Trustees of State Institutions of Higher Learning and placed under its jurisdiction the five colleges and one university owned and operated by the state. On November 3, 1942, the people of the state voted to make the Board of Trustees of State Institutions of Higher Learning a constitutional board for all colleges and universities of the state. The University of Southern Mississippi is now operated under the jurisdiction of that constitutional board.

The act of March 30, 1910, did not provide any state money for the building of Mississippi Normal College, but did provide that localities in the state might bid for its location by offering land for a site and money for constructing buildings. On September 16, 1910, the Board of Trustees accepted the bid of Hattiesburg and Forrest County to supply \$250,000.00 and a free site. That site was west of the city in cut-over timberland with great pine stumps everywhere. Contracts were let to clear the land and to build buildings.

The five permanent buildings (College Hall, Forrest County Hall, Hattiesburg Hall, the Industrial Cottage [now the Honor House], and the President's Home [now the Alumni House]), a temporary wooden Dining Hall, and other necessary improvements were barely finished when the Mississippi Normal College opened on the rainy morning of September 18, 1912, with a president, a faculty of eighteen, and a student body of 200.

On October 17, 1911, Joseph Anderson Cook, Superintendent of Schools, Columbus, Mississippi, was elected president. The University of Southern Mississippi has had only seven presidents since its founding. The Board of Trustees elected Claude Bennett president effective October 10, 1928. On April 23, 1933, the Board of Trustees elected Dr. Jennings Burton George as the third president, effective July 1, 1933. On June 13, 1945, the Board of Trustees elected Dr. Robert Cecil Cook as the fourth president and he officially assumed office on July 1, 1945. On October 21, 1954, President Cook submitted his resignation. He served until December 31, 1954, and Dr. Richard Aubrey McLemore became acting president on January 1, 1955. The Board of Trustees, on May 19, 1955, elected Dr. William David McCain as the fifth president. He officially assumed office on August 1, 1955, and retired as of June 30, 1975. Dr. Aubrey Keith Lucas became the sixth president of the University on July 1, 1975, and served until his retirement on December 31, 1996, the longest tenure of any president. Dr. Horace Weldon Fleming, Jr., was appointed as the seventh president, assuming office on January 1, 1997.

As has been stated, the University of Southern Mississippi was founded on March 30, 1910, as the Mississippi Normal College. On March 7, 1924, the Legislature changed the name to State Teachers College. On February 8, 1940, the Legislature changed the name to Mississippi Southern College, and on February 27, 1962, the Legislature changed the name to the University of Southern Mississippi.

The Mississippi Normal College did not grant degrees in its early years, but awarded certificates for the completion of certain specified courses of study. On April 8, 1922, the Legislature authorized the awarding of the Bachelor of Science degree. The Bachelor of Music degree was authorized by the Board of Trustees on June 19, 1934. The first Bachelor of Arts degree was awarded on August 20, 1940. On May 26, 1947, the Board of Trustees authorized the initiation of graduate work and the awarding of the Master of Arts degree. In the years since 1947, the University's graduate programs have developed logically to meet the needs for professional competence beyond the academic measure of the baccalaureate degree. Doctoral programs were first authorized by the Board of Trustees on May 20, 1959. The administrative and academic organization of the University of Southern Mississippi is divided into the following areas: Vice President for Academic Affairs, Vice President for Administrative Affairs, Vice President for Research and Planning, Vice President for Business and Finance, Vice President for Student Affairs, and Director of Intercollegiate Athletics. The academic area of the University of Southern Mississippi is organized into the College of The Arts, the College of Business Administration, the College of Education and Psychology, the College of Health and Human Sciences, the College of Liberal Arts, the College of Nursing, the College of Science and Technology, the Honors College, the Graduate School, and the College of International and Continuing Education. The number of graduates is some measure of the growth of a university. The University of Southern Mississippi has awarded 96,862 degrees since the first one was conferred in 1922.

Purpose Statement

The University of Southern Mississippi recognizes the interdependence of teaching, research, and service. It is therefore dedicated to the pursuit of excellence in each of these areas, as well as in its support operations, with the goal of achieving and maintaining the highest possible quality throughout the university.

The University of Southern Mississippi is committed to quality education. In its undergraduate programs and in its graduate and professional programs that aim for national distinction, it seeks to educate students who will be well trained in their chosen profession, whose critical thinking skills and respect for learning will foster lifelong learning, and who recognize their obligation to contribute to their society—whether local, national, or international.

This education will be provided by a community of scholars who are dedicated to high standards of original inquiry and creative expression and to the principles of intellectual freedom. The university affirms its support for sound research, scholarship, and creative activity that will expand the boundaries of human knowledge, inspire superior teaching, and in their applications improve the quality of life of the citizens of Mississippi and the world.

With the understanding that teaching and research must complement service to society, the University of Southern Mississippi pledges to pursue its goals in an educational atmosphere that affirms a commitment to the preservation of our planet's environment and a recognition of the increasing importance of international understanding. USM teaches respect for diversity of ideas, beliefs, and cultures, as well as for the cultural heritage of its own constituents'. It seeks to attract and nurture a faculty, staff, and student body that reflects this diversity, while working always to enhance life locally and regionally. In short, the University of Southern Mississippi strives for excellence.

The University of Southern Mississippi values quality teaching and intellectual achievement, research and creative expression, personal development, quality programs and services, and the maximum use of resources. These values are supported by the following goals:

- Commitment to quality teaching and intellectual achievement by encouraging learning based in rational inquiry, problem solving, challenge, creativity, and intellectual initiative; developing an appreciation of culture and the liberal arts; attracting and retaining a highly qualified and diverse faculty, staff, and student body; and creating an appreciation for diversity .
- Commitment to research and creative expression by preserving and refining existing bodies of knowledge and expanding and communicating new knowledge.
- Commitment to personal development by creating a supportive environment characterized by opportunities for leadership development; enhancing communication skills; developing cooperative attitudes in problem solving through team-work methods; creating an awareness of the responsibility of a citizen in a democratic society; promoting healthy lifestyles within the university community; encouraging students to become supporting alumni; providing opportunities for developing career goals; demonstrating competence and integrity; developing an understanding of the complexities of differing cultural values in a global environment; and creating an understanding of international problems.
- Commitment to quality programs and services by giving attention to our alumni and other constituents; increasing financial support for the university; maintaining efficient student services; providing a safe, well-maintained environment; maintaining an athletic program that instills pride and generates positive recognition; enhancing university public service to the community; and developing practices which protect and preserve our environment.
- Commitment to maximizing resources through technology utilization by continuing to improve the equipment, physical facilities, and library resources of the university; utilizing appropriate technologies to deliver programs more effectively; and advocating the usage of modern technology.

Accrediting Agencies

The University of Southern Mississippi is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to a ward Bachelor's, Master's, Specialist's, and Doctoral degrees.

Specific academic programs as noted in this **Bulletin** have been accredited by the following accreditation agencies:

AMERICAN ASSEMBLY OF COLLEGIATE SCHOOLS OF BUSINESS (AACSB)

600 Emerson Road, Suite 300
St. Louis, MO 63141-6762 USA
(314) 872-8507 WEB:<http://www.aacsb.edu>

AMERICAN DIETETIC ASSOCIATION

216 West Jackson Boulevard
Chicago, IL 60606-6995
(312) 899-0040

AMERICAN PSYCHOLOGICAL ASSOCIATION (APA)

750 First Street, NE
Washington, DC 20002-4242
(202) 336-5500

AMERICAN SPEECH-LANGUAGE-HEARING ASSOCIATION

10801 Rockville Pike
Rockville, MD 20852
(301) 897-5700

COMMISSION ON ACCREDITATION FOR MARRIAGE AND FAMILY THERAPY EDUCATION

1133 15th Street, NW
Suite 300
Washington, DC 20005-2710
(202) 452-0109

COUNCIL FOR ACCREDITATION OF COUNSELING AND RELATED EDUCATION PROGRAMS (CACREP)

5999 Stevenson Avenue
Alexandria, VA 22304
(703) 823-9800

COUNCIL ON EDUCATION FOR PUBLIC HEALTH

1015 Fifteenth Street, NW
Suite 402
Washington, DC 20005
(202) 789-1050

COUNCIL ON SOCIAL WORK EDUCATION

1600 Duke Street, Suite 300
Alexandria, VA 22314
(703) 683-8080

NATIONAL ASSOCIATION FOR SPORT AND PHYSICAL EDUCATION

1900 Association Drive
Reston, VA 22090
(703) 476-3400

NATIONAL ASSOCIATION OF SCHOOL PSYCHOLOGISTS (NASP)

4340 East West Highway
Suite 402
Bethesda, MS 30814
(301) 657-0270

NATIONAL ASSOCIATION OF SCHOOLS OF ART AND DESIGN

11250 Roger Bacon Drive, Suite 21
Reston, VA 22090
(703) 437-0700

NATIONAL ASSOCIATION OF SCHOOLS OF MUSIC

11250 Roger Bacon Drive, Suite 21
Reston, VA 22090
(703) 437-0700

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NATIONAL ASSOCIATION OF SCHOOLS OF THEATRE
11250 Roger Bacon Drive, Suite 21
Reston, VA 22090
(703) 437-0700

NATIONAL COUNCIL FOR ACCREDITATION OF TEACHER EDUCATION (NCATE)
2010 Massachusetts Avenue, NW
Suite 500
Washington, DC 20036-1023
(202) 466-7496

NATIONAL LEAGUE FOR NURSING ACCREDITING COMMISSION
350 Hudson Street
New York, NY 10014
(212) 989-3710

USM also maintains affiliation with the **COUNCIL OF GRADUATE SCHOOLS**, One DuPont Circle,
N.W., Suite 430, Washington, DC 20036-1173, (202) 223-3791.

University Library Services

Library services at The University of Southern Mississippi are provided at six locations: the Joseph Anderson Cook Library, the William David McCain Library and Archives, the Media Resources Center, the Richard G. Cox Library, the Gunn Education Materials Center, and the Music Resources Center.

The Joseph Anderson Cook Library

The Joseph Anderson Cook Library contains the principal collections of books, journals, microforms, and other materials which support the research and instructional programs of the University at all levels. Book stacks and reading areas are intermingled throughout the building, and the open shelf method of access to materials is utilized. Access is provided to a variety of fulltext databases, bibliographic databases, and Internet resources on a wide range of subjects. The collections are arranged according to the Library of Congress Classification System. The Library is currently acquiring approximately 23,000 new volumes annually and maintaining 5,000 current journal subscriptions.

The William David McCain Library and Archives

The William David McCain Library and Archives houses the special collections and archives of The University of Southern Mississippi. Resources are available for use by the public and the University community in the Cleanth Brooks Reading Room. Materials housed in this facility do not circulate outside the building. The online catalog and other descriptive finding aids serve as points of access to the collections. Among the notable holdings of McCain Library and Archives are the Mississippiana and Genealogy Collections; the de Grummond Children's Literature Collection; the papers of Williams M. Colmer, Theodore G. Bilbo, and Paul B. Johnson; the Walen Collection of Confederate and Civil War History; and the Cleanth Brooks Collection of belles lettres.

The Media Resources Center

Located on the first floor of The McCain Library and Archives, the Media Resources Center provides non-print materials and study carrels for individualized learning with non-print materials. Materials are also available for checkout.

The Richard G. Cox Library

The Richard Cox Library serves as a resource center for the Gulf Coast Regional Campus. It contains collections of print and non-print materials which directly support the instructional program and include 37,000 volumes in the Curriculum Lab. The Library currently subscribes to almost 400 serial titles. Holdings on the Gulf Coast campus are supplemented by the print and electronic resources of the Hattiesburg campus.

The Gunn Education Materials Center

The Gunn Education Materials Center, located in Owings-McQuagge Hall, contains books and other printed materials, audiovisuals, and computer software which directly support the teacher education K-12 program and graduate education programs.

The Music Resource Center

Located in the Performing Arts Center, the Music Resource Center offers an extensive collection of recordings in various formats. Listening equipment and scores are also housed in the Center.

Other General Information and Services

Bulletins

The University of Southern Mississippi has four publications each year; the **Undergraduate Bulletin**, the **Graduate Bulletin**, the **Independent Study Bulletin**, and the **Regional Campus Bulletin**. To get the complete programs of the University, please check each Bulletin.

Family Educational Rights and Privacy Act of 1974 (Buckley Amendment)

The Buckley Amendment deals with one subject only: educational records. The purpose of the law is to define, more precisely than ever has been done, who may or may not see them. On the one hand, the law grants students guaranteed access; on the other hand, it takes from the universities the privilege of indiscriminate disclosure.

The Buckley Amendment sets forth these main requirements:

1. it allows a student access to each educational record that a university or college keeps on him or her;
2. it requires the institution to establish a policy on how students can go about seeing specific records;
3. it requires the institution to inform all students as to what rights they have under the Amendment, how they can act on these rights according to school policy, and how they can see a copy of the policy; and
4. it requires the institution to seek student permission, in writing, before disclosing any personally identifiable record to individuals other than professional personnel employed in the university or college (and others who meet certain specified requirements).

The University has developed and put into writing a policy for handling requests from students and for disclosing personally identifiable information about students. Students are notified of their rights under the law by publishing the University policy in the student handbook.

Oak Ridge Associated Universities

Since 1992, students and faculty of The University of Southern Mississippi have benefited from its membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of 87 colleges and universities and a management and operating contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education, the DOE facility that ORAU manages, undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research. Students can participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry, and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of underrepresented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the *Resource Guide*, which is available on the World-Wide Web at <http://www.orau.gov/orise/resgd/htm>, or by calling either of the contacts below.

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's members, private industry, and major federal facilities. Activities include faculty development programs, such as the Junior Faculty Enhancement Awards and the Visiting Industrial Scientist Program, and various services to chief research officers.

For more information about ORAU and its programs, contact Dr. Cecil D. Burge, ORAU Council member, at 601-266-4119; contact Monnie E. Champion, ORAU Corporate Secretary, at 423-576-3306; or the ORAU Home Page at <http://www.orau.gov>.

Rehabilitation Act of 1973 and the Americans with Disability Act

The University of Southern Mississippi complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disability Act. No otherwise qualified handicapped person, solely on the basis of handicap, will be excluded from participation in, be denied the benefits of, or be subjected to discrimination in the administration of any educational program or activity including admission or access thereto or in treatment or employment therein by the University of Southern Mississippi. If you need assistance in reasonably accommodating a disability in the classroom or on campus, please contact the Coordinator of the Office of Support Services for Students with Disabilities (OSS) at 266-5024.

Retention of Students and Program Completion Information

The University will provide, upon request, information regarding student retention as well as the number and percentage of students completing specific undergraduate programs at The University of Southern Mississippi. For further information, please contact:

Office of Institutional Planning and Analysis
The University of Southern Mississippi
Box 5167
Hattiesburg, MS 39406-5167
(601) 266-4059

University Press of Mississippi

The University Press of Mississippi was founded in 1970 to encourage the dissemination of the fruits of research and study through the publication of scholarly works. Functioning as the scholarly publishing arm of the state-supported universities in Mississippi, The University Press is governed by a Board of Directors made up of one representative from each of the eight state universities, one representative from the Board of Trustees of State Institutions of Higher Learning, and the director of the Press.

The University Press publishes more than fifty books each year. Primary areas of interest are Mississippi history and literature, but manuscripts in all areas of study are welcomed.

Administrative offices of the University Press are located in the Education and Research Center of Mississippi, 3825 Ridgewood Road, Jackson, Mississippi, 39211.

University of Southern Mississippi Alumni Association

The Alumni Association was established in 1917 as an organization mainly involved in functions relating to placement service. Since its rebirth in 1946, when the Executive Committee recognized the need for a working Alumni Association with organized alumni groups in the various counties of the state, the Association has operated in its present form, serving as a link between the University and its former students.

USM graduates and former students are encouraged to become active in the Alumni Association and its support of the University's various academic and athletic programs. Of approximately 85,000 graduates since the University's founding, the Alumni Association has enlisted in excess of 21,000 paid members for the past several years.

The Association provides a number of benefits to its members, including a subscription to the quarterly **USM Alumni News** magazine, which helps graduates stay informed on campus developments and provides updates on former classmates. Other benefits include a waiver of out-of-state tuition fees for children of members who meet certain requirements, receipt of mailings on area alumni chapter meetings, library privileges, the full four-issue subscription to the **Southern News and Views** Alumni Newsletter, car decals, eligibility to join the USM Credit Union, and various other special events.

The Association is very active in developing other programs to support all areas of the University. Some of these include organizing joint district Eagle Club meetings in conjunction with the Athletic Department, sponsoring high school student nights across Mississippi and the surrounding states, and organizing both athletic road game trips and educational excursions to such locations as Switzerland and England.

The Alumni Association also sponsored the drive to raise the funds necessary for the construction of the first R. C. Cook University Union Building, helped set up the USM Foundation (the receptacle for all gifts to the University), and organized the Student Alumni Association, an organization comprised of hard-working, enthusiastic students involved in a variety of activities each semester to promote the University.

Organized Alumni chapters are urged to hold a meeting each year for the election of officers on or around March 30, the date selected by the Association as USM Day in commemoration of the founding of the University on that date in 1910. All former students of USM are encouraged to get together in honor of the University on this date.

The Graduate School

Anselm C. Griffin, Dean
Margaret F. Carlin, Assistant Dean
Hattiesburg, MS 39406-5024
(601) 266-4369

The Graduate School at the University of Southern Mississippi was established in 1947 to recognize the University's growing responsibilities as a center of higher learning and provide an academic environment in which advanced research and free inquiry could develop to the advantage of both the student and the State. In the years since 1947, the University's graduate programs have developed logically on the growing points of strong undergraduate schools and departments to meet the needs for professional competence beyond the academic measure of the baccalaureate degree.

In response to the need to offer graduate programs beyond the boundaries of the Hattiesburg Campus, the Board of Trustees of Institutions of Higher Learning in 1972 authorized the University to grant graduate degrees on the campus at the University of Southern Mississippi, Gulf Coast. Course work taken at the Hattiesburg and Gulf Park campuses is considered as campus work. Graduate classes taken as part of International Programming under Hattiesburg registration and accompanied by a USM professor are considered campus work also.

The Graduate School's Place Within the University Structure

The Graduate School is administered by a dean executing policies determined by the Graduate Council. The present composition of the Graduate Council includes the Dean of the Graduate School and elected members from the College of The Arts, the College of Business Administration, the College of Education and Psychology, the College of Health and Human Sciences, the College of Liberal Arts, the College of Nursing, and the College of Science and Technology. Permanent ex officio members are the President of the University and the University Librarian. The Council elects a chair from its regular members. The University Registrar serves as secretary to the Council. The Dean of the Graduate School serves as corresponding secretary.

The responsibilities of the Graduate Council, representing both administration and faculty, include:

1. Determining policies of admission to the Graduate School.
2. Considering and approving graduate programs submitted to the Council through curriculum committees of each college.
3. Electing members of the Graduate Faculty upon recommendation by the academic deans.
4. Approving new courses (and deleting courses) for graduate credit.
5. Acting upon any other problems affecting graduate programs.

The graduate programs approved by the Council are carried out through the Graduate Faculty in each degree-granting college of the University's academic organization.

Degree Programs Offered*

The University of Southern Mississippi offers graduate level programs in nearly every recognized academic discipline. Even those departments not yet ready to offer master's or doctoral degrees are usually equipped to offer a graduate minor. In addition, master's degrees are offered at USM, Gulf Park. For specific information about the master's programs at Gulf Park, please see its section in this **Bulletin**.

The degrees which are offered and their majors are listed below. Refer to each department for emphasis areas.

*Please note that degree offerings may change due to current program reviews. Those listed in this Bulletin are those granted as of the 1998-1999 academic year. Check with the department for current offerings.

Degrees Offered

Doctor of Education

Adult Education	Human Performance
Curriculum and Instruction	Science Education
Educational Administration	Special Education
Higher Education Administration	

Doctor of Philosophy

Biological Sciences	Higher Education Administration
Chemistry	History
Communication	Human Performance
Counseling Psychology	Marine Science
Education	Music Education
Adult Education	Nursing
Curriculum and Instruction	Nutrition & Food Systems
Educational Administration and Supervision	Polymer Science
Special Education	Psychology
English	Science Education
	Scientific Computing

Doctor of Music Education

Music Education

Doctor of Musical Arts

Performance and Pedagogy

Specialist in Education

Education (CUI/EDS)	Education (ELR/EDS)
Education (SPE/EDS)	

Specialist in Library and Information Science

Library and Information Science

Master of Art Education

Art Education

Master of Arts

Anthropology	Philosophy
Communication	Political Science
Criminal Justice	Psychology
English	Speech and Hearing Sciences
History	

Master of Business Administration

Business Administration

Master of Art in the Teaching of Languages

Teaching of Language

Master of Education

Adult Education	Educational Curriculum and Instruction
Counseling and Personnel Services	Special Education
Educational Administration and Supervision	

Master of Fine Arts

Theatre
Studio Art

Master of Library and Information Science

Library and Information Science

Master of Music

Music

Master of Music Education

Music Education

Master of Professional Accountancy

Accounting

Master of Public Health

Public Health

Master of Science

Anthropology	Human Performance
Biological Sciences	Institution Management
Chemistry	Instructional Technology
Communication	Marine Science
Computer Science	Marriage and Family Therapy
Counseling Psychology	Mathematics
Criminal Justice	Medical Technology
Early Intervention	Physics
Economic Development	Political Science
Educational Curriculum and Instruction	Polymer Science
Engineering Technology	Psychology
Family and Consumer Studies	Public Relations
Geography	Recreation
Geology	Science Education
History	Special Education
Human Nutrition	Speech and Hearing Sciences
	Sport Administration
	Technology Education

Master of Science in Nursing

Nursing

Master of Science in Systems Management

Systems Management

Master of Social Work

Social Work

College of International and Continuing Education

In February, 1991, the Center for International Education and the Division of Lifelong Learning were combined to form the College of International and Continuing Education. An administrative entity under the Office of the Vice President for Academic Affairs, the College is operationally divided into the Center for International Education and Continuing Education.

Center for International Education

The Center for International Education administers all programs bringing international students to USM and coordinates all programs sending USM students abroad for academic credit. In addition, the Center strives to promote a spirit of internationalism on the USM campuses; to assist academic departments in the internationalization of curriculum; to encourage student, faculty, and library development in the international sphere; and to assist business and government in projects of an international nature.

The Center is comprised of three components: the English Language Institute, the Office of International Student Affairs, and the Office of International Programs.

English Language Institute

The English Language Institute (ELI) provides intensive English instruction for international students. Founded in 1947, it is among the oldest language institutes in the United States and is authorized under Federal law to enroll non-immigrant alien students.

The ELI fosters cross-cultural awareness within the university and the community by offering ELI students opportunities of interaction with native English speakers both on and off campus.

International students accepted to the Graduate School of the University and those planning to apply for admission to the Graduate School often sharpen their language skills at the English Language Institute. For further information, contact the Director, English Language Institute, USM, Box 5065, Hattiesburg, MS 39406-5065, USA. Tel. (601) 266-4337 FAX (601) 266-5723. E-mail ieli@usm.edu

The Office of International Programs

The Office of International Programs administers a variety of programs providing USM students both long-term and short-term opportunities to study abroad for academic credit. Summer-term programs offering regular USM academic credit include:

The British Studies Program, a summer term in London in which USM functions as the academic and logistical linchpin for an 11-school consortium comprised of the University of South Alabama, The University of Memphis, Hinds Community College, Midwestern State University, Texas A.M. University-Commerce, Northeast Louisiana University, Southeastern Louisiana University, Mississippi College, Henderson State University, Methodist College, and Texas Tech University.

The African Studies Program in Kenya
 The Austrian Studies Program in Vienna, Austria
 The Australian Studies Program, Australia and New Zealand
 The Caribbean Studies Program in Jamaica
 The Chinese History and Culture Program
 The Contemporary French Culture and History Program
 The Cuban Studies Program in Havana and Varadero, Cuba
 Das Treffen Music and Performing Arts Festival in Germany
 The European Union Program (Paris, Brussels, England)
 The Irish Studies Program
 The Mexican Studies Program (Cancun, Mexico City)
 The Politics and Nation Building Program in Scotland
 The Spanish Language Program in Cuernavaca, Mexico
 The Spanish Language Program in Madrid and Nerja, Spain

Other academic study abroad programs coordinated by this office are—

Semester- and year-abroad exchanges:

Macquarie University, Sydney, Australia

University of Victoria, Canada

Keele University, Stoke-on-Trent, England

Ecole Supérieure du Commerce Extérieur, France

University of Bonn, Germany

University of the Yucatán, Merida, Mexico

University of Alcalá de Henares, Madrid, Spain

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A summer internship program in Britain coordinated by the University of Wales, Swansea

A student practice teaching program in England for education majors.

The transatlantic Summer Academy program for Politics/International Studies majors in Bonn, Germany

For further information write to:

College of International and Continuing Education
The University of Southern Mississippi
Box 10047
Hattiesburg, MS 39406-0047
U.S.A.
Tel. (601) 266-4344 FAX (601) 266-5699
Internet:telenetm_ravencraft@bull.cc.usm.edu

Office of International Student Affairs

The Office of International Student Affairs coordinates all facets of international admissions and student services. The ISA provides counseling on immigration regulations, personal matters, culture shock and adjustment, as well as some academic counseling in conjunction with the various departments. The Office processes all international applications, evaluates foreign academic credentials and issues the appropriate immigration documents for the non-immigrant foreign student. Multi-cultural programming for international students and the community is also coordinated by the ISA.

The ISA Office disseminates USM information to foreign schools, U.S. embassies/ consulates abroad, and non-profit international organizations (such as the Institute for International Education).

This Office also provides information to and immigration documents for research scholars invited by various USM departments to participate in research opportunities.

For further information, write to:

Director
Office of International Student Affairs
College of International and Continuing Education
The University of Southern Mississippi
Box 5151
Hattiesburg, MS 39406-5151
U.S.A.
Tel. (601) 266-4841 FAX (601) 266-5839
Internet:<http://www.isa.usm.edu>
e-mail:isa@usm.edu

The University enrolls graduate students from outside the United States. Assistance in academic and non-academic matters before and during the international student's stay at the University is provided by the Office of International Student Affairs.

English Language Proficiency: Applicants whose native language is other than English must present the results of the Test of English as a Foreign Language (TOEFL). Exceptions may be made if the applicant has earned a degree at an accredited US college or university. TOEFL requirements vary from program to program, ranging from 525 to 590. See Admission Requirements for international students under the department listings for specific TOEFL requirements.

English Instruction: Applicants who meet all admission requirements except English language proficiency can consider enrolling in the USM English Language Institute prior to academic enrollment. The Institutional TOEFL is offered periodically at the ELI for enrolled students. Its scores cannot be sent to other institutions. For information about the English Language Institute, write English Language Institute, Hattiesburg, MS 39406-5065, USA.

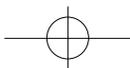
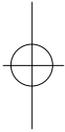
Admission Requirements: Graduate test scores (GRE or GMAT depending on department) are also required. Official transcripts with degrees posted must be submitted for each school attended.

Financial Resources: In order to meet requirements for entry into the United States for study, applicants must demonstrate sufficient financial resources to meet expected costs of their entire educational program. Applicants must provide documented evidence of their financial resources for university study since USM has no special funds for financial assistance to international students.

Admission Procedure:

1. Write to the Office of International Student Affairs, Hattiesburg, MS 39406-5151 USA for information and application forms to the University's graduate programs.
2. Complete the forms properly and return with a \$25.00 processing fee to the address above. The application and supporting documents must be received no later than two (2) months prior to the registration date desired.
3. Have all official transcripts and diplomas from all former institutions attended sent to the Office of International Student Affairs. Please note unauthorized photo copies are NOT acceptable. Transcripts should be in native language with certified English translations.
4. Have all appropriate official test scores sent to the Office of International Student Affairs.

A Certificate of Eligibility for Exchange Visitor Status (Form IAP-66 for a J-1 visa) or a Certificate of Eligibility for Student Status (Form I-20 for an F-1 visa) is issued only to those applicants who have been officially admitted to the University.



Admission Requirements and Procedures

Since applicants must always be admitted to a specific program within the Graduate School, all applications for admission to the Graduate School are closely reviewed and must be approved by the chair of the department in which the student intends to study, by the college dean, and by the Graduate Dean. Admission forms are obtained from and should be submitted to the Graduate Admissions Office.

The General sections (verbal, quantitative and analytic sections) of the **Graduate Record Examinations (GRE)** are required of all applicants to the Graduate School, except in the College of Business Administration, which requires the **Graduate Management Admissions Test (GMAT)**, and in some departments of the College of Education and Psychology, which accept the **Miller Analogies Test (MAT)**. Prospective students should plan to take the appropriate examination, some of which are given several times a year at a number of university testing centers, (or by computer at designated centers given on a weekly basis) early in their senior year and request that a copy of their scores be sent to the Graduate Admissions Office.

The decision to admit an applicant to pursue studies at the University of Southern Mississippi results from evaluations of qualitative and quantitative information. All applicants must provide a completed application form and records of previous academic achievements (official transcripts). Applicants may be required to provide letters of recommendation, writing sample/personal essay, or an interview/audition. These additional criteria have been decided upon by the pertinent departments and colleges and include a standardized test score such as the GRE. Admission decisions are never based solely upon a test score nor is a specific score used as a cutoff level. The departments and the Graduate School consider all of the application materials which are reviewed and contribute to the final decision. A decision to accept an applicant into a graduate degree program is based upon not only the quality of their previous academic experience, but also on a consideration of their purpose of study concerning the opportunities in the proposed field, prior professional and employment activities, and/or recommendations of the faculty in the proposed field of study.

The academic record, character, and conditions of application of the applicant must be in accordance with the rules and regulations of the Board of Trustees of State Institutions of Higher Learning and with the laws of the State of Mississippi. The applicant must have excellent moral character in conformity with the generally accepted standards customarily in effect in the University.

The University reserves the right to cancel the admission or registration of an individual whose attendance at the University, in the opinion of the appropriate administrative officer and the President, would not be beneficial to the student and/or to the institution.

Any student who is denied admission, whose admission is suspended, who questions the type of admission granted, or has had admission status changed, may have his or her case reviewed by the Graduate Committee for Admissions and Credits. To initiate the review procedure, the student should send a written request to the Dean of the Graduate School, Box 5024, Hattiesburg, MS 39406-5024. Any request for review must be made within one year of the date of the denial or suspension or it cannot be considered by the Committee.

It should be clearly understood that the admission requirements listed below represent the minimal standards set by the Graduate Council and that additional requirements and higher standards may well be stipulated by the various department chairs. Applicants should check for such requirements in the departmental section of this Bulletin.

Types of Admission to Master's Programs

An applicant may be granted regular or conditional admission to a masters program, or may take coursework as a non-degree graduate student.

I. Regular Admission

Minimum Standards for Regular Admission are as follows:

- A. The applicant must hold a baccalaureate degree from an institution approved by a recognized accrediting agency.
- B. The applicant must be eligible to re-enter in good standing the last college or university attended.
- C. The applicant must present evidence, by official transcript, of a grade point average of at least 2.75 (figured on an A equals 4.0 scale) for the last two years of undergraduate study, and a grade point average of at least 3.0 on undergraduate courses in the field of proposed graduate study. Any exception to this requirement must be cleared with the appropriate department chair, the dean concerned, and the Graduate Dean.

- D. Applicants must present standardized test scores (GRE, GMAT, or MAT). Consult specific departmental requirements for this information.
- E. The appropriate department chair, the college dean, and the Graduate Dean must be satisfied that the applicant shows promise of satisfying graduate degree requirements.

II. Conditional Admission

A student who fails to qualify for regular admission due to unsatisfactory grade point average or test scores may be admitted on a conditional basis; provided, however, such student possesses a grade point average of at least 2.50. Conditional admission can be given only upon the recommendation of the department chair, the college dean, and the Graduate Dean.

A conditional student at the master's level must maintain a grade point average of at least 3.00 on the first nine (9) semester hours of course work numbered 500 or above or on all courses taken while completing this nine (9) hour requirement. In some cases, additional requirements may be imposed by the department chair. All requirements must be met or the student will not be allowed to continue to seek a master's degree. A student not maintaining the required grade point average after the first nine (9) semester hours of course work, and/or failing to satisfy any additional requirements, will be reclassified as a non-degree graduate student.

All courses taken to remove conditional admission must be taken on a campus of the University of Southern Mississippi. Upon recommendation of the department chair and approval by the Dean of the Graduate School, the conditional admission will be removed and the student reclassified as a regular student.

III. Non-Degree Graduate Student

Admission as a non-degree graduate student may be granted for any of the following reasons:

- A. The student did not meet requirements for conditional or regular admission before the deadline. These admission requirements must be met and the Non-Degree status changed to conditional or regular by the end of the first full semester after the student enrolls in graduate courses in order to continue course work.
- B. The student may or may not be able to meet admission requirements but does not desire to work toward a graduate degree.
- C. The student is enrolled in another university and desires to obtain credit from the University of Southern Mississippi to be transferred to the graduate school in which he or she is seeking a degree.

Regulations Governing Non-Degree Graduate Students

Even though a non-degree graduate student has been admitted to the University, he or she **has not** been admitted to any department or to any degree program. Moreover, no credit earned beyond the master's degree while classified as a non-degree student may be applied toward the doctoral degree. **Non-degree graduate students must have the permission of the chair of the department offering the course and the Dean of the Graduate School to register for any graduate course.** It is the responsibility of these students to check admission standards of the individual colleges before enrolling in their courses.

A non-degree graduate student must hold a baccalaureate degree from an accredited institution.

To be allowed to continue as a non-degree graduate student, the student must consult with the department chair or academic adviser of the department in which he or she is taking courses during the first semester enrolled at the University regardless of whether or not the student plans to seek a degree.

No more than nine (9) semester hours earned while classified as a non-degree graduate student will be accepted toward a master's degree at the University of Southern Mississippi. A student must, therefore, gain conditional or regular admission before completing more than nine (9) semester hours of study for additional hours to be counted toward a master's degree.

Types of Admission to Advanced Graduate Study

Advanced graduate programs leading to the specialist's degree or various doctoral degrees are available to qualified students. An applicant may be granted regular or conditional admission to these programs, or may be admitted as a non-degree graduate student.

I. Regular Admission

For regular admission to advanced graduate study, a student must present a grade point average no lower than 3.25 for the specialist's program or 3.50 for the doctoral program on previous graduate

work and results from the General test of the Graduate Record Examinations (GRE). Some departments in the College of Education and Psychology accept the Miller Analogies Test (MAT) for admission to the specialist's program. All students seeking admission to a doctoral program must present scores on the General test of the GRE. Consult departmental requirements for required specific degree programs.

II. Conditional Admission

A student who fails to qualify for regular admission due to an unsatisfactory grade point average or test scores may be admitted on a conditional basis; provided, however, such student possesses a grade point average of at least 2.50. Conditional admission can be given only upon the recommendation of the department chair, the college dean, and the Graduate Dean.

A conditional student at the advanced graduate level must maintain a grade point average of at least 3.25 on the first nine (9) semester hours of course work numbered 600 or above or on all courses taken while completing this nine (9) hour requirement. Additional requirements may be imposed by the department chair. A student should meet with the chair to be clear about this requirement. All requirements must be met or the student will not be allowed to continue to seek an advanced degree. A student not maintaining the required grade point average after the first nine (9) semester hours of course work, and/or failing to satisfy any additional requirements, will be reclassified as a non-degree graduate student.

All courses taken to remove conditional admission must be taken on a campus of the University of Southern Mississippi. Upon recommendation of the department chair and approval by the Dean of the Graduate School, the conditional admission will be removed and the student reclassified as a regular student.

If a student wishes to change from the master's or specialist's program to a higher degree program, the student will submit a new application requesting acceptance in a higher degree program.

III. Non-Degree Graduate Student

An applicant for advanced study may be admitted as a non-degree graduate student; however, no credit earned as a non-degree graduate student may be applied to doctoral degrees. All non-degree graduate students at the advanced level must have the permission of the chair of the department offering the course and the Dean of the Graduate School to register for any graduate course.

Limitations on University Faculty Members

Members of the faculty of the University of Southern Mississippi above the rank of instructor cannot become candidates for a doctoral degree at this institution. They may, however, enroll for graduate courses. Faculty members of the rank of instructor may become candidates for doctoral degrees at the University of Southern Mississippi on the same terms as any other advanced graduate student candidate.

Students Denied Admission

Students who have been denied admission to a program, but who wish to take graduate courses, may reapply for admission to the University as a denied non-degree seeking graduate student. All students in this category are treated as non-degree graduate students, and therefore **must** have the permission of the chair of the department offering the course and the Dean of the Graduate School to register for any graduate course.

Procedures for Applying for Admission

- I. Application materials are available from the Office of Admissions, Box 5166, phone (601) 266-5000, or in person at Graduate Admissions, Box 10066, Hattiesburg, MS 39406-0066.
- II. Students can also apply by INTERNET: web page address: www-dept.usm.edu/~gradsch
- III. All credentials (application, recommendations, an official transcript from each institution attended and standardized test scores) must be submitted to the Director of Graduate Admissions by the deadline published in the University Calendar. Some departments have earlier deadlines. Please check with your department.
- IV. **After all credentials are received, the Graduate Admissions Office will compute the applicant's grade point average for the last 60 hours of baccalaureate classwork and will forward the application and transcript to the appropriate department chair, college dean, and the Graduate Dean.** As soon as the application has been processed by the department chair, the college dean concerned, and the Graduate Dean, the Office of Graduate Admissions will notify the applicant of the University's decision on the request for admission.

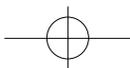
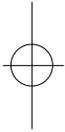
- V. If a student has been admitted but has not attended USM on that acceptance, the admit status is good for only one year. After that time all paperwork (transcripts, etc.) is shredded.
- VI. Students whose native language is not English and have recently come to the United States may be required to take the TOEFL exam to demonstrate English proficiency.

Permission for Undergraduate Seniors to Register for Graduate Credit

Exceptionally well qualified undergraduate students at the University of Southern Mississippi may apply to the Graduate Office for permission to take course work for graduate credit if they are within nine (9) semester hours of meeting bachelor's degree requirements as certified by the University Registrar. If the Graduate Dean approves, the student may then register for graduate courses up to a maximum of six (6) semester hours of graduate credit with a total course load not exceeding twelve (12) semester hours. The student must complete requirements for the baccalaureate degree within the first semester/term in which he or she registers for graduate courses. The student's application for admission to the Graduate School will not be given final approval until after he or she satisfies all requirements for the baccalaureate degree.

An undergraduate student from another institution desiring to take graduate courses as listed above should file a graduate application, have a transcript sent to the Dean of the Graduate School, and ask for permission to take a graduate class.

Admission
Applying for Admission



Student Expenses

The University of Southern Mississippi is supported chiefly by legislative appropriations. Increases in student fees are put into effect only when public support funds are inadequate and no other recourse is available. Increases are made only for support of the institution or improvement of the activity program of the students; therefore the University must reserve the right to increase or modify fees and expenses without prior notice but with approval of the Board of Trustees of State Institutions of Higher Learning.

Fees and expenses are in the form of general tuition, room and board, and special fees.

General Tuition. This fee, together with the allocation from the legislative appropriation, is used for general support of the University. Athletic activities and UAC programs are not included for part-time students.

Full-time students for purposes of assessing fees are those who take nine (9) or more semester hours in the Graduate School during fall and spring semesters. During summer terms, seven (7) or more semester hours in the Graduate School constitute full-time students for purposes of assessing fees. Graduate students are limited to twelve (12) semester hours in a full summer session. Graduate students enrolled for more than thirteen (13) semester hours during fall and spring semesters will be assessed the applicable fee for each additional semester hour.

Health Services. Clinical and hospital services covered by the health service charge included in the general tuition fee are limited to cases of ordinary illness. Services are provided within the limits of the professional, technical, and physical resources of the Clinic. The University does not assume responsibility in cases of extended illness or for treatment of chronic diseases. Cases requiring surgery must be handled by a physician and hospital of the student's choice and at the student's expense.

Room and Board. The room and board fees are assessed for all students living in University controlled residence halls and those students living in fraternity houses. Board is available to all other students on an optional basis. Two meal plans are available; a seven-day 21 meal plan and a five-day 15 meal plan. Lite Line meals and diet counseling are available at no extra charge.

A room deposit is payable in advance for the reservation of space in the residence hall. This amount is held as a damage deposit until a student withdraws from the residence hall. Upon withdrawal, the student must make an application to the Resident Manager of the dormitory for refund. When a student reserves a room in a residence hall, he or she obligates him or herself to pay for both fall and spring semesters' room rent unless the student cancels his or her assignment in writing before the residence halls open for the fall semester. A rent refund will be made only upon withdrawal from the University.

Telephone Service. Telephone service in residence halls and family student housing is provided to students through the University telephone system. The cost of sharing **local telephone service** is included as a part of housing rent. For long distance service, students may use the University's system by completing an application at the Campus Telephone Office, Hub Building, Room 104. Long distance telephone authorization and a caller identification will then be issued. Long distance calls are billed to the student on a monthly basis. Charges must be settled prior to leaving the University (including graduation, withdrawal, and semester breaks).

Post Office Box. The post office box fee is assessed for all students living in University controlled housing. Those students living off campus may rent a post office box if they so desire.

Student Identification Cards. The ID card is a permanent card for each student. The fall semester (permanent) ID card will also be used for spring and summer semesters each year by revalidation. The same card must be kept, revalidated and used even when returning from a previous year or semester. Do not destroy, lose, bend or tamper with an ID card. Only one card will be issued at no charge during a five (5) year period. A fee of \$10.00 will be charged at the time a replacement card is made.

Other Financial Information. One-half of a student's total fees are due and payable at time of registration. Students with University loans, grants, or scholarships may use those funds as payment for the first half of total fees. Loans, grants, scholarships and checks made payable to the University must be applied to fees in full before a refund or change can be given. Fees deferred past the last day to register each term will be billed monthly. A monthly service charge of 1.5% will be applied to the unpaid balance.

The University accepts payment by check, money order, cash, Visa and Mastercard credit cards. The University reserves the right to refuse payment by check where an individual has previously given a check that has been returned.

The University reserves the right to withhold readmission of a student until all delinquent accounts have been paid. In fact, all past due accounts will be included on registration fee invoices and monthly bills. Transcripts will not be issued for students whose accounts are delinquent. All fees must be paid before a degree will be awarded.

Fines accumulated as a result of failure to adhere to the established procedures of the University, such as Library and Public Safety regulations, or any other policy establishing regulations for the protection of University property, shall become collectable by the Business Office, and, if not collected, shall constitute a delinquent account.

Late Registration Fee. A fee of \$50.00 will be assessed students who register during the late registration period.

Students whose checks for registration fees are returned will be assessed the late registration fee of \$50.00 in addition to the \$30.00 returned check handling fee. **Returned checks not promptly paid may result in dismissal from the University.**

The \$15.00 activity fee assessed to part-time students consists of a non-refundable \$5.00 fee allocated to registration expenses, a \$6.00 allocation to the Payne Center, a \$1.00 allocation to the University Union, a \$2.00 allocation to transcripts, and a \$1.00 allocation to the Cook Library. A \$3.50 per hour fee for use of the University Clinic by part-time students is included in the per hour fee shown below.

Courses requiring special fees and music fees are shown in the Special Fee listing and are indicated by a plus sign in the Course Description Section of this **Bulletin**.

Expenses Each University Semester/Session

(All fees are subject to change without notice.)

Fixed Fees	Fall, Spring Semesters	Summer Session
Full-Time Graduate Students		
General Tuition (Includes Activity Fees)	\$1,435.00	\$998.00
Housing Rent:		
Hillcrest, Elam Arms, Mississippi, Hattiesburg and Vann (double occupancy)	870.00	590.00
(single occupancy)	1,300.00	900.00
Roberts, Scott, Jones, Pulley, Bolton, Wilber, Hickman and Bond (double occupancy)	795.00	550.00
(single occupancy)	1,192.00	820.00
Pine Haven Apartments:		
1-bedroom	1,023.00	1,023.00
2-bedroom	1,113.00	1,113.00
3-bedroom	1,203.00	1,203.00
Board:		
5-Day Plan	590.00	360.00
7-Day Plan	650.00	390.00
Other Fees When Applicable:		
Non-resident Fee	1,551.00	250.00
Post office box rental fees are non-refundable and are assessed as follows:		
Rented beginning Fall Semester	24.00	
Rented beginning spring Semester	16.00	
Rented beginning Summer Semester		8.00
<i>Optional as same rates to students living off campus.</i>		

Part-Time Students—Each Semester Hour

Hattiesburg Campus:

General Tuition—graduate student	137.00	137.00
Activity Fee (per student).....	15.00	15.00

Non-resident Fee:

Graduate student	172.00	34.00
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General tuition, room, board, and post office, if applicable, are payable each semester/session.

Special Fees and Expenses

Departmental Fees:

Music Fees—Private lessons for other than full-time music majors and for music majors taking private lessons not required for the degree being pursued:

Each semester hour per instructor	35.00	
Orchestral or Band Instrument Rental.....	15.00	per semester
Locker Rental.....	5.00	per semester

Examinations and Degrees:

Miller Analogies Test.....	35.00	when applicable
Revalidation Examination	30.00	when applicable

Application for Degree

Bachelor's	No charge
Master's	No charge
Specialist's	No charge
Doctoral.....	No charge

Dissertation and Thesis Binding Fees

Doctoral	140.00*	
<i>*includes dissertation binding fee for three university copies</i>		
Thesis binding per copy	17.50**	when applicable
<i>**binding provided for university copies only</i>		

Registration and Records:

Cooperative Education.....	25.00	when applicable
Late Registration	50.00	
Registration Fee for International Students.....		
(Non-refundable)	25.00	with application

Continuing Education and Off-Campus Centers

Off-Campus Centers

Undergraduate Course	96.00 per semester hour
Graduate Course	127.00 per semester hour
Laboratory Fee - Nursing 361, 362,363	45.00 per course plus 2.00 per SCH
Registration (per student)	5.00
Transcript Fee (per student)	2.00

Extension (Additional fees may be assessed)

Undergraduate Course	96.00 per semester hour
Graduate Course	127.00 per semester hour
Registration (per student)	5.00
Independent Study Courses	65.00 per semester hour (3 hr. crs.)
	75.00 (1 semester hour course)
	5.00 (1st class mailing fee)

High School Independent Study Course

Special fees are not normally refundable. However, requests for refunds of special fees will be based on circumstances existing at the times of requests.

Refund Policy

Students who find it necessary to withdraw from the University must submit written requests to the dean of the Graduate School who will initiate the Withdrawal and Refund Form.

Refunds are based on the following:

Withdrawal prior to the first day of class
of any term100% less a \$30 withdrawal fee

Fall and Spring Semesters.

The first through the fifth working day100% less a \$30 withdrawal fee
The sixth through the fifteenth working day75%
The sixteenth through the thirtieth working day50%
After the thirtieth working dayNone

S and SS Fall and Spring Semesters.

Prior to and including the last day to register
for or add S and SS courses100% less a \$30 withdrawal fee
The next five working days75%
The next ten working days50%
After the 50% periodNone

Summer Term

The first through the fifth working day100% less a \$30 withdrawal fee
The sixth through the tenth working day75%
The eleventh through the twentieth working day50%
After the twentieth working dayNone

S and SS Summer Term

Prior to and including the last day to register
for or add S or SS courses100% less a \$30 withdrawal fee
The next five working days75%
The next ten working days50%
After the 50% periodNone

These schedule dates are posted in the Business Office.

Refunds are based on the assessment,not upon the amount paid by the student.

Appeals for refunds due to extenuating circumstances may be made in writing to: Business Services, Box 5133,Hattiesburg, MS 39406-5133. Appeals must be received prior to the end of the academic year.

Students who participate in SFA (Student Financial Assistance) programs have additional calculations. These calculations are made on a withdrawal worksheet. This form utilizes a comparison of USM refund policy to a Federal Refund Policy. The larger refund calculation will be used .

Federal Refund Policy mandates the percentage of institutional charges that must be refunded as follows:

- v Withdrawal on the first day of class—100% refund of institutional charges (less the permitted administrative fee of the lesser of \$100.00 or 5% of institutional charges)
- v Withdrawal from after the first day of class through the first 10% of the enrollment period—90% refund of institutional charges
- v Withdrawal from after the first 10% of the enrollment period through the first 25% of the enrollment period—50% refund of institutional charges



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- v Withdrawal from after the first 25% of the enrollment period through the first 50% of the enrollment period—25% refund of institutional charges

Pro Rata Refund is calculated with both of the following conditions apply:

- v The student is a first-time student
- v The student withdrew on or before the 60% point in time of the enrollment period for which he or she was charged

There is no comparison to a USM refund calculation or Federal Refund calculation when these conditions exist. This calculation is made on the withdrawal worksheet. Under a pro rata refund, the school must refund an amount proportional to the portion of the enrollment period that was not completed by the student. This “portion that remains” percentage is calculated based on the following formula and may be rounded down to the nearest 10%.

$$\frac{\text{Weeks Remaining}}{\text{Total Weeks in Period}}$$

Examples of these refunds can be found at the Business Office in the Accounts Receivable Department.

Residence Status

Legal Residence of Students: The definitions and conditions stated here are as required by state law in the classification of students as residents or nonresidents for the assessment of fees. Requests for a review of residency classification should be submitted to the Office of Admissions and Records; forms for this purpose are available from the Office of Admissions and Records.

A Minor: The residence of a person less than twenty-one years of age is that of the father. After the death of the father, the residence of the minor is that of the mother. If the parents are divorced, the residence of the minor is that of the parent who was granted custody by the court; or, if custody was not granted, the residence continues to be that of the father. If both parents are dead, the residence of the minor is that of the last surviving parent at the time of that parent’s death, unless the minor lives with a legal guardian of his or her person duly appointed by a proper court of Mississippi, in which case his or her residence becomes that of the guardian.

An Adult: The residence of an adult is that place where he or she is domiciled, that is, the place where he or she actually physically resides with the intention of remaining there indefinitely or of returning there permanently when temporarily absent. Adult students who are residing outside of the State of Mississippi, but whose parents have moved to this state and have become residents, must establish residence in their own right. In determining residence for tuition purposes for persons who return to Mississippi after temporary departures such as school attendance, work elsewhere or military service, cognizance is taken of evidence showing continuity of state residence and demonstrated intent to return to the state.

Removal of Parents from Mississippi: If the parents of a minor who is enrolled as a student in an institution of higher learning move their legal residence from the State of Mississippi, the minor is immediately classified as a nonresident student.

Twelve Months of Residence Required: No student may be admitted to the University as a resident of Mississippi unless his or her residence, as defined herein-above, has been in the State of Mississippi for a continuous period of at least twelve months immediately preceding his or her admission.

A student who has lived within the state for twelve months following his or her twenty-first birthday may establish residence in his or her own right by showing that he or she is living in the state with the intention of abandoning his or her former domicile and remaining in the State of Mississippi permanently, or for an indefinite length of time. Intent may be demonstrated or disproved by factors including, but not limited to, filing of Mississippi income tax returns, eligibility to vote in Mississippi, motor vehicle registration in Mississippi, possession of Mississippi operator’s license, place of employment, and self support.

Residence Status of a Married Person: A married person may claim the residence of his or her spouse (Foreign students refer to the **Legal Residence of a Foreign Student** section).

Children of Parents Who Are Employed by the University: Children of parents who are members of the faculty or staff of the University may be classified as residents without regard to the residence requirements of twelve months.

Military Personnel Assigned on Active Duty Station in Mississippi: Members of the armed forces on extended active duty and stationed within the State of Mississippi may be classified as residents,

without regard to the residence requirement of twelve months, for the purpose of attendance at the University. Resident status of such military personnel who are not legal residents of Mississippi, as defined above under LEGAL RESIDENCE OF AN ADULT, shall terminate upon their reassignment for duty in the continental United States outside the State of Mississippi.

Children of Military Personnel: Resident status of children of members of the armed forces on extended active duty shall be that of the military parent for the purpose of attending the University during the time that their military parents are stationed within the State of Mississippi and shall be continued through the time that military parents are stationed in an overseas area with last duty assignment within the State of Mississippi, excepting temporary training assignments en route from Mississippi. Resident status of minor children shall terminate upon reassignment under permanent change of station orders of their military parents for duty in the continental United States outside the State of Mississippi, excepting temporary training assignments en route from Mississippi.

Certification of Residence of Military Personnel: A military person on active duty stationed in Mississippi who wishes to avail himself or herself or his or her dependents of the provisions of the paragraph titled MILITARY PERSONNEL ASSIGNED ON ACTIVE DUTY STATION IN MISSISSIPPI must submit a certificate from his or her military organization showing the name of the military member, the name of the dependent, if for a dependent, the name of the organization of assignment and its address (may be in the letterhead), that the military member will be on active duty stationed in Mississippi on the date of registration at the University; that the military member is not on transfer orders; and the signature of the commanding officer, the adjutant, or the personnel officer of the unit of assignment with signer's rank and title. A military certificate must be presented to the Registrar of the University each semester at (or within ten days prior to) registration for the provisions of the paragraph MILITARY PERSONNEL ASSIGNED ON ACTIVE DUTY STATION IN MISSISSIPPI, named above, to be effective.

Legal Residence of a Foreign Student: Students with permanent immigrant status or refugee status can establish residence in the state by meeting the provisions of the Mississippi Statute.

Petitions for Change of Residency: Petitions for change of residency must be made on or before the last day of late registration. Forms are available in the Office of Admissions and Records.

Students Holding Assistantships: Non-resident students holding University financed assistantships will not be required to pay the non-resident fee during the time they hold such appointments.

Student Expenses
and Financial Aid
Residence Status

Available Financial Assistance for Graduate Students

At present the University has available some 400 master's and 150 doctoral University assistantships in all areas as well as fellowships provided by federal and private agencies. Though amounts may vary from department to department, University assistantships range from \$3400 to \$6000 per academic year at the master's level and from \$4800 to \$12,000 per academic year at the doctoral level and entail one-half time of teaching or research assignment. To maintain an assistantship a student must have an average of **B** or better each semester. General tuition and the non-resident fee are waived for graduate assistantship holders. To qualify for this waiver, students on assistantships must be registered for courses totaling twelve (12) hours each semester (9 hours during Summer term). Courses taken as Audit do not count toward these hours. The University also currently waives out-of-state tuition for students on sabbatical leave **with pay** from schools and colleges.

Inquiries regarding assistantships should be directed to the Dean of the Graduate School. Applications for assistantships must be filed by May 15.

The Perkins Loan Program (formerly NDSL), and the Federal Work-Study Program, and State Student Incentive Grant are also available to graduate students. (See the Financial Aid section of the **Undergraduate Bulletin** for detailed information about the Perkins & FWS Programs.) Applicants for Perkins Loans and Federal Work-Study Program should apply by **March 15** (priority date) for loans and work to begin the fall term. Applications for the Perkins Loan Program, and the Federal Work-Study Program may be secured by writing the Office of Financial Aid.

Career Planning and Placement

The Office of Career Planning and Placement, located on the first floor of McLemore Hall, offers the student three types of employment assistance while attending the University: part-time employment, cooperative education employment, and career employment upon graduation.

The **Student Employment Division** offers the student an opportunity to obtain part-time employment while enrolled as a regular student at USM. The service is comprehensive in that it will involve jobs for work-study as well as non-work-study both on and off campus.

The **Cooperative Education Program** affords the student the opportunity to gain a complete education with periods of work related to the student's major. The Cooperative Education Office assists in securing meaningful jobs that will give the student practical work experience and financial support to aid in his or her education. The basic qualifications for the graduate Co-op Programs are as follows:

1. Admission to Graduate School
2. The maintenance of at least a 3.00 GPA
3. The student must attend USM at least one semester prior to placement.

Students are eligible to enter the program at any time during their career at USM after the first semester. Salaries of co-op students vary depending on the type of degree they are pursuing and the amount of co-op experience they have. The Office of Cooperative Education will determine the eligibility of the student to participate in the program. Once an active participant, each student's record of performance will be periodically reviewed, and student may be placed on probation or removed from the program when they do not meet minimum requirements.

The **Placement Center** provides assistance to post baccalaureate students, and alumni in obtaining career employment upon or after graduation. Students seeking career employment should establish a placement credentials file during the last semester of their academic program. These credentials are valuable to prospective employers who are seeking information on college graduates for possible employment. The services may be used by the graduate as often as is needed.

For Additional information, contact the:

Student Employment Division
Box 5014
Hattiesburg MS 39406-5014
(601) 266-4157

Cooperative Education Program
Box 5014
Hattiesburg, MS 39406-5014
(601) 266-4844

The Placement Center
Box 5014
Hattiesburg, MS 39406-5014
(601) 266-4153

General Academic Requirements

It is reasonable to assume that a graduate student accepts full responsibility for knowing the policies and regulations of the Graduate School and the departmental requirements relevant to his or her individual degree program.

Only the general academic regulations and requirements governing all graduate programs are given below. Specific requirements pertaining to individual degree programs are outlined within the department sections.

Course Work and Grading System

Courses open to graduate students for graduate credit are those numbered 500 or above.

Many courses have certain prerequisites. A student who wishes to register for a particular course must satisfy the department concerned that he or she has had preparation adequate for admission to the course.

All graduate coursework, especially 500 level dual credit courses, shall have a research component which is included in the final grade.

The grading system in the Graduate School is as follows:

- A**—Indicates that the student's work is of unusually high quality.
- B**—Indicates that the student's work is of high but not exceptional quality.
- C**—Indicates that the student has met the minimum requirements for passing the course.
- D**—Indicates that the student's work is below that which is expected of a graduate student. A course in which the student has earned a grade of D will not apply toward a graduate degree. A student who earns more than six (6) semester hours in grades of D or below may not be considered as a candidate for a degree. (See Probation below.)
- E**—Indicates a course in progress. Not included in the grade point average; a grade of E shall be awarded for graduate thesis, recital and dissertation courses and for such self-paced or skill courses as the Academic and/or Graduate Council may designate. An E shall be changed to a P only in the case of credit for thesis and dissertation and then only for the last recorded credit for these courses. Otherwise, the E remains on the record indicating that to receive credit the student must re-register for the undergraduate course, repeating it on a regular basis until completing it. Upon completion, the appropriate grade, whether P or valuative, shall be assigned.
- F**—Indicates that the student has failed the course. A student who accumulates more than three (3) semester hours of F grades will not be considered as a candidate for a degree. (See Probation below.)
- I**—Indicates an incomplete record and will have no immediate impact on a student's grade point average. An I should be removed within the student's next term of attendance. If an I is allowed to remain on the record, it will be treated as an "F" at the time of graduation.
- P**—Indicates completion of thesis and dissertation credit and is assigned only upon completion. Also used for grades in courses numbered 697 and 797.
- W**—Indicates withdrawal from a course with a passing grade.
- X**—Indicates failure to drop or withdraw properly before deadline. Upon completion of the drop/withdrawal form by the student in the Office of Admissions and Records, the Registrar is authorized to replace the grade of X with a W.

Fuller explanation of the grading system is in the **Undergraduate Bulletin**.

The general regulation that degree work must be completed within a six-year period applies to all course work.

A grade-point average of **B** or better is required of all candidates for graduate degrees by the time they complete the course-hour requirements for the degree.

The use of the Pass/Fail option at the Graduate level for any course except those listed above **MUST BE APPROVED BY THE GRADUATE COUNCIL**.

On the recommendation of the student's committee or major professor, a student may retake one graduate level course in order to improve his grade point average.

Probation

Regularly admitted graduate students will be placed on probation if they earn more than 6 semester hours of "D" or more than 3 semester hours of "F". When students have more than 3 hours of "F" or more than 6 hours of "D", they will not be considered as a candidate for a degree but will be reclassified as a non-

degree student. Students may retake one course with prior permission in order to improve their grade point average (GPA) or to aid in removing probationary status. When students retake one graduate course to remove non-degree status, the course must be completed within 2 semesters of the non-degree reclassification. If students then attain a 3.0 cumulative GPA, they will be reclassified as conditional students in the original degree program. All graduate courses taken to fulfill requirements for a minor, the foreign language, or the statistical/computer science requirements are included in the grade point calculation.

Undergraduate classes taken as so-called "leveling in" classes are not included in the graduate grade point average. However, a department may choose not to consider classes with a "C" or a lower grade towards its major.

Students may request an appeal of reclassification to non-degree status by writing to Dr. Anselm C. Griffin, Dean of the Graduate School, Box 5024 and requesting an appeals hearing.

Grade Review Policy

The instructor (defined as one who has the responsibility for a class, special problem, thesis or dissertation) has the authority in his or her class over all matters affecting the conduct of the class, including the assignment of grades. Student performance should be evaluated according to academic criteria made available to all students within the first two weeks of each semester. Grades should not be determined in an arbitrary or capricious manner.

When a student disagrees with the final grade given by an instructor, fair play requires the opportunity for an orderly appellate procedure. A student must initiate the appeal procedure within 30 school days (excluding Saturday, Sunday, and official student holidays) of the beginning of the semester subsequent to the one in which the grade was awarded, or 120 calendar days after the issuance of spring semester grades, should the student not be enrolled during the summer term. The procedure assures due process for both the instructor and student. For policies and procedures governing grade review, contact the dean of the appropriate college or the Vice President for Academic Affairs.

Course Loads

- I. Although the maximum load of a full-time graduate student for the fall and spring semesters is sixteen (16) semester hours with permission, the normal load for a full-time graduate student is generally considered to be twelve (12) semester hours.
- II. The minimum load for a full-time graduate student is nine (9) semester hours for students living in Pine Haven, using the services of the Clinic, using the services of Veteran's Affairs, or using other similar services of the University.
- III. The minimum load for a graduate assistant teaching one undergraduate class or its equivalent is 12 (twelve) hours. The maximum load for a graduate assistant is 13 (thirteen) hours.
- IV. In no case may the total hours involved in a student's program, including both the course work and the assistantship assignment, exceed sixteen (16) hours.
- V. The maximum load for any graduate student in the summer session is twelve (12) hours.
- VI. The courses numbered 697 and 797—Independent Study and Research—may be taken for any amount of credit (up to a maximum of sixteen (16) hours in any one semester) with the exception that students who are not in residence but who are actively working on a thesis, research problem, or dissertation and consulting with the major professor or making use of the library or other University facilities must enroll for at least three (3) hours each semester.
- VII. Students enrolling only for 698, 798, or 898 or courses entitled "Internship," should enroll for a minimum of three hours, or PSY 796 for a minimum of four hours.
- VIII. Students enrolling only for 691, 791, or 891 (or other courses titled "Research in...") should enroll for a minimum of three hours.

Master's Degree Requirements

A convenient checklist of master's degree requirements may be procured in the Graduate Office.

A general thesis timetable follows:

Thesis and Dissertation Timetable

For the exact deadlines you must meet for graduation, consult the Thesis Calendar, obtainable from the Graduate School. The following timetable shows approximate time, in weeks, by which you need to have completed the indicated action.

Time Before Graduation	Action to Be Completed
21 weeks	File application for admission to candidacy. File application for degree.
12 weeks	Contact graduate reader to make arrangements for final draft production.
8 weeks	Submit draft of the manuscript to your major professor for corrections.
7 weeks	Have title page approved by the graduate reader. Submit a revised version (approved by your major professor) to each member of your committee.
6 weeks	Defend thesis. Ensure that copies of results of oral defense of dissertation are filed in the Graduate School.
5 weeks	Submit a copy of the manuscript to the graduate reader for checking and final approval. Please do not expect immediate turnaround. The graduate reader may need up to three weeks to complete the check.
2 weeks	Thesis: File final four (or five) copies at the Graduate School

I. Credit Hours

A minimum of thirty (30) semester hours credit is required for any master's degree. Many departments require more than the minimum. Consult specific college and departmental requirements for additional information.

II. Time Limitation

The student must complete the master's degree within six calendar years from the date of initial enrollment in a graduate program. Six years is the maximum age allowed for graduate credits toward a master's degree. If more than six years are needed to complete requirements, the Graduate Dean, under extenuating circumstances, and special petition, may revalidate over-age credit hours if the original credit was earned at the University of Southern Mississippi and if the dean of the college concerned approves the revalidation. The revalidation is secured by the student's successfully passing a special examination on the course. However, any student who fails to complete the master's degree program within the six-year time period becomes subject to any changes in degree requirements made at any date six years prior to graduation. The fee charged for the special revalidation examination is \$30.00 per course. The fee is to be paid before the validation examination is taken. Over-age extension courses cannot be revalidated.

III. Credit Hours Limitations

- A. A minimum of fifty per cent of the credit earned at the University of Southern Mississippi must be taken on the USM campus from which the degree is awarded.
- B. A minimum of eighteen (18) semester hours must be in courses numbered 600 or above.
- C. A total of no more than nine (9) semester hours of work earned as a non-degree student may be applied toward a master's degree. Please note E below.
- D. As many as six (6) semester hours of graduate credit from other accredited institutions may be transferred to the student's program with the approval of the appropriate department chair and the Graduate Dean provided that the course work transferred falls within the six-year period allowed for the degree.
- E. A total sum of no more than nine (9) semester hours of transfer work and non-degree work may be applied toward a master's degree.

IV. The Master's Committee

The student's work toward the master's degree is either supervised by a departmental committee composed of a chair and at least two members recommended by the department chair and appointed by the Graduate Dean or by an experienced advisor who guides the student through the program.

V. The Minor Field

If a minor field is required in the master's program, it shall consist of a minimum of nine (9) semester hours of graduate course work.

VI. The Master's Thesis

- A. The degree of Master of Arts entails the writing of a thesis (**698. Thesis, 6 hrs.**). For the degrees of Master of Science and Master of Education, some programs offer a non-thesis option. Students intending to pursue a degree higher than the master's are encouraged to write a thesis.
- B. As appropriate, the Human Subjects Protection Review Committee and/or the Institutional Animal Care and Use Committee must approve the thesis topic.
- C. A separate bulletin outlining University requirements concerning the preparation of theses is available in the Graduate Office or on the Web at <http://www-dept.usm.edu/~gradsch/gradread.html>.
- D. The student must register for at least three (3) hours of 698 during the semester/term in which he or she expects to **defend** the thesis. Students who have previously registered for the maximum total of six (6) hours of 698, and/or who are not in residence, but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University, must register for at least three (3) hours of 697-Independent Study and Research.

VII. Examinations

- A. The General Test of the **Graduate Record Examinations** or the **Graduate Management Admission Test** is required for admission into the Graduate School. Individual departments may require the advanced area tests. Some departments in the College of Education and Psychology accept the **Miller Analogies Test**.
- B. Some master's degree programs, particularly programs leading to the Master of Arts, include a foreign language requirement. Students should refer to the section of this **Bulletin** describing individual departments and schools to determine whether specific requirements have been established for a program of interest. A student may demonstrate proficiency in a foreign language by any of several options; the particular option followed by the student must have the approval of the student's advisory committee and the Dean of the Graduate School. The options are as follows:
 1. Completion of six (6) graduate semester hours with grades of C or better in one of the following language sequences: FRE 501-502, SPA 501-502, or GER 501-502. These courses are specifically designed to meet the University of Southern Mississippi Graduate School foreign language requirements.
 2. Completion of nine (9) semester hours (undergraduate or graduate) with grades of C or better in an approved foreign language. The courses listed above in option 1 may not be included as part of these 9 hours. The student may transfer these hours from an accredited institution upon admission to the Graduate School, provided that the most advanced of the courses was taken within the last six (6) calendar years. After admission, courses taken to satisfy the foreign language requirement by this option must be taken at the University of Southern Mississippi or may be taken at another institution if written approval of the specific courses and institution is obtained from the student's advisory committee, the chair of the Department of Foreign Languages and Literatures, and the Dean of the Graduate School.
 3. Students may successfully complete the College-Level Examination Program (CLEP) test in French, Spanish, or German. The CLEP can be taken at many sites. Students must obtain a minimum score of 52 on the total test in one of the languages or obtain a minimum on the Reading Section of the test as follows: French 44; German 40; Spanish 48.
 4. Students whose first language is not English may use English to fulfill the proficiency requirement for one language by scoring in the 65th percentile (scaled score = 560 or higher) on the Test of English as a Foreign Language. If English is used to fulfill the Language proficiency requirement, then the native language cannot also be used to fulfill a second language requirement.
 5. Students fulfill the proficiency requirement for one language if they have completed an undergraduate major or a master's degree in a foreign language at any time. Demonstration of proficiency by any means other than these options must be done by a method recommended and approved by the student's advisory committee, the Chair of the Department of Foreign Languages and Literatures, and the Dean of the Graduate School.
- C. In addition to regular examinations, final comprehensive examinations are required for master's degrees. The major department will determine whether the comprehensive examination will be written or oral or both. The written comprehensive, if required, will be prepared by the student's committee and will cover the area of the major field. If an oral examination is required, the chair of the student's committee will send written notices of the time and place of the examination. Comprehensive examinations, whether written or oral, will be administered no later than the last academic week of the semester/term in which the student expects to receive the degree and the results reported by the department chair to the Graduate Office no later than the last day for presenting signed theses to the Graduate Office. The examination may be administered earlier in the semester/term if the department so desires. A student who fails the comprehensive examination may not retake the examination until its next regular administration and may repeat the examination only once.

Specialist's Degree Requirements

The specialist's degree earned in the Departments of Educational Leadership and Research, Curriculum and Instruction, Special Education, and Library and Information Science provides sixth-year programs designed to prepare students for positions in school administration, advanced technical education for business, teacher training, and counseling, and to develop research and evaluation specialists for the public schools. Individual programs and requirements are fully described in the departmental sections of this **Bulletin**.

Students who are seeking the specialist's degree must meet all degree requirements relating to the master's degree, must earn at least thirty-three (33) semester hours beyond the master's degree, must write an acceptable thesis (798) and defend it via an oral examination, or complete a field-based problem, and must complete one full-time semester/term of residence taking all nine (9) semester hours on the Hattiesburg Campus.

A maximum of nine (9) semester hours (which includes transfer credit) earned as a non-degree student may be applied to the specialist's degree.

Doctoral Degree Requirements

A general dissertation timetable follows:

Dissertation Timetable

For the exact deadlines you must meet for graduation, consult the Dissertation Calendar, obtainable from the Graduate School. The following timetable shows approximate time, in weeks, by which you need to have completed the indicated action.

Time Before Graduation

21 weeks

Action to Be Completed

File application for admission to candidacy.
File application for degree.

12 weeks

Contact graduate reader to make arrangements for final draft production.

8 weeks

Submit draft of the manuscript to your major professor for corrections.

7 weeks

Have title page approved by the graduate reader. Submit a revised version (approved by your major professor) to each member of your committee. Defend dissertation.

6 weeks

Ensure that copies of results of oral defense of dissertation are filed in the Graduate School.

5 weeks

Submit a copy of the manuscript to the graduate reader for checking and final approval. Please do not expect immediate turnaround. The graduate reader may need up to three weeks to complete the check.

2 weeks

Dissertation:
File final four (or five) copies at the Graduate School.

I. Credit Hours

All doctoral degrees entail a minimum of eighty-four (84) semester hours of course work beyond the bachelor's degree or fifty-four (54) semester hours of course work beyond the master's degree.

II. Time Limitations

With special petition, courses taken above the master's degree or its equivalent which will fit into the degree program but which are six or more years old at the time of admission to the advanced graduate program may be counted toward meeting degree requirements when recommended by the department chair and approved by the Graduate Dean. The comprehensive examination must be completed within a period of six years after the student has been admitted to advanced graduate standing at the University of Southern Mississippi.

III. Credit Hour Limitations

- A.** Transfer of credit for graduate work done at other institutions must be approved by the department chair and Graduate Dean. Final evaluation of and acceptance of transfer credit will not be made until the student has been in residence for one semester/term. This graduate class work must carry with it a letter or numeric grade and cannot be a Pass/Fail course. Transfer of credit for doctoral degree programs is limited to not more than six (6) semester hours or nine (9) quarter hours beyond the master's degree. Exceptions to this restriction may be made only with the approval of the department chair and the Graduate Dean.
- B.** Credit earned as a non-degree graduate student cannot be applied toward a doctoral degree.

IV. Residency

Residency "refers to a period during which the candidate is on the campus engaged in intensive study, sustained association with faculty members and other colleagues who share common scholarly and professional interests, attendance at seminars and colloquia, intensive reading and familiarization with library resources, consultation with specialists in other disciplines and resource centers, and the opportunity for broadened exposure to current intellectual issues as they are revealed in various campus offerings. In short, the requirement is not an inflicted ritual, but an opportunity."¹

The minimum residency requirements for the doctoral degree can be fulfilled by the completion of 24 semester hours of continuous graduate study on the Hattiesburg Campus within two consecutive semesters, one of which can be the full summer session. During this period the student is obligated to devote full time to graduate work and to earn at least 12 semester hours of credit in each of the two semesters. A student should not attempt to fulfill the residency requirements if he or she is gainfully employed full time. Residency may begin only after the student is admitted to a doctoral program as a regular student.

Alternative plans for meeting residency requirements have been developed by some departments with specialized needs. These plans are in keeping with the purpose of residency as stated above.

¹R. Kruh, Council of Graduate Schools in the United States, September, 1977.

V. The Doctoral Committee

The student's work toward the doctoral degree is supervised by a departmental committee composed of a chair and at least four members recommended by the department chair and appointed by the Graduate Dean. Qualified individuals from outside the University may serve if they have specialized knowledge needed by the student.

VI. The Minor Field

If a minor field is required in the doctoral program, it shall consist of twelve (12) semester hours of graduate course work and may consist of courses from a number of related areas. Some disciplines define their own minor and may require more than twelve (12) semester hours to complete the minor.

VII. Examinations

- A.** The General Test of the Graduate Record Examinations is required for admission into the Graduate School. Individual departments may require the advanced area tests.
- B.** The foreign language and statistics requirements for the doctoral degree may be fulfilled in several ways:
- 1.** The Doctor of Education and the Doctor of Music Education degrees do not require foreign language proficiency. However, the student must establish proficiency in statistics or computer science either by examination or by completing a prescribed minor course sequence, the credit hours for which do not apply toward the degree. These hours can be at the graduate or undergraduate level.
 - 2.** The Doctor of Musical Arts degree requires proficiency in at least one foreign language. Students in this program should refer to the section of this Bulletin describing that program and should consult the appropriate department chair for more information.
 - 3.** The Doctor of Philosophy degree requires either (a) proficiency in two languages, (b) proficiency in one language and in statistics or computer science, or (c) proficiency in one language and the completion of a nine-hour block of courses (graduate or undergraduate classes), the hours for which do not apply toward the degree. The nine-hour concentration of classes designated to fulfill the procedure for satisfying proficiency in a specific computer language has been approved by the Graduate Council. It is administered by the Department of Computer Science and Statistics. Students should refer to the section of this Bulletin describing individual departments and schools to determine whether specific requirements have been established for a program of interest. A request to use a language (including one's native language) other than French, German, Spanish, or Russian shall include evidence of research reported in the language (e.g., a bibliography), and must be recommended by the student's advisory committee and approved by the Dean of the Graduate School.
 - 4.** Students should plan early to meet language requirements in their graduate program of study. A student may demonstrate proficiency in a foreign language by any of several

options; the particular option followed by the student must have the approval of the student's committee and the Dean of the Graduate School. The options are as follows:

- a. Completion of six (6) graduate semester hours with grades of C or better in one of the following language sequences: FRE 501-502, SPA 501-502, or GER 501-502. These courses are specifically designed to meet the University of Southern Mississippi Graduate School foreign language requirements.
 - b. Completion of nine (9) semester hours (undergraduate or graduate) with grades of C or better in an approved foreign language. The courses listed above in option 1 may not be included as part of these nine (9) hours. The student may transfer these hours from an accredited institution upon admission to the Graduate School, provided that the most advanced of the courses was taken within the last six (6) calendar years. After admission, courses taken to satisfy the foreign language requirement by this option must be taken at the University of Southern Mississippi or may be taken at another institution if written approval of the specific courses and institution is obtained from the student's advisory committee, the chair of the Department of Foreign Languages and Literatures, and the Dean of the Graduate School.
 - c. Students may successfully complete the College-Level Examination Program (CLEP) test in French, Spanish, or German. The CLEP can be taken at many sites. Students must obtain a minimum score of 52 on the total test in one of the languages or obtain a minimum on the Reading Section of the test as follows: French 44; German 40; Spanish 48.
 - d. Students whose first language is not English may use English to fulfill the proficiency requirement for one language by scoring in the 65th percentile (scaled score = 560 or higher) on the Test of English as a Foreign Language. If English is used to fulfill the Language proficiency requirement, then the native language cannot also be used to fulfill a second language requirement.
 - e. Students fulfill the proficiency requirement for one language if they have completed an undergraduate major or a master's degree in a foreign language at any time.
5. Demonstration of proficiency by any means other than these options must be done by a method recommended and approved by the student's doctoral committee, the Chair of the Department of Foreign Languages and Literatures, and the Dean of the Graduate School.
- C. All students must have a written and/or oral doctoral qualifying examination in their field. This requirement should be completed during the first semester/term of the student's enrollment and is designed both to judge the student's fitness to pursue doctoral work and to guide the committee in planning the student's program. The qualifying examination may be retaken only once.
- D. At the completion of specified required course work and other examinations, the doctoral student is required to take a written and/or oral comprehensive examination in his or her major and minor field. A student who does unsatisfactory work on the comprehensive examination may be granted a second examination at the next regularly scheduled time, or later. The student's doctoral committee will recommend the conditions to be met before the examination may be repeated. The comprehensive examinations may be retaken only once. The comprehensive examination should be successfully completed either before the first formal prospectus meeting or before substantial research is completed for the dissertation.
- E. After the dissertation has been accepted and after all required course work has been completed, but at least four weeks before the candidate is scheduled to receive the degree, a final oral examination on the dissertation and related fields (dissertation defense) will be conducted by the student's doctoral committee and any other faculty members designated by the Graduate Dean. The examination will be open to any member of the graduate faculty.

VIII. The Dissertation

- A. The dissertation topic must be approved by the student's major professor and advisory committee and must be an original and significant contribution to knowledge in the chosen field. As appropriate, the Human Subjects Protection Review Committee and/or the Institutional Animal Care and Use Committee must approve the topic.
- B. A separate bulletin outlining University requirements concerning the preparation of dissertations is available in the Graduate Office and on the Web at <http://www-dept.usm.edu/~gradsch/gradread.html>.
- C. The student must complete a total of twelve (12) hours of 898 - **Dissertation**.
- D. The student must register for at least three (3) hours of 898 during the semester/term in which he or she expects to defend the dissertation. Students who have previously registered for the maximum total of twelve (12) hours of 898, and/or who are not in residence, but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must register for at least three (3) hours of 797-Independent Study and Research. While a student may register for coursework during the semester/term, he or she

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defends the dissertation, all REQUIRED courses must be completed before the term the student defends.

IX. The Dissertation Defense

After the doctoral committee members have been adequately consulted about results of the student's research as well as the form and condition of the manuscript, the committee chair will schedule the defense with the Graduate School Office and other appropriate offices at least ten days in advance of the defense. The meeting will be open to any member of the faculty and, at the discretion of the chair, may be opened to the public.

The chair, with advice from the committee, has complete authority for the conduct of the defense. The chair may recognize those wishing to ask questions about the candidate's research. Questions and resulting discussion should be appropriate for this important event. The chair may end the open part of the defense by restricting the meeting to the committee after an appropriate time. Discussion of the results of the defense must be limited to the committee members. A majority vote will determine the result of the defense and shall be reported to the Graduate School Office at the close of the meeting.

X. Documents

The doctoral student must file a number of documents with the Graduate Office.

- A. After completing all the requirements for the doctoral degree other than the dissertation and at least one semester/term prior to graduation, the student must file two copies of the "Application for Candidacy" form with the Graduate Office and one copy with the adviser, **before or at the same time** the application for degree is filed.
- B. The student should present two copies of the "Application for Degree" form, stamped by the Business Office to verify payment of fees, to the Graduate Office during the semester/term preceding that of graduation.
- C. When completed, the student's file in the Graduate Office should contain, in addition to the two documents described above, statements from the adviser and/or department chair appointing the doctoral committee, approving the dissertation prospectus, and verifying the successful completion of the qualifying and comprehensive examinations and dissertation defense. Also contained in the file should be statements of proficiency in language, and/or statistics or computer science, and/or a nine (9) hour minor. Students are advised to check their files in the Graduate School for completeness of documentation when they submit their dissertation defense form to the Graduate School.

College of The Arts

Graduate Degrees

1998-1999

School/Department	Major	Degree
Master's Level		
School of Music	Music	Master of Music
	Church Music Emphasis	
	Conducting Emphasis	
	History and Literature Emphasis	
	Performance Emphasis	
	Theory and Composition Emphasis	
	Woodwind Performance and Pedagogy Emphasis	
	Music Education	Master of Music Education
Art	Art Education	Master of Art Education
	Studio Art	Master of Fine Arts
	Drawing and Painting Emphasis	
Theatre and Dance	Theatre	Master of Fine Arts
	Performance Emphasis	
	Design and Technical Theatre Emphasis	
Doctoral Level		
School of Music	Music Education	Doctor of Music Education
	Performance and Pedagogy	Doctor of Philosophy
		Doctor of Musical Arts

College of The Arts

Peter Alexander, Dean
Hattiesburg, MS 39406-5031
(601) 266-4984

The College of The Arts currently offers graduate degree programs at two levels; master's degree and doctoral degree. Descriptions of these programs can be located in the respective departmental sections.

Deficiencies

The College of The Arts retains the right to determine deficiencies in the preparation of any graduate student, regardless of the number of course credits accumulated. The College will recommend appropriate means of removing such deficiencies.

Examinations and Performance Evaluations

Some degree programs require entrance examinations and/or performance evaluations. Regular admission to any graduate program requires submission of test scores from the Graduate Record Examinations. The departmental sections following in this Bulletin list general requirements for each degree program. Prospective students should confer with the department chair for full details. Approval of the graduate faculty in the appropriate department must be granted before a student will be accepted into a graduate degree program in any area of The Arts.

Final comprehensive examinations at or near the completion of the course work are required for all graduate degrees. The type, scope, and dates of the examinations vary, since they are matters of individual departmental policy. Each student pursuing a graduate degree should confer with his or her major professor and department chair for full particulars.

Degree Programs

Prescribed curricula for degree programs are listed below. Some provide great latitude and flexibility in arranging individual degree programs. Course selections must be approved by the student's major professor and graduate advisory committee. The approved course of studies for master's degree students must be filed with the student's department chair prior to the student's second registration. The student's major professor will assist in every way possible, but final responsibility for following all general and departmental regulations lies with the student. Prospective doctoral students must consult with the Coordinator of Graduate Studies prior to initial registration for detailed information about general and departmental regulations.

School of Music

Charles Elliott, Director
Hattiesburg, MS 39406-5081
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Each student has the final responsibility to ascertain that he or she has complied with all applicable catalogue requirements for graduation. Faculty Advisers assist students in developing their programs, but they cannot waive or vary degree requirements as they appear in the University Bulletin.

Master's Degrees

There are two master's degrees available in the School of Music, one with a major in music leading to the Master of Music degree, the other with a major in music education leading to the Master of Music Education degree. Emphasis areas in the Master of Music degree are: Performance, Church Music, Conducting, Music History and Literature, Theory and Composition, and Woodwind Performance and Pedagogy.

Regular admission procedures governing graduate entrance into the University of Southern Mississippi will be required. Details can be found in another section of this **Bulletin**.

Admission Requirements: Master's Degrees

In addition to acceptable grades and test scores, successful applicants to the master's program usually have an acceptable candidacy audition, strong letters of recommendation and/or successful personal interviews. Members of all underrepresented groups are strongly encouraged to apply. Acceptance to the School of Music requires students to meet expectations beyond these; see "Degree Candidacy."

Students who are unable to meet regular admission standards may be considered for conditional admission.

Degree Candidacy: Master's Degrees

Degree Candidacy: Admission to graduate study does not imply admission to candidacy for a master's degree. A maximum of nine (9) hours of graduate work earned before one has gained admission to the School of Music can be applied toward a degree. To gain degree candidacy (i.e., admission), one must:

- a) take Diagnostic Entrance Examinations;
- b) pass a Candidacy Audition (Master of Music degrees only) during the first term of full-time residence or before completing nine (9) hours of course work; see pages 42 through 45, this Bulletin;
- c) pass all Special Examinations (see specific areas in which the degree may be earned);
- d) consult with the Academic Adviser, have an Advisory Committee appointed, and begin planning the total degree program early in the first term of attendance. This process must be completed before nine (9) hours have been earned;
- e) complete at least nine (9) hours of graduate course work relevant to one's degree plan with a cumulative grade-point average of 3.0;
- f) complete a Degree Contract, approved by the Advisory Committee and the Academic Adviser, before earning nine (9) semester hours. If the Degree Contract is not on file with the Coordinator before that point, credit hours earned above nine (9) semester hours will not be counted toward the degree.

Students who have not done the above will be asked to withdraw from the graduate music program.

Diagnostic Examinations and Auditions: Master's Degrees

Before the first term of residence, all graduate students must take diagnostic examinations in music theory and in music history and literature. Those who show proficiency in these areas must enroll in a graduate theory or history course other than MUS 620: Music Theory Survey and MUS 630: Music History Survey; for all others, MUS 620 and MUS 630 are required and must be passed during one's first semester of matriculation. A student with deficiencies may be required to take additional course work beyond the minimum required in the degree program.

Diagnostic examinations are administered on campus each Friday preceding the first day of classes in Fall, Spring, and Summer.

9:30 a.m. - Theory
10:30 a.m. - Music History and Literature

Diagnostic examinations are also administered through the mail. To make the testing process feasible, please find a proctor, preferably a teacher in a nearby college or university, to whom we can send copies of your examination. Send the name and address to the Academic Adviser.

Entrance auditions are also required for some degrees. These are:

Master of Music in Performance
 in Church Music
 in Conducting
 in Woodwind Performance and Pedagogy

The Master of Music in Theory and Composition and the Doctor of Musical Arts in Composition require submission of representative scores of the prospective student's compositions.

All graduate students should consult the Academic Adviser for current, specific policies governing the advisement of students, the presentation of recitals, and the administration of comprehensive examinations.

Ensemble Participation: Master's Degrees

All full-time graduate students majoring in music and music education are required to participate in an ensemble during each term of residence. A maximum of two (2) hours of graduate credit earned in ensemble work may be counted toward a degree. The ensemble in which one participates will be

determined by the student's advisory committee. Appropriate ensembles are: Orchestra, Band, Chamber Music, University Chorale, Jazz Lab Band, Collegium Musicum, Oratorio Chorus, University Singers, Southern Chorale, and Opera Theatre.

Special Examinations and Auditions: Master's Degrees

All Special Examinations and Auditions must be passed before one can gain Degree Candidacy.

Jury Requirements/Final Examinations: Master's Degrees

Students who are enrolled in MUP Private Lessons in their principal applied area and who are seeking the Master of Music degree (with emphasis in Performance, Piano Accompanying, Church Music, or Woodwind Performance and Pedagogy) must perform a jury for the appropriate applied faculty. All others enrolled in MUP Private Lessons must perform a final examination for the applied teacher. At the finish of each semester and summer term, the applied teacher must complete a "Final Jury/Examination Form" for each student and file it with the Academic Adviser. Students enrolled in applied music who do not take a final examination or a jury will receive the grade "I" or "F."

The applied teacher must record and submit any exception to this policy to the Academic Adviser; signatures of all appropriate area faculty must be included on this form.

Comprehensive Examinations: Master's Degrees

Comprehensive examinations are required for all master's degrees.

The test will be prepared by the student's graduate advisory committee; it will cover the area of the major field. As a general rule, the Comprehensive Examination will be written.

The major professor will schedule the Comprehensive Examination; these tests may be administered at any time during the semester, but never later than ten school days before final examination week. The Academic Adviser must receive results of Comprehensive Examinations in time to notify the University Registrar and the Graduate Office no later than the last day for presenting signed theses to the Graduate Office.

A student who fails the Comprehensive Examination may repeat the exam once; the test must be repeated within one year of the first Comprehensive Examination.

Special Problems Courses

Special problems courses must be approved by the Music Graduate Committee. Petitions requesting permission to enroll are available in the Office of the Academic Adviser (Fine Arts Building 210). Petitions must be submitted to the Academic Adviser by noon of the second day of classes.

Advisory Committee

During the first term of full-time residence or before nine (9) hours of graduate credit have been earned, the student, the student's major professor, and the Academic Adviser select those faculty who will serve as the student's Advisory Committee.

The major professor, the Academic Adviser, and the student shall develop a Degree Contract. The Advisory Committee members will respond to the contract in full committee session (i.e., a full committee meeting scheduled by the Academic Adviser). In those cases where a student is required to take additional course work beyond the minimum required by the degree, the Advisory Committee will counsel the student and, along with the Academic Adviser, plan the program of studies.

This committee will submit questions for the Comprehensive Examinations; it will also administer the test and grade it.

The Advisory Committee will approve the recital repertoire, will attend the recital,* and will grade the performance as Satisfactory (S) or Unsatisfactory (U); this grade, indicating the majority opinion of the Advisory Committee, must be recorded on the recital program and submitted to the Academic Adviser. Should a recital be judged Unsatisfactory by a majority of the committee, another recital, at a date determined by the Advisory Committee, must take place. Should a recital be canceled or postponed until a succeeding semester, the recital will be graded "E" (course in progress); the grade "I" (Incomplete) can be awarded, but only with permission of the School of Music Graduate Committee. Not until all required recitals have been performed and judged Satisfactory will grades received on Comprehensive Examinations be submitted to the University Registrar or to the Graduate Office.

In degree plans that provide flexibility and in those cases where a student is required to take additional course work beyond the minimum required by the degree, the Advisory Committee will counsel the student and, along with the Academic Adviser, plan the program of studies.

Master of Music Degree Performance (32 hours)

Candidacy Audition:

All students must audition for an appropriate faculty jury. Unless stipulated otherwise (i.e., Brass Performance, Percussion Performance, Piano Performance, Voice Performance), an audition tape will suffice. This audition must be deemed Satisfactory before one can be declared a candidate for the master's degree (i.e., before one completes nine (9) hours of graduate work; see Degree Candidacy). Early auditions are encouraged.

In all instances other than those in bold-face below, the audition must be at least thirty minutes in length and must include three works of contrasting style, preferably representing three different periods in music. (Repertory lists with representative works are available upon request. Write: Academic Adviser, School of Music, The University of Southern Mississippi, Box 5081, Hattiesburg, MS 39406-5081.)

Brass Performance: For those majoring in brass performance a tape will not suffice; the candidacy audition must be a full recital for the USM brass faculty.

Percussion Performance: For those majoring in percussion performance, the candidacy audition may be on cassette; the applicant should demonstrate proficiency on timpani and mallet keyboards and should include a multiple-percussion performance.

Piano Performance: For those majoring in piano performance, the audition must be memorized, be at least thirty minutes in length, and be performed before the piano faculty; it must include works from at least three different periods in music (e.g., Baroque, Classical, Romantic, Impressionistic, or Contemporary).

Voice Performance: An audition cassette will satisfy preliminary expectations, but before completing nine (9) hours of graduate work, the student must also sing for a faculty committee and fulfill the requirements below.

Voice performance majors must demonstrate, by audition (1) advanced vocal technique; (2) good diction in Italian, French, German, and English; and (3) good vocal quality and musicianship. The repertoire must be memorized and include (1) an aria from opera or oratorio; (2) a seventeenth- or eighteenth-century Italian song or aria; (3) a German Lied; (4) a French Melodie; and (5) a song in English.

Further, the student's transcript(s) must show grades of C or better in two years of foreign language (any combination of two of the following: German, French, and Italian) and at least one course in diction for singers. Students lacking these will be required to pass these courses in addition to the requirements for the degree. In lieu of course work, satisfactory performance on language exams, administered by the USM Department of Foreign Languages and Literatures, is acceptable.

Specific areas in which this degree may be earned are:

Bassoon	Oboe	Trumpet
Clarinet	Percussion	Tuba
Euphonium	Piano	Viola
Flute	Piano Accompanying	Violin
Guitar	Saxophone	Violoncello
Harpsichord	String Bass	Voice
Horn	Trombone	

*Before scheduling a recital, the student must ascertain that all members of the Advisory Committee can attend. At least fourteen days before the recital, the student should issue a written invitation to each member of his or her committee.

Music History and Literature Electives.....	6
(Mus 630 History Survey (3) may be required)	
Music Theory Electives.....	6
(MUS 620 Theory Survey (3) may be required)	
Literature (primary performance medium).....	2
Pedagogy (primary performance medium).....	2
Applied Music (primary performance medium).....	8
MUS 715 Recital.....	3
Electives*.....	5

*May be in appropriate related fields.



Performance-Piano Accompanying

Candidacy Audition:

Perform two contrasting selections from the standard piano repertoire. Additionally, present three chamber works representing three different periods in music; single movements are acceptable. One of these movements must be with at least three instruments including piano. The remaining two works should include a sonata with an instrument and piano and a work with voice and piano. The audition may be on video tape (VHS) or cassette recording.

MUS 540 or MUS 541 Vocal Literature	2
MED 550 Vocal Pedagogy	2
*MUS 539 Diction (French, German, or Italian)	6
MUS 531 History of Opera	3
MUS 551 Chamber Music	3
Music Theory Electives (MUS 620 Theory Survey may be required)	6
Applied Music	8
Electives (MUS 630 History Survey (3) may be required)	2

Special Requirement: Accompany at least four full recitals; at least one must involve piano and two or more instruments.

*Appropriate substitutes: GER 505 and FRE 505.

**Master of Music Degree
Church Music (32 Hours)**

Undergraduate Prerequisite:

Bachelor's degree with a major in Church Music in a program equivalent to that at the University of Southern Mississippi.

Candidacy Audition:

Pass a piano proficiency examination comprised of simple accompaniments and hymns. Audition in one of the following major performance areas (see below):

- a) Organists must play a major work of Bach and at least one work from the 19th and one work from the 20th centuries. A cassette tape is acceptable.
- b) Singers must sing one oratorio aria and one of the following: German, Italian or French art song. A cassette tape is acceptable.
- c) Conductors must demonstrate conducting competency by directing an audition/ rehearsal with one of the University choral ensembles. This must be accomplished by auditioning during the initial semester of one's graduate work or by scheduling an appointment before seeking admission.

MUS 553 Church Literature and Materials	3
MUS 560 Administration of Church Music	3
MUS 562 Hymnology	3
Music History and Literature (MUS 630 History Survey (3) may be required)	6
Music Theory (MUS 620 Theory Survey may be required)	6
Major Performance Area (Organ, Voice, Conducting)	7
MUS 715 Recital	1
Electives	3

**Master of Music Degree
Conducting (35 Hours)**

Candidacy Audition:

Demonstrate advanced conducting competency by directing an audition rehearsal with a University performing ensemble. Play a full band or orchestra score at the keyboard. (Request audition repertory list by writing to the Academic Adviser.)

Three years experience as a conductor and considerable experience as a member of a performing ensemble are expected. Students are encouraged to submit a video tape of their conducting.



In some cases, students with minimal deficiencies will be admitted into the program on a conditional basis and will be required to complete undergraduate courses (not for graduate credit) before proceeding as a Degree Candidate.

MUS 548 or Choral Literature I (3)
or
MUS 552 Band Literature I (2).....3-2
MUS 549 Choral Literature II
or
MUS 550 Symphonic Literature3
MED 731 Graduate Conducting I3
MED 732 Graduate Conducting II3
Conducting Elective (Individual study with conductor of major ensemble).....3
MUS 721 Analytical Techniques I
or
MUS 722 Analytical Techniques II.....3
MUS 723 20th Century Comp. Techniques3
MUS 731 Performance Practices I3
MUS 732 Performance Practices II.....3
Music History and Literature (MUS 630 History Survey may be required).....3
MUS 692 Special Problems in Scoring/Arranging3
Applied Music2-3

NOTE: Knowledge of musical terms in French, Italian, and German must be demonstrated. Candidate must prepare and conduct at least one full-length concert with a major performing organization.

Master of Music Degree Music History and Literature (34 Hours)

Undergraduate Prerequisites:

Baccalaureate degree with a major in music and at least one course in each of the following: 16th century counterpoint, 18th century counterpoint, orchestration.

Special Examination:

Demonstrate for the music history faculty the ability to translate excerpts in at least one foreign language (i.e., French, German, Italian, or Spanish) before completing nine (9) hours of graduate course work. Prior to the first registration, demonstrate writing ability by submitting a research paper, preferably in music.

MUS 702 Bibliography for Music Research.....3
MUS 721 Analytical Techniques I
or
MUS 722 Analytical Techniques II.....6
or
MUS 723 Seminar in 20th Century Compositional Techniques
MUP 685 Collegium Musicum2
Music History Courses9
Select from:
MUS 533 20th Century Music (3)
MUS 534 Ancient, Med., Renaissance Music (3)
MUS 535 Baroque Music (3)
MUS 536 18th Century Music (3)
MUS 537 19th Century Music (3)
Electives:8
Select six hours, any MUS prefix course.
Select two hours, any MUP prefix course.
MUS 698 Thesis6

NOTE: Special Problems (MUS 692) may be substituted for the above with permission of the major professor. In addition to requirements above, the major professor and the Graduate Advisory Committee may specify that the student pass REF 601 Research: Introduction and Methodology (3).

The Arts
History and Literature

Master of Music Degree Theory and Composition (32 Hours)

Undergraduate Prerequisite:

Completion of a bachelor's degree that included counterpoint and orchestration.

Candidacy Audition:

Take and pass a keyboard skills examination by performing selections from Schumann, R., Album for the Young, Op. 68, and Bach, J.S., 371 Four-Part Chorales. Submit, prior to the first registration, the score (and tape, if available) of a three-movement sonata, ten to fifteen minutes in length, for one or more instruments. One may send additional scores.

Advanced Composition	6
MUS 711 Pedagogy of Theory.....	3
Analytical Techniques.....	6
MUS 721 Analytical Techniques I (3) or	
MUS 722 Analytical Techniques II (3) or	
MUS 723 Analytical Techniques III (3)	
Applied Music	3
Music History and Literature Electives (MUS 630 History Survey (3) may be required)	6
MUS 698 Thesis	
or	
MUS 714 Composition Project	6
Electives (Cannot be MUS 620 Theory Survey).....	2

Master of Music Degree Woodwind Performance and Pedagogy (32 Hours)

Candidacy Audition:

Audition for the appropriate jury (tapes are acceptable), showing performance ability on at least two woodwind instruments: flute, oboe, clarinet, saxophone, bassoon.

Primary Woodwind Instrument.....	6
Secondary Woodwind Instrument.....	4
Three remaining Woodwind Instruments	6
MUS 715 Recital (two recitals).....	2
MED 734 Woodwind Techniques and Materials	2
MUS 692 Special Problems: Woodwind Literature.....	2
Music History and Literature Elective (MUS 630 History Survey (3) may be required)	3
Music Theory Elective (MUS 620 Theory Survey (3) may be required)	3
Electives	4

NOTE: Selection of specific primary, secondary and minor instruments is at the option of the student in consultation with his or her Graduate Advisory Committee and with approval of the auditioning committee. Normally, the student will be expected to select a primary/secondary combination from one of the following: single reed/double reed, single reed/flute, double reed/flute. Study of the primary and secondary instruments must embrace at least two semesters. Requirements for MUS 715 under this degree program will include two recitals, each receiving one semester hour credit. These recitals may consist of one chamber music program and one solo program, or a combination of chamber and solo music within both recitals. The primary and secondary instruments must be performed in each recital; the remaining instruments must be performed at least once, with a minimum of one minor instrument represented on each program.

Master of Music Education Degree (30 Hours)

Undergraduate prerequisite:

Completion of a bachelor's degree in music education at the University of Southern Mississippi or an equivalent program.

REF 601 Research: Introduction and Methodology	3
REF 607 Curriculum Development.....	3
MED 725 Foundations and Principles of Music Education	3
Music Theory Elective (MUS 620 Theory Survey (3) may be required)	3
Music History Elective (MUS 630 History Survey (3) may be required).....	3
Ensemble	2
Electives, 11 of which must be in Music Education	13

Doctoral Degrees

Each student has final responsibility to ascertain that he or she has complied with all applicable catalogue requirements for graduation. Faculty and Advisors assist students in developing their programs, but they cannot waive or vary degree requirements as these appear in the University Bulletin. Students must read the "Doctoral Degree Requirements" section of the Graduate Bulletin; that which follows pertains to School of Music practices and policies; and it amplifies Bulletin statements.

Three doctoral degrees are available in the School of Music: the Doctor of Music Education, the Doctor of Philosophy in Music Education, and the Doctor of Musical Arts.

Students pursuing the Doctor of Musical Arts degree do so with an emphasis in Performance and Pedagogy. Specific areas in which the D.M.A. may be earned are:

Bassoon	Oboe	Trumpet
Clarinet	Organ	Tuba
Composition	Percussion	Viola
Conducting	Piano	Violin
Euphonium	Saxophone	Violoncello
Flute	String Bass	Voice
Guitar	Trombone	
Harpichord		
Horn		

Admission Requirements: Doctoral Degrees

In addition to acceptable grades and GRE scores, successful applicants to the doctoral program must have an acceptable candidacy audition, strong letters of recommendation and/or successful personal interviews. Members of all under-represented groups are strongly encouraged to apply. Acceptance to the School of Music requires students to meet expectations beyond these; see "Degree Candidacy."

Students who are unable to meet regular admissions standards may be considered for conditional admission. (For details concerning conditional admission, see "Admission Requirements and Procedures," **Graduate Bulletin**, The University of Southern Mississippi.)

Important Note: Acceptance into the doctoral degree programs of the School of Music requires that students meet expectations beyond those stipulated in the **Graduate Bulletin**; see "Acceptance into the School of Music," this bulletin.

Ensemble Participation: Doctoral Degrees

A maximum of two (2) hours of graduate credit earned in ensemble work may be counted toward a degree. The ensemble in which one participates will be determined by the student's Advisory Committee.

Acceptance into the School of Music: Doctoral Degrees

Acceptance: Admission to graduate study does not imply acceptance into the School of Music for doctoral-level study. A maximum of nine (9) hours of graduate work earned before one has gained admission to the School of Music can be applied towards a degree. To gain acceptance, one must:

- a) Performance and Pedagogy: possess a master's degree; Music Education: possess a master's degree in music education and have at least three years of successful teaching experience;
- b) take Diagnostic Entrance Examinations;
- c) pass a Candidacy Audition (D.M.A. in Performance and Pedagogy, Applied areas only) prior to or during the first term of full-time residence or before completing nine (9) hours of course work;
- d) pass a Candidacy Audition (D.M.A. in Performance and Pedagogy, Conducting Area only) prior to the first term of enrollment;
- e) submit and gain approval for a portfolio of one's representative scores and/or recordings prior to the first term of enrollment (D.M.A. in Performance and Pedagogy, Composition area only);
- f) pass all Entrance Examinations, D.M.A. Special Examinations (see specific areas in which the D.M.A. may be earned), and the Qualifying Examinations during the first term of enrollment;
- g) consult with the Academic Adviser, have a major professor and an Advisory Committee appointed, and begin planning the total degree program early in the first term of attendance or before nine (9) semester hours have been earned; this process must be completed before taking the Qualifying Examination;
- h) complete at least nine (9) hours of graduate course work relevant to one's degree plan with a cumulative grade-point average of 3.5;

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- i) complete a Degree Planning Sheet, approved by the Advisory Committee and the Academic Adviser, before the beginning of the semester following the initial taking of the Qualifying Examination. If the Degree Planning Sheet is not on file with the Academic Adviser before the start of that semester, credit hours earned above nine (9) semester hours will not be counted toward the degree. Doctoral students should be counseled by their Advisory Committee before registering for courses.

Examinations: Doctoral Degrees

For description of the tests included in the Doctoral Degree Entrance Examinations, Special Examinations, Diagnostic Examinations, Comprehensive Examinations, and Candidacy Auditions, write: Academic Adviser, School of Music, Box 5081, The University of Southern Mississippi, Hattiesburg, MS 39406-5081.

Diagnostic Entrance Examinations: Doctoral Degrees

Before enrolling for post-Master's hours, all students take Diagnostic Entrance Examinations, one in music theory and another in music history and literature.

- 1) Those who show a lack of proficiency in music history must enroll in and pass ("C" or better) **MUS 630: Music History Survey**.
- 2) Those who show a lack of proficiency in music theory must enroll in and pass ("C" or better) **MUS 620: Music Theory Survey** or an appropriate undergraduate theory course as a prerequisite to further study in graduate music theory.
- 3) Hours gained in these courses cannot be counted toward a degree; both courses (i.e., MUS 620 and MUS 630) must be passed during one's first semester of matriculation.

Bibliography Proficiency Examination:

Students may choose to take the Bibliography Proficiency Examination, a test that is offered along with the Diagnostic Entrance Examinations. Those who pass this test are not required to enroll in **MUS 703: Bibliography**.

The Diagnostic Entrance Examinations and the Bibliography Proficiency Examination are administered on campus each Friday preceding the first day of classes in Fall, Spring, and Summer.

- 9:30 a.m. - Theory
- 10:30 a.m. - Music History and Literature
- 11:30 a.m. - Bibliography (optional)

These examinations are also administered through the mail. To make the testing process feasible, a proctor, preferably a teacher in a nearby college or university, may administer the examination. Submit the name and address of the proctor to the Academic Adviser.

Students with deficiencies may be required to take additional course work beyond the minimum required in the degree program.

Qualifying Examinations: Doctoral Degrees

All students must take the written Doctoral Qualifying Examination. This examination must be completed during the student's initial semester as a doctoral student.

The Qualifying Examination consists of three parts: (1) an area of specialization, (2) music history, and (3) music theory. (Suggestions for study are available from the Office of the Academic Adviser.) The Qualifying Exams are administered on Monday afternoon (Theory), Wednesday morning (Area Examination), and Thursday afternoon (History) of the first full week in November and the first full week in April. Examinations in the Summer Semester are scheduled on the three successive Saturdays following the Fourth of July holiday. The exact dates of the examinations are determined by the Academic Adviser and are publicized as soon as the University's Academic Calendar is available.

The tests are designed to judge the student's fitness to pursue doctoral work and to guide the Advisory Committee in planning the student's program. Generally, the Qualifying Examination is administered only once.

Each part of the examination is graded by the appropriate faculty, and the results are reported to the Academic Adviser. Results of the individual parts of the Qualifying Examination will be reported to the Academic Adviser in one of three ways:

1. Student shows no deficiencies.
2. Student shows deficiencies which are noted along with appropriate means to remove these deficiencies.
3. Qualifying Examination is judged unacceptable for one or both of the following reasons:
 - A. Student has inadequate knowledge of the subject.
 - B. Student cannot write and/or spell adequately.

For students with deficiencies, those who grade the examinations will make recommendations regarding the courses to be taken by the doctoral candidate. Students with deficiencies may be required to take additional course work beyond the minimum required in the degree program. Further, students with deficiencies may be required to take undergraduate courses for which no credit toward the doctorate will be gained.

The results of the examination are reported to the Academic Adviser and to the student's Advisory Committee. Should the Advisory Committee disagree with the recommendations of the appropriate faculty, it must respond, in writing, to the Academic Adviser within seven days of receiving the Qualifying Examination results. Upon receiving a written response, the Academic Adviser will schedule a meeting of the student's Advisory Committee and all appropriate faculty. Should there be no response from the student's Advisory Committee, the recommendations of the appropriate faculty will stand.

When a student performs unacceptably on one part of the Qualifying Examination, the student's major professor and committee must meet with the appropriate faculty to determine whether the student may continue in the program. If the student is to continue, the recommendations of the area faculty regarding course work must be discussed and determined by the student's Advisory Committee and appropriate area faculty.

When the student performs unacceptably on two parts of the Qualifying Examination, he/she may not register for any more hours of course work leading to a doctor's degree. In order to continue in the program the student must retake the two parts which were unacceptable. If either part is judged unacceptable a second time, the student cannot continue in the doctoral program in music. Deviations from the policy in this paragraph must be approved, in writing, after a meeting by both the Advisory Committee and the appropriate faculty graders.

Students are notified of the results, in writing, before the end of the semester.

The Qualifying Examination may be administered through the mail. To make the process feasible, a proctor, preferably a teacher in a nearby college or university, may administer the examination. Upon submission of the name and address of a proctor to the Academic Adviser, the Academic Adviser will see that the exams are sent to the proctor along with the appropriate instructions for administering the tests.

Jury Requirements/Final Examinations: Doctoral Degrees

Students who are enrolled in MUP Private Lessons in their principal applied area and who are seeking the Doctor of Musical Arts degree with emphasis in performance must perform a jury for the appropriate applied faculty. All other doctoral students enrolled in MUP Private Lessons must perform a final examination for the applied teacher. At the finish of each semester and summer term, the applied teacher must complete a "Final Jury/Examination Form" for each student and file it with the Academic Adviser. Students enrolled in applied music who do not take a final examination or a jury will receive the grade "I" or "F."

The applied teacher must record and submit any exception to this policy to the Academic Adviser; signatures of all appropriate area faculty must be included on this form.

Comprehensive Examinations: Doctoral Degrees

At the completion of all course work and examinations, the doctoral student is required to take a written Comprehensive Examination in the student's area of specialization, Music Theory, and Music History. The test will be prepared and graded by members of the appropriate area faculty. The results are reported to the Graduate Committee. Following a review by the Graduate Committee, the Comprehensive Examination is submitted, with a recommendation, to the Advisory Committee.

When it is determined that the Comprehensive Examination is unsatisfactory, in whole or in part, the student will be granted a second examination. The test must be repeated within one year of the first Comprehensive Examination, but the student will be required to repeat only those sections of the examination judged unsatisfactory. In those instances where a second examination is expected, the appropriate area faculty will inform the student, in writing, as to the specific or general areas which will be tested. The appropriate area faculty will grade the second test.

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The Comprehensive Examination can be retaken once; all parts failed must be repeated simultaneously. If the second examination is judged unsatisfactory by the Advisory Committee, the student cannot earn a doctoral degree in Music or Music Education at the University of Southern Mississippi.

This examination is offered each semester approximately three (3) weeks before the end of the term. The exact dates are determined by the Academic Adviser and are publicized early in the term. Examinations in the summer semester are scheduled on three successive Saturdays following the July 4th Holiday. The Academic Adviser must receive the results of the Comprehensive Examination in time to notify the University Registrar and the Graduate Office (i.e., no later than the last day for presenting signed dissertations to the Graduate Office).

Oral Examinations: Doctoral Degrees

After the dissertation has been accepted and after all required course work has been completed, but at least four weeks before the candidate is scheduled to receive the degree, a final oral examination on the dissertation and related fields will be conducted by the student's advisory committee and any other faculty members designated by the Graduate Dean. The examination will be open to any member of the graduate faculty.

Special Problems Courses: Doctoral Degrees

Special Problems courses must be approved by the Music Graduate Committee. Petitions requesting permission to enroll are available in the Office of the Academic Adviser (Fine Arts Building 210). Petitions must be submitted to the Academic Adviser by noon of the second day of classes.

Advisory Committee: Doctoral Degrees

Early in the first term of full-time residence or before nine (9) hours of graduate credit have been earned, the student, the student's major professor, and the Academic Adviser select those faculty who will serve as the student's Advisory Committee. The Advisory Committee must be appointed before one takes the Qualifying Examination.

The major professor and the student shall develop a planning sheet of course work based upon Qualifying Examination information together with course requirements. The Advisory Committee members will respond to the plan in full committee session (i.e., a full committee meeting scheduled by the Academic Adviser). In those cases where a student is required to take additional course work beyond the minimum required by the degree, the Advisory Committee will counsel the student and, along with the Academic Adviser, plan the program of studies.

Recital Requirements:

Before scheduling a *recital, the student must ascertain that all members of the Advisory Committee can attend. At least fourteen days before the recital, the student should remind the members of the committee by issuing a written invitation to each. Doctoral recitals shall not be scheduled to occur during the week of final examinations.

If recitals are required by the student's degree plan, the Advisory Committee must:

- 1) Approve the repertoire, attend the recital, and grade the performance as Satisfactory (S) or Unsatisfactory (U)
- 2) This grade, indicating the majority opinion of the Advisory Committee, must be recorded on the Graduate Examination Report and submitted to the Academic Adviser.
- 3) Should a recital be canceled or postponed until a succeeding semester, the recital will be graded "E" (course in progress); the grade "I" (Incomplete) can be awarded, but only with permission of the School of Music Graduate Committee.
- 4) Should a recital be judged Unsatisfactory, another recital, at a date determined by the Advisory Committee, must take place.
- 5) A student who receives two grades of Unsatisfactory in meeting degree recital requirements will not be allowed to continue as a candidate.

Not until all required recitals have been performed and judged Satisfactory will grades received on Comprehensive Examinations be submitted to the University Registrar or to the Graduate Office.

*When all members of a committee cannot attend a conducting degree recital, the concert will be videotaped. At a date following the concert, committee members will meet as a group. At that time, the

Committee will view the tape and evaluate the degree recital. The chairperson of the Advisory Committee must be present at both the concert and the video viewing.

Dissertation

- A. The dissertation topic must be approved by the student's major professor and Advisory Committee and must be an original and significant contribution to knowledge in the chosen field. The Human Subjects Protection Review Committee must also approve the topic.
- B. Once a topic has been approved, the student must enroll in MUS 797, MED 797, MUS 898, or MED 898 in each semester/term until the degree is completed.
- C. A separate bulletin outlining University requirements concerning the preparation of dissertations is available in the Graduate Office.
- D. Additionally, instructions specific to the development of an approved topic in Music (see required pamphlet "Prospectus Guide for the Doctor of Musical Arts degree") or Music Education must be followed. These may be obtained from the Academic Adviser.

Documents

The doctoral student must file a number of documents with the Graduate Office. Please see "Documents-Doctoral Degree Requirements," this Bulletin.

Degree Plans

Doctor of Musical Arts Degree

Performance and Pedagogy (all areas except Conducting and Composition)

Candidacy Audition*

All students must audition for the appropriate area faculty (generally, taped auditions are not acceptable.) This audition must be deemed Satisfactory before one can be accepted into the School of Music (i.e., before completing nine (9) hours of graduate work). Early auditions are encouraged, and a high level of performance proficiency is expected.

*In lieu of a candidacy audition, with the approval of the School of Music Graduate Committee, students who will complete the Master of Music degree in Performance at USM may use their graduate recital. The appropriate faculty must attend the recital, and the printed program must state the total purpose of the concert, e.g., "This recital is given in partial fulfillment of the requirements for the degree Master of Music in Performance, and it also serves as an audition for acceptance into the Doctor of Musical Arts curriculum in the School of Music." The student must begin doctoral study within one year of this audition.

In all instances other than those in bold-face below, the audition must be at least thirty minutes in length and must include three works of contrasting style, preferably representing three different periods in music. (Repertory lists with representative works are available upon request. Write: Academic Adviser, School of Music, The University of Southern Mississippi, Box 5081, Hattiesburg, MS 39406-5081).

Brass Performance: For those majoring in brass performance, the candidacy audition must be a full recital for the USM brass faculty.

Percussion Performance: For those majoring in percussion performance, the applicant should demonstrate proficiency on timpani, on mallet keyboards, and should perform a multiple- percussion performance.

Piano Performance: For those majoring in piano performance, the audition must be a full recital, memorized, performed before the piano faculty; it must include works from at least three different periods in music (e.g., Baroque, Classical, Romantic, Impressionistic, or Contemporary). The faculty may select portions from the repertoire submitted.

Voice Performance: Voice performance majors must demonstrate, by audition, (1) advanced vocal technique; (2) good diction in Italian, French, German, and English; and (3) good vocal quality and musicianship. The repertoire must be memorized and include (1) an aria from opera or oratorio; (2) a seventeenth- or eighteenth-century Italian song or aria; (3) a German Lied; (4) a French Melodie; and (5) a song in English.

Special requirement, Voice Performance: The student's transcript(s) must show grades of C or better in at least one course in diction for singers and in two years of foreign language: German, French, or Italian

(may include any combination of those languages). Students lacking these will be required to pass such courses in addition to the requirements for the degree. In lieu of course work, satisfactory performance on language exams, administered by the USM Department of Foreign Languages and Literatures, is acceptable.

All D.M.A. Areas Except Conducting and Composition

The D.M.A. student will be required to take MUS 500, 702, 731, 732, and 898. The remainder of the course work will be determined in light of the student's qualifying examination, entrance audition, his or her interests and/or professional goals, and the counsel of the major professor and graduate advisory committee. In planning this program, the following minimum distribution of graduate courses (including master's degree work) is required: thirty (30) semester hours in performance music studio study and recitals, fifteen (15) semester hours in music history and literature, nine (9) semester hours in music theory, and the remainder of the program in approved electives which may include six (6) semester hours in a cognate field of study. Three recitals will be required in addition to the entrance audition. One must be a solo recital, one a lecture recital, and the third chosen from the following options: (a) performance of a concerto with orchestra, (b) performance of a major role in an opera, (c) performance of a major role in an oratorio, (d) a full-length recital of chamber music, or (e) a second solo recital. (Note: To use options "a" through "d," permission of the student's Advisory Committee must be received before the semester in which the event will occur.) As a general rule, not more than one doctoral recital may be presented by a candidate during any academic term, nor more than two during any nine-month period. Rare exceptions will be permitted, but under rigidly controlled procedures. See the Academic Adviser for details.

One language will be required in the degree. Others may be required by the major professor and Graduate Advisory Committee.

The D.M.A. dissertation, required for completion of the degree, consists of two parts. Part I must be a written thesis giving evidence of the candidate's ability to make a scholarly investigation of limited scope. Part II must include all recital programs, concert programs, and program notes presented during the student's residency.

Conducting Area

Acceptance of a prospective student into the D.M.A. program in the conducting area requires a previously earned master's degree in music or music education. The conducting faculty must be satisfied that the student is qualified to pursue the D.M.A. at the University of Southern Mississippi.

Students applying for entrance into the D.M.A. program in the conducting area must:

- a) provide an application that includes a current resume; a repertoire list, specifying works conducted in performance; three letters of recommendation which center on the applicant's conducting abilities; a video tape of a rehearsal conducted by the applicant; and a video or audio tape of a performance conducted by the applicant.
- b) complete an interview and an audition. After review of the application by the conducting faculty, the applicant may be invited to an interview-audition on campus. It will include 1) a session with the conducting faculty to assess one's musical proficiencies and 2) a rehearsal of an appropriate university ensemble to assess one's rehearsal technique.

In the interview, the applicant will demonstrate the following:

- a) musicality, preferably by showing proficiency as a performer on a standard orchestral or band instrument, on a standard keyboard instrument, or as a singer;
- b) keyboard proficiency above the basic level in technique, musicianship, and open score reading;
- c) a high degree of competence in ear-training and sight-singing;
- d) thorough knowledge of the traditional orchestral and band instruments and their transpositions;
- e) acquaintance with a broad range of appropriate repertoire from various periods;
- f) detailed knowledge of works from the applicant's repertoire list.

The audition, a rehearsal, will use repertoire selected in consultation with the appropriate faculty and will last for approximately thirty minutes. The applicant's competence in effective gestural and verbal communication will be assessed. For applicants admitted to the program with deficiencies in any of the above, no degree credit will be granted for any required remedial work.

The D.M.A. student will be required to take MUS 500, 702, 731, 732, and 898. Also required are MED 731, 732, 733, 825, and MUP 896, 897. The remainder of the course work will be determined in light of the student's qualifying examination, entrance interview-audition, interests and/or professional goals, and the counsel of the major professor and graduate advisory committee. In planning this program, the following minimum distribution of graduate courses (including master's degree work) is required: thirty

(30) semester hours in performance, conducting, and recitals, fifteen (15) semester hours in music history and literature, nine (9) semester hours in music theory, and six (6) hours of approved electives which may include a cognate field of study (a course in foundations of music education is recommended).

Recitals: Two concerts and a lecture recital will be required. Repertoire for these concerts must be approved in advance by the student's Advisory Committee. When practical, the repertoire will include works for both vocal and instrumental components. As a general rule, not more than one doctoral concert/recital may be presented by a candidate during any semester nor more than two during any nine-month period. Rare exceptions will be permitted, but only under rigidly controlled procedures. See your advisory committee for details.

Satisfactory competence in English and German, French or Italian is required for candidacy. Competence in a foreign language can be demonstrated by:

- a) completing three semesters of an undergraduate-level language course with a grade of B or higher;
- b) completing two semesters of a graduate-level course in German or French in reading for research with a grade of C or higher.

Note: Credit for graduate courses in foreign languages will not be granted toward the degree.

The D.M.A. dissertation, required for completion of the degree, consists of two parts. Part I must be a written thesis that is an original and significant contribution to the knowledge of the field; it must give evidence of the candidate's ability to make a scholarly investigation of limited scope. Part II must include all recital programs, concert programs, and program notes presented during the student's residency.

Composition Area

Acceptance of a prospective student into the D.M.A. program in the composition area assumes a previously earned master's degree in composition or the equivalent, provided the composition faculty is satisfied that the student is qualified to pursue the D.M.A. at the University of Southern Mississippi. A high level of proficiency in composition and extensive knowledge of literature are expected.

Students applying for entrance into the D.M.A. program in the composition area must submit a portfolio containing representative scores and/or recordings of their compositions prior to the first term of enrollment at the University of Southern Mississippi. Additionally, the student will be required to take qualifying examinations prior to or during the first term of enrollment.

The D.M.A. student will be required to take MUS 500, 702, 731, 732, and 898. The remainder of the program will be determined in the light of the student's portfolio evaluation, his or her qualifying examination, his or her interests and/or professional goals, and the counsel of the major professor and graduate advisory committee. In planning this program, the following minimum distribution of graduate courses (including master's degree work) is required: Thirty-nine (39) semester hours in composition and music theory, fifteen (15) semester hours in music history and literature, six (6) semester hours in a related field of study, and the remainder of the program in approved electives.

The student will write compositions totaling at least two (2) hours performing time. Up to thirty (30) minutes previously written compositions may be accepted as part of these two hours. Compositions will be for orchestra, band, chorus, ensembles, and soloists demonstrating competence in writing for all orchestral and band instruments as well as for the solo voice. The music should encompass levels of difficulty from junior high school to professional standards. The composer will write commentaries for each work, including program notes and rehearsal suggestions. All works, including parts, must be in duplicative format.

One recital of the composer's works will be given, with the composer commenting on each composition.

One language will be required, chosen from French, German, or Italian.

The D.M.A. dissertation, required for completion of the degree, will consist of the commentaries, program notes, and a full score of a work composed during the student's doctoral study.

Doctor of Music Education Degree

Doctor of Philosophy in Music Education Degree

General requirements for the Doctor of Philosophy and Doctor of Music Education (the Doctor of Music Education general requirements are the same as the Doctor of Education degree) are found in another section of this Bulletin. The College of The Arts further stipulates the following requirements.

Admission: See "Admission Requirements" and "Acceptance," a, b, e, f, g, and h. One must possess a master's degree in music education and have at least three years of successful teaching experience.

Research Tools: Candidates for the Doctor of Philosophy degree in Music Education must comply with the language requirements as specified for Doctor of Philosophy candidates in this Bulletin. A candidate for the Doctor of Music Education degree is required to demonstrate proficiency in statistics or computer science; at the discretion of the student's Graduate Advisory Committee, the candidate may be required to demonstrate a reading knowledge of one modern foreign language.

Degree Requirements

The following courses are required: REF 601 (or equivalent), MUS 702 (or equivalent), MED 755, 825, 826, and 898. The remaining course work will be determined by the candidate's Qualifying Examination, his or her interests, and the counsel of the major professor and Graduate Advisory Committee. In planning this program, the following minimum distribution of graduate courses (including master's degree work) is required: Thirty (30) semester hours in music education, nine (9) semester hours in music history and literature, nine (9) semester hours in music theory, nine (9) semester hours in professional education, three (3) semesters in studio performance study, and the remainder of the program in approved electives. Although this Bulletin states that eighty-four (84) semester hours are required for doctoral degrees, it should be clearly understood that some candidates will be unable to receive a degree on the basis of this minimum. The distinction implied by the degree and the traditions related to it require comprehensive knowledge and demonstration of a high degree of proficiency in the major field and related areas of study as well as the ability to conduct advanced research.

Department of Art

Harry Ward, Chair
Hattiesburg, MS 39406-5033
(601) 266-4972

Master of Art Education Degree

The University of Southern Mississippi is a fully accredited institutional member of the National Association of Schools of Arts and Design (NASAD). The Department of Art offers a program leading to the Master of Art Education degree. Regular admission to the program is based on an evaluation of multiple criteria, which includes a minimum undergraduate grade-point average of 3.0 in the applicant's major field of art study, submission of test scores from the Graduate Record Examinations and a portfolio review. Conditional admission may be granted if the regular admission criteria are not met. Students must achieve regular admission before becoming candidates for the degree as well as for eligibility for assistantships. Undergraduate prerequisites for the Master of Art Education degree in the Department of Art are: (1) completion of a bachelor's degree in art education at The University of Southern Mississippi or an equivalent program, or (2) completion of any degree in the visual arts, or (3) satisfaction of Mississippi Class A teacher certification requirements in art.

Each student must demonstrate a studio proficiency appropriate for entry into graduate study by presenting a portfolio for review by the graduate faculty and the chair of the Department of Art. The portfolio should be submitted no later than one calendar month prior to the initial semester of application. Deficiencies which are identified may be removed with the successful completion of one or more of the non-degree credit courses ARE 600 and/or ART 600 with a grade of no lower than B and/or taking undergraduate course work as prescribed by the student's major professor and graduate advisory committee.

There are two tracks for the Master of Art Education degree. Track 1 is for students who wish to pursue a practice-oriented degree with 18 semester hours in art studio courses; Track 2 is designed for students who prefer a research-oriented degree with certification which includes 9 semester hours in studio work, a six-hour thesis, and six hours of research courses. Both tracks require 36 semester hours for the degree. Track 1 would require an additional six hours of research courses if alternate class A certification is desired.

Departmental Admissions

Deadlines for submission of application material (portfolio, proposal, letters of recommendation, and GRE scores) are as follows:

- For Summer Semester 1997: Deadline – April 1, 1997
- For Fall Semester 1997: Deadline – July 1, 1997
- For Spring Semester 1998: Deadline – November 1, 1997

Applicants must satisfy University admission requirements before becoming candidates for the degree or becoming eligible for assistantships.

Requirements for a Master of Art Education Degree are as follows:

Track 1 (Practice-Oriented)

- 9 hours of Art Education (ARE 601, 603, 606).
- 18 hours of Art Studio (Two three-course sequences will be selected from drawing (ART 601, 602, 603), painting (ART 621, 622, 623), ceramics (ART 651, 652, 653), and sculpture (ART 661, 662, 663).
- 9 hours in Art History (Elect from ART 500, 531, 532, 533, 534, 535, 536, 598).

- 36 total hours (42, if option is chosen to take REF 601, 607 in order to acquire state certification).

Track 2 (Research-Oriented)

- 12 hours of Art Education (ARE 601, 603, 606, 626).
- 9 hours of Art Studio (one three-course sequence will be selected from drawing (ART 601, 602, 603), painting (ART 621, 622, 623), ceramics (ART 651 which is repeatable), and sculpture (ART 652 which is repeatable).
- 6 hours of Art Education Thesis (ARE 698).
- 3 hours of Art History (Elect from ART 500, 531, 532, 533, 534, 535, 536, 598).
- 6 hours of Research and Foundations (REF 601, 607) for alternative class A certification.

- 36 total hours

Candidates in **Track 1** must culminate their studies with an exhibition indicating achievements within their specialized studio areas. Candidates in **Track 2**, in addition to the written thesis, may elect to exhibit work from their specialized area of study. A comprehensive examination is required to complete the degree program.

Master of Fine Arts Degree

Major: Studio Art (Drawing and Painting)

Regular admission to the MFA program is based on the evaluation of multiple criteria, which includes 1) meeting the requirements of admission to graduate study at the University of Southern Mississippi (details can be found in the appropriate section of the Graduate Bulletin); 2) holding a Bachelor of Fine Arts degree with emphasis in drawing and painting from the University of Southern Mississippi or a baccalaureate from an equivalent drawing and painting program; 3) submitting a portfolio which should demonstrate proficiency and preparation for graduate study in the proposed area of visual investigation and the delimited aesthetic visual problem area in which the applicant intends to work as stated in the written proposal; it should consist of a minimum of 20 slides, half of which should be painting and the other half, drawing; 4) submitting a written proposal which should definitively state the area of visual search and the delimited aesthetic visual problem area in which the applicant intends to work; 5) submitting three letters of recommendation to gain a more personal view of the applicant, at least two of which should address the applicant's academic preparation in the area of drawing and painting; and 6) submitting GRE scores to the Graduate School.

Departmental Admissions

Deadlines for submission of application material (portfolio, proposal, letters of recommendation, and GRE scores) are as follows:

- For Summer Semester 1997: Deadline – April 1, 1997
- For Fall Semester 1997: Deadline – July 1, 1997
- For Spring Semester 1998: Deadline – November 1, 1997

Applicants must satisfy University admission requirements before becoming candidates for the degree or becoming eligible for assistantships.

Requirements for a Master of Fine Arts Degree in Studio Art (Drawing and Painting) are as follows:

- 18 hours of Drawing Studio (ART 601, ART 602, ART 603, ART 701, ART 702, ART 703)
- 18 hours of Painting Studio (ART 621, ART 622, ART 623, ART 721, ART 722, ART 723)
- 6 hours of Art History (selected from graduate Art History offerings)
- 3 hours of Seminar (ART 731, ART 732, ART 733)
- 12 hours of ART electives
- 6 hours of Creative Project (ART 799)

- 63 total hours

Department of Theatre and Dance

George Crook, Chair
Hattiesburg, MS 39406-5052
(601) 266-4994

The University of Southern Mississippi Department of Theatre and Dance is an accredited member of the National Association of Schools of Theatre. Theatre requirements are in accordance with the published regulations of this Association.

The Department of Theatre and Dance offers programs leading to the Master of Fine Arts degree.

To be eligible for admission, a student must have completed a minimum of twenty-one (21) semester hours of undergraduate course work in theatre or theatre related areas. Those who do not meet the minimum entrance requirements may be admitted but will be expected to take undergraduate courses to cover deficiencies. It should be emphasized that admission to the Graduate School does not imply acceptance of the student as a candidate for a graduate degree. (See general admission requirements and procedures as set forth in this Bulletin.)

Upon being admitted into a graduate program, the student will be assisted by the department graduate coordinator in selecting an appropriate graduate advisory committee composed of three faculty members, one of whom will serve as major professor.

Before the end of the first week of classes, an entrance interview and audition/ portfolio review is required of all students entering a master's program.

Master of Fine Arts Degree in Theatre

The objective of the Master of Fine Arts curriculum is to develop the educated performer by offering sound theory and intensive practical training simultaneously. Students in the Master of Fine Arts programs will elect a plan of study with specialization(s) in one or two of the following areas: Performance, and Design and Technical Theatre.

Regular admission to a Master of Fine Arts program requires: (1) the submission of **Graduate Record Examinations** scores; (2) an undergraduate grade point average of at least 3.0 in the undergraduate major area or on the last 60 hours attempted; (3) acceptable performance audition or portfolio evaluations; (4) strong letters of recommendation; and/or (5) successful personal interviews. Members of all under represented groups are strongly encouraged to apply. Directing and acting students will be required to demonstrate their proficiency in "Showcase" performance during the first semester in residence. Design emphasis students must present a portfolio for review by the faculty prior to the initial registration. If no portfolio is available, a student may be admitted on a conditional basis until an acceptable minimum proficiency is determined.

Proficiency reviews will be required of all M.F.A. candidates at the conclusion of their second semester in residence.

The Master of Fine Arts program normally requires three years of full-time graduate study and the completion of a minimum approved program of sixty (60) hours. It is recommended that the M.F.A. student spend at least one summer as a member of the Repertory Theatre program. The candidate will satisfactorily complete a creative project in his major area of emphasis and defend it orally before the Theatre Arts faculty.

College of Business Administration

Graduate Degrees 1998-1999

School	Major	Degree
	Business Administration	Master of Business Administration
	Systems Management	Master of Science in Systems Management
School of Professional Accountancy	Accounting	Master of Professional Accountancy

Business Administration

College of Business Administration

Roderick Posey, Acting Dean
Roderick B. Posey, Associate Dean
Hattiesburg, MS 39406-5021
(601) 266-4659

Ernest W. King, Director
Graduate Business Programs
Hattiesburg, MS 39406-5096
(601) 266-4653

William Huth, Coordinator
Graduate Business Programs
Long Beach, MS 39560-5128
(601) 865-4505

Mission

The College of Business Administration at the University of Southern Mississippi is committed to preparing our students for careers in business and to assisting organizations in South Mississippi.

Accordingly, our programs emphasize

- values conducive to personal and career development •
- the functions and environment of business •
- communication and critical thinking •
- the global dimensions of business •
- ethical decision-making •

To fulfill our mission the college seeks a balanced and synergistic agenda of instruction, scholarly activity, and professional service.

Graduate Degree Programs

The following graduate degree programs are available on the Hattiesburg campus: a Master of Business Administration (M.B.A.) and a Master of Professional Accountancy (M.P.A.). These and other business programs offered on the Hattiesburg and Gulf Coast campuses are accredited by the American Assembly of Collegiate Schools of Business.

Requests for application forms and other information may be addressed to the Director of Graduate Business Programs, College of Business Administration, The University of Southern Mississippi, Box 5096, Hattiesburg, MS 39406-5096. Telephone inquiries may be made by calling (601) 266-4653.

A Professional Master of Business Administration (P.M.B.A.) and a Master of Professional Accountancy (M.P.A.) are offered on the Gulf Coast. The P.M.B.A. is similar to the M.B.A. but is tailored to satisfy the needs of part-time students. Requests for application forms and other information may be addressed as indicated above. Telephone inquiries can also be made by calling (601) 865-4505 at Gulf Park.

Graduate assistantships are available for the M.B.A., M.P.A., and P.M.B.A. degrees. Students with good undergraduate records are encouraged to apply at the time they request admission.

Admission Standards

Admission to the University of Southern Mississippi's M.B.A., M.P.A., and P.M.B.A. programs is selective. Regular admission is normally contingent on having graduated from a college or university accredited by a recognized regional accrediting agency. In addition, the graduate admission committees of the College of Business Administration recommend admittance only for those applicants whose academic background, work

experience, demonstrated leadership, and communication skills meet the challenging demands of graduate programs in management and accounting.

In evaluating applications, the admission committees utilize the following criteria:

Undergraduate record—The cumulative grade point average (GPA) from all institutions, the area(s) of concentration, the balance of verbal/communication and quantitative/analytical courses, and the trend of grades are considered.

Graduate Management Admission Test (GMAT)—The GMAT is sponsored and directed by the Graduate Management Admission Council, consisting of representatives from graduate schools of management. A candidate should strive to achieve a good balance of verbal- and quantitative-area scores.

Undergraduate Record/GMAT Score Combination—Recent admissions have averaged over 1,100 on the formula: junior/senior-level GPA x 200 plus the GMAT score. Applicants with a low GPA, GMAT, and/or GPA/GMAT score combination must demonstrate high promise of success as indicated by one or more of the remaining admission criteria categories. The typical student will need at least 1,000 index points for admission.

Test of English as a Foreign Language (TOEFL)—Students whose native language is not English must achieve a TOEFL score of 550 or more.

Work Experience—While work experience is not required for admission, two or more years of relevant managerial responsibility strengthen the likelihood of admission to the program. Applicants are encouraged to submit resumes showing job responsibilities and accomplishments.

Letters of Recommendation—The admission committees review letters of recommendation to gain a more personal understanding of the applicant's leadership ability in terms of communication and interpersonal skills. Each applicant should request two recommendation letters, at least one of which addresses the applicant's academic preparation.

Essay—The essay requirement provides the applicant an opportunity to demonstrate writing competency and communication skills. It also enables the applicant to provide specific examples of demonstrated leadership, to discuss career plans, and to supply additional information that will assist in selecting those individuals who can most benefit from and contribute to the graduate management or accounting programs.

Students may enroll in College of Business Administration courses reserved exclusively for graduate students if they have regular admission to specific USM graduate programs and have taken the necessary prerequisites. In rare cases, students may be admitted conditionally. Such students must make grades of B or better on the first nine hours of graduate course work taken in order to qualify for regular admission.

Students transferring from other graduate schools must meet the admission requirements stated above. At the time of admission, transfer students may request that up to six (6) semester hours of approved credit be applied toward degree requirements. Once enrolled, transfer of credit between the Hattiesburg and the Gulf Coast campuses, as well as courses taken at other institutions, must be approved in advance.

Academic Policies

Application of credits and dismissal—Students may not apply hours toward a degree for courses in which there is a grade of "D"; students who receive grades of "D" in more than six hours of course work will be dismissed from the program. Students who receive grades of "F" in more than three hours of course work will be dismissed from the program. Upon approval by the Dean, students may repeat one and only one course to improve a cumulative grade point average. Students whose cumulative grade point average falls below 3.0 may be dismissed from the program subject to review by a faculty committee and the Dean.

Graduation requirements—Students must complete course requirements with a B average for all graduate courses taken. In addition, all general requirements of the Graduate School must be met.

Degree Requirements

Master of Business Administration

The M.B.A. program is available to students who have no previous course work in business administration, as well as anyone whose background includes an undergraduate degree in a business discipline. Consequently, required M.B.A. course work ranges from a minimum of 36 semester hours to a maximum of 60 semester hours. Specific degree requirements will be determined upon admission. Pre-program proficiency requirements include the ability to make use of word processing, spreadsheet, and database management software packages, as well as mathematical competence through applied calculus.

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The M.B.A. program is broad in nature and aimed at developing managerial competence from a general perspective. Specifically, the M.B.A. curriculum:

- strengthens critical thinking skills that involve the ability to structure and analyze problems creatively and to process data to yield useful information;
- fosters thinking that is global in scope and integrative of the economic, technical, political-legal, and social-cultural dimensions;
- provides pragmatic managerial decision-making skills through instruction in the fundamentals of the functional areas of business (accounting, financial analysis, etc.);
- develops skills in dealing with behavioral issues including the ability to function effectively as a decision maker, motivator, and leader;
- increases awareness of and appreciation for ethical values, human dignity, cultural diversity, social responsibilities, and the need for continuous self-development;
- develops the ability to think strategically and to function effectively in an environment of rapid change;
- enhances written and oral communication skills.

Foundation course requirements are as follows:

MBA 500 . . . . .	.3 hours	MBA 550 . . . . .	.3 hours
MBA 511 . . . . .	.3	MBA 570 . . . . .	.3
MBA 520 . . . . .	.3	MBA 580 . . . . .	.3
MBA 530 . . . . .	.3	MBA 585 . . . . .	.1.5
MBA 546 . . . . .	.1.5		

(Total foundation course work: 24 hours)

NOTE: The foregoing foundation course requirements will normally be waived for students who have undergraduate degrees in business.

Advanced course requirements are as follows:

MBA 545 . . . . .	.1.5 hours	MBA 630 . . . . .	.3 hours
MBA 600 . . . . .	.3	MBA 640 . . . . .	.3
MBA 605 . . . . .	.3	MBA 650 . . . . .	.3
MBA 610 . . . . .	.3	MBA 660 . . . . .	.3
MBA 611 . . . . .	.3	MBA 685 . . . . .	.1.5
MBA 620 . . . . .	.3	MBA ELECTIVES . . . . .	.6

(Total advanced course work: 36 hours)

Students will begin the M.B.A. program in the fall semester only. In some cases pre-program courses should be taken prior to enrolling in M.B.A. classes.

Professional Master of Business Administration

The P.M.B.A. program is similar to the M.B.A. program but is offered on the Gulf Coast primarily for part-time students. P.M.B.A. students who have undergraduate business degrees can normally complete the program in two years, while other students usually will usually need three years to meet degree requirements. Most other aspects of the P.M.B.A. parallel the M.B.A. requirements discussed in the previous section. However, unlike the M.B.A. program, students can begin the P.M.B.A. program any semester.

School of Professional Accountancy

James R. Crockett, Director
Hattiesburg, MS 39406-5178
(601) 266-4641

Mission

The School of Professional Accountancy (SPA) is an academic unit within the College of Business Administration (CBA) at the University of Southern Mississippi and is committed to the mission of the CBA. Within this framework, the SPA has its own unique mission.



The primary objective of the SPA is to be a quality provider of undergraduate- and master's-level accounting education. The SPA strives to produce technically competent, yet broadly educated, business and accounting graduates who have marketable skills, the ability to think critically, an understanding of the importance of ethics in decision making, and an appreciation of the necessity for life-long learning. Therefore, as its first priority, the SPA emphasizes excellent teaching in an environment of continuous curriculum development.

The SPA also acknowledges its responsibilities to the University, the accounting profession, business and government enterprises, and taxpayers. The SPA strives to meet these responsibilities by providing appropriate services and by engaging in the scholarly pursuits of research and writing. These activities complement the primary teaching mission.

The School of Professional Accountancy is a school within the College of Business Administration. Emphasis is placed on the preparation for professional careers in both the public accounting and management accounting areas.

The objective of the graduate curriculum is to provide more depth and breadth in Accounting and related subjects than can be accomplished in a four-year program. Enrollment in the School's graduate program is limited to those students who show a high probability of success.

The School offers one degree—the Master of Professional Accountancy. The program leading to the M.P.A. is essentially the culmination of a five-year program. A student who earns the Bachelor's degree with a major in accounting may normally complete the M.P.A. program with one year's additional work. A minimum of thirty (30) hours of graduate work is required.

Students with a variety of educational backgrounds may enter the program. Students who have a baccalaureate degree from an accredited college or university must either transfer or take the following business environment and tool courses:

Applied Calculus for Business .....(3 hours)	Advanced Business Law .....(3 hours)
Principles of Economics .....(6 hours)	Principles of Finance .....(3 hours)
Managerial Statistics I .....(3 hours)	Global Managerial Policy and Strategy (3 hours)
Managerial Statistics II .....(3 hours)	Management Information Systems ....(3 hours)
Management for Organizations (3 hours)	Principles of Marketing .....(3 hours)
Legal Environment of Business..... (3 hours)	

The following lower-division accounting courses are also required:

Principles of Accounting .....(3 hours)	Cost Accounting .....(3 hours)
Accounting Processes and Systems .....(3 hours)	Income Tax Accounting .....(3 hours)
Intermediate Accounting .....(6 hours)	Government and Not-for-Profit Accounting .....(3 hours)
Advanced Accounting .....(3 hours)	
Auditing .....(3 hours)	

Professional-level courses for M.P.A.:

- ACC 502 - Advanced Accounting II
- ACC 512 - Seminar on Contemporary Accounting Topics
- ACC 605 - Current Accounting Theory and Research
- ACC 610 - Advanced Auditing
- ACC 620 - Advanced Cost/Managerial Accounting
- ACC 630 - Tax Seminar I
- ACC 631 - Tax Seminar II **OR** ACC 660 - Controllership
- MBA 545 - Communication Skills for Managers
- MBA 640 - Problems in Corporate Finance
- MBA 6XX - Any 600-level MBA course
- MBA 6XX - Any 600-level MBA course

A minimum of ten (10) courses must be taken at the graduate level with at least seven (7) courses numbered over 600 and at least three (3) MBA courses.



Admission to the Program

Admission requirements for the M.P.A. program are the same as those listed for the M.B.A. program. Admission forms and GMAT applications are available in the Academic Programs Office. Members of all underrepresented groups are strongly encouraged to apply.

Graduation and Retention Standards

Graduation and retention standards for the M.P.A. program are the same as those listed above for the M.B.A. program.

Master of Science in Systems Management

The Master of Science in Systems Management is offered by a consortium of the four Mississippi universities with Business Schools accredited by the American Assembly of Collegiate Schools of Business (AACSB). The degree targets those individuals who cannot leave their jobs to return to campus to earn a graduate degree. The delivery of the program is through distance learning technologies for flexibility in scheduling and site locations. Graduate faculty from the four consortium universities serve as instructors.

Admission to the Program

All applicants must hold a baccalaureate degree from a regionally accredited institution and have at least two (2) years of full-time work experience after receiving a baccalaureate degree to qualify for admission in any standing. International applicants must submit an official TOEFL score of at least 575 to be considered for admission. All applicants must submit three letters of recommendation and a written statement of purpose to support their candidacy for admission.

Full Standing Admission—A student with a 3.0 or equivalent average on the last 60 hours of undergraduate course work and an acceptable GMAT score, generally recognized as 500, may be considered for unconditional admission if all other admission requirements are met.

Conditional Standing Admission—Applicants who do not qualify for full admission may be admitted in conditional standing based on an examination of the following five admission criteria:

- GMAT Score
- GPA
- Letters of Reference
- Statement of Purpose
- Work Experience

These applicants will be considered by a committee composed of the graduate directors of the four participating institutions. Admission in conditional standing will be granted only with a majority vote of the committee. A personal interview may be required, and along with other factors will weigh heavily in the decision of the committee in these cases.

Students will select at the time of application, from among the four universities, the university where they wish the graduate degree conferred. If students enroll for 8 credit hours per year, they should complete the degree in 3 years, 4 months. The Master of Science in Systems Management Program (MSSM) requires a total of 32 credit hours to complete. Since this is a unique, integrated and applied curriculum, acceptance of transfer courses from another program will not be considered.

For additional information contact:

Dr. Ernest King
Graduate Director
College of Business Administration
University of Southern Mississippi
Box 5096
Hattiesburg, MS 39406
(601) 266-4653
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College of Education and Psychology

Graduate Degrees

1998-1999

Department	Major	Degree
Master's Level		
Curriculum and Instruction	Curriculum and Instruction	Master of Education Master of Science
	Early Childhood Education Emphasis (MED) Elementary Education Emphasis (MED) Reading Instruction Emphasis (MED) Secondary Education Emphasis (MED) Reading Instruction Emphasis (MS) Secondary Education Emphasis (MS)	
Educational Leadership and Research	Adult Education	Master of Education
	Educational Administration and Supervision	Master of Education
Psychology	Psychology	Master of Arts
	Counseling and Personnel Services College Counseling/ Personnel Emphasis School Counseling Emphasis	Master of Education
	Counseling Psychology Psychology	Master of Science
Special Education	Special Education	Master of Education Master of Science
	Early Intervention Emphasis (MS) Emotionally Disturbed Emphasis Gifted Emphasis Mentally Retarded Emphasis Specific Learning Disabilities Emphasis Severe/Profound Disabilities Emphasis	
Technology Education	Technology/Education Business Technology Education Instructional Technology Technical & Occupational Education	Master of Science

Department	Major	Degree
Specialist's Level		
Curriculum and Instruction	Education (CUI/EDS) Early Childhood Education Emphasis Elementary Education Emphasis Reading Instruction Emphasis Secondary Education Emphasis	Specialist in Education
Educational Leadership and Research	Education (ELR/EDS) Adult Education Emphasis Educational Research Emphasis General Administration Emphasis Higher Education Administration Emphasis	Specialist in Education
Special Education	Education (SPE/EDS) Special Education Emphasis	Specialist in Education
Doctoral Level		
Curriculum and Instruction	Education (CUI) Elementary Education Emphasis Secondary Education Emphasis	Doctor of Education Doctor of Philosophy
Educational Leadership and Research	Education (ADE) Adult Education Emphasis Education (EDA) Education Administration and Supervision Emphasis Higher Education Administration Emphasis	Doctor of Education Doctor of Philosophy Doctor of Education Doctor of Philosophy
Psychology	Psychology (PSY) Clinical Emphasis Counseling Emphasis General-Experimental Emphasis Industrial/Organizational Emphasis School Emphasis	Doctor of Philosophy
Special Education	Education (SPE) Special Education Emphasis	Doctor of Education Doctor of Philosophy



Department of Technology Education

Edward C. Mann, Chair
Hattiesburg MS 39406-5036
(601) 266-4446

The Department of Technology Education offers two graduate programs leading to the Master of Science degree. The Master of Science degree in Technology Education has emphases available in two areas:

The Department of Technology Education offers graduate programs leading to the Master of Science degree with emphases available in two areas: Business Technology Education (formerly Business Education) and Technical and Occupational Education (formerly Industrial and Vocational Education). The purposes of these two programs are to provide teachers of Business, Industrial, Technical, and Vocational subjects post-baccalaureate work designed to serve as a foundation for professional development, career advancement, and further graduate study. Mississippi teachers holding the appropriate Class A teaching license may qualify for a Class AA license upon successful completion of one of these programs.

Additionally, the Department offers a Master of Science degree in Industrial Technology. The mission of this program is to provide students with a strong theoretical base and practical hands-on experience in the design, development, implementation, management, and evaluation of leading edge educational technologies.

Master's Programs

Admission Requirements

Regular admission to the master's programs is contingent upon at least three factors: (1) Submission of test scores on the **Graduate Record Examination (GRE)**, or the **Miller Analogies Test**; (2) an undergraduate grade point average which predicts success as a master's level graduate student; and (3) approval of the Department Chair, Dean of the College, and Dean of the Graduate School.

An applicant who fails to meet the criteria for regular admission may be considered for and gain conditional admission upon the recommendation of the Department Chair, Dean of the College, and Dean of the Graduate school. Such students must make grades of B or better on the first nine hours of graduate course work taken in order to qualify for regular admission. The appropriate master's degree will be conferred upon candidates who (1) meet admission requirements listed above, (2) complete one of the special curriculum requirements outline below, and (3) pass the Master's Comprehensive Examination.

Members of all under represented groups are strongly encouraged to apply.

Master of Science Degree in Technology/Education with an Emphasis in Technical and Occupational Education

All students pursuing an emphasis in Technical and Occupational Education must complete the following requirements:

	Hours
TOE 605, 607, 611	9
TOE 692	3
REF 601, 607	6

Electives—Twelve (12) semester hours. Subject to the approval of the student's advisor and/or department chair, electives hours are to be taken as follows:

1. Three (3) elective hours must be taken in Technical and Occupational Education.
2. The remaining nine (9) semester hours may be selected to structure a graduate minor, or to cluster courses in support of specific certification requirements or other professional goals.

Master of Science Degree in Technology/Education with an Emphasis in Business Technology Education

All students pursuing an emphasis in Business Technology Education must complete the following requirements:

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	Hours
BTE 651, 652, 653, 608	12
REF 601, 607.....	6

Electives—Twelve (12) semester hours. Subject to the approval of the student’s advisor and/or department chair, elective hours are to be taken as follows:

1. Three (3) elective hours must be taken in Business Technology Education.
2. The remaining nine (9) semester hours may be selected to structure a graduate minor, or to cluster courses in support of specific certification requirements or other professional goals.

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**Curriculum for Coordinators of Cooperative Vocational Education
(Includes D.O. Co-Op)**

Prerequisite: Standard license in Trade and Technical Education, Business Technology Education, Vocational Home Economics or Vocational Agriculture.

Add-On AA Licensure Requirement

Six (6) semester hours as follows:

	Hours
BTE or TOE 553 Techniques/Problems of Coordination	3
TOE 533 Curriculum Construction for Cooperative Ed	3
OR	

A Master of Science Degree in Technology Education with an emphasis in Technical and Occupational Education or Business Technology Education which includes the above six (6) hours in lieu of “electives.”

Master of Science Degree in Instructional Technology

All students pursuing a Master of Science Degree in Instructional Technology must complete the following requirements:

	Hours
TOE 569, 609, 620, 642, 645, 648	18
REF 601, 607.....	6

Electives—Six (6) semester hours. Subject to the approval of the student’s advisor and/or department chair.

6
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Department of Curriculum and Instruction

Carolyn Reeves-Kazelskis, Interim Chair
Hattiesburg, MS 39406-5057
(601) 266-4547

The Department of Curriculum and Instruction includes the areas of elementary education, early childhood education, reading instruction, and secondary education. The department offers Master’s degrees in Curriculum and Instruction with the following majors, emphasis areas, and specialization areas:

**Master of Education
Major**

Curriculum and Instruction

Emphasis Areas

- Early Childhood Education
- Elementary Education
- Reading Instruction
- Secondary Education

Specialization Areas (Secondary)

- | | |
|-----------|--------------------|
| Art | Music Education |
| Biology | Physical Education |
| Chemistry | Physics |



English	Science
Foreign Language	Social Studies
Mathematics	Speech Communication

Master of Science Major

Curriculum and Instruction

Emphasis Areas

Reading Instruction
Secondary Education

Specialization Areas (Secondary)

See areas under **Master of Education/Specialization Area (Secondary)**.

Specialist in Education Major

Curriculum and Instruction

Emphasis Areas

Early Childhood Education
Elementary Education
Reading Instruction
Secondary Education

Specialization Areas (Secondary)

See areas under **Master of Education/Specialization Area (Secondary)**, excluding Foreign Language.

Doctor of Education and Doctor of Philosophy Major

Curriculum and Instruction

Emphasis Areas

Elementary Education

Specialization Areas (Elementary)

Early Childhood Education
Reading Instruction

Secondary Education

Specialization Areas (Secondary)

Biology	Mathematics
Chemistry	Science
English	Social Studies

Graduate degrees in Curriculum and Instruction are contingent on satisfaction of lower level program requirements. Licensure and degree requirements are separate procedures. Students seeking a master's degree in Curriculum and Instruction should have an A level licensure from Mississippi or 15 hours of undergraduate course work in education. Students entering the Curriculum and Instruction master's program who desire AA level Mississippi licensure must meet all A level requirements prior to seeking advanced licensure. Individuals who are matriculating at USM should become aware of the licensure requirements of those states where they wish to be licensed and should work with an adviser to see that those requirements are met.

The Department of Curriculum and Instruction strongly recommends that a student gain at least one year of teaching experience before completing the master's degree program. No student will be eligible to receive a specialist's degree or a doctoral degree until he or she has completed at least three years of teaching experience at a grade level appropriate for the degree.

Master's Programs

The Department of Curriculum and Instruction offers a Master of Education degree with a major in curriculum and instruction and emphasis areas in early childhood education, elementary education, reading instruction, and secondary education. The Master of Science degree is offered with a major in curriculum and instruction with emphasis areas in reading instruction and in secondary education. The program of study at the master's degree level is designed to increase the professional competency of the classroom teacher and to provide the course work necessary to meet standards of teaching licensure at this advanced

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level. The master's degree program requires admission to a particular program, appointment of a graduate adviser, completion and submission of four copies of the application form for a master's degree at least one semester in advance of the date of graduation, successful completion of the comprehensive examination, and completion of all course work requirements.

Admission Requirements

Admission to master's programs offered in Curriculum and Instruction is selective. To be considered for **regular admission** to a master's degree program, an applicant must have:

- (a) an academic record reflecting a superior undergraduate grade point average. Recently, students regularly admitted to master's programs in Curriculum and Instruction have obtained average GPAs of 3.0 (figured on a scale where A equals 4.0) for the last two years of undergraduate study;
- (b) results from a national standardized achievement/aptitude test predictive of the ability to complete a graduate program successfully. These include the **Graduate Record Examination (GRE)** or the **Miller Analogies Test (MAT)**.

Admission Deadlines

The Department of Curriculum and Instruction reviews qualified applications for graduate work prior to the inception of each semester. It is the policy of the department to accept or reject applications **received prior to published deadline dates**. Qualified applications will be reviewed at specified dates before each semester, and applicants will be notified of acceptance for the following semester.

<u>Semester</u>	<u>Application Deadline</u>	<u>Notification Date</u>
Fall	First Monday in April	First Monday in May
Spring	First Monday in September	First Monday in October
Summer	First Monday in February	First Monday in March

Individuals who have submitted applications which qualified for admission, but who were not selected for enrollment in a given semester, are encouraged to request that their application remain active for future consideration.

Members of under-represented groups are strongly encouraged to apply.

Admission to master's programs offered in Curriculum and Instruction is contingent on the approval of the department chair, the Dean of the College, and the Dean of the Graduate School. An applicant who fails to meet the above criteria for regular admission may be considered for **conditional admission** on an individual basis. Students accepted on a conditional basis **MUST** obtain grades of B or better on the first nine hours of specified courses. It is the responsibility of the student to inform the department chair or the graduate coordinator when conditional status is to be removed.

Applicants seeking a graduate degree in Curriculum and Instruction **who do not have a bachelor's degree in education** must first fulfill all requirements for a bachelor's degree in education. Applicants **holding a bachelor's degree in education** who are seeking a master's degree in an education area other than the area in which the education bachelor's degree was received must, in addition to the thirty (thirty-three for thesis programs) hours required for a master's degree, complete an additional twelve hours of curriculum or methods course work at the graduate or undergraduate level. This course work shall be prescribed by the department chair or graduate coordinator. In the event that the applicant has not previously completed student teaching requirements, fourteen hours of student teaching must be completed.

Master's Degrees

Master of Education with Emphasis in Early Childhood Education

Plan I (Thesis Program)

REF 601, 607.....	6
CIE 606, 770, 772, 776, 777, 778	18
Elective.....	3
CIE 698	6
	Hours 33

Plan II (Non-Thesis Program)

REF 601, 607.....	6
CIE 606, 770, 772, 776, 777, 778	18
Elective.....	3
CIE 728	3
	Hours 30

Substitutions for required courses or electives must be approved in advance and in writing by the Department Chair or the Graduate Coordinator.

Master of Education with Emphasis in Elementary Education

Plan I (Thesis Program)

REF 601, 607.....	6
CIE 606, 705, 724, 725, 776	15
Electives (Select 2 courses from the following: CIE 691, 706, 728, 729, 768, 778; EDA 600; GHY 617; REF 604, 660; SME 730, 731, 732, 733 or a graduate course consistent with an undergraduate concentration).....	6
CIE 698	6
Hours 33	

Plan II (Non-Thesis Program)

REF 601, 607.....	6
CIE 606, 705, 724, 725, 776	15
Electives (Select 2 courses from the following: CIE 691, 706, 728, 729, 768, 778; EDA 600; GHY 617, REF 604, 660; SME 730, 731, 732, 733 or a graduate course consistent with an undergraduate concentration).....	6
CIE 728	3
Hours 30	

Substitutions for required courses or electives must be approved in advance and in writing by the Department Chair or the Graduate Coordinator.

Master of Science and Master of Education with Emphasis in Secondary Education

Plan I (Thesis Program)

REF 601, 607.....	6
CIS 700, 754	6
Specialization	15
CIS 698.....	6
Hours 33	

Plan II (Non-Thesis Program)

REF 601, 607.....	6
CIS 700, 754	6
Specialization	15
CIS 708.....	3
Hours 30	

Substitutions for required courses or electives must be approved in advance and in writing by the Department Chair or the Graduate Coordinator.

The course requirements of Plan I and Plan II require a specialization of at least fifteen (15) semester hours which must be taken in one of the following areas:

- | | |
|------------------|----------------------------------|
| Art | Music Education |
| Biology | Human Performance and Recreation |
| Chemistry | Physics |
| English | Science** |
| Foreign Language | Social Studies*** |
| Mathematics* | Speech Communication |

*The student selecting mathematics as a specialization area may not use any mathematics course designated as a mathematics refresher course.

**The student selecting science as a specialization area may use, with the approval of his or her adviser, a combination of biological and physical science courses; however, a minimum of nine (9) semester hours of graduate credit must be taken in an area of science for which the student holds a Class A endorsement. A student who holds Class A endorsements in two or more areas of science may qualify for Class AA licensure in two areas by completing nine (9) semester hours of graduate credit in one of the endorsement areas and six (6) semester hours of graduate credit in the other endorsement area. No more than three (3)

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hours of science and mathematics education (SME) courses may be used. To be used in an endorsement area, the SME course must be in that area.

***The student selecting social studies as a specialization area may take courses in any one or a combination of the following disciplines: history, geography, political science, sociology, and economics.

Master of Science and Master of Education with Emphasis in Reading Instruction

Plan I (Thesis Program—MS Degree)

REF 601, 607.....	6
CIE 705, 706	6
CIE 713, 729, 733	9
CIE 754	3
Elective.....	3
CIE 698	6
Hours 33	

Plan II (Non-Thesis Program—MEd Degree)

REF 601, 607.....	6
CIE 705, 706	6
CIE 713, 729, 733	9
CIE 754	3
Elective.....	3
CIE 728	3
Hours 30	

Substitutions for required courses or electives must be approved in advance and in writing by the Department Chair or the Graduate Coordinator.

Specialist Programs

It is strongly recommended that students who anticipate eventually entering into a doctoral program at USM or any other institution NOT apply for admission to the Specialist program. The Specialist degree is considered by many institutions as a terminal degree, and as such could become an impediment to advanced study.

The Department of Curriculum and Instruction offers the Specialist in Education degree with a major in Curriculum and Instruction. The student has the option of taking an emphasis in early childhood education, elementary education, secondary education, or reading instruction. The student pursuing a specialist's degree with emphasis in secondary education may choose a specialization from a number of teaching (subject) areas.

Entrance into a particular specialist's degree program presupposes that the student has completed, or is willing to complete, the course work required for that program at the master's degree level.

All specialist's degree programs require a minimum of thirty-four (34) graduate semester hours beyond the master's degree.

The specialist's degree program requires admission to a particular program; submission of an approved program of studies; completion of all required course work, to include the completion of one full-time semester/term of residence taking all nine (9) semester hours on either the Hattiesburg Campus or the Gulf Park Campus; successful completion of the Specialist's oral examination; and completion and defense of an approved thesis or field problem.

Admission Requirements

Admission to Specialist's programs offered in Curriculum and Instruction is selective. To be considered for **regular admission** to a Specialist's degree program, an applicant must have:

- (a) an academic record reflecting a superior grade point average on previous graduate work. Recently, students regularly admitted to Specialist's programs in Curriculum and Instruction have obtained average GPAs of 3.25 (figured on a scale where A equals 4.0) ;
- (b) results from a national standardized achievement/aptitude test predictive of the ability to complete a Specialist's program successfully. These include the **Graduate Record Examination (GRE)** or the **Miller Analogies Test (MAT)**.



Admission Deadlines

The Department of Curriculum and Instruction reviews qualified applications for graduate work prior to the inception of each semester. It is the policy of the department to accept or reject applications received prior to published deadline dates. Qualified applications will be reviewed at specified dates before each semester, and applicants will be notified of acceptance for the following semester.

Table with 3 columns: Semester, Application Deadline, Notification Date. Rows include Fall, Spring, Summer with corresponding dates.

Individuals who have submitted applications which qualified for admission, but who were not selected for enrollment in a given semester, are encouraged to request that their application remain active for future consideration.

Members of under represented groups are strongly encouraged to apply.

Admission to Specialist's programs offered in Curriculum and Instruction is contingent on the approval of the Department Chair, the Dean of the College, and the Dean of the Graduate School. An applicant who fails to meet the above criteria for regular admission may be considered for conditional admission on an individual basis. Students accepted on a conditional basis MUST obtain grades of B or better on their first nine hours of specified courses. It is the responsibility of the student to inform the department chair, or graduate coordinator, when conditional status is to be removed.

Specialist's Degree

Specialist in Education with Emphasis in Early Childhood Education

Table listing course requirements and credit hours for the Early Childhood Education specialist degree.

In addition to the twenty-two (22) semester hour core requirements listed above, students pursuing the specialist's degree with an emphasis in early childhood education must complete at least twelve (12) hours in early childhood education.

The specialist's program with an emphasis in early childhood education consists of a minimum of thirty-four (34) semester hours beyond the master's degree. Substitutions for both required course and designated electives must be approved in advance and in writing by the department chair or the graduate coordinator.

Specialist in Education with Emphasis in Elementary Education

Table listing course requirements and credit hours for the Elementary Education specialist degree.

In addition to the twenty-two (22) semester hour core requirement listed above, students pursuing the specialist's degree with an emphasis in elementary education must complete at least twelve (12) additional semester hours in elementary education (preferably in a subject area or areas).

The specialist's program with an emphasis in elementary education consists of a minimum of thirty-four (34) semester hours beyond the master's degree. Substitutions for both required courses and designated electives must be approved in advance and in writing by the department chair or the graduate coordinator.

Specialist in Education with Emphasis in Secondary Education

REF 602.....	3
CIS 790.....	3
EDA 620 or REF 818	3
CIS 754 or 708	3
CIS 880.....	1
Elective.....	3
CIS 794.....	3

In addition to the specified core requirements, a specialization of at least fifteen (15) semester hours must be taken in one of the following areas:

- | | |
|-----------------|----------------------------------|
| Art | Human Performance and Recreation |
| Biology | Physics |
| Chemistry | Science** |
| English | Social Studies*** |
| Mathematics* | Speech Communication |
| Music Education | |

The specialist’s program in secondary education consists of a minimum of thirty-four (34) semester hours beyond the master’s degree. Substitutions for both required courses and designated electives must be approved in advance and in writing by the department chair or graduate coordinator.

*The student selecting mathematics as a specialization area may not use any mathematics course designated as a mathematics refresher course.

**The student selecting science as a specialization area may use, with the approval of his or her adviser, a combination of biological and physical science courses; however, a minimum of nine (9) semester hours of graduate credit must be taken in each area of desired science endorsement for which the individual holds a Class AA endorsement. The student must meet the requirements for a Class AAA endorsement in at least one science area. No more than three (3) hours of science and mathematics education (SME) courses may be used. To be used in an endorsement area, the SME course must be in that area.

***The student selecting social studies as a specialization area may take courses in any one or a combination of the following disciplines: history, geography, political science, sociology, and economics.

Specialist’s in Education with Emphasis in Reading

REF 602.....	3
CIE 762	3
CIE 790	3
EDA 620	3
CIE/CIS 880	1
Elective.....	3
CIE/CIS 794	3

In addition to the nineteen (19) semester hour core requirement listed above, the student must complete at least fifteen (15) semester hours of coursework in reading or a collateral field approved by the graduate coordinator.

Doctoral Programs

The Department of Curriculum and Instruction offers Doctor of Education and Doctor of Philosophy degrees with a major in education and an emphasis in elementary education or secondary education. If a student desires to receive a Doctor of Philosophy degree, he or she should follow one of the doctoral programs outlined in this section and, in addition, gain proficiency in a foreign language.

The doctoral program with an emphasis in elementary education provides for specialization in both early childhood education and in reading. A student choosing an emphasis in elementary education, with or without a specialization in either early childhood education or in reading, must complete the requisite course work in that area prior to beginning doctoral study.

The doctoral program with an emphasis in secondary education provides for specialization in various teaching (subject) areas as well as in reading. A student specializing in a particular area must complete the requisite course work in that area prior to beginning doctoral study.

All doctoral programs consist of a minimum of seventy-five (75) graduate semester hours beyond the master's degree. A minimum of thirty-seven (37) of these hours must be taken on the Hattiesburg campus. More than seventy-five (75) hours may be required in order to satisfy deficiencies which may exist in the student's background and preparation.

Students should consult the departmental guidelines and the **Admission Requirements and Procedures** section and the **General Academic Requirements** section of the **Graduate Bulletin**.

Admission Requirements

Admission to Doctoral programs offered in Curriculum and Instruction is selective. To be considered for **regular admission** to a Doctoral degree program, an applicant must have:

- (a) an academic record reflecting a superior grade point average on previous graduate work. Recently, students regularly admitted to Doctoral programs in Curriculum and Instruction have obtained average GPAs of 3.5 (figured on a scale where A equals 4.0);
- (b) results from the **Graduate Record Examination** (GRE); and
- (c) a writing sample consisting of a major paper, article, report, etc.

Admission Deadlines

The Department of Curriculum and Instruction reviews qualified applications for graduate work prior to the inception of each semester. It is the policy of the department to accept or reject applications **received prior to published deadline dates**. Qualified applications will be reviewed at specified dates before each semester, and applicants will be notified of acceptance for the following semester.

Semester	Application Deadline	Notification Date
Fall	First Monday in April	First Monday in May
Spring	First Monday in September	First Monday in October
Summer	First Monday in February	First Monday in March

Individuals who have submitted applications which qualified for admission, but who were not selected for enrollment in a given semester, are encouraged to request that their application remain active for future consideration.

Members of under-represented groups are strongly encouraged to apply.

Admission to Doctoral programs offered in Curriculum and Instruction is contingent on the approval of the chair of the department, the Dean of the College, and the Dean of the Graduate School. An applicant who fails to meet the above criteria for **regular admission** in their totality may be considered for conditional admission on an individual basis. Students accepted on a conditional basis **MUST** obtain grades of B or better on their first nine hours of specified courses. It is the responsibility of the student to inform the department chair, or graduate coordinator, when conditional status is to be removed.

For the Ed.D. degree, proficiency in one language is required. In all cases, satisfaction of that language requirement shall be satisfied by completion of REF 761 and REF 762. The six hours for REF 761 and REF 762 shall not be counted as part of the 75-hour requirement for the doctorate.

For the Ph.D. degree, proficiency in two languages, other than English (except in the case of students for whom English is not their native language), is required. In all cases, satisfaction of that language requirement shall be satisfied by completion of REF 761 and REF 762. An additional language proficiency must be demonstrated as per the dictums of the graduate school. The hours for REF 761 and REF 762 and other courses taken to satisfy the language proficiency requirement shall not be counted as part of the 75-hour requirement for the doctorate.

Doctoral Degrees

Doctor of Education and Doctor of Philosophy with Emphasis in Elementary Education

REF 761, 762, 893.....9
 CIE 7906
 EDA 711 or 7133
 Elective (Select from: CIE 600, 606, 704, 705, 724, 725, 768)3
 CIE 7916
 CIE 8623
 CIE 8803
 CIE 89812

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In addition to the forty-five (45) semester hour core requirement listed above, students pursuing the doctoral degree with an emphasis in elementary education must complete at least eighteen (18) hours beyond the master's degree in elementary education.

Students desiring specialization in early childhood education must complete at least eighteen (18) hours beyond the master's degree in early childhood and elementary education.

Students desiring a specialization in reading must complete at least twenty-four (24) hours beyond the master's degree in reading and a minimum of nine (9) hours in a related field(s) outside of the Department of Curriculum and Instruction.

Students seeking an emphasis in elementary education, with or without a specialization in either early childhood education or in reading, are to choose electives to complete a program consisting of a minimum of seventy-five (75) graduate semester hours beyond the master's degree. More than seventy-five (75) hours may be required in order to satisfy deficiencies which may exist in the student's background and preparation.

Doctor of Education and Doctor of Philosophy with Emphasis in Secondary Education

REF 761, 762, 893.....	9
CIS 790.....	6
EDA 711 or 713.....	3
Elective (Select from: CIS 542, 600, 707, 710, 754.....	3
CIS 791.....	6
CIS 880.....	3
CIS 898.....	12

The forty-two (42) semester hours of required course work listed above serve as a core program for students pursuing a doctoral degree with an emphasis in secondary education. The doctoral program consists of a minimum of seventy-five (75) graduate semester hours beyond the master's degree. More than seventy-five (75) hours may be required in order to satisfy deficiencies which may exist in the student's background and preparation.

Of the total number of hours required of a doctoral student with an emphasis in secondary education, thirty-three (33) semester hours of graduate credit (to include the master's degree) must be taken in one of the following specialization or content areas:

- | | |
|-------------|----------------|
| Biology | Reading |
| Chemistry | Science |
| English | Social Studies |
| Mathematics | |

Department of Educational Leadership and Research

Arthur R. Southerland, Chair
Hattiesburg, MS 39406-5027
(601) 266-4579

The Department of Educational Leadership and Research comprises courses and degree programs in educational administration and supervision, higher education, research and foundations, and adult education. The programs in Educational Administration and Supervision encompass the full range of administrative positions and lead to the master's degree, the specialist's degree, and the doctorate in education with an emphasis in educational administration. Programs at the master's degree level provide entry level preparation in the elementary school principalship, the junior high school principalship, the high school principalship, and supervision of instruction. Programs at the specialist's and doctoral levels provide preparation for the superintendency, central administrative staff positions, and leadership roles in other institutional settings. In addition, the program at the doctoral level provides preparation for college teachers in educational administration and persons desiring to prepare for administration in higher education.

The Research and Foundations components of the Department of Educational Leadership and Research provide supportive services in teacher education. At the graduate level, these services are provided in the areas of Educational Foundations, Educational Media and Technology, and Educational Research. Also offered are the specialist's degree and the doctoral minor emphasizing Educational Research.

The Adult Education component of the Department of Educational Leadership and Research offers programs of study which lead to four degrees in adult education: Master of Education (M.Ed.), Specialist



in Education (Ed.S.), Doctor of Education (Ed.D.), and Doctor of Philosophy (Ph.D.) Through the completion of courses and/or degrees in those programs, students may enhance their understanding of adults as learners as well as the many means by which educational services are developed and delivered to adults.

Academic preparation in adult education is dependent not only upon knowledge of adult education theory and practice but also upon knowledge from related areas of study, such as psychology, sociology, administration, and management. Consequently, the courses and degree programs often follow an interdisciplinary approach in preparing persons for roles of professional service to adults. Adult education majors are encouraged to enroll in professionally relevant courses in cognate fields. Students from other departments frequently find adult education courses to be valuable as electives or academic minors.

The following course patterns for the different levels set forth only the minimum core requirements, and the electives selected to suit individual needs and objectives must be chosen with the advice and approval of the student's major professor. Therefore, it is mandatory that the student consult early in his or her program, and frequently thereafter, with his or her major professor concerning the selection of courses and sequence in which these courses will be taken.

Department Policies

The following departmental policies are supplementary to the rules and regulations of the University and the Graduate School as set forth elsewhere in this Bulletin.

Programs and Courses in Educational Administration

Master's Programs

Master of Education Degree in Educational Administration

Requirements for the M.Ed. have undergone significant revision. The proposed program is subject to approval by the Mississippi State Board of Education, and approval is expected by mid-August of 1998. Implementation of the new program, beginning with part-time students, is expected for the summer term of 1999. Classes for full-time students are expected to begin in the fall term of 1999.

Contact the Department of Educational Leadership and Research for further details.

Admission

Admission to the University of Southern Mississippi's graduate programs in Educational Leadership and Research is selective. Regular admission is contingent on having graduated from a college or university accredited by a recognized regional accrediting agency. In addition, the graduate admissions committees of the Department recommend admittance only for those applicants whose academic background, work experience, demonstrated leadership, and communication skills meet the challenging demands of graduate programs in Educational Leadership and Research. In evaluating applications the admission committees utilize separate criteria in each degree program offered. Admission to the revised M.Ed. in educational administration is further limited by the minimum and maximum number of students who can be accommodated in each cohort.

Applications for admission to the master's program will be considered on an annual basis. Students will be admitted to either a part-time or a full-time cohort at the beginning of the respective cohort's program cycle. Courses must be taken in sequence, and no additional persons will be admitted to a particular cohort after the beginning of the first term of the required curriculum. Individuals who drop out of a cohort to which they have been admitted will be considered for admission at the beginning of the next new cohort cycle relating to their status as part-time or full-time.

Prospective students are encouraged to apply as early as possible. Those who wish to study as part-time students, beginning in the summer of 1999, are asked to have their applications on file in the fall of 1998, but no later than January 15, 1999. Persons who wish to be full-time students beginning in the fall of 1999 are requested to apply during the spring of 1999, but no later than March 24, 1999.

Required Criteria

- certification in a standard teaching field
- documentation of a minimum of three years of successful teaching experience
- recommendation from immediate supervisor
- GPA on last sixty hours of undergraduate work

Supplementary Criteria*

- other standardized test scores
- portfolio or other evidence of successful leadership experiences

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- GRE, MAT, or NTE scores
- writing examination
- resume according to department guidelines
- interview
- reference checks

Members of under represented groups are strongly encouraged to apply.

*Supplementary criteria may be submitted at the student’s discretion or may be requested by the admission committee.

Application for Graduation

Graduation is based upon:

1. Completion of an approved program of studies. Student admitted before December 31, 1997, must complete the requirements of the thirty (30) semester hour program no later than the August 1999 commencement in order to be eligible for “AA” licensure as an administrator in Mississippi. Students admitted after State Department of Education approval of the revised master’s program will be required to meet the course and internship requirements of the amended program.
2. Satisfactory completion of the comprehensive examination.

Educational Administration

Contact the Department of Educational Leadership and Research for academic requirements for the M.Ed. in educational administration.

	Hours
Block #1 The Landscape of Leadership	
REF 601—Educational Research—Interpretations and Applications	3
EDA 600—Introduction to Educational Leadership	3
EDA 628—Contextual Dimensions of the Principalsip.....	3
EDA 780—Educational Leadership Seminar.....	3
Block #2 The Principal as Instructional Leader	
REF 607—Developing a Student Centered Curriculum	3
REF 632—Measuring Student Success.....	3
EDA 620—Instructional Leadership—Supervision and Professional Development.....	3
Advised Selection.....	3
Block #3 The Principal as Manager	
EDA 616—Legal Considerations for School Leadership.....	3
EDA 650—Educational Resources Development and Management	3
EDA 708—Developing and Managing Human Resources.....	3
EDA Advised Selection	3
Internship	
EDA 636.....	6 to 12

**Programs and Courses in Educational Administration
Specialist’s Degrees**

Specialist in Education with Emphasis in Educational Administration

Admission

Admission to the University of Southern Mississippi’s graduate programs in Educational Leadership and Research is selective. Regular admission is contingent on having graduated from a college or university accredited by a recognized regional accrediting agency. In addition, the graduate admissions committees of the Department recommend admittance only for those applicants whose academic background, work experience, demonstrated leadership, and communication skills meet the challenging demands of graduate programs in Educational Leadership and Research. In evaluating applications the admission committees utilize separate criteria in each degree program offered.



Required Criteria

GRE, MAT, or NTE score
GPA on previous graduate work
letters of recommendation

Supplementary Criteria*

other standardized test scores
interview
vita/resume
writing sample
GPA on last 2 years of undergraduate work
professional experience

Members of underrepresented groups are strongly encouraged to apply.

*Supplementary criteria may be submitted at the student’s discretion or may be requested by the admission’s committee.

Application for Graduation

Graduation is based upon:

1. Completion of an approved program of studies as determined by the student’s committee which may consist of more than the minimum thirty-three (33) semester hours of credit required for graduation.
2. Satisfactory completion of the comprehensive examination.
3. Successful defense of the research project or the field problem.

Programs

The specialist’s degree students must have completed all courses or their equivalent in the master’s degree program. Those courses not taken must be completed but will not count as part of the specialist’s program. Additional electives are required for previously completed required courses.

A minimum of nine (9) semester hours in cognate areas is required in all of the specialist’s degree programs. The department defines cognate areas as those courses which broaden and complement the student’s program. These courses and other electives will be chosen with the approval of the student’s major professor, and additional hours may be required to satisfy deficiencies in the student’s program.

Administration

EDA 700, 704, 706, 710, 720, 736, 738
EDA 794 or EDA 798
Total—24 or 27 hours

Electives—6 or 9 hours in cognate areas

Higher Education Administration*

EDA 704, 711, 712, 713, 715, 717, 719
PSY 639 or PSY 739
(18 hours from the above courses)
EDA 794 or EDA 798
Total 21 or 24 hours
Electives—6 or 9 hours in cognate areas

*Prerequisites are EDA 600 and REF 601

Doctoral Degrees

Doctor of Education and Doctor of Philosophy with Emphasis in Educational Administration

Admission

Admission to the University of Southern Mississippi’s graduate programs in Educational Leadership and Research is selective. Regular admission is contingent on having graduated from a college or university accredited by a recognized regional accrediting agency. In addition, the graduate admissions committees of the Department recommend admittance only for those applicants whose academic background, work experience, demonstrated leadership, and communication skills meet the challenging demands of graduate programs in Educational Leadership and Research. In evaluating applications the admission committees utilize separate criteria in each degree program offered.

Required Criteria

GRE scores
GPA on previous graduate work
letters of recommendation

Supplementary Criteria*

other standardized test scores
interview
vita/resume
GPA on last 2 years of undergraduate work
professional experience

Members of underrepresented groups are strongly encouraged to apply.

*Supplementary criteria may be submitted at the student's discretion or may be requested by the admission's committee.

Qualifying Entrance Examination

1. Should be taken prior to the completion of eighteen (18) semester hours of study within the department, but may not be taken before having attained regular admission status.
2. May not be taken prior to the receipt of satisfactory GRE scores.
3. Regularly admitted doctoral students who fail the examination may repeat it once.
4. The results of a master's degree comprehensive examination may not be substituted for this examination.

Planning Sheet

Planning sheets are completed after the qualifying examination has been passed and the committee appointed.

Admission to Candidacy

Admission to candidacy should be submitted one semester prior to graduation and will be approved by the student's graduate committee upon:

1. Completion of an approved program of studies.
2. Satisfaction of the language and/or statistics requirement.
3. Completion of an approved dissertation prospectus.
4. Completion of the comprehensive examination.
5. Completion of the residency requirement.

Application for Graduation

Graduation is based upon:

1. Meeting the departmental and Graduate School deadlines for receiving completed dissertation.
2. Successful defense of the completed dissertation.

Programs

At the doctoral level, programs are provided in: (1) General School Administration and (2) Educational Administration with an emphasis in Higher Education. The general administration program provides preparation for the superintendent, other central office positions, and college teachers, while the program emphasizing higher education is designed to prepare administrators of higher education.

The doctoral program requires a minimum of eighty-four (84) semester hours beyond the bachelor's degree exclusive of the dissertation and proficiency in statistics. A minimum of thirty-two (32) semester hours must be taken on the Hattiesburg Campus excluding REF 761, REF 762, and EDA 898. The student's doctoral committee, appointed by the Graduate Dean, will approve the selection of required courses and electives and, in order to secure breadth and depth in the student's preparation program, may require more than the minimum number of hours of graduate credit. Nine (9) hours of cognate area credit is normally required. The department defines cognate areas as those courses which broaden and complement the student's program. Cognates as well as other courses will be chosen with the approval of the student's major professor and committee. A strength of the doctoral program is its flexibility. A program of studies is formulated after the successful completion of the Qualifying Examination and is based upon the student's performance on this examination, previous educational background, and professional objectives.

Each doctoral student will be required to participate in a variety of laboratory and field experiences, many of which may not be connected with specific courses.



Programs in Educational Research

Specialist's Program in Educational Research

The program leading to the specialist's degree in Education (Ed.S.) is designed to meet those goals listed under the master's degree program. The program is intended to serve as (1) a terminal program at the specialist's level for individuals not pursuing the doctoral degree and as (2) an advanced research program for individuals desiring specialization in research in addition to their major areas at the doctoral level.

Specialist in Education with Emphasis in Educational Research

Admission

Admission to the University of Southern Mississippi's graduate programs in Educational Leadership and Research is selective. Regular admission is contingent on having graduated from a college or university accredited by a recognized regional accrediting agency. In addition, the graduate admissions committees of the Department recommend admittance only for those applicants whose academic background, work experience, demonstrated leadership, and communication skills meet the challenging demands of graduate programs in Educational Leadership and Research. In evaluating applications the admission committees utilize separate criteria in each degree program offered.

Required Criteria

GRE, MAT, or NTE scores
GPA on previous graduate work
letters of recommendation

Supplementary Criteria*

other standardized test scores
interview
vita/resume
writing sample
GPA on last 2 years of undergraduate work
professional experience

Members of an underrepresented groups are strongly encouraged to apply.

*Supplementary criteria may be submitted at the student's discretion or may be requested by the admission committee.

Application for Graduation

Graduation is based upon:

1. Completion of required course work;
2. Satisfactory completion of written and/or comprehensive examination;
3. Satisfactory completion of Thesis or Research Problem.

Curriculum Requirements

A student desiring to obtain a Specialist's degree in Research Training must possess a master's degree, and complete either twenty-seven (27) or thirty (30) semester hours of course work. Twenty-seven (27) hours are required for the student who writes a thesis (REF 798) and thirty (30) hours for the student who conducts a field problem (REF 794). The student must have also completed, or be willing to complete, the following prerequisites or their equivalents: *REF 601 and *602.

The following five courses (fifteen (15) semester hours) are required of each student:

	Hours
REF 761, 762, 824, 830, 893.....	15

A student who chooses to write a thesis will complete one course (three (3) semester hours) from among the following. A student who conducts a field problem will complete two courses (six (6) semester hours).

REF 632, 770, 792	3 or 6
PSY 764	3 or 6
CSS 501, REF 645, CPY 614	3 or 6

Each student must complete either REF 794 (Field Problems—3 semester hours) or REF 798 (Specialist Thesis—6 semester hours).

Students will take nine (9) semester hours of electives to complete the program.

*May be counted as electives in the specialist's degree program.

Doctoral Minor in Educational Research

Students majoring in a particular field or area at the doctoral level may also wish to pursue a doctoral minor in Educational Research. The objectives of the doctoral minor are to prepare persons to:

1. initiate or direct applied or institutional research in college, private or public agencies, and school systems;
2. teach applied statistics and research methodology in institutions of higher learning;
3. advise graduate and undergraduate students relative to the research process involved in thesis, dissertations, and projects;
4. utilize available computer packages for statistical and informational processing;
5. serve as consultant to agencies involved in research or evaluation.

A minimum of twelve (12) semester hours is necessary in addition to REF 761 and REF 762 which are required for basic proficiency of all doctoral students in education.

The six (6) graduate courses (eighteen (18) semester hours) from the following represent the requirements for the doctoral minor:

	Hours
REF 761, 762, 824, 830, 893.....	15
CSS 501, REF 645	3

Substitutions from the following list of courses may be made with departmental approval:

- PSY 764
- REF 632, 770, 791, 792, 794

Programs in Adult Education

The Adult Education program, a component of the Department of Educational Leadership and Research, offers degrees in Adult Education at the master's, specialist's, and doctoral levels.

Adult Education programs, by nature interdisciplinary and flexible, offer individuals from diverse backgrounds opportunities for upgrading and building on professional experience. Such agencies include vocational-technical centers, the armed forces, health services, criminal justice and law enforcement programs, public school systems, junior and senior colleges, human service agencies, the Cooperative Extension Service, business and industrial organizations, and others.

Admission to degree programs will be conducted in accordance with College and University policies (please refer to the "Admissions Requirements and Procedures" section of the **USM Bulletin: Graduate Programs**). In general, these procedures include the submission of application and credentials to the Director of Graduate Admissions. Additionally, all degree applicants should send the program coordinator (a) a letter explaining the applicant's interest in and reasons for pursuing the degree and (b) a resume of academic and job-related experiences. The Admissions Review Committee will review all applications and recommend the appropriate actions.

Admitted students will be assigned a temporary adviser until the student, with the concurrence of the program coordinator, selects a permanent adult education adviser. Doctoral students will also select a doctoral advisory committee composed of four additional faculty members, at least one of whom must be a member of the Adult Education faculty. Then, in accordance with departmental policy, students, in collaboration with their appointed advisers, will design programs of study which reflect their long term goals and interests. Basic admissions eligibility and graduation criteria are discussed in the sections which follow.

Master of Education in Adult Education

Admission

Admission to the University of Southern Mississippi's graduate programs in Educational Leadership and Research is selective. Regular admission is contingent on having graduated from a college or university accredited by a recognized regional accrediting agency. In addition, the graduate admissions committees of the Department recommend admittance only for those applicants whose academic background, work experience, demonstrated leadership, and communication skills meet the challenging demands of graduate programs in Educational Leadership and Research. In evaluating applications the admission committees utilize separate criteria in each degree program offered.



Required Criteria

GRE, MAT, or NTE scores
GPA on last 2 years of undergraduate work
GPA on previous graduate work

Supplementary Criteria*

letters of recommendation
other standardized test scores
interview
vita/resume
writing sample
professional experience

Members of underrepresented groups are strongly encouraged to apply.

*Supplementary criteria may be submitted at the student's discretion or may be requested by the admission committee.

Curriculum Requirements

The Master of Education degree requires thirty (30) semester hours of graduate course work (no thesis is required for this degree). In addition to the eighteen (18) hours of courses specified below, twelve (12) hours of electives must also be taken.

Required Courses

	Hours
ADE 540, 576, 601, and 607 (ADE core)	12
REF 601 (Introduction to Research)	3
REF 604 or 816 or 818 (Educational Foundations) or a sixth course in Adult Education.....	3

Electives

One additional ADE course.....	3
Courses in degree-related areas.....	9
	30

To graduate, students must complete an approved thirty (30) semester hour program of studies with an acceptable grade point average and successfully complete a written comprehensive examination.

Specialist in Education with Emphasis in Adult Education

Admission

Admission to the University of Southern Mississippi's graduate programs in Educational Leadership and Research is selective. Regular admission is contingent on having graduated from a college or university accredited by a recognized regional accrediting agency. In addition, the graduate admissions committees of the Department recommend admittance only for those applicants whose academic background, work experience, demonstrated leadership, and communication skills meet the challenging demands of graduate programs in Educational Leadership and Research. In evaluating applications the admission committees utilize separate criteria in each degree program offered.

Required Criteria

GRE, MAT, or NTE scores
GPA on previous graduate work
letters of recommendation

Supplementary Criteria*

other standardized test scores
interview
vita/resume
writing sample
GPA on last 2 years of undergraduate work
professional experience

Members of underrepresented groups are strongly encouraged to apply.

*Supplementary criteria may be submitted at the student's discretion or may be requested by the admission's committee.

Curriculum Requirements

The Specialist in Education degree requires thirty-three (33) semester hours of graduate work beyond the master's degree. Adult Education Specialist students must complete all ADE and REF courses (or their equivalents) specified for the Master of Education in Adult Education. Students are also required to complete either a thesis (ADE 798) or an appropriate field study (ADE 794). Altogether, students should complete twenty-one (21) semester hours of adult education courses and twelve (12) hours from relevant

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content areas or behavioral sciences related to the goals of the student. All courses must be approved by the student's adviser.

To graduate, students must complete an approved thirty-three (33) semester hour program of studies with an acceptable grade point average, successfully complete a written comprehensive examination, and successfully complete and defend an acceptable thesis or field study.

Doctor of Education and Doctor of Philosophy with Emphasis in Adult Education

Admission

Admission to the University of Southern Mississippi's graduate programs in Educational Leadership and Research is selective. Regular admission is contingent on having graduated from a college or university accredited by a recognized regional accrediting agency. In addition, the graduate admissions committees of the Department recommend admittance only for those applicants whose academic background, work experience, demonstrated leadership, and communication skills meet the challenging demands of graduate programs in Educational Leadership and Research. In evaluating applications the admission committees utilize separate criteria in each degree program offered.

Required Criteria

- GRE score
- GPA on previous graduate work
- letters of recommendation

Supplementary Criteria*

- other standardized test scores
- interview
- vita/resume
- writing sample
- GPA on last 2 years of undergraduate work
- professional experience

Members of under represented groups are strongly encouraged to apply.

*Supplementary criteria may be submitted at the student's discretion or may be requested by the admission's committee.

Curriculum Requirements

Doctoral programs of study should be designed to provide competency in six areas: (1) history, philosophy, and contemporary practice; (2) the nature of the adult learner; (3) methods and strategies of adult learning; (4) program and curricular design and evaluation; (5) research design and statistics; and (6) specific abilities required for the student's particular area of professional interests, including both major areas of study and cognate fields. As early in the program as possible, doctoral students should select an area of emphasis for dissertation research. Programs of study (including all course decisions, research topics, and foreign language selections) must be approved by each student's advisory committee.

Doctoral students may pursue either the Ed.D. or the Ph.D. Both degrees require a minimum of 72 semester hours of course work (including dissertation and statistics proficiency) beyond the master's degree. Any hours taken to establish proficiencies in foreign languages, or areas of needed remediation are in excess of the 72 hour program minimum. Students pursuing the Ph.D. must establish proficiency in one foreign language approved by the Graduate School either through additional course work or through examination. All doctoral students must also complete a residency requirement, defined as two consecutive terms (which may include summer term) of minimum 12-hour course loads each. Students should not be employed full-time during residency. Physical residence on campus or in Hattiesburg is recommended but not required during residency.

Departmental Program of Studies (minimum 72 credit hours)

Doctoral students in adult education will complete a number of required courses and electives, but the program is designed to allow intensive pursuit of other areas in which adult educators may have interest or professional goals. Accordingly, there are several possible tracks students may pursue in addition to the requirements common for all students. The minimum required program includes:

	Hours
ADE 540, 576, 601, 607, and 889 (ADE Core)	15
ADE Electives (9 hours of which must be classroom courses).....	12
ADE 898 (dissertation).....	12

REF 601 and REF 602	6
REF 604, 816, or 818 or an additional elective in Adult Education	3
REF 761 and 762	6
Other Electives	18
	72



Within this program, students may pursue related areas in which to specialize, or tracks. Students are not required to be in a track; they are not prescriptive. They are, however, suggestive of possible plans for individual doctoral programs.

Administrative and Managerial: For those interested in public sector and private sector administration. In addition to ADE 602 and 603, recommended course areas would include Business, Management, Marketing, and Educational Administration.

Adult Basic Education: For those interested in teaching and administering adult basic and secondary education. Recommended courses include ADE 541, 542, 545, 602, and related courses in Reading and English composition.

Research: For those interested in conducting research at a professional level. Recommended course areas would include statistics, research design, grant writing, historical research methods, psychology, and computers.

Career Specialization: For those interested in using their elective courses to pursue specific career interests, such as nursing, criminal justice, fine arts, liberal arts, business, technical fields, library services, etc. Many people in this track might be teachers or trainers in post-secondary institutions, health-related organizations, or business organizations.

Gerontology: For those interested in the older adult. In addition to ADE 580 and 750, germane courses in psychology, sociology, social work, and/or counseling are recommended.

Dissertation (12 hours)

During the dissertation process, all students must complete twelve (12) hours of ADE 898, Dissertation. A minimum of three (3) credit hours of ADE 898 must be completed during the semester in which the dissertation is defended. The student submits three documents to a doctoral committee of five faculty: a pre-proposal, a proposal, and a completed dissertation. The last two are defended orally. A student applies for candidacy only after all degree requirements except the oral defense of the dissertation are completed .

Examinations

Qualifying examinations are scheduled for the third Friday after registration in each term. Doctoral students must take this written examination in the first term of their course work. After the qualifying exam is successfully completed, but still during the first term, the student will schedule a program planning meeting with the Adult Education faculty.

Comprehensive written examinations are prepared by doctoral committee members and are taken at or near the conclusion of course work. They are based on material from the overall program, including the books on the doctoral reading list. The committee may require an additional oral examination at its discretion. Comprehensive examinations are taken by arrangement on an individual basis.

Any students who have been inactive, as determined by the committee chair, for over six years following the comprehensive examination will take an additional examination in Adult Education to assure currency prior to beginning or continuing work on the dissertation.

Graduation

To complete either the Ed.D. or Ph.D. degree in Adult Education, students must maintain an acceptable grade point average, complete all course work, complete necessary proficiencies, pass qualifying and comprehensive examinations, and successfully complete and defend a dissertation.



Department of Psychology

Stan A. Kuczaj, II, Chair
Hattiesburg, MS 39406-5025
(601) 266-4177

The Department of Psychology offers graduate programs at the master's and doctoral levels. Master's degrees with a major in Psychology (M.A. or M.S.) prepare students for advanced graduate work. The Master's degrees in Counseling Psychology (M.S.) and Counseling and Personnel Services (M.Ed.) prepare entry-level counselor personnel for service delivery roles in community agency and educational settings. The M.S. program in Counseling Psychology also provides a track for students who wish to pursue advanced graduate study.

The department's Ph.D. programs in clinical, counseling, industrial/organizational, and school psychology are based on the scientist-practitioner training model which integrates scientific and professional components at all stages of training, preparing graduates for teaching, research, and practice roles in health service, governmental, educational, business/industrial, and/or academic settings. The Ph.D. program in general-experimental psychology prepares graduates for teaching and research roles in academic institutions and specialized research programs.

At the Ph.D. level, programs in clinical, counseling, and school psychology are fully accredited by the American Psychological Association (APA). In addition, the doctoral program in school psychology is accredited by the National Association of School Psychologists (NASP). At the master's level, the program in counseling psychology is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). Since program requirements and curricula may vary from one program to the next, program brochures should be requested from the department if detailed information is needed.

Master's Degree Programs

Students are admitted to the M.A. program in Psychology based on an assessment of their potential to successfully complete a doctoral program. Hence, admissions requirements are essentially the same as those as listed for the Ph.D. in Psychology (see description under Ph.D. in Psychology). Some students initially seek a doctoral degree but may, at some point, opt to terminate with a master's degree and typically complete a program leading to a Master of Science Degree in Psychology. Regardless, the completion of any master's degree does not guarantee admission to advanced doctoral study in one of the Ph.D. programs offered by the department.

Students are admitted to the M.S. in Counseling Psychology or M.Ed. in Counseling and Personnel Services based upon the student's previous academic record, scores on admission tests, and recommendations. Admission is selective; the faculty selects the best candidates from the applicant pool. All applicant credentials must be submitted by January 15 to receive priority consideration. The following tests are required for the respective master's programs:

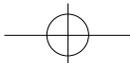
- M.S. in Counseling Psychology - Graduate Record Examination (GRE)
(Verbal and Quantitative)
- M.Ed. Track I (Non-Teacher) School Counseling or Miller Analogy Test or GRE
- M.Ed. Track II (Teacher) School Counseling and
- M.Ed. Track III College Counseling - GRE (Verbal and Quantitative) or Miller Analogies Test

The Admissions Committee takes into account factors such as test scores, undergraduate Grade-point-average, and letters of recommendation in making admissions decisions. Members of under represented groups are strongly encouraged to apply.

Curricula: M.A. and M.S. Degrees in Psychology

Common Requirements for the Master of Arts and Master of Science Degrees with a major in Psychology

	Hours
Departmental Courses:	
PSY 607, 608, 621, 624, 635, 660, 661, 662, 663, 679.....	26
Electives (All elective courses must be approved by the student's major professor).....	6





Master's comprehensive examination. Examination requirements are described in the General Academic Requirements section of the **Bulletin**.

Additional Requirements for the Master of Arts Degree

	Hours
Departmental Courses:	
Master's Thesis: PSY 698.....	6
Foreign Language Requirement: Proficiency in one Foreign Language is required for the	

M.A. degree. Specific proficiency requirements are described in the General Academic Requirements section of the **Bulletin**.

Note: Students completing the M.S. degree in preparation for doctoral study must complete a master's thesis in addition to the requirements listed under Common Requirements for M.A. and M.S. degrees. Completion of the M.A. or M.S. degree with thesis does not guarantee admission to the doctoral degree program.

Curriculum: M.S. Degree in Counseling Psychology

The Master of Science in Counseling Psychology is designed to accommodate the needs of students who plan to seek employment in human services agencies. Research and statistics courses are available for those students who may wish to prepare for doctoral study. The program is accredited under the Community Counseling area by the Council for Accreditation of Counseling and Related Educational Programs.

	Hours
Required Core Courses	
PSY 613, 614, 630, 652, 679, 710, 711, 712, 713, 714, 762.....	33
Research Tools: PSY 659, REF 602.....	6
Internship: PSY 796.....	6
Foundations, Environmental/Specialized Studies.....	15
Total Requirements:	60 hours

Note: Course planning is undertaken with the backgrounds and needs of students in mind. The curriculum may be slightly modified to meet individual needs of students (with approval of adviser). Detailed curriculum guides are available upon request.

Curriculum: M.Ed. Degree in Counseling and Personnel Services

A. Track III: College Student Personnel Services Emphasis

This emphasis prepares graduates for student personnel positions in community/junior colleges, colleges, and universities. Students may enter the College Student Personnel emphasis from any undergraduate major.

	Hours
Required Courses	
PSY 512, 639, 650, 654, 739, REF 601, EDA 712, 713.....	24
Approved Electives.....	9
Total Requirements: 33 hours	

B. School Counseling Emphasis

1. Track I (Alternate route to licensure)

This track of the school counseling emphasis is designed to meet the needs of non-teachers who wish to qualify for Class AA school counselor licensure in Mississippi. Students may enter this track from any undergraduate major. Track I requires a minimum of one year of full-time graduate study on the Hattiesburg campus and one year of full-time internship. Program criteria include SDE-acceptable scores on Praxis I and Praxis II.

	Hours
Required Courses	
PSY 512, 610, 611, 614, 650, 651, 653, 710, 711, REF 601, 607.....	42
Professional Specialization Area.....	12
Total Requirements: 54 hours	

2. Track II

This track of the school counseling emphasis is designed to meet the needs of teachers who wish to qualify for Class AA school counselor licensure. A Class A Standard Teaching License or equivalent is prerequisite for admission. It is essentially a summer program; some of the required courses are offered only during Summer Term.



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	Hours
Required Courses	
PSY 512, 610, 611, 614, 650, 651, 653, 710, 711, REF 601	33
Required for Mississippi Licensure only:	
REF 607.....	3
Total Requirements: 33-36 hours	

Application for Graduation

Graduation is based upon:

1. Completion of required course work in respective program.
2. Satisfactory completion of comprehensive examination.
3. Satisfactory performance in the counseling practica.

Doctoral Degree Programs

Ph.D. in Psychology

The Department offers the Ph.D. in psychology in five emphasis areas: clinical, counseling, general-experimental, school, and industrial/organizational psychology. These doctoral emphasis areas are designed to ensure that students receive strong preparation in the research and theoretical literature of psychology as an experimental behavioral science.

Students are admitted to one of these programs after completing a master’s degree in psychology as described in the section on master’s degrees. Students who apply to a doctoral program and have not completed such a master’s degree must do so at USM en route toward their doctorate. Applicants are judged on the basis of prior academic record, **GRE** scores (Verbal and Quantitative), letters of recommendation, and evidence of creative scholarship. Applicants are expected to have completed appropriate undergraduate foundation courses in psychology (e.g., statistics, experimental, and history and systems). A student may be invited to come to campus for a personal interview as part of the application process. The department typically receives applications from a larger number of qualified applicants than it can enroll. Prospective students should specify their intended emphasis area at time of application. Brochures describing each of these are available from the department. New students are normally admitted only in September. Applications received by March 1 will receive a full review. Please note the counseling area has a February 1 deadline. All students interested in applying for admission to the program are encouraged to contact the department prior to submitting their applications.

The Department of Psychology values diversity, and members of under-represented groups are strongly encouraged to apply. Additionally, while participation in on-campus admissions seminars and interviews is highly recommended for applicants who enter the final selection pool, alternative arrangements may be requested through the Director of Training for those individuals who are unable to travel to Hattiesburg.

Common Requirements for the Ph.D. in Psychology

	Hours
Departmental Courses:	
PSY 898 (12 hours)	12

Foreign Language Requirement: One Foreign Language and proficiency in Statistics are required for the doctoral degree. Specific proficiency requirements are described in the General Academic Requirements section of the **Bulletin**.

Doctoral qualifying and comprehensive examinations. Examination requirements are described in the General Academic Requirements section of the **Bulletin**.

Requirements for an Emphasis in General Experimental Psychology

In addition to the requirements listed under Common Requirements for the Doctor of Philosophy degree, the following courses are recommended as a Program of Study:

	Hours
Departmental Courses:	
PSY 701 (1 hour), 702; 718, 721, 722, or 725 (3 hours);	
728 (9 hours); 750; 761; and 764	28
Electives:	
All electives must be approved by the student’s major adviser	
and emphasis area director	18

Requirements for an Emphasis in Clinical Psychology

In addition to the requirements listed under Common Requirements for the Doctor of Philosophy degree, the student must take the following:

	Hours
Departmental Courses: PSY 718, 721, or 722 or 725; 750	9
Clinical Core: PSY 616, 640, 641, 734, 735 (9 hrs), 736, 737, 740, 741, 780, 782 (minimum 9 hrs), 784, 794 (9 hrs), 881 (12 hrs)	67
Electives: All electives must be approved by the student’s major adviser and director of clinical training	12

Requirements for an Emphasis in Counseling Psychology

In addition to the requirements listed under Common Requirements for the Doctor of Philosophy degree, the student must complete 97 hours of course work and practica, not including the one-year predoctoral internship.

	Hours
Psychological Foundations PSY 718, 624, 621 or 721 or 722, 750, 613, 635, 777 or 780, and 674 or 675 or 679	24
Professional Core PSY 607; 608; 614, 643, 701, 710, 711, 712, 713, 714, 740, 741, 811, 836, and 870	41
Practica and Internship PSY 652, 762, 763, 796, 786, 883, 835, and/or 840, and 860	24-27
In addition, students participate in one-two semesters of supervision practice and at least one semester of supervised undergraduate teaching as an instructor-of-record.	
Research REF 602, PSY 661, 662, 663, 791, 824, and 850	19-21
In addition, those students who are admitted to doctoral study with master’s degrees that did not include a relevant thesis or directed research project will complete an empirical study that is equivalent to a thesis (i.e., in scope and complexity) before proceeding to dissertation.	
Elective Concentrations: Elective areas include courses in Child/Family Interventions, Behavioral Medicine/Health Psychology; and Student Personnel Psychology. Electives must be approved by the student’s major professor	

Requirements for an Emphasis in Industrial/Organizational Psychology

In addition to the requirements listed under Common Requirements for the Doctor of Philosophy degree, the student must take the following:

	Hours
Departmental Core Courses (Required): PSY 661, 662, 663; 718; 624 or 724 or 781; 722 or 621 or 721; 750 or 635 or 679	23
Professional Core (Required): Ethics and Professional Issues in I/O Psychology, 655, 751, 752, 753, 754, 761, 765, 766, 767, 768	36
Supervised Field Experience (Practica) Students in the Industrial/Organizational emphasis area must complete 6 hours of supervised field experience, which must be approved by the student’s major adviser and emphasis area director	9
Electives: All electives must be approved by the student’s major adviser and emphasis area director	6
The Industrial/Organizational Program currently requires 2 elective courses in Management. Any of the following courses may be used to satisfy this requirement: MGT 500, 610, 620, 633, 640, 645.	

Requirements for an Emphasis in School Psychology

In addition to the requirements listed under Common Requirements for the Doctor of Philosophy degree, the student must take the following:

	Hours
Departmental Courses: PSY 613, 614, 642, 643, 671 (6 hrs), 691 (9 hrs), 693 (2 hrs); 718; 721 or 722 or 725; 750, 771 (21 hrs); 791 (6 hrs); 772 (12 hrs), 777, 793 (6 hrs), 880 (8 hrs)	94
Electives	12

All electives must be approved by the student’s major advisor and emphasis area director. The selection of an internship must conform to NASP and CDSPP standards.

Note: Students completing the doctoral degree program with an emphasis in School Psychology will be eligible to apply for Mississippi AAAA School Psychologist licensure. Each student, in consultation with the major professor, should identify any additional requirements necessary for licensure in the state in which the student plans to work.

Department of Special Education

April D. Miller, Chair
Hattiesburg, MS 39406-5115
(601) 266-5237

The Department of Special Education offers graduate programs leading to the master's (M.Ed., M.S.), specialist's (Ed.S.), and doctoral (Ed.D., Ph.D.) degrees. Non-majors and experienced teachers may take work leading toward licensure, enrichment, or competency in areas of interest.

Master's Programs

Master of Education

The Master of Education degree program offers several options to the student. This program is open only to teachers already licensed (with a Standard "A" level license) in Special Education or another area of education. The candidate may specialize in a specific area or may elect to combine general special education areas. In general, each program will include six (6) semester hours in Educational Research and Foundations (REF 601, 607), cognate hours, area course requirements, and elective hours to total a minimum of thirty (30) semester hours. A thirty-six (36) hour minimum is required of teachers not licensed in special education and desiring licensure in mild/moderate disabilities. Teachers who have gained special education licensure through alternative routes will be required to take a program of at least 36 hours and may need to take additional courses to fulfill deficiencies. Coursework in severe/profound disabilities is also available. In all areas of emphasis, an additional practicum may be required for teachers with little or no experience in working with the specific population of students being emphasized. Licensure resulting from the master's degree is the responsibility of the student obtaining the degree. Clarification of licensure outcomes should be confirmed prior to beginning the program.

Hours

Mental Retardation—SPE 640, 641, 643, 645, 709, 770	21
Specific Learning Disabilities—SPE 630, 631, 632, 709, 770	18
Behavior Disorders—SPE 650, 651, 652, 654, 709, 770	18
Gifted—SPE 560, 661, 662, 663, 664, 709, 770	21
Mental Retardation (Severe/Profound)—selected SPE courses in MR, DD, and/or BD, 709, 770.....	21

Master of Science

The master of science degree in early intervention is an interdisciplinary program between the School of Family and Consumer Sciences and the Department of Special Education. This 36-hour degree program is designed to prepare students to work in state and community-based service systems serving infants and toddlers with disabilities (ages birth through 2 years). Students entering this program are expected to have some undergraduate background in related coursework. Prerequisite courses are SPE 400/500 and CD 451/551, which must be taken, but will not count toward the master's degree. A course in research (REF 601) and at least two electives will be required in addition to courses listed below. This degree does not lead to teacher certification or licensure in the State of Mississippi.

Hours

Early Intervention—SPE 597, 640, 644, 645, 678, FAM 651, SHS 730, CD 650, 552	27
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Specialist's Program

The specialist's degree is granted upon completion of a specifically planned program of study leading to competency in an area of Special Education. The purpose of this program is to train highly qualified personnel in the education of exceptional children and adults. The program consists of a minimum of thirty-three (33) semester hours in a planned sequence to include the major area, cognates, research, and practicum. A field study (SPE 794) or thesis (SPE 798) is required.

Doctoral Program

The doctoral program is comprehensive and places emphasis on teacher education, administration, research, and community services. (An internship is required in at least one of the above.) The candidate is expected to develop competency in each of the above areas; and the program will be based upon these as well as experience, background, and information gathered from written and oral qualifying examinations.

Required courses include:

Teacher Education	SPE 801, 803, 880
Administration	SPE 770, 772
Research	SPE 791, 804
Community Service	SPE 792, 802

The doctoral program requires a residency of 12 semester hours to be completed during each of two consecutive semesters of Fall and Spring.

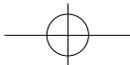
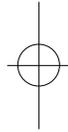
In addition, each candidate will be expected to include a minimum of six (6) semester hours with a department outside of Special Education. Twelve (12) hours of academic credit are given for the dissertation (SPE 898).

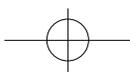
Admission

All graduate degree candidates must conform to the entrance and academic requirements listed in this Bulletin as indicated by the Graduate School. In addition to the general requirements for admission to the Graduate School, candidates for regular admission to the specialist's and doctoral programs must have a minimum of two years of professionally appropriate experience. Conditional admission may be available for applicants failing to receive regular admission. Conditional status will not be removed until experience requirements are cleared.

Licensure and teacher education degree programs are similar but not identical. Graduate students will be responsible for determining the resulting licensure from a degree program. Students are strongly encouraged to confirm licensure resulting from a given program at the admissions stage.

Members of all underrepresented groups are strongly encouraged to apply.





College of Health and Human Sciences

Graduate Degrees

1998-1999

Health & Human Sci.

Department	Major	Degree
Master's Level		
School of Family and Consumer Sciences	Early Intervention	Master of Science
	Family and Consumer Studies	Master of Science
	Human Nutrition	Master of Science
	Institution Management	Master of Science
	Marriage and Family Therapy	Master of Science
School of Human Performance and Recreation	Human Performance	Master of Science
	Exercise Science Emphasis	
	Physical Education Emphasis	
	Recreation	Master of Science
	Sport Administration	Master of Science
School of Social Work	Social Work	Master of Social Work
Center for Community Health	Public Health	Master of Public Health
	Health Education Emphasis	
	Health Policy and Administration Emphasis	
	Occupational and Environmental Health Emphasis	
	Public Health Nutrition Emphasis	
*Interdisciplinary Minor in Gerontology		
Doctoral Level		
School of Family and Consumer Sciences	Nutrition and Food Systems	Doctor of Philosophy
School of Human Performance and Recreation	Human Performance Administration and Teaching Emphasis	Doctor of Education Doctor of Philosophy
	Human Performance Exercise Physiology Emphasis	Doctor of Philosophy

*Minor offered through all units.

College of Health and Human Sciences

L. Jane Boudreaux, Interim Dean
J. Allen Ellard, Assistant Dean
Hattiesburg, MS 39406-0075
(601) 266-5253

The College of Health and Human Sciences currently offers graduate degree programs at the Master of Public Health, Master of Science, Master of Social Work, Doctor of Education, and Doctor of Philosophy levels. Succinct descriptions of the degree programs within the School of Family and Consumer Sciences, the School of Human Performance and Recreation, the School of Social Work, and the Center for Community Health can be examined in the respective sections. The graduate programs are oriented toward meeting career objectives in the professional and educational markets and promoting advanced study in areas of interest to the students.

Requirements for Admission

Admission to the Graduate School for study in the College of Health and Human Sciences requires applicants to meet minimum Grade Point Average (GPA) requirement as specified by the Graduate School for masters or doctoral study and submit an acceptable score on the Graduate Record Exam (GRE). The range of GRE scores of successful applicants for regular admission to specific programs within the college is included in the Test Scores section at the back of this Bulletin. A minimum TOEFL score of 550 is required of all non-English speaking applicants.

Applicants must also meet all additional requirements for admission to a particular program of study. See the program description for additional admission criteria. The College of Health and Human Sciences adheres to the University policies with regard to admission of graduate students on a "conditional" basis. The University regulations concerning "conditional admissions" for regular or part-time students are stated in this Bulletin under "Admission Requirements and Procedures." Members of all under-represented groups are encouraged to apply.

Requirements for Graduation

In the College of Health and Human Sciences, the minimum requirements for the Master's and Doctoral degrees are determined by the individual graduate programs within the four units. Most programs offer both the thesis and non-thesis option, with the doctoral programs mandating a dissertation. All general Graduate School requirements outlined earlier in this **Bulletin** must be satisfied for students to progress successfully toward degrees. While it is the student's responsibility to know what the degree requirements are, the major professor may assist the student with requirements of the Graduate School and additional requirements of the department or school. Comprehensive exams will be required for graduate degrees. The specific degree program will determine whether the exam will be written or oral or both. Consult the specific degree programs for their requirements.

Interdisciplinary Minor in Gerontology

The College offers an Interdisciplinary Minor in Gerontology through each unit within the College (the Center for Community Health and the Schools of Family and Consumer Sciences, Human Performance and Recreation, and Social Work). More detailed information on specific program requirements and assistance with program planning is available from the designated faculty adviser in each of the College units. A student who has been admitted to Graduate School may earn an Interdisciplinary Minor in Gerontology by completing a minimum of twelve (12) semester hours of graduate-level courses selected from the list below, at least half of which (6 semester hours) must be from a graduate program (or programs) other than their major:

ADE	580	Applied Educational Gerontology
ADE	750	Education and the Older Adult
CHS	560	Long Term Care Policy and Administration
CHS	611	*Internship in Community Health
FAM	553	The Family in Later Life
FAM	653	Aging and the Family
FAM	654	Special Topics in Gerontology
FAM	690	*Practicum in Family and Consumer Studies
HPR	552	Gerontology and Therapeutic Recreation
HPR	696	*Practicum
HPR	801	Physiology of Aging
NSG	550	Health Care of the Aged
NSG	593	Health Care of the Elderly

Health & Human Sci.
Minor in Gerontology

NSG	599	Hospice: Concepts and Applications
NSG	606	Death and Bereavement
NSG		*Practicum (see Bulletin for choices)
PSY	556	Psychology of Aging and Death
SWK	673	*Social Work Practicum
SWK	675	Social Work Practice/Persons in Mid/Late Life
SOC	524	Sociology of Aging
SHS	642	Communication Problems of the Aged

**Only practica placements in the field of gerontology can be used to satisfy requirements of this minor.*

School of Family and Consumer Sciences

Anita M. Stamper, Director
Ann Stanberry, Assistant Director
Kathy Yadrick, Graduate Coordinator
Hattiesburg, MS 39406-5035
(601) 266-4679

The School of Family and Consumer Sciences offers the Master of Science degree in Early Intervention, Family and Consumer Studies, Human Nutrition, Institution Management, and Marriage and Family Therapy, and the Doctor of Philosophy degree in Nutrition and Food Systems. These graduate programs are oriented toward meeting career objectives in the areas administered by the School and in meeting the interests and personal goals of the student. All majors offer flexibility in areas so that students can meet specific career goals or specialize in areas of interest to them. The School also participates in the Interdisciplinary Minor in Gerontology.

Requirements for Admission

Regular admission to the Graduate School for study in the School of Family and Consumer Sciences requires a grade point average (GPA) of at least 2.75 and submission of test scores from the **Graduate Record Examination (GRE)**. A range of GRE test scores for successful applicants for regular admission may be found in the "Standardized Test Scores" section of this **Bulletin**. In a limited number of cases, conditional admission may be granted. In addition to meeting the Graduate School criteria for regular admission, applicants must submit three letters of recommendation from professionals familiar with the applicant's work; at least one of those letters must be from a person not associated with the School/University. The letters of recommendation should offer clear support for the applicant's ability and potential for success in the program. Performance in specific courses related to the desired major will also be evaluated. Graduate work in the major and minor fields of specialization must be preceded by course work sufficient to satisfy undergraduate requirements or enough related work to indicate the student's ability to do graduate work in the major and minor fields. Students may correct academic deficiencies by taking and/or auditing recommended undergraduate courses. Members of all under-represented groups are encouraged to apply.

Requirements for Graduation

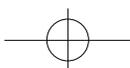
In the School of Family and Consumer Sciences, the minimum requirement for a master's degree is thirty-three semester hours. Most majors offer thesis and non-thesis options; the requirements for these options differ. All students will take oral comprehensive examinations. Non-thesis students will take written comprehensive exams.

Interdisciplinary Minor in Gerontology

The School of Family and Consumer Sciences participates in the Interdisciplinary Minor in Gerontology offered by the College of Health and Human Sciences. A designated faculty adviser in the School assists interested students in completing the requirements for that minor. Specific requirements and courses available for the minor can be found on page 88 of this **Bulletin**.

Master of Science in Early Intervention

The Master of Science degree in Early Intervention is an interdisciplinary program offered jointly by the School of Family and Consumer Sciences and the Department of Special Education. The program requires a minimum of 36 semester hours and is designed to prepare students for positions in state and community-based systems serving infants and toddlers (ages birth through two years) with disabilities. Students entering this program are expected to have an undergraduate background in related coursework, including the prerequisite courses SPE 400/500 and CD



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451/551 or an approved equivalent. Those prerequisites do not count toward the 36 semester hours required for the master's degree. This degree program does not lead to teacher certification or licensure in Mississippi.

Requirements for the Master of Science in Early Intervention

	Hours
FAM 651 Parents and Children.....	3
SPE 640 Advanced Studies of Mental Retardation.....	3
SPE 645 Assessment and Intervention for Individuals with Severe and Profound Disabilities.....	3
SHS 730 Language Intervention with Infants.....	3
CD 552 Child Development Methods and Materials.....	3
CD 555 Supervised Participation.....	6
or	
CD 655 Practicum in Child Care Administration.....	3
CD 597 Professional Collaboration.....	3
CD 650 Advanced Child Development.....	3
CD 678 Assessment and Intervention for Handicapped Children.....	3
FAM 691 Research in Family and Consumer Sciences	
or REF 601 Introduction to Research.....	3

Select one or two to complete minimum of 36 semester hours: CD 578, CD 688, FAM 501.

Master of Science in Family and Consumer Studies

Applicants for the Master of Science degree in Family and Consumer Studies must submit, in addition to School admission criteria noted earlier, a letter of intent which contains a clear statement of professional goals and philosophy of professionalism. The degree program allows students, through flexibility in course selection, to specialize in child development, family relations, family economics and management, or Family and Consumer Sciences Education. Graduates specializing in family economics and management qualify for consumer-related positions in business, industry, and government, including financial institutions, retailing, marketing companies, utility companies, manufacturing, publishing, the Cooperative Extension Service, and similar agencies. Course work for this specialization includes study of the socioeconomic problems of families, consumer economics, and financial problems of individuals and families.

Students may continue their development in the teaching profession by specializing in Home Economics Education courses. For those seeking certification in Occupational Home Economics, HEE 612 (6 hours) and HEE 509 are required. HEE 612 may not be used to fulfill master's degree requirements. Home Economics Education courses focus on program planning, implementation, and evaluation utilizing subject matter areas of consumer economics, curriculum development, family life education, supervision, evaluation, methods and materials, and information technology. These course selections provide professional growth and development primarily for persons employed in the public schools or junior colleges or with the Cooperative Extension Service.

Course selections in Family Relations provide a foundation in family systems theory and family life cycle development theory. Specific areas of study include interactions among individuals, groups and societal forces and their impact on personal relationships within the context of the family, family enrichment, family life education, prevention of dysfunction in the family. Graduates prepare for careers in a variety of settings such as juvenile courts, welfare programs, elderly day care programs, family abuse shelters, community colleges, and the Cooperative Extension Service.

Child Development courses focus on the developmental stages of the child and the family and the impact of social organizations such as group child care and/or preschool on child and family life. Graduates are prepared for employment as child care center teachers or administrators, child development specialists with the Cooperative Extension Service, teachers of child development and family relations in community colleges, and child life specialists with hospitals or clinics.

Requirements for a Master of Science in Family and Consumer Studies (33 hours non-thesis option, 33 hours thesis option)

All students will take the common core of courses listed and select a set of courses according to their career choice.

	Hours
Core for all students in degree program	
CD 652 Current Trends and Theories in Child Development.....	3
FAM 645 Financial Problems of Families.....	3
FAM 650 Advanced Family Systems Theory.....	3
HEE 501 Family Life Education.....	3
REF 601 Research: Its Introduction and Methodology	
or FAM 691 Research in Family and Consumer Studies.....	3

Select one of the following areas:

Child Development Area *(select 15-18 hours from listing below)

	Hours
CD 550 Administration of Programs for Young Children or	
CD 655 Practicum in Child Care Administration	3
CD 552 Child Development Methods and Materials	3
CD 650 Advanced Child Development.....	3
CD 698 (thesis) or selected electives (non-thesis)	6
FAM 651 Parents and Children: Problem Resolution.....	3

Other courses from related fields, as approved by graduate committee

*Minimum of 12 hours must have CD prefix.

The Child and Family Studies area cooperates with the Institute for Disability Studies (IDS) to offer a concentration area in Developmental Disabilities. Students may earn a certificate of concentration in Developmental Disabilities by completing 9 semester hours of course work and a Practicum in this area. Some or all of these credit hours may be in addition to the requirements noted above, but some overlap may be possible. Students working with their graduate committee develop the exact program of work for the degree plan. Recommended courses for the concentration are:

- CD 598 or FAM 596 Families of the Developmentally Disabled
- CD or FAM 688 Medical Aspects of Developmental Disabilities
- CD or FAM 597 Professional Collaboration for Developmental Disability Services
- CD or FAM 678 Assessment and Intervention with Handicapped Children Birth to Five

Family Studies Area *(select 18 hours from listing below)

	Hours
FAM 551 Marriage Adjustment: Communication and Conflict	3
FAM 651 Parents and Children: Problem Resolution.....	3
FAM 653 Aging and the Family	3
FAM 690 Practicum in Family and Consumer Studies.....	3
FAM 698 (thesis) or selected electives (non-thesis)	3
CD 650 Advanced Child Development.....	3

Other courses from related fields, as approved by graduate committee

*Minimum of 12 hours must have FAM or CD prefix

Family Economics and Management Area

	Hours
FAM 690 Practicum in Family and Consumer Studies.....	6
Other FAM prefixes relating to Economics and Management.....	6
FAM 698 (thesis)	6

Home Economics Area

	Hours
REF 607 Basic Course in Curriculum Development	3
HEE 607 Curriculum Problems in Home Economics.....	3
HEE 698 (thesis)	6
Other HEE prefixes (thesis)	6
Other HEE prefixes or courses approved by advisor (non-thesis)	12

Master of Science in Marriage and Family Therapy

The Master of Science in Marriage and Family Therapy is an accredited program by the Commission on Accreditation for Marriage and Family Therapy Education of the American Association for Marriage and Family Therapy. The two-year program of study combines academic course work with supervised clinical experiences involving couples, individuals, and families. The program is designed to focus on the integration of theory, research, and clinical practice throughout family life span development. The contextual and ecological aspects of systemic family treatment are emphasized. The program consists of (1) the conceptual study of the family dynamics, family systems and subsystems, communication processes, and developmental family life cycle changes; (2) the application of diagnosis/assessment and treatment process utilizing the specific techniques associated with the major models of system change; (3) the study of human development in the context of the interface of interpersonal and intrapersonal issues, intimacy and gender issues, and ethnic minority issues; (4) instruction related to professional socialization, legal and ethical considerations; (5) the application of research methodology and data analysis to the field of marriage and family therapy; and (6) supervised clinical practice which consists of a minimum of 500 face-to-face contact hours with clients (conducted over a period of one calendar year). Due to the



professional nature of the Marriage and Family Therapy program, student performance is evaluated at the following major transition points: (1) entry into the clinical component of the program, and (2) advancement through each step of a four level Practicum Program. Movement through each transition point requires an endorsement by a majority of the Marriage and Family Therapy faculty. Graduates of the program are prepared to fill family therapy leadership roles in both public and private human services agencies, public and private psychiatric hospitals, and in mental health services to industry.

In addition to requirements for admission to the School, the Marriage and Family Therapy Program requires a personal interview with the program director and the director of training and emotional stability and maturity as evidenced through at least three letters of recommendation from previous professors or employers. Students wishing to apply to the Marriage and Family Therapy program may turn in their application at any time prior to March 1. Interviews will begin the first week in March to select the 12 students to be admitted to the program.

Requirements for Master of Science in Marriage and Family Therapy (60 hour Minimum)

	Hours
FAM 550 Sexuality in the Family	3
FAM 551 Marriage Adjustment: Communication and Conflict	3
FAM 600 Prepracticum in Marriage and Family Therapy.....	3
FAM 650 Advanced Family Systems Theory	3
FAM 651 Parents and Children: Problem Resolution.....	3
FAM 653 Aging and the Family	3
FAM 655 Marriage and Family Systems Intervention I	3
FAM 656 Marriage and Family Systems Intervention II.....	3
FAM 659 Professional Seminar in Marriage and Family Therapy	3
FAM 660 Assessment in Marriage and Family Therapy	3
FAM 663 Contemporary Issues in the Practice of Marriage and Family Therapy	3
FAM 691 Research in Family and Consumer Studies	3
FAM 790 *Supervised Practicum in Marriage and Family Therapy (4 semesters min.).....	21
*Student must complete the following practicum requirements prior to graduation:	
1) 500 hours of face-to-face client contact	
2) 250 hours of the client contact must be relational therapy (couples or families)	
3) 100 hours of supervision, comprising both group and individual supervision	
4) 50 hours of supervision must be based on raw data (live, videotape, or audiotape)	
5) 250 client contact hours must be completed at the University Clinic for Family Therapy	
Electives	3

Master of Science in Human Nutrition

The Master of Science degree in Human Nutrition offers graduates opportunities to pursue careers in basic nutrition science, clinical nutrition or community nutrition. The required course work is designed to provide students with an in depth understanding of basic nutrition, contemporary nutrition issues and research design. Depending on the student's background and interests, appropriate courses in biochemistry, physiology, community health, exercise sciences and psychology, as well as additional courses in clinical or community nutrition, can supplement the required course work. Students have the opportunity to develop research interests in clinical, experimental or community nutrition with qualified faculty in each area. Students with appropriate prerequisites may also make application to complete didactic and /or practice requirements for dietetic registration with the Commission on Accreditation/Approval for Dietetics Education.

Requirements for the Master of Science in Human Nutrition

Thesis (36 hrs)		Hours	Non-Thesis (36 hrs)		Hours
CHS 540, 623 or REF 601, 602		6	CHS 540, 623 or REF 601, 602		6
NFS 693		2	NFS 693		2
NFS 664		3	NFS 664		3
NFS 630		2	NFS 630		2
NFS 631		2	NFS 631		2
NFS 641 or NFS 662.....		3	NFS 641 or NFS 662		3
NFS 698		6	NFS 692		3
NFS 703		3	Nutrition Electives		3
Nutrition Electives		3	Electives		12
Electives		6			

Master of Science in Institution Management

The graduate program in Institution Management is designed for individuals interested in additional course work in food service management, administrative dietetics, hotel management, school food service, restaurant management, or tourism. Students complete the core courses and a thesis or a minor in nutrition, business administration, recreation, or an approved area, and elect courses in their area of specialization with the adviser's approval. Students with appropriate prerequisites may also make application to complete didactic and/or practice requirements for dietetic registration with the Commission on Accreditation/Approval for Dietetics Education. Those selecting the thesis option have the opportunity to work with qualified graduate faculty in research areas in food service, hotel and restaurant, and hospitality management.

Requirements for the Master of Science in Institution Management

Thesis Program Requirements (36 hrs)	Hours	Non-Thesis Program Requirements (36 hrs)	Hours
REF 601, 602	6	REF 601, 602	6
NFS 693 or HRT 693	2	NFS 675	3
NFS 698	6	NFS 676	3
NFS 703	3	NFS 692 or HRT 692	4
NFS 774	3	NFS 693 or HRT 693	2
NFS 777	3	NFS 774	3
Other Related Courses.....	13	NFS 777	3
		Minor or Other Related Courses	12



Doctor of Philosophy in Nutrition and Food Systems

The Doctor of Philosophy degree in Nutrition and Food Systems will prepare students for leadership and research positions in Nutrition or Food Systems. Career choices upon completion of the Ph.D. include teaching/research positions in institutions of higher learning, administrative positions in large food service programs including schools and medical and military facilities, and research positions in public and private sectors. Depending on selection of classes, students may emphasize applied nutrition or food systems management in their program. The curriculum requires 54 semester hours beyond the Master's Degree and demonstrated foreign language and statistics proficiency.

Requirements for Admission

In addition to meeting The University of Southern Mississippi's requirements for admission to the Graduate School, the Ph.D. program applicant must meet the following requirements for admission to the Nutrition and Food Systems program:

1. Completion of a master's degree and prerequisite courses for the area of major emphasis are required. Food Service Management prerequisites include food service management, quantity foods, management, and life cycle nutrition. Applied Nutrition prerequisites include biochemistry, advanced nutrition, anatomy and physiology, and food service management.
2. A minimum grade point average (GPA) of 3.5 on a 4.0 scale is required on previous graduate work.
3. Submission of acceptable GRE scores is required.
4. A minimum of two years of professional experience in nutrition, food service management, or a related area is required.
5. A current vita and a letter of application should be submitted to the Graduate Coordinator, School of Family and Consumer Sciences. The letter of application should include career goals and reasons for pursuing the Ph.D., and should indicate how previous education and work experience have prepared the individual to pursue the Ph.D.
6. Three letters of recommendation addressing professional competence and prediction of academic success should be sent directly to the Graduate Coordinator, School of Family and Consumer Sciences.
7. An interview must be scheduled with the graduate faculty in Nutrition and Food Systems.
8. Applicants whose native language is not English must present a minimum TOEFL score of 550.
9. The application must be approved by the Graduate Faculty, the Director of the School of Family and Consumer Sciences, the Dean of the College of Health and Human Sciences, and the Dean of the Graduate School.

NOTE: Students not meeting the requirements for regular admission may be considered for conditional admission.

Requirements for a Ph.D. in Nutrition and Food Systems

Language Proficiency

The Foreign Language may be fulfilled in one of two ways.

1. Completion of six (6) semester hours with grades of "C" or better in one of the following language sequences:
FRE 501-502, SPA 501-502, or GER 501- 502.
2. Completion of nine (9) semester hours (undergraduate or graduate) with grades of "C" or better in an approved foreign language.

Statistics Proficiency

Statistical requirements may be met by choosing three (3) of the following courses or by approval of the student's advisory committee.

CHS 623: Biostatistics
REF 761: Experimental Design
REF 762: Advanced Regression Analysis
REF 770: Evaluation Design and Methodology
REF 761: Experimental Design
PSY 764: Factor Analysis

NOTE: Hours earned in satisfying foreign language and statistics proficiency do not count toward the degree.

Core Requirements (12 hours)

NFS 810 Food and Nutrition and Public Policy
NFS 774 Management of Nutrition Services: A Behavioral Approach
NFS 703 Research Techniques for Nutrition and Food Systems
NFS 811 Doctoral Seminar (1 hr. to be repeated 3 times)

Communication Skills (3-6 hours)

SCM 605 Interpersonal Communications
SCM 610 Problems in Organizational Communications
EDA 701 Analysis of Teaching Behavior
EDA 780 Educational Leadership Seminar
MGT 610 Organizational Management
MGT 620 Organizational Behavior and Practice

Dissertation (12 hours)

NFS 898 Dissertation

Other Course Work (24-27 hours)

The specific courses will be approved by the student's graduate committee. A minimum of nine (9) hours must be taken from the courses listed below:

NFS 630 Macronutrients
NFS 631 Micronutrients
NFS 641 Advanced Clinical Nutrition
NFS 662 Community Health and Nutrition
NFS 663 The Nutrition of Children
NFS 664 Seminar in Food and Nutrition
NFS 667 Nutrition for Teachers
NFS 673 Child Nutrition Program Management
NFS 675 Production Management in Food Service Systems
NFS 676 Seminar in Institution Management
NFS 693 Readings in Nutrition and Food Systems
NFS 694 Current Topics in Food Service Management
NFS 713 Nutrition Education: Theory, Research, & Practice
NFS 715 Recent Developments in Applied Nutrition
NFS 776 Development of Business Opportunities in Food & Nutrition Services
NFS 777 Service Systems, Planning & Control
NFS 792 Special Problems in Nutrition
NFS 797 Independent Research
NFS 813 Nutritional Metabolism
NFS 815 Nutrition Support
NFS 817 Advances in Nutrition & Food Service Management Education
Supporting Courses from other disciplines will be identified by the student's graduate committee.

School of Human Performance and Recreation

Sandra K. Gangstead, Director
Hattiesburg, MS 39406-5142
(601) 266-5386

The School of Human Performance and Recreation offers the Master of Science, the Doctor of Education, and the Doctor of Philosophy degrees. Program development is oriented toward supply and demand in the professional job market and academic disciplinary definition; flexibility of program requirements allows for academic fulfillment of individual career interests.

Graduate Degree Programs

The following degree programs are available within the School of Human Performance and Recreation: Master of Science degree in Human Performance, Master of Science in Recreation, Master of Science in Sport Administration, Doctor of Philosophy in Human Performance, and Doctor of Education in Human Performance.

Emphases within the Human Performance master degree program include: Exercise Science, and Physical Education. The Human Performance Ph.D. degree program includes two distinct emphases: Administration and Teaching, and Exercise Physiology.

The Ed.D. degree program in Human Performance is designed for those interested in pursuing the Administration and Teaching emphasis with specialization in physical education. The Administration and Teaching emphasis (doctoral) and Physical Education emphasis (masters) programs are accredited by the National Association of Physical Education and Sport/ National Council for Accreditation of Teacher Education (NASPE/NCATE).

The Master of Science degrees require a minimum of 36 semester hours beyond the bachelor's degree. Some emphasis areas may require greater minimum hours beyond the bachelor's degree. The Doctor of Education and Doctor of Philosophy degrees require a minimum of sixty (60) semester hours beyond the master's degree, including the dissertation.

Admission Standards

Admission to Human Performance and Recreation degree program are selective. Members of all under represented groups are strongly encouraged to apply. Regular admission is contingent on having graduated from a college or university with accreditation from appropriate, recognized national-level accrediting agencies. Admission to the program is contingent upon an applicant's academic background, work experience, demonstrated leadership, and communication skills meeting the challenging demands of graduate programs in the fields of sport administration, human performance, or recreation. The School of Human Performance and Recreation adheres to the University policies with regard to admission of graduate students on a "conditional" basis. In evaluating applications for program admission, the HP&R program admission committees utilize the following criteria:

Academic record. A) A cumulative grade point average (GPA) of 2.75 or higher based on 4 point scale and calculated on the last 60 hours of the applicant's bachelor's degree program; B) bachelor level major/minor in an appropriately related field of study or evidence of foundational and professional coursework in major which are deemed necessary or prerequisite for graduate level course enrollment. Lack of evidence of work completed in foundational areas specific to particular program emphasis requirements will result in either a) prerequisite satisfaction prior to regular admission into specific programs or b) additional degree requirements identified as undergraduate deficiencies to be satisfied during the graduate degree program. Doctoral applicants must have achieved a GPA of 3.50 on all previous graduate work.

Graduate Record Examination. Applicants are required to submit the test results from the GRE as part of their application. Sub-test score ranges of regularly admitted applicants over the past three years is indicated in this Bulletin on page(s) 286-291. HP&R degree program admission data is noted on page 287.

Test of English as a Foreign Language (TOEFL). Applicants whose native language is not English must achieve a TOEFL of 550 or more.

Professional Experience. While professional level work experience is not required for admission to the masters level program, two to three years of relevant work responsibilities strengthens support for an applicant's admission, particularly at the doctoral level. Doctoral applicants are encouraged to submit a resume which indicates professional experiences and accomplishments.

Letters of recommendation. Each applicant should request a minimum of three letters of recommendation be sent to the Graduate School for program admission. Two of the letters should address the applicant's academic preparation and capabilities. At the doctoral level, at least one letter should address professional competence.



Academic Policies

Prior to completion of the 12th semester hour in the HPR graduate program (master's or doctoral), the student must request approval of an advisory committee through the Director's office. Upon approval of committee membership by the Graduate Dean, the student must submit a proposed plan of study for advisory committee approval. This plan should include all degree requirements and specification of planned electives and options within the degree program. The approved plan should be forwarded to the director's office prior to the student's enrollment in his/her 13th graduate hour.

Written and oral comprehensive examinations are required of all graduate students in the master's and doctoral programs. Requests to take these examinations must be made in the Director's office.

The student's graduate advisory committee shall be responsible for administration and evaluation of the student's comprehensive examination. The chair of the advisory committee shall be responsible for reporting the results of the examination to the Director. At least three HP&R graduate faculty members must comprise master's advisory committees. Doctoral advisory committees must include at least three eligible HP&R graduate faculty and two additional members. Chairs of all advisory committees must be eligible HP&R graduate faculty.

A student's thesis or dissertation committee may be comprised of members of his/her advisory committee. It is expected that at least two HPR graduate faculty members will be included on the student's thesis/dissertation committee. Additionally, an eligible HPR graduate faculty member must serve as chair of the thesis/dissertation committee. The student may request eligible members outside of the School to serve on the committee. All committee membership (advisory or thesis/dissertation) must be approved by the Graduate Dean. All committee membership requests are submitted to the Graduate Dean upon the approval of the Director of the School.

Interdisciplinary Minor in Gerontology

The School of Human Performance and Recreation participates in the Interdisciplinary Minor offered by the College of Health and Human Sciences. A designated faculty adviser in the School assists interested students in completing the requirements for that minor. Specific requirements and courses available for the minor can be found on page 88 of this **Bulletin**.

Master of Science Programs Human Performance

Course requirements for the Master of Science degree in Human Performance include a minimum of thirty-six (36) semester hours of graduate work plus any undergraduate courses deemed necessary to correct deficiencies in the student's background. This degree program is designed to prepare professionals for leadership roles as physical educators or exercise specialists. This degree program prepares students for advanced graduate work or careers in the following emphasis areas: (1) exercise science or (2) physical education.

These degree program emphases provide concentrations of graduate level courses which are designed to facilitate preparation for attainment of professional certifications in human performance fields. These include: American College of Sports Medicine certifications (Exercise Specialist, Exercise Test Technologist, Exercise Leader, and Health Fitness Instructor), National Strength and Conditioning Association certifications (Strength & Conditioning Specialists, Certified Personal Trainers), and State of Mississippi AA Teachers certification for Physical Education.

Requirements for an Emphasis in Exercise Science

Students wishing to select the Exercise Science emphasis must have completed a baccalaureate degree in Exercise Science (or a related field) including undergraduate work with at least four hours of chemistry or biochemistry, and other work in anatomy, physiology, kinesiology, and nutrition. This emphasis is specifically designed to prepare students as exercise/fitness and/or cardiac rehabilitation specialists in clinical, corporate, and recreational settings. Various ACSM and NSCA certifications are available through careful selection of course specializations. Those students seeking advanced professional preparation for ACSM clinical certifications (Exercise Test Technologist or Exercise Specialist) should pursue elective clinical exercise science courses. Students who seek professional preparation for ACSM Health and Fitness Certifications (Health Fitness Instructor or Exercise Leader) or the NSCA certifications, should pursue elective exercise leadership related courses. Students wishing to concentrate in athletic training should pursue elective sports medicine related courses.

Course Requirements (37-40 Hour Minimum)

	Hours
HPR 601: Exercise Physiology	3
Select one course from REF 602, CHS 540, CSS 515, or PSY 660	3
HPR 680: Research Techniques	3
HPR 706: Cardiovascular Physiology	3
HPR 703: Advanced Kinesiology	3
HPR 780: Graduate Seminar	1
HPR 833: Nutrition in Human Performance	3
HPR 834: Advanced Biomechanics	3
Students must select either Thesis or Non-thesis option.	
Thesis Option:	
HPR 698: Thesis	6
OR	
Non-Thesis Option:	
HPR 696: Practicum	6
HPR 691: Research (optional)	3
Students must select nine hours from one of the following specialization areas:	
Clinical Exercise Science:	
HPR 593: Exercise Specialist	3
HPR 602: Graded Exercise Testing	3
HPR 730: Cardiac Rehabilitation	3
HPR 735: Electrocardiography	3
Exercise Leadership:	
HPR 509: Psych. & Soc. Aspects of Motor Performance	3
HPR 534: Facility Design or HPR 725: Facility Management	3
CHS 536: Stress Management	3
CHS 538: Workplace Health Promotion	3
HPR 570: Dev. of Strength & Conditioning Programs	3
HPR 679: Care & Treatment of Athletic Injuries	3
Sport Medicine:	
HPR 575: Medical Aspects of Athletic Training	3
HPR 577: Seminar in Sports Medicine	3
HPR 679: Care and Treatment of Athletic Injuries	3
Electives: (One Course)	3

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 Physical Education

Requirements for an Emphasis in Physical Education

Students wishing to pursue careers in the instruction of movement and fitness activities in school and non-school settings should pursue this emphasis within the degree program. Students seeking Mississippi AA Teacher Certification must presently have an A Standard Teacher Certificate in Physical Education and must select this emphasis within the Human Performance degree. An undergraduate degree in Physical Education from an NCATE accredited institution is required in the AA certification program. A baccalaureate degree in teaching is not necessarily required for admission into this area of the M.S. degree program, but a related field is highly recommended.

Course Requirements (36 hour minimum)

REF 602: Introduction to Educational Statistics	3
HPR 677: Sport Law or EDA 710: School Law	3
HPR 680: Research Techniques	3
HPR 705: Motor Learning	3
HPR 720: Admin. of Human Performance Programs	3
HPR 723: Adv. Methods of Teaching Physical Education	3
HPR 742: Program Design in Human Performance or	
*REF 607: Basic Course in Curriculum Development	3
HPR 744: Foundations & Trends in Hum.Perf. & Rec.	3
HPR 745: Analysis of Teaching & Supervision in PE	3
Select one course from either HPR 501, 504, 509, or 534	3

The student must choose from either the thesis or non-thesis option listed below:

	Hours
Thesis Option:	
HPR 698: Thesis.....	6
Non-Thesis Option:	
HPR 696: Practicum (3-6 hrs.) or Adviser Approved Electives (3-6 hrs.)	6

*Courses must be taken in order to receive recommendation for Mississippi AA Teacher Certification in Physical Education.



Master of Science Recreation

All students pursuing a Master's of Science in Recreation must fulfill the following program requirements as part of their degree program. The program is designed to provide students with additional academic preparation for work in the administration of municipal, therapeutic, or commercial programs. Depending on the applicant's undergraduate preparation, the student may be required to take prerequisite courses in addition to the requirements of the graduate degree program. These prerequisites must be completed within the first semester of enrollment.

Course Requirements (37 hour minimum)

	Hours
REF 602: Introduction to Educational Statistics	3
HPR 680: Research Techniques.....	3
HPR 694: Field Problems.....	1
HPR 710: Problems and Emerging Trends in Recreation.....	3
HPR 712: Philosophical Foundations of Recreation.....	3
HPR 713: Special Field Studies in Recreation.....	3
*Approved Electives	15

Students must select one of the following options:

Thesis Option:	
HPR 698: Thesis.....	6
OR	
Internship Option:	
HPR 696: Practicum.....	6
HPR 691: Research (Professional Paper).....	3
OR	
Coursework Option: (Professional Paper required)	
Approved Electives	9
HPR 691: Research (Professional Paper).....	3

*Electives are to be designed for further specialization in community and municipal recreation, resource management, therapeutic recreation, or commercial recreation.

Master of Science Sport Administration

The Master of Science in Sport Administration degree program is designed to prepare students for a career in school or college athletic administration. The program also serves to prepare the student for job opportunities within the sport business industry including: facility/arena management, resort camp and club management, corporate operations, professional team management and governing agency administration, master interscholastic, collegiate coaching.

Course requirements (36 hour minimum)

	Hours
REF 602: Introduction to Educational Statistics	3
HPR 605: Policy and Governance in Sport	3
HPR 670: Organizational Leadership in Sport Administration.....	3
HPR 677: Legal and Ethical Aspects of Sport	3
HPR 680: Research Techniques	3
*HPR 715: Advanced Sport Administration Processes or	
HPR 679: Care & Treatment of Athletic Injuries.....	3
*ELECTIVES.....	12

Students must select either Thesis or Non-Thesis option.

	Hours
Thesis Option:	
HPR 698: Thesis.....	6
OR	
Non-Thesis Option: (Professional Paper required)	
HPR 696: Practicum.....	6
HPR 691: Research (optional).....	3

The following courses may be used to satisfy "elective" requirements with the M.S. Sport Administration degree:

	Hours
HPR 509: Psych. & Soc. Aspects of Motor Performance.....	3
HPR 534: Facility Design and Maintenance.....	3
HPR 725: Facilities Management in Hum Perf. & Rec.	3
HPR 676: Athletic Seminar.....	3
ACC 511: Financial Accounting.....	3
MGT 500: Management Theory.....	3
MGT 610: Organizational Management.....	3
MGT 620: Organizational Behavior and Practice.....	3
MKT 550: Marketing Foundations.....	3
MKT 595: International Marketing.....	3
ACC 560: Managerial Accounting.....	3
ECO 520: Managerial Economics.....	3
FIN 570: Managerial Finance.....	3
MIS 580: Management Information Systems.....	3
JOU 521: Public Relations.....	3
RTF 516: Telecommunication & Media Management.....	3
RTF 507: Theories of Mass Comm.....	3
SCM 610: Problems in Organizational Communication.....	3
TOE 567: Desktop Publishing.....	3
CSS 504: Internet Concepts.....	3

Students wishing to pursue further specialization in master coaching preparation may select from the following courses:

	Hours
HPR 509: Psych. & Soc. Aspects of Motor Performance.....	3
HPR 570: Dev. of Strength & Conditioning Programs.....	3
HPR 601: Exercise Physiology.....	3
HPR 676: Athletic Seminar.....	3
HPR 679: Care and Treatment of Athletic Injuries.....	3
HPR 703: Adv. Kinesiology.....	3
HPR 705: Motor Learning.....	3
* (Advisor Approved)	

Doctoral Program Human Performance

The Doctor of Philosophy and Doctor of Education degrees offered through the School of Human Performance and Recreation are in Human Performance. The Doctor of Philosophy degree program includes emphases in Administration and Teaching and Exercise Physiology. The Doctor of Education degree program is designed to focus on administration and teaching in physical education only. In addition to the general admission and academic regulations and requirements of the University, doctoral requirements are:

1. Upon the acceptance of the dissertation by the candidate's dissertation committee and at least four weeks prior to graduation, a final oral examination in defense of the candidate's dissertation will be administered by the student's dissertation committee.
2. Programs of study, including all course requirements, independent research or field-based projects, and additional requirements specified by the University for proficiency in statistics, computer science and/or foreign language must be approved by each student's advisory committee. The general focus of dissertation research will be initially approved by the student's advisory committee. The specific nature and foci of the research must be approved by the student's dissertation committee.
3. The foreign language and statistics requirements for the doctoral degree may be fulfilled in several ways:
 - a. The Doctor of Education does not require foreign language proficiency. However, the student must establish proficiency in statistics or computer science either by examination or by completing a prescribed course sequence, the credit hours for which do not apply toward a degree.
 - b. The Doctor of Philosophy degree requires either (a) proficiency in two languages, (b) proficiency in one language and in statistics or computer science depending on emphasis chosen or (c) proficiency



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in one language and the completion of a nine-hour minor, the hours for which do not apply toward the degree. Students preparing for advanced teacher certification or who plan to seek careers in teacher preparation must complete the doctoral statistics proficiency requirements.

4. Students who select the Exercise Physiology Emphasis must demonstrate successful completion of undergraduate or graduate work in the following areas: anatomy, physiology, kinesiology, biochemistry, and nutrition. Graduate level work comparable to that listed under the M.S. in Human Performance/Exercise Science emphasis in the Graduate Bulletin, or a graduate degree from a related discipline is required for full admission into this area within the doctoral program. A graduate degree and appropriate bachelors preparation in the physical education or an appropriately related field is required for consideration of admission in the administration and teaching phases of the doctoral programs.
5. Within the 12th hour of enrollment in the doctoral program, the student must undergo a qualifying examination process conducted by the student's graduate advisory committee. Students should consult their program emphasis coordinator for required examination process.

Statistics requirements may be met by choosing nine hours of the following or by approval of the student's advisory committee.

	Hours
CHS 623: Biostatistics	3
PSY 761: Experimental Design or REF 761: Experimental Design	3
REF 762: Advanced Regression Analysis	3
PSY 764: Factor Analysis	3
REF 893: Advanced Educational Research	3

Core Requirements for Doctoral Degree

	Hours
HPR 601: Exercise Physiology (or an appropriate equivalent in exercise science).....	3
HPR 720: Administration of Human Performance Programs	3

Requirements for an Emphasis in Administration and Teaching

	Hours
EDA 620: Supervision and Instruction (or 701 Analysis of Teaching)	3
EDA 710: School Law (or HPR 677 Legal and Ethical Aspects of Sport).....	3
HPR 680: Research Techniques	3
HPR 723: Adv. Methods of Teaching Physical Education	3
HPR 725: Facilities Management in Human Performance & Recreation.....	3
HPR 742: Program Design in Human Performance.....	3
HPR 744: Foundations and Trends in Human Perf & Rec.....	3
HPR 745: Analysis of Teaching and Supervision in P.E.	3
HPR 780: Graduate Seminar	1
HPR 796: Practicum	2-6
HPR 821: Advanced Admin.of Human Perf. Programs.....	3
HPR 840: Readings	3
HPR 845: Research on Teaching Physical Education.....	3
HPR 898: Dissertation.....	12
Approved Electives	6-12
Minimum: 60	

Requirements for an Emphasis in Exercise Physiology

	Hours
CHE 521 Biochemistry I.....	3
CHE 522 Biochemistry II.....	3
HPR 701: Advanced Exercise Physiology I.....	3
HPR 701L: Advanced Exercise Physiology I Lab	2
HPR 703 Advanced Kinesiology	3
HPR 706 Cardiovascular Physiology	3
HPR 780 Graduate Seminar	1
HPR 791 Research	3
HPR 801 Physiology of Aging.....	3
HPR 805 Advanced Exercise Physiology II.....	3
HPR 805L Advanced Exercise Physiology II Laboratory	2
HPR 831 Gross Anatomy	3
HPR 831L Gross Anatomy Laboratory.....	2
HPR 833 Nutrition and Human Performance.....	3
HPR 834 Advanced Biomechanics	3
HPR 898 Dissertation.....	12
Elective	1-3
Minimum: 60	

School of Social Work

Earlie M. Washington, Director
Hattiesburg, MS 39406-5114
(601) 266-4163

Social workers are thoroughly trained professionals who provide social services to more people in Mississippi and across the United States than any other professional group. They serve in many places where people need help with problems, including schools, correctional institutions, chemical dependency agencies and hospitals. They work with families, taking a compassionate approach to families in crisis, providing family therapy as well as counseling battered spouses and abused children. They offer assistance in arranging for foster care for neglected or abused children or adoption services.

Social workers in medical settings help patients and families cope with the emotional and financial burdens that often accompany illness, aging or death. They assist in arranging follow-up care after hospitalization and serve as a professional liaison between patients, their families and other health professionals. Social workers make valuable contributions to the mental health field, offering inpatient and outpatient therapy, as well as aiding families and patients in use of community resources.

Many social workers find a satisfying career in military service. They offer assistance to members of the armed forces and their families in addressing problems related to the transitory nature of their lives. There is a growing demand for social workers in business and industry to operate employee assistance programs dealing with stress-related problems, interpersonal relationships, chemical misuse and other difficulties that can disrupt the productivity of the employee.

The primary purpose of the School of Social Work is to provide professional social work education to undergraduate and graduate students. The social work profession recognizes the Bachelor Degree as the first practice degree preparing students for entry level generalist social work practice. The Master's Degree in social work prepares students for advanced generalist practice.

Interdisciplinary Minor in Gerontology

The School of Social Work participates in the Interdisciplinary Minor offered by the College of Health and Human Sciences. A designated faculty adviser in the School assists interested students in completing the requirements for that minor. Specific requirements and courses available for the minor can be found on page 88 of this **Bulletin**.

Master of Social Work

Accreditation

The Master's Program in the School of Social Work was initially accredited by the Council on Social Work Education in 1974 with the first class graduating in 1976. Since that time, the School has maintained full accreditation providing quality social work education in compliance with the Curriculum Policy Statement and the Evaluative Standards of the Council on Social Work Education.

Admission Requirements

Applicants to the School of Social Work are selected and admitted without discrimination on the basis of age, gender, race, religion, color, creed, ethnic or national origin, disability, political or sexual orientation. Students are admitted to the MSW Program once a year (Fall Semester). **All admission requirements must be completed by April 1 of the year prior to the fall semester the student plans to enroll.** The **Graduate Record Examination (GRE)** is required by the University for admission to the Graduate School. The paper and pencil Exam is given only at specific times during the year, and there is a delay of approximately six (6) weeks before the University receives a student's scores. Since the GRE scores are part of the MSW application process, applicants should schedule the exam allowing sufficient time for submission of exam scores by the application deadline. Computerized testing is also an option. Call 1-800-GRE-CALL for details.

Students, full-time or part-time, are evaluated on the basis of the following criteria: a bachelor's degree from an accredited college or university; a minimum of 12 semester hours of Liberal Arts coursework; the **cumulative grade point average** (successful applicants have had a GPA of 2.75 or above); the **Graduate Record Examination Score**; **academic background**; **references**; **a written personal statement from the applicant**; and **a written response to a case situation**. All of these factors are evaluated by the Admissions Committee.

Health & Human Sci.
Social Work

Program on Full-Time Basis

First year students must begin their work in the fall semester. Students are not admitted any other time. Full-time first year students will be enrolled in classroom courses and in concurrent field instruction (internship) in each semester of the first year. In Year II during the fall semester, students will take classroom courses only and in the spring semester will be placed in an advanced field practicum for four days each week. Two classroom courses will be taken on each Friday of the spring semester concurrently with the advanced field practicum. A minimum of sixty (60) credit hours is required for graduation.

Program on Part-Time Basis

The School, in keeping with admissions requirements, offers a part-time program in which the MSW degree can be obtained in three years. Part-time students are required to take nine (9) hours each semester during the first year. The part-time program is designed primarily for employed practitioners. A part-time program is also offered at the Gulf Park Campus, Long Beach, Mississippi

Credit by Examination

It is possible for students who meet admission requirements and hold a BSW from an accredited undergraduate social work program to receive credit for a maximum of twelve (12) hours of first year MSW courses (SWK 601, SWK 605, SWK 617, And SWK 634) through proving mastery of the material offered in those courses. Mastery of the material will be determined by both oral and written examinations. These examinations will be administered in the first two weeks of each semester, in time to allow students to drop and add courses without charge.

Students who wish credit by examination must meet the following additional requirements: hold an undergraduate social work degree from a CSWE accredited program with a cumulative GPA of 3.0 or better, have a grade of B or better in the related course at the undergraduate level, and pass an examination for each course challenged.

Conditional Status

The School adheres to the University policies with regard to admission of graduate students on a "conditional" basis. The University regulations concerning "conditional admissions" for regular or part-time students are stated in this **Bulletin** under "Admissions Requirements and Procedures."

Requisites for the MSW Degree

A minimum of sixty (60) credit hours is required to earn the MSW Degree. All required courses must be successfully completed.

Students must have attained or acquired while in the program, specific Liberal Arts content as prerequisites to the graduate social work curriculum. For specific information regarding Liberal Arts requirements, please contact the School.

Students must have a cumulative grade average of 3.0 and a grade of "B" or better in each field practicum. Also, in compliance with University graduation requirements, students are required to pass a written and oral comprehensive examination to earn the MSW Degree.

Student Advisement

Advisement is an essential component of the MSW Program. Each student admitted to the program will be assigned an adviser. The purpose of advisement is to provide counsel, guidance and support to students in their efforts to achieve their educational goals. Advisers will assist students in planning a program of study toward the MSW degree, approve their schedule each semester, provide counsel and assist with the preparation of their application for degree. When requested or required, advisers also help students resolve personal problems that affect the attainment of their educational goals.

For further information, contact:

Coordinator of Admissions
The University of Southern Mississippi
School of Social Work
Box 5114
Hattiesburg, MS 39406-5114
Telephone: (601) 266-4163

Model of Regular Program

	Hours
Semester I Fall	
SWK 601 Human Behavior I.....	3
SWK 605 Social Welfare Policy.....	3
SWK 608 Generalist Practice I.....	3
SWK 617 Social Work Research I.....	3
SWK 641 Field Education I.....	3
	15
Semester II Spring	
SWK 602 Human Behavior II.....	3
SWK 609 Generalist Practice II.....	3
SWK 634 Social Work Practice in a Diverse Society.....	3
SWK 637 Social Work Research II.....	3
SWK 642 Field Education II.....	3
	15
Semester III Fall	
SWK 635 Management and Administration.....	3
SWK 666 Community Development and Social Planning.....	3
SWK 674 Social Work Practice with Families.....	3
SWK 653 Individual and Family Assessment.....	3
SWK 696 Social Work Practice with Groups.....	3
	15
Semester IV Spring	
SWK 673 Field Education III.....	6
SWK 658 Advanced Interventive Methods.....	3
Electives.....	6
	15
Minimum Total Credit Hours:	60



Model Program for Students Taking Courses on a Part-Time Basis

	1st Year	2nd Year	3rd Year
Fall	601 (3) 605 (3) 608 (3)	642 (3) 637 (3)	653 (3) 673 (3)
Spring	602 (3) 609 (3) 634 (3)	666 (3) 674 (3) 696 (3)	658 (3) 673 (3)
Summer	641 (3) 617 (3)	635 (3) Electives (6)	

Center for Community Health

Agnes W. Hinton, Director
Hattiesburg, MS 39406-5122
(601) 266-5437

The Center for Community Health was created as an organizational focus for expanded activities in community health within the College of Health and Human Sciences. Offerings from the Center include the emphasis areas of Health Education, Health Policy and Administration, Occupational and Environmental Health, and Public Health Nutrition. The Center offers the Master of Public Health (M.P.H.) degree, which is accredited by the Council on Education for Public Health. The Center serves as a base for interdisciplinary research and demonstration activities in such areas as rural health policy, community programs for the elderly, access to health care for vulnerable populations, disease prevention and health promotion, and occupational health and safety.

Admission to the master's program requires submission of scores from the **Graduate Record Examination**, a GPA of 2.75 or higher at the baccalaureate level, and a minimum of an undergraduate minor (or its equivalent) in an appropriate* field of study. In addition to the Graduate School application, a separate program application and two letters of recommendation are required. A personal interview with a member of the graduate faculty is highly recommended. Applications for admission are reviewed by a committee of the Center's graduate faculty and are evaluated upon the basis of a combination of factors including undergraduate GPA, GRE scores, application essay, letters of recommendation, and personal

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interview. The range of GRE scores for recent successful applicants may be found in the *Test Scores* section of this **Bulletin**. The application deadline for the spring semester is October 15; the deadline for the fall semester is April 15. Only graduate students enrolled in other programs are accepted as non-degree students. Members of all underrepresented groups are encouraged to apply.

Once admitted to the program, a student must maintain a 3.0 GPA to remain in good standing. A student receiving grades of "C" or below in two major courses may be dismissed from the program.

Written comprehensive examinations are required of all graduate students in the master's program; oral examinations are scheduled if indicated. A completed Request to Take the Comprehensive Exam form must be submitted to the director of the center the semester prior to administration of the exam.

All general Graduate School requirements outlined earlier in this Bulletin must be satisfied for students to progress successfully toward degrees. Regardless of degree level pursued, the student is responsible for following all graduate regulations. The student's major professor will assist, but the student is expected to know what is required and to take full responsibility.

*Specific competencies for admission are determined by each area.

Interdisciplinary Minor in Gerontology

The Center for Community Health participates in the Interdisciplinary Minor offered by the College of Health and Human Sciences. A designated faculty adviser in the School assists interested students in completing the requirements for that minor. Specific requirements and courses available for the minor can be found on page 88 of this **Bulletin**.

Master of Public Health (M.P.H.)

Graduates of the M.P.H. program will find career opportunities in all sectors of the health care field including health service delivery organizations, community organizations, federal, state and local health agencies, colleges and universities, voluntary health agencies, consulting firms, industry, and insurance companies. Students will usually take forty-five (45) credit hours. A minimum of thirty-six (36) hours may be approved for those with terminal degrees or considerable experience, both in health-related areas.

M.P.H. Core Requirements

	Hours
CHS 601 Community Health Organization and Practice.....	3
CHS 622 Epidemiology	3
CHS 623 Biostatistics.....	3
CHS 625 Health Administration	3
CHS 655 Environmental Health.....	3
CHS 656 Social and Behavioral Aspects of Health	3
CHS 611 Internship.....	3-9

Requirements for Emphasis in Health Education

CHS 508 Health Education Methods	3
CHS 509 Community Health Education Planning	3
CHS 512 Measurement and Evaluation	3
CHS 720 Community Organization for Health Education.....	3
Electives	6

Requirements for Emphasis in Health Policy and Administration

CHS 527 U.S. Health Policy and Policy Analysis	3
CHS 570 Health Law and Justice.....	3
CHS 657 Financial Aspects of Health Administration	3
CHS 710 Seminar	3
CHS 792 Special Problems inn Health	3

Requirements for Emphasis in Occupational and Environmental Health

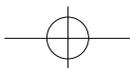
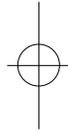
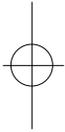
CHS 658 Occupational Health	3
CHS 538 Workplace Health Promotion	3
CHS 744 Behavioral Problems in Safety	3
CHS 746 Administration and Supervision of Safety Programs	3
Electives	6

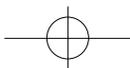
Health & Human Sci.
Community Health

Requirements for Emphasis in Public Health Nutrition

CHS 665 Public Health Nutrition Programs and Principles.....3
CHS 666 Nutrition Program Planning and Evaluation3
CHS 720 Community Organization for Health Education.....3
NFS 662 Community Health and Nutrition3
Electives6

Students have a wide range of electives to choose from within the Center and the School of Family and Consumer Sciences.





College of Liberal Arts

Graduate Degrees

1998-99

Department	Major	Degree
Master's Level		
School of Communication	Communication	Master of Arts Master of Science
	Mass Communication Emphasis	
	Speech Communication Emphasis	
	Public Relations	Master of Science
School of Library and Information Science	Library and Information Science	Master of Library and Information Science
Anthropology and Sociology	Anthropology	Master of Arts
Criminal Justice	Criminal Justice	Master of Arts Master of Science
	Juvenile Justice Emphasis	
English	English	Master of Arts
	Creative Writing Emphasis	
Foreign Languages and Literatures	Foreign Languages	Master of Arts in the Teaching of Languages
	French Emphasis	
	Spanish Emphasis	
	Teaching English to Speakers of Other Languages (TESOL) Emphasis	
Geography and Area Development	Economic Development	Master of Science
	Geography	Master of Arts Master of Science
History	History	Master of Arts Master of Science
Philosophy and Religion	Philosophy	Master of Arts
Political Science	Political Science	Master of Arts Master of Science
	Public Administration Emphasis (MS)	
Speech and Hearing Sciences	Speech and Hearing Sciences	Master of Arts
	Audiology Emphasis	Master of Science
	Speech-Language Pathology Emphasis	
	Education of the Deaf Emphasis	

Liberal Arts

Department	Major	Degree
Specialist's Level		
School of Library and Information Science	Library and Information Science	Specialist in Library and Information Science
Doctoral Level		
Communication	Communication	Doctor of Philosophy
English	English Creative Writing Emphasis	Doctor of Philosophy
History	History	Doctor of Philosophy

College of Liberal Arts

Glenn T. Harper, Dean
Stanley R. Hauer, Associate Dean
Hattiesburg, MS 39406-5004
(601) 266-4315

The College of Liberal Arts offers the Doctor of Philosophy, the Master of Library and Information Science, the Master of Arts in the Teaching of Languages, the Master of Arts, and the Master of Science degrees as outlined on the previous pages.

With the approval of the major professor and the chair of the major department, the student may choose a graduate minor in a cognate field.

Various departments of the College of Liberal Arts also participate with the College of Education and Psychology in programs leading to the Master of Education degree.

For general academic requirements and regulations governing each of these degree programs, see the section on **Academic Requirements**. For **specific** degree requirements, consult the appropriate department.

School of Communication

Gene Wiggins, Director
Hattiesburg, MS 39406-5158
(601) 266-5650

The School of Communication offers the Master of Arts, Master of Science, and the Doctor of Philosophy degrees under the joint administration of the participating areas within the Department of Journalism, the Department of Radio, Television, and Film, and the Department of Speech Communication. The Director of Graduate Studies advises all candidates regarding general regulations and requirements and serves as academic adviser until committees are formed and major professors are selected.

Master's and doctoral degree candidates select a concentration and curriculum from among the participating disciplines with the approval of the major professor and committee members. Curricula and requirements for master's candidates majoring in Communication and in Public Relations are outlined below. All graduate courses in Mass Communication; Journalism; Radio, Television, and Film; and Speech Communication are listed under Communication in the course descriptions.

Master's degree candidates in Communication select one of two primary concentrations: (1) speech communication, or (2) mass communication. A separate major is available in Public Relations. Students emphasizing mass communication or majoring in public relations are required to have prior academic training or professional experience in the mass media or public relations practice. Those not meeting the requirement can be admitted into the program but will be required to correct the deficiency without receiving graduate credit for the additional work.

The Doctor of Philosophy degree program is interdisciplinary and is structured in consultation with the student's doctoral committee to serve the student's individual needs. Students select one of two primary concentrations: (1) Mass Communication, or (2) Speech Communication. The program involves study of advanced theories of speech communication and mass communication research design and methodology.

Admission requirements for the School of Communication are the same as those of the University, with the following additions:

Applicants for the Master's Program

Regular Admission:

Undergraduate Record—Normally, the cumulative GPA of the last 60 hours from all institutions of our applicants has ranged from 3.0 to 4.0.

Graduate Record Examination—Scores must be submitted from the GRE.

Test of English as a Foreign Language—Applicants whose native language is not English must attain a TOEFL score of 550.

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Letters of Recommendation—The admission committee reviews letters of recommendation to gain a more personal understanding of the applicant’s abilities in communication areas and in critical thinking. Each applicant should request two letters of recommendation. At least one should address the applicant’s academic preparation.

Conditional Admission:

Undergraduate Record—The cumulative GPA of the last 60 hours from all institutions is usually 2.75 or better.

Graduate Record Examination—GRE scores must be submitted from the Educational Testing Service.

Test of English as a Foreign Language—Applicants whose native language is not English must attain a TOEFL score of 550.

Letters of Recommendation—The admission committee reviews letters of recommendation to gain a more personal understanding of the applicant’s abilities in communication areas and in critical thinking. Each applicant should request two letters of recommendation. At least one should address the applicant’s academic preparation.

Applicants for the Doctoral Program

Regular Admission:

Master’s Record—Typically, the cumulative GPA of an applicant is 3.5 or better.

Graduate Record Examination—Applicants must submit GRE scores.

Test of English as a Foreign Language—Applicants whose native language is not English must attain a TOEFL score of 550.

Letters of Recommendation—The admission committee reviews letters of recommendation to gain a more personal understanding of the applicant’s abilities in communication areas and in critical thinking. Each applicant should request three letters of recommendation, at least one should address the applicant’s academic preparation.

Statement of Goals—Applicants must submit a written statement of goals (500-750 words). This statement enables the applicant to discuss career plans, and to supply additional information that will assist in selecting those individuals who can most benefit from and contribute to the graduate communication programs.

Work Experience, Mass Communication Areas—While professional work experience is not required for admission, two or more years of relevant employment may strengthen the likelihood of admission to the doctoral program in mass communication areas. Applicants with appropriate work experience are encouraged to submit a résumé showing job responsibilities and accomplishments.

Conditional Admission:

Students who do not meet the requirements for regular admission may be considered for conditional admission.

The first nine hours after conditional admission to all graduate programs must be taken in the School of Communication.

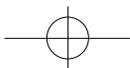
International students must score at least 550 on the TOEFL examination before they can be admitted into any graduate program in the School. Members of all underrepresented groups are strongly encouraged to apply.

Master of Arts/Master of Science Thesis Option

Major: Communication Emphasis: Mass Communication

All students pursuing this program in Communication must complete the following requirements:

	Hours
Substantive Core	
MC 607, MC 625	6
Research Methods	
MC 720	3
MC 722, RTF 525, Statistics (any two)	6
Thesis	6
Electives in Mass Communication	9



A minimum of thirty (30) semester hours must be completed, including thesis credit. At least eighteen (18) of these hours must be numbered 600 and above. All candidates must take a comprehensive written examination, submit a scholarly thesis, and defend the thesis. In addition to minimum credit and thesis requirements, the candidate for the Master of Arts degree must demonstrate proficiency in an approved foreign language not to be counted toward the credit hours requirement.

**Master of Science
Non-Thesis Option**

**Major: Communication
Emphasis: Mass Communication**

All students pursuing this program in Communication must complete the following requirements:

	Hours
Substantive Core	
MC 607, MC 625	6
Research Methods	
MC 720.....	3
MC 722, RTF 525, Statistics (any two)	6
Electives in Mass Communication	18

A minimum of thirty-three (33) semester hours must be completed. At least eighteen (18) of these hours must be numbered 600 and above. All candidates must take a comprehensive written examination.

**Master of Arts/Master of Science
Thesis Option**

**Major: Communication
Emphasis: Speech Communication**

All students pursuing this program in Communication must complete the following requirements:

	Hours
Substantive Core	
SCM 600, SCM 735	6
Research Methods	
SCM 720, Electives*.....	9
SCM Electives.....	9
Thesis	6

*The research methods electives will be chosen from SCM 721, SCM 722, REF 602, REF 761.

A minimum of thirty (30) semester hours must be completed, including thesis credit. At least eighteen (18) of these hours must be numbered 600 and above. All candidates must take a comprehensive written examination, submit a scholarly thesis, and defend the thesis. In addition to minimum credit and thesis requirements, the candidate for the Master of Arts degree must demonstrate proficiency in an approved foreign language not to be counted toward the credit hours requirement.

**Master of Science
Non-Thesis Option**

**Major: Communication
Emphasis: Speech Communication**

All students pursuing this program in Communication must complete the following requirements:

	Hours
Substantive Core	
SCM 600, SCM 735	6
Research Methods	
SCM 720, Electives*.....	9
SCM Electives.....	18

*The research methods electives will be chosen from SCM 721, SCM 722, REF 602, REF 761.

A minimum of thirty-three (33) semester hours must be completed. At least eighteen (18) of these hours must be numbered 600 and above. All candidates must take a comprehensive written examination.

Master of Science

Major: Public Relations

All students pursuing a major in Public Relations must complete the following requirements:

	Hours
Substantive Core	
MC 607, MC 620, MC 621, MC 625	12
Research Methods	
MC 720.....	3
MC 722, or RTF 525, or JOU 526, or Statistics.....	3
Thesis, major project, or internship*	3-6
Speech Communication/Mass Communication Electives**	6-9



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*Students seeking the Master of Science degree with a major in Public Relations may choose between a thesis and a non-thesis option. Six hours credit are given for a thesis and three hours for a major project or internship.

**Students who did not have undergraduate public relations courses must take JOU 521, 522, and 526.

A minimum of thirty (30) semester hours must be completed, including thesis, major project or internship. At least eighteen (18) of these hours must be numbered 600 and above. All candidates for the Master of Science degree with a major in Public Relations must pass comprehensive written examinations, and either submit and defend a scholarly thesis, or complete a major project, or serve an approved internship.

Candidates with undergraduate deficiencies must take undergraduate courses to correct the deficiency without receiving graduate credit for the additional course work. Candidates with few undergraduate deficiencies may be permitted by their academic committees to complete a graduate minor pertinent to their area of specialized practice, e.g., social work, public administration, business administration, and criminal justice.

Doctor of Philosophy

A four-course sequence in research design and methodology is required of all doctoral students. The four courses include: MC 625 - Process and Effects of Mass Communication or SCM 735 - Rhetorical Theory; MC/SCM 720 - Introduction to Graduate Research in Communication; MC/SCM 722 - Communication Research Methods; and either MC 607 - Theories of Mass Communication, or SCM 600 - Communication Theory and Research. Equivalent courses taken at another institution will be accepted, pending approval of the Director of Graduate Studies, the major professor, and the instructor of the course.

The minimum credit requirement for the doctoral degree is fifty-four (54) hours beyond the master's degree or eighty-four (84) hours beyond the baccalaureate degree. The student takes rigorous written and oral examinations and submits and defends a scholarly dissertation pertaining to the area he or she elects to emphasize (see section on General Requirements and Regulations).

Doctoral students may elect an outside minor consisting of twelve (12) hours approved by the major professor and academic committee members. Doctoral students must demonstrate proficiency in basic communication research design and methodology, as well as competency in basic statistics.

School of Library and Information Science

Joy M. Greiner, Director
Hattiesburg, MS 39406-5146
(601) 266-4228

The School of Library and Information Science offers a course of study leading to a Master of Library and Information Science degree. Since the first master's degree in library science was awarded in 1965, the program has continued to grow and develop into a truly comprehensive instructional program for all students who plan to become professional librarians in public, school, academic, or special libraries. For the general University graduate student, the School offers a variety of course offerings for acquiring skill in the scholarly use of library resources as research tools. Finally, the School performs a vital role in the continuing development and expansion of library services at all levels in the State of Mississippi as well as providing continuing education for practicing librarians.

The graduate curriculum in library and information science provides instruction in the following areas of librarianship: information science; reference; cataloging and classification; selection and acquisition; administration; bibliography; non-print media; history of the book, libraries, printing and publishing; and library programs for children and youth.

Providing prospective librarians with professional knowledge and skills for effective library service, however, is not the only objective of the School. The faculty believes that professional education should also be concerned with fostering those attitudes and understandings which will help students develop an appreciation of the changing role of the library in society. The library profession will flourish only as students are prepared to participate intelligently in the process of relating library services to the larger social and cultural needs of contemporary society.

Accreditation

The Master of Library and Information Science degree is accredited by the American Library Association. The School is also an institutional member of the American Library Association, Association for Library and Information Science Education, Mississippi Library Association, and the Southeastern Library Association.

Academic Mission of the Master's Program in Library and Information Science

The mission of the program of the School of Library and Information Science is to prepare qualified individuals for professional roles in libraries and other information environments. Preparation of such individuals involves two fundamental elements; (1) providing candidates with the appropriate perspective and (2) preparing candidates with the necessary intellectual and technical abilities to serve in the field of library and information science. Construing librarianship broadly to include work of information professionals in all types of settings, the program of Library and Information Science has identified eight specific goals for the M.L.I.S. program:

Goals and Objectives of the Graduate Program of Education in Library and Information Science

Goal I.

To promote among Master's degree candidates in the School of Library and Information Science an awareness of freedom as the necessary condition for education and human communication generally, but especially for the proper operation of libraries and other information centers in a free and democratic society; and to foster in them a commitment to freedom.

As a result of this program candidates will:

- A. Communicate to others the concepts of the United States Constitution as it relates to freedom of speech, press and assembly, and discuss intelligently the various articles of the Library Bill of Rights.
- B. Identify situations in which the attempt to curtail people's freedom to read and view is being promoted directly or indirectly, by patrons or by professionals, within the context of libraries and information centers.
- C. Deal effectively and fairly with persons who seek to censor materials in libraries and information centers through selection practice on the part of professionals and/or complaints about what materials and/or services are available or unavailable.
- D. Select materials and choose services for a library or information center that, particularly within the domain of controversial social and/or moral issues, will provide a variety of viewpoints, thus fostering the people's right to read and think for themselves.
- E. Respond to patron inquiries and serve the public in a way that enhances, rather than restricts, freedom of inquiry, e.g. using a variety of sources when this is appropriate.

Goal II.

To cultivate in candidates a consciousness of the philosophy of librarianship and a basic understanding of the chief principles of information science; to enable them to think critically and reflectively, to analyze and to evaluate, and to communicate effectively.

As a result of this program candidates will:

- A. Identify problems in particular situations in libraries and information centers in light of the general principles of librarianship as well as the mission of the particular library or information center and demonstrate creativity and initiative in their solution.
- B. Determine what professional responsibility demands in particular situations, especially in the light of the basic principles of information science and librarianship.
- C. Select from various possibilities materials and services that are most appropriate in a particular community being served by a library or information center, being conscious of the people's right to know.
- D. Demonstrate the role of the library in the information process.
- E. Demonstrate the librarian's role as mediator in the communication process.
- F. Demonstrate a facility for oral and written communication.

Goal III.

To give candidates opportunities to know and appreciate the evolutionary development of libraries, of librarianship and of the various technologies of information transfer, as this has come about within various cultural and social contexts.

As a result to this program the candidates will:

- A. Develop an historical perspective and a sense of tradition in respect to their chosen profession, and have some knowledge of the history of the various information technologies.
- B. Become aware of the role that libraries and other information centers, as well as books and other communication media, have played in the development of human culture.
- C. Be conscious of new and contemporary developments in information transfer, and especially the ways in which these extend and/or supplement and supplant the more traditional means of human communication.
- D. Relate libraries and information centers creatively and meaningfully to salient trends in changing social environments so that those libraries and information centers may contribute to the positive enrichment and development of the human societies they serve.

Goal IV.

To enable candidates to perform skillfully and in a professional manner in libraries and other information centers, and be able to work effectively with the various publics of these same institutions.

As a result of this program candidates will:

- A. Apply methods commonly associated with scientific social research and analysis, and draw appropriate inferences from the results of such studies to identify the salient characteristics of the communities served by the library or other information center.
- B. Select from available materials and services those that are appropriate for a particular community within the limits of financial capability and the goals of the institution.
- C. Organize materials and services so that they may be readily accessible to the public served by a library or information center.

Goal V.

To introduce candidates to management as it is, or ought to be, accomplished in libraries and information centers.

As a result of this program candidates will:

- A. Evaluate and discuss contemporary management theories, particularly as these are relevant for the management of libraries and information centers.
- B. Implement and discuss the elements of management theory, including goal setting, collection management, program planning, implementation, and evaluation.
- C. Demonstrate an understanding of the processes and applications of organizing, directing and controlling systems as these are performed in libraries and information centers.
- D. Demonstrate knowledge and application of the planning processes involved in budgeting and fiscal management, including being able to identify necessary components for budget design, budgetary control and evaluation.
- E. Recognize and be able to respond to issues of personnel management including staffing processes, disciplinary concerns and continuing education.

Goal VI.

To emphasize the value of, and encourage participation in professional organizations related to librarianship and information work and to promote later participation in continuing education activities.

As a result of this program candidates will:

- A. Participate in professional organizations concerned with library and information work.
- B. Explain how participation in professional organizations and publications advance the principles of librarianship.
- C. Explain the value of continuing education and other professional development activities to librarians.

Goal VII.

To introduce master's degree candidates to theoretical and applied professional research in all areas of librarianship: to develop cognizance of the role of scientific research in building a theoretical and practical knowledge base; and to provide an opportunity for each student to conduct original research.

As a result of this program candidates will:

- A. Explain the role of scientific research and of a theoretical knowledge base in librarianship.
- B. Evaluate reports of theoretical and applied research.
- C. Identify research problems/situations and appropriate methodologies and data gathering techniques.
- D. Execute an original research activity as outlined in the research proposal.

Goal VIII.

To prepare master's degree candidates with intellectual and technological skills appropriate to the current and future technological requirements of the profession and to develop an awareness of the effects of technology on library management and operations.

As a result of this program candidates will:

- A. Utilize online databases, catalogs, and use standard bibliographic vendors.
- B. Employ various fundamental software programs in different computer system platforms.
- C. Search and use the INTERNET.
- D. Articulate and demonstrate the mechanisms of information processing, collection, organization and access.
- F. Examine the issues, role and implications of computer technology in library and information settings.
- G. Demonstrate theoretical and practical knowledge relevant to planning, developing, implementing and managing automation technology in library and information settings.
- H. Evaluate the impact of the information age on society and its institutions.
- I. Discuss information access, value and information services.
- J. Evaluate the effects of technology on management.

Admission Requirements

A graduate student in Library and Information Science must meet the general requirements for admission to the University graduate program as outlined elsewhere in the **Graduate Bulletin**. Application forms for admission to the graduate program must be submitted to the Admission Office of the University.

Applications for admission are evaluated by a combination of the following criteria:

Undergraduate record - Recently, students qualifying for regular admission to the program have had a 3.00 (figured on an A equals 4.00 scale) grade point average for the last two years of undergraduate study. For conditional admission, the School of Library and Information Science adheres to the policies of the Graduate School as stated in the Graduate Bulletin.

Graduate Record Examination - The student must submit GRE scores.

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Letters of Recommendation - Two letters of recommendation must be submitted. One of the letters should be from an individual qualified to address either the applicant's work experience or academic preparation.

Personal Questionnaire - The school requires the submission of a personal questionnaire which includes questions that require essay responses.

Personal Interviews - Personal interviews with applicants will be conducted whenever possible.

Forms for the letters of recommendation and the personal questionnaire may be obtained by request from the School of Library and Information Science.

In keeping with University practice and policy, sex, religion, race, physical disability, creed, and age play no role in the consideration of applicants for admission to the M.L.I.S. degree program.

The Master of Library and Information Science Degree

Candidates for the Master of Library and Information Science (M.L.I.S.) degree must earn a minimum of thirty-eight (38) semester hours of credit with a 3.00 cumulative grade point average. Eighteen (18) of these hours must be at the 600 level of courses. As many as six (6) hours may be elected from the offerings of other departments within the University. A total of no more than six (6) semester hours of transfer work may be applied toward the degree. A total of no more than nine (9) semester hours of combined transfer work and non-degree work may be applied toward the degree.

The program of study for students will be individualized, taking into consideration previous academic backgrounds, experience, and career objectives. All programs of study must be planned with the counsel of a faculty adviser and approved by the Director of the School of Library and Information Science.

I. M.L.I.S. Degree Requirements

- LIS 501, 505, 511, 605, 636, 651, 668
- Electives (15 hours)
- Master's project (2 hours)

If near equivalences of any of the above required courses were taken on either the undergraduate or graduate level at an accredited institution with a grade of B or above, other electives may be substituted. Courses at the 500 level may also be waived by special examination or by the Director of the School.

II. Course Requirements for School Library-Media Specialist Licensure at the Master's Level

Students who plan to use the master's degree in Library and Information Science for Class AA licensure should complete the following courses in addition to those listed above:

- LIS 508, 516, 517, 518, 525, 591

The following professional education courses must be completed to satisfy licensure requirements in the State of Mississippi: REF 601 and REF 607. (LIS 668 may be taken in lieu of REF 601.)

Students seeking licensure at the master's level are also advised that they will be required to complete more than 38 hours to meet all degree and licensure requirements, especially if they do not hold Class A Licensure in Library and Information Science. Students should see their adviser or the Director of the School of Library and Information Science for further information concerning licensure requirements.

III. Dual Master's Degree in History and Library and Information Science

The History Department and the School of Library and Information Science offer a dual master's degree program leading to the Master of Arts in History and the Master of Library and Information Science degrees. The total number of hours required for both programs is 54-30 for the M.L.I.S. and 24 for the M.A. in History.

Students in the combined program must complete the following requirements:

1. Twenty-four (24) hours in history.
2. Thirty (30) hours in library and information science. The following required courses: LIS 501, 505, 511, 636, and 605;

- Either LIS 651 or LIS 647;
- LIS 631 or 638 or 646 or 649 or 666;
- LIS electives: 6 hours;
- LIS 691 which will confer three (3) of the 6 hour thesis requirement

3. Students must be admitted separately to each program: History and Library Science.

The history requirements in this program are covered in the Department of History section of this Bulletin.

Specialist in Library and Information Science Degree Program

This advanced degree will provide the opportunity for practitioners to meet specific requirements in their professional areas, earn AAA school library media licensure, participate in continuing education activities, and specialize in particular areas of librarianship. Library and Information Science courses will include information technologies in a variety of information environments, advanced management seminars, and advanced research design. Specific courses of study are planned to meet the needs of individual students in consultation with faculty advisers and the director.

Thirty-three (33) semester hours of course work at the graduate level with the option to include twelve (12) hours from related departments such as public administration, political science, educational leadership, communications, or marketing are required for completion of the program.

Summer term and transfer credit information found under the master's program also apply to the specialist's program.

Department of Anthropology and Sociology

H. Edwin Jackson, Chair
Hattiesburg, MS 39406-5074
(601) 266-4306

The Department of Anthropology and Sociology offers graduate work leading to the master's degree in anthropology and a minor in the master's and doctor's degree programs of other departments.

Master's Program in Anthropology

The Department of Anthropology and Sociology offers programs within the College of Liberal Arts leading to the Master of Arts degree in Anthropology.

General academic and admission requirements for all graduate degrees are set forth in another section of this **Bulletin**. The Anthropology Graduate Admissions Committee will review the following materials in determining an applicant's eligibility for admission as a regular student in the program: (1) Two letters of recommendation from persons familiar with the applicant's academic background; (2) A statement of purpose which describes the applicant's reasons for wishing to pursue a graduate degree in anthropology and the subfield of specialization which he/she intends to pursue; (3) Undergraduate transcript (successful applicants in the past have had a cumulative undergraduate GPA of 2.75 or above); and (4) Official GRE scores. Students who fail to meet the entrance criteria on one of the four dimensions but who show considerable promise based on the other criteria will be considered for conditional admission. Members of all underrepresented groups are strongly encouraged to apply.

Master of Arts

A minimum of thirty-three (33) semester hours, eighteen (18) of which must be earned at the 600 level or above; and completion of three of the four seminars in anthropology (ANT 621, 631, 641, 651) including the seminar in the student's sub-field of specialization. No more than six (6) hours of field methods courses (ANT 516, 536) and no more than nine (9) hours of independent study courses (ANT 692, 792) will be applied toward the degree. Also required are proficiency in one foreign language or quantitative research methods; successful completion of a comprehensive examination; and submission of an approved thesis.

The Department of Anthropology and Sociology also offers a graduate minor in Sociology for students in the master's and doctor's degree programs of other departments.



Department of Criminal Justice

Tyler H. Fletcher, Chair
Hattiesburg, MS 39406-5127
(601) 266-4509

The Department of Criminal Justice offers courses leading to a Master of Arts degree, a Master of Science degree, and a graduate minor in the master's and doctoral degree programs of other departments.

Master's Programs

Master of Arts Degree

The Master of Arts degree in Criminal Justice consists of a minimum of thirty-three (33) hours of criminal justice course work, or a minimum of twenty-four (24) hours of criminal justice course work with nine (9) hours of additional course work in an approved minor. Either sequence also requires six (6) hours of CJ 698, Thesis, for a total of thirty-nine (39) hours. The Master of Arts degree program is divided into the fields noted below. CJ 520 and CJ 625 are required in all fields. A student will be required normally to select a minimum of four courses from a group concentration and a minimum of one course from each of two other groups in order to gain an appreciation of the interaction of criminal justice system components. A foreign language competency is required.

Master of Science Degree

The Master of Science degree in Criminal Justice consists of a minimum of thirty-nine (39) hours of criminal justice course work, or a minimum of thirty (30) hours of criminal justice course work with nine (9) hours of additional course work in an approved minor area, plus successful completion of a written comprehensive examination. The degree is designed to provide specialization in a designated field to meet professional needs. CJ 520 and CJ 625 are required in each option.

General Requirements for Admission

- (A) Admission decisions are based on a balancing of a variety of factors. These include scores on the verbal, quantitative, and analytical portions of the Graduate Record Examination's General Test and undergraduate grade point average, both overall and in criminal justice and evidence-related field training and work experience. In addition, applicants are encouraged to submit for consideration letters of recommendation from members of their undergraduate faculty and to have such faculty members forward examples of written work which they are able to identify as original work by the applicant submitted in their courses.
- (B) Applicants granted regular admission who have an undergraduate major in Criminal Justice, including non-degree graduate students, must have achieved a grade point average of 3.0 overall and in their criminal justice courses.
- (C) Applicants may be granted conditional admission in cases where other than grade point averages indicate. In these cases the department may, at its discretion, grant conditional admission to undergraduate criminal justice majors and non-degree graduate students in criminal justice with a GPA of less than 3.0 but more than 2.75 overall and in criminal justice courses.
- (D) Applicants who are not criminal justice undergraduate majors, who meet all other criteria, may be granted conditional admission if the department is satisfied that their grade point average overall and in their particular major indicates the potential to perform acceptably in the program.
- (E) All admissions of students with other than a criminal justice undergraduate major or strong professional training in criminal justice will be conditional upon the completion, with a 3.0 grade or better in each course, of up to twelve (12) hours of undergraduate criminal justice courses consisting of CJ 330 and either CJ 341 or CJ 360, plus one other course approved by the student's adviser. All such supplemental undergraduate work must be completed prior to beginning graduate coursework.
- (F) Students from all underrepresented groups are particularly encouraged to apply.

Normal course requirements are listed. Variations based on specified field of interests such as corrections or law enforcement are authorized, but require permission of the adviser. Duplicated work is not permitted; except with special permission, a student may not take for graduate credit a similar course for which the student earlier received undergraduate credit.

I. Criminal Justice

CJ 520	CJ 526	CJ 560	CJ 550
CJ 533	CJ 570	CJ 561	CJ 551
CJ 540	CJ 630	CJ 563	CJ 571
CJ 640	CJ 631	CJ 660	CJ 650

II. Juvenile Justice

CJ 520	CJ 560	CJ 650	PSY 533
CJ 550	CJ 561	CJ 660	PSY 612
CJ 551	CJ 571	PSY 523	PSY 614
CJ 563	CJ 625	PSY 532	PSY 738

(Selection of the Juvenile Justice specialty entails completion of forty-eight (48) hours of course work in order to comply with state policy and federal court orders governing state employees of the Department of Youth Services. An included minor of eighteen (18) hours of course work is required in psychology, counseling psychology, or social work.)

III. Graduate Minor in Criminal Justice

The graduate minor in Criminal Justice consists of at least nine (9) hours of graduate course work for the Master's and twelve (12) hours for the doctorate, at least six (6) hours of which must be taken at the University of Southern Mississippi for either master's or doctorate. Approval of the minor and the courses is at the discretion of the major adviser.

Department of English

Michael N. Salda, Chair
Hattiesburg, MS 39406-5037
(601) 266-4319

The Department of English offers programs leading to the Doctor of Philosophy and Master of Arts degrees. Within the framework of these degree programs, students may specialize in English or American Literature, in Creative Writing, or in Composition/Rhetoric.

General academic and admission requirements for all graduate degrees are set forth in another section of this **Bulletin** and general departmental requirements are listed below. Specific requirements for the various specializations (e.g., Creative Writing, etc.) are described in information sheets available from the Department of English, Box 5037. Students interested in applying for assistantships should contact the Department of English.

The Doctor of Philosophy

The Doctor of Philosophy degree offered by the Department of English is designed to prepare students for careers as scholars and teachers. This degree is taken after the candidate has earned a master's degree and has met all University and departmental admission requirements. The department has several criteria for admission, including the GRE, letters of recommendation, and GPA. Successful applicants for regular admission to the Ph.D. program usually have a GPA of 3.5 or higher in master's coursework. Conditional admission is sometimes possible for applicants who do not meet all the criteria for regular admission. Members of all under-represented groups are strongly encouraged to apply. Other departmental requirements follow.*

1. A minimum of fifty-four (54) semester hours beyond the master's degree including courses in bibliography and methods and literary criticism. No more than 6 hours at the 500 level can count toward the degree.
2. A qualifying examination after one full semester's work.
3. Proficiency in two foreign languages or one foreign language and nine graduate hours in an approved area other than English.
4. A written comprehensive examination.
5. Presentation and defense of dissertation.

*Precise details of the doctoral program and admission procedures are available from the Department of English.



The Master of Arts

Departmental criteria for admission include the GRE, GPA, and letters of recommendation. Successful applicants for regular admission to the M.A. program usually have a GPA of 3.5 or higher in undergraduate English courses. Conditional admission is sometimes possible for applicants who do not meet all the criteria for regular admission. Members of all under-represented groups are strongly encouraged to apply. Requirements for the Master of Arts degree include the following:*

1. A minimum of thirty (30) semester hours of graduate credit including at least twelve (12) hours in an area of concentration such as English Literature, American Literature, Composition and Rhetoric, or Creative Writing. A minimum of eighteen of the thirty hours must be taken at the 600-level or above with six in the area of concentration; however, English 714 and 791 may not be used to satisfy this requirement.
2. ENG 506 (with approval, another linguistics course may be substituted) and ENG 640.
3. Foreign Language proficiency. (See the appropriate section of the Bulletin.)
4. Thesis (six hours credit).
5. A comprehensive oral examination on the thesis and the related area of concentration.

*Candidates desiring AA certification must include, in addition, REF 601 and REF 607.

Department of Foreign Languages and Literatures

Rafael Sánchez-Alonso, Chair
Hattiesburg, MS 39406-5038
(601) 266-4964

The Department of Foreign Languages and Literatures offers a program leading to the Master of Arts in the Teaching of Languages (MATL) degree. Within the MATL, students usually concentrate on one of three emphasis areas: French, Spanish, or Teaching English to Speakers of Other Languages (TESOL). The focus of the MATL is on developing and enhancing the knowledge and skills in language, language acquisition, and language instruction that are essential for both effective teaching and successful learning. The MATL is offered year-round, with the option of completing the program through **Summer Only** registration.

The MATL Program, with the addition of REF 601 and 607, meets the requirements for AA licensure for those holding a current Mississippi teaching license in French or Spanish. The department also offers a program of study for the ESL Endorsement to a current Mississippi teaching license in any area. Please contact the director of the MATL Program for details.

Admission Requirements

Members of all underrepresented groups are strongly encouraged to apply for admission to the MATL program. The following materials are reviewed in the admission process:

1. Official scores for the Graduate Record Examination (GRE) or the National Teachers Examinations (NTE) or the Miller Analogies Test (MAT).
2. Official transcripts for all previous undergraduate and graduate studies. Successful applicants in the past have had undergraduate grade point averages over the last two years of undergraduate study that range from 2.75 to 4.0 on a 4.0 scale.
3. For international students whose native language is not English, official scores on the Test of English as a Foreign Language (TOEFL). Successful applicants have had a total TOEFL score of 560 or above, with no section score lower than 54.
4. Applicants to the Spanish and French emphases of the MATL should have an undergraduate degree in the language or present evidence of equivalent language experience.

See the "Academic Requirements" section of the Graduate **Bulletin** for other general requirements. Conditional admission may be considered for applicants whose undergraduate grade point average and/or test scores are marginal but who show promise for success in graduate studies. The requirements for a change to full admission will be stated at the time of acceptance into the program.

General Program Academic Requirements

All students are expected to complete the following requirements:

1. A total of thirty-three (33) hours of graduate level courses, including eighteen (18) hours in courses numbered 600 or above.
2. FL 561, FL 663, FL 664, and FL 665
3. A seminar within the emphasis area (FRE 641, SPA 641, or TSL 641).
4. A practicum tailored to the teaching experience of each student (FL 694).
5. For students in the TESOL emphasis, ETSL 612.
6. For students in the Spanish or French emphasis areas, a minimum of 15 hours of graduate-level courses in the specific language.
7. A language proficiency requirement, as determined by departmental policy, within the specific emphasis area. In addition, students in the TESOL emphasis whose first language is English must also meet a foreign language requirement by completing nine (9) hours of conversational foreign language study or equivalent with an average of "B" or better.
8. A comprehensive examination.
9. A final reflective paper.

Department of Geography and Area Development

Robert W. Wales, Chair
Hattiesburg, MS 39406-5051
(601) 266-4729

The Department of Geography and Area Development offers the following graduate degree programs:

1. Master of Science in Geography
2. Master of Science in Economic Development

The department features coursework in geography, economic development, and urban and regional planning. The degree programs in geography stress concentrations in economic development, urban and regional planning, population and cultural systems, cartographic techniques, and geographic information systems, balanced by staff specialties in a variety of other systematic and regional areas. All programs in geography emphasize the application of technical skills and the development of a research capability in a particular concentration.

The student is held responsible for all graduate regulations. The student's major professor will help in any way possible, but the student is expected to know what is required and to take full responsibility. General academic requirements are explained fully earlier in the Bulletin; departmental requirements are listed below.

Master's Program in Geography

The M.S. program is designed to prepare students for further graduate study and for employment in such areas as planning, area development, business, government service, or teaching. Participation in an internship program is generally available to all departmental graduate students, but particularly to those pursuing a master's planning concentration in geography or the economic development degree. Prospective students should be prepared to spend up to two years completing all degree requirements; progress may be accelerated by taking advantage of summer sessions.

Admission Requirements

1. Have a 3.0 (4.0 scale) grade point average over the last two years of the student's undergraduate studies.
2. Submission of GRE scores. Students whose native language is not English must achieve a TOEFL score of 560 or more.
3. Provide two letters of recommendation.



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4. In exceptional cases, students may be admitted conditionally. Such students must make grades of B or better on the first nine hours of graduate course work taken in order to qualify for regular admission.
5. Students with a non-geography undergraduate degree will be required to take pre-requisite courses in geography.

Curriculum Requirements

1. A minimum of thirty-six (36) semester hours in graduate level geography courses with at least eighteen (18) hours of work in courses at the 600-level. With the approval of the major professor, the student has an option of taking (outside the department) up to twelve (12) semester hours of cognate courses within the minimum hourly requirements. Courses prefixed with GHY, ED, or PLG may be used in any combination to satisfy the minimum required hours.
2. GHY 610 and 680. These courses are required of all students.
3. Demonstrated proficiency in cartography and statistical/quantitative methods. Proficiency is generally established (on an individual basis) by evidence of satisfactory completion of course work in these areas sometime in a student's academic career, at either the graduate or undergraduate level.
4. Students have the option of preparing a thesis or a paper of a professional quality. The thesis will confer six (6) semester hours credit to be counted as part of the total minimum hourly requirement for the degree. The paper, which will normally be the end product of work begun in a seminar, will confer no credit hours toward the minimum required for the degree.
5. An oral examination on the student's academic program is required. Students writing a thesis will take an oral defense of the thesis. Students choosing the option of preparing a paper of professional quality will have the paper reviewed by the department faculty and will present it orally before the combined faculty.

Other Specific Requirements

A reading knowledge of one approved foreign language, or demonstrated proficiency in statistics or in a microcomputer usage. Proficiency is normally obtained by satisfactorily completing a two-course sequence selected in consultation with the departmental adviser. Typical sequences in a foreign language are SPA 501/502 or FRE 501/502 or by passing the Princeton Examination in that language; sequences in statistics typically are introductory statistics and GHY 615; and for microcomputer usage typical sequences are CSS 240 or CSS 330, or CSS 333, and GHY 516 and 516L, or 517 and 517L. Undergraduate or transfer credit will be evaluated by the department on an individual basis.

Master of Science Program in Economic Development

Ronald J. Swager, Director
Hattiesburg, MS 39406-5051
(601) 266-4729

The purpose of the Economic Development program is to assist students in acquiring professional competence in the concepts, skills, working tools, and creative approaches essential to those involved in the field of economic development, whether at the national, regional, or community level.

Admission Requirements:

1. Have a 3.0 (4.0 scale) grade point average over the last two years of the student's undergraduate studies.
2. Submission of GRE scores. The Graduate Management Admissions Test (GMAT) may be submitted in place of the GRE. Students whose native language is not English must achieve a TOEFL score of 560 or more.
3. Provide two letters of recommendation.
4. In exceptional cases, students may be admitted conditionally. Such students must make grades of B or better on the first nine hours of graduate course work taken in order to qualify for regular admission.
5. Students may be required to take some pre-requisite courses in geography and/or business.

Curriculum Requirements:

1. Successful completion of a minimum of forty-eight (48) semester hours in graduate level courses as follows:
 - a. Twenty-one (21) hours of prescribed core courses selected from the following: ED 551, 651, 652 (3 hours), 653, 654, 655, 656, and 657.
 - b. Demonstrated proficiency in statistics and microcomputer usage. Undergraduate or transfer credit will be evaluated on an individual basis.
 - c. At least three (3) hours of Internship (ED 691).
2. Successful completion of an oral and/or written comprehensive examination.
3. Completion of one of two curriculum options as follows:
 - a. Thesis option
 - 1) At least eighteen (18) hours of pre-approved elective courses.
 - 2) Six (6) hours of Thesis (ED 698) and successful oral defense of the thesis.
 - b. Non-Thesis option
 - 1) At least twenty-one (21) hours of pre-approved elective courses.
 - 2) Successful completion (B or better) of ED 658, to be taken in the last year of the candidate's program.

Department of History

Orazio A. Ciccarelli, Chair
Hattiesburg, MS 39406-5047
(601) 266-4333

The Department of History participates in programs leading to the degrees of Master of Arts, Master of Science, and Doctor of Philosophy.

General Regulations

The student is held responsible for following all graduate regulations. The student's major professor will help in any way possible, but the student is expected to know what is required and to take full responsibility. General academic and admission requirements for all graduate degrees are set forth in another section of this **Bulletin**, and general departmental requirements are listed below.

Master's Programs

Admission Requirements:

The department requires a combined score of 900 on the verbal-quantitative portions of the GRE general test with a minimum score of 500 on the verbal section. Applicants are also required to have a grade point average of at least 3.0 on the last two years of undergraduate study. Applicants should also submit at least three letters of recommendation, a statement of career objectives (500 to 1,000) words, and an example of written work (up to 20 pages.). Students who do not meet these requirements may be admitted on a conditional basis. Members of all underrepresented groups are strongly encouraged to apply. See the Academic Requirements section of this Bulletin for other general requirements. In addition to the Graduate School criteria for regular admission, students whose native language is not English must score at least 550 on the TOEFL Examination. The department presumes that applicants who have fulfilled these requirements possess an adequate knowledge of written and spoken English. If, upon their arrival at the University, it is determined that they do not possess an adequate command of English, the department reserves the right to require appropriate remedial courses.

Master of Arts

All students are expected to complete the following requirements:

1. A total of thirty (30) semester hours in history with twenty-one (21) hours in courses numbered over 600.
2. HIS 710 at its first offering by the department.
3. HIS 725 and HIS 726 for those concentrating in U.S. History; HIS 730 and an additional seminar for those in European History.
4. HIS 711 or HIS 712 depending on area of concentration.



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5. A reading knowledge of one foreign language.
6. A thesis which will confer six (6) hours credit within the minimum hourly requirements.
7. During the spring semester of the second year, the student will take a comprehensive written examination.

Master of Science

All students are expected to complete the following requirements:

1. A total of thirty (30) semester hours with twenty-one (21) hours of work in courses numbered above 600.
2. HIS 710 at its first offering by the department.
3. HIS 725 and HIS 726 or HIS 730 and an additional European seminar depending upon area of concentration.
4. HIS 711 or HIS 712 depending on area of concentration.
5. A thesis (optional).
6. After satisfactory completion of the course work, the student will take a comprehensive written examination.

Fields

The Department of History offers the following areas of concentration for the Master of Arts and Master of Science degrees:

- I. United States History
- II. European History
(This area may include Continental European History or British History)
- III. Latin American History
- IV. Asian History

All M.A. students and M.S. students must, on the comprehensive examination, demonstrate proficiency in one primary area of concentration and one secondary area. Two members of the examining committee will represent the primary area and one member will represent the secondary area. United States History and European History may be selected as either primary or secondary areas. Latin American and Asian History may be selected only as a secondary areas. The nature and scope of the material to be included from each area will be determined by the graduate committee.

The M.A. student should successfully complete fifteen (15) hours of course work in the primary area and six (6) hours in the secondary area in addition to History 710 and the six hours of thesis work.

The M.A. thesis must be written in the primary area of concentration. A student may write a thesis in Latin American and Asian History if permission to do so is granted by the department.

The M.S. student should take eighteen (18) hours of course work in the primary area and nine (9) hours in the secondary area in addition to History 710.

Students planning to pursue a doctoral degree must write a thesis and should enroll in the M.A. program.

Master of Arts or Master of Science, International Studies Concentration

This program is intended for graduate students in history with an international studies orientation. Students must complete the following requirements:

1. Successful completion of thirty-six (36) semester hours with eighteen (18) hours in history and eighteen (18) in political science, as follows:
 - a. Twelve (12) hours of core courses: HIS 710, HIS 725, HIS 726, or HIS 730; PS 730; and PS 731.
 - b. The remainder of course work selected from the following: HIS 732, HIS 733, HIS 734, HIS 772, HIS 774, HIS 711 or 712, PS 504, PS 508, PS 521, PS 531, PS 532, PS 535, PS 585, PS 721, and PS 750.
 - c. With the approval of the graduate adviser, students may earn up to nine (9) hours in relevant 500-level history courses and may earn six (6) hours through study abroad programs.

2. Students seeking a Master of Arts degree must write a thesis, which will confer six (6) hours of credit within the minimum hourly requirements.
3. A reading knowledge of one foreign language.
4. The student's graduate committee will consist of two members from the history department and one member from the political science department..
5. During the spring semester of the second year, the student will take a comprehensive written examination.

Master of Arts or Master of Science, Military History Concentration

This program is intended for graduate students in history with a military history orientation. Students must complete the following requirements:

1. Successful completion of thirty (30) semester hours as follows:
 - a. Nine (9) hours of core courses: HIS 710, HIS 725, HIS 726, or HIS 730, and HIS 711 or HIS 712.
 - b. The remainder of course work selected from the following: HIS 515, HIS 516, HIS 517, HIS 521, HIS 530, HIS 533, HIS 534, HIS 544, HIS 558, HIS 563, HIS 541, HIS 566, HIS 573, HIS 543, HIS 734, and HIS 736.
2. Students seeking a Master of Arts degree must write a thesis, which will confer six (6) hours of credit within the minimum hourly requirements.
3. A reading knowledge of one foreign language.
4. During the spring semester of the second year, the student will take a comprehensive written examination.

Dual Master's in History and Library and Information Science

In cooperation with the School of Library and Information Science, the Department of History offers a combined program leading to two master's degrees: Master in Library and Information Science and Master of Arts in History. Students will pursue both degrees simultaneously, and neither degree will be awarded until the entire program is completed. Students who withdraw from the Dual Master's program in favor of one of the two disciplines will be bound by the degree requirements of that discipline. The combined program includes thirty (30) hours in library and information science and twenty-four (24) hours in history for a total of fifty-four (54) hours. Students in the combined program must complete the following requirements:

1. Thirty (30) hours in library and information science.
2. Twenty-four (24) hours in history, at least eighteen (18) of which must be in courses at the 600 level or above.
3. HIS 710 at its first offering by the department.
4. HIS 725, HIS 726, or HIS 730.
5. One of the following seminars: HIS 711, 712, 732, or 745.
6. A reading knowledge of one foreign language.
7. A thesis which will confer six (6) hours credit, three in history and three in library and information science.
8. A comprehensive written examination administered by a three-member committee representing both disciplines and given after satisfactory completion of the course work.

Students should refer to the Library and Information Science section of this bulletin for further details.

Doctoral Program

Admission Requirements

The department requires a minimum grade point average of 3.5 on all graduate work and a combined score of 1,050 on the verbal-quantitative portion of the GRE General test. Exceptions to these requirements may be made for those students who have received Master of Arts degrees from the University of Southern



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Mississippi, provided they receive a unanimous recommendation by their Master of Arts committee and approval by a majority of the members of this department. Students so accepted will be classified "conditional," which status is removed by achieving a 3.5 average in twelve (12) hours work during the first two semesters. All applicants are also required to submit at least three letters of recommendation, a statement of career objectives (500 to 1,000 words), and an example of written work (up to 20 pages). Members of all underrepresented groups are strongly encouraged to apply.

A minimum of eighty-four (84) semester hours of course credit beyond the baccalaureate degree, which includes HIS 710, HIS 711 or 712, HIS 725, HIS 726, HIS 730, an additional 700-level course in European history, and two further courses at 600 level or higher, must be taken by all students. All doctoral students will take a qualifying examination during their second semester of residence.

Major and Minor Requirements

The department offers the Doctor of Philosophy degree in U.S. History and in European History Since 1789. Candidates seeking a doctorate in U.S. History must demonstrate proficiency in all of American History. In addition, they must demonstrate proficiency in one of the following fields of European history: Medieval, Early Modern Europe, Europe 1789-1870, or Europe Since 1870. Doctoral candidates in U.S. History must also demonstrate proficiency in one of the European fields not selected above, or a specialized field such as Russian History or Latin America. For the second minor field, they may also develop an outside minor of twelve (12) semester hours in one of the social sciences or humanities.

Candidates seeking a doctorate in European History must major in the period of Europe Since 1789. They must demonstrate proficiency in either U.S. History to 1877 or U.S. History Since 1877. Doctoral candidates in European History are also required to demonstrate proficiency in one of the American fields not selected above, or a specialized field such as Russian History or Latin America. An outside minor of twelve (12) semester hours in one of the social sciences or humanities may also be developed for the second minor field.

Minor fields are selected after consultation with the candidate's major professor and graduate committee.

Language Requirement

Each prospective candidate for the doctoral degree must demonstrate proficiency in two foreign languages. Students should have already completed one of the foreign language requirements prior to admission into the Ph.D. program. The second language must be completed by the time of the comprehensive exams.

Doctoral Committee:

The student's program will be directed by a five-member graduate committee, consisting of three persons from the major field and two from the minor fields. This committee will approve the dissertation prospectus and conduct the comprehensive examination, which is normally administered during the third year of study. Additional details are available from the Department of History.

Dissertation

A dissertation is expected to be a mature and competent piece of writing, embodying the result of significant and original research on a subject chosen by the candidate and approved by the major professor and the graduate committee.

Upon completion and approval of the dissertation, the candidate is expected to stand satisfactorily an examination on the dissertation and the field in which the dissertation lies.

Department of Philosophy and Religion

Forrest E. Wood, Chair
Hattiesburg, MS 39406-5015
(601) 266-4518

The Department of Philosophy and Religion offers a course of study leading to the Master of Arts degree with a major in Philosophy, and a graduate minor in either Philosophy or Religion.

Master's Degree Program

Requirements for Regular Admission to the Master's Program

In evaluating applications, the department utilizes the following criteria: (a) Submission of scores from the Graduate Record Examination, (b) Undergraduate Record and letters of recommendation. Generally,

applicants have above a 3.0 on their grade point average. The department considers the trends of the grades and specifically the grades in philosophy. Applicants are encouraged (but not required) to submit a writing sample.

In addition to the criteria for regular admission, students whose native language is not English must also score at least 550 on the TOEFL examination. The department presumes that applicants who have fulfilled these requirements possess an adequate knowledge of written and spoken English. If, upon the student's arrival at the university, it is determined that he or she does not possess an adequate command of English, the department reserves the right to require appropriate remedial courses.

Students determined to have deficiencies in their undergraduate program will be required to remedy the deficiencies.

Members of all underrepresented groups are strongly encouraged to apply.

Requirements for Conditional Admission to the Master's Program

In exceptional cases, students may be admitted conditionally. Such students must make grades of B or better on the first nine (9) hours of graduate course work taken in order to qualify for regular admission.

Curriculum Requirements

In addition to the general admission and academic requirements for all graduate programs as set forth in this **Bulletin**, candidates for the Master of Arts degree with a major in Philosophy may choose either the research thesis option or the applied thesis option:

A. Research Thesis Option

1. A total of thirty (30) semester hours of credit, with at least eighteen (18) hours of that work in courses numbered 600 and above.
2. A research thesis, for which the student receives six (6) hours credit toward the thirty (30) total required hours.
3. A comprehensive examination, normally taken after the completion of all formal course work but before the thesis is officially begun. The comprehensive examination is intended to test the student's general competence in philosophy.
4. An oral examination on the completed thesis. During the oral examination, the student will be expected to be able to explain and defend the ideas presented in the thesis.
5. A reading knowledge of one foreign language.
6. Optional Minor: With the approval of the director of graduate studies, a student may have a minor (including religion), consisting of nine (9) semester hours in a (single) field which is related to the student's philosophical interests. Three (3) semester hours of that minor may then be counted toward the thirty (30) total required hours.

B. Applied Thesis Option

1. A total of thirty-three (33) semester hours of credit with at least eighteen (18) hours in courses numbered 600 and above.
2. An applied thesis which demonstrates the application of philosophical thought to a specific issue, problem or debate. The student will receive six (6) hours of credit for this applied thesis.
3. After satisfactory completion of the course work, the student must take a comprehensive examination.
4. An oral exam must be taken on the completed applied thesis.
5. A reading knowledge of one foreign language.
6. Optional Minor: With the approval of the director of graduate studies, a student may have a minor (including religion), consisting of nine (9) semester hours in a (single) field which is related to the student's philosophical interests. Three (3) semester hours of that minor may then be counted toward the thirty (33) total required hours.

Liberal Arts
Philosophy & Religion

Department of Political Science

Ronald G. Marquardt, Chair
Hattiesburg, MS 39406-5108
(601) 266-4310

Master's Degree Program

Requirements for Regular Admission to the Master's Program

The Department of Political Science utilizes the following criteria for evaluating applicants to the Master's program:

1. The department prefers that applicants to the program have an undergraduate degree in political science. However, the applications of students who have an undergraduate degree in another discipline and who have nine or more hours of undergraduate coursework in political science with an average on those courses of 3.0 (on a 4.0 scale) will be considered.
2. The cumulative undergraduate grade point average (GPA) from all institutions attended as well as trend of grades over the course of the undergraduate degree program is considered. The department looks especially at the final two years of an applicant's undergraduate program. Recently, most of those applicants who have been accepted into the program have had a GPA during the final two years of 2.75 to 3.25 (on a 4.0 scale).
3. Applicants must take the **Graduate Record Examination** (GRE) before they can be admitted to the master's program. The department looks for applicants who have a good balance between the verbal and quantitative parts of the GRE. For scores of recent successful applicants, refer to the back of this Bulletin
4. Members of underrepresented groups are encouraged to apply.
5. Applicants who do not meet the criteria for regular admission may, at the department's discretion, be given conditional admission to the program. The requirements for removing the conditional status will be stated at the time of admission.

Master of Arts

Requirements for the Master of Arts degree include thirty (30) semester hours of course work, including a thesis. A reading knowledge of one foreign language is also required.

Master of Science

Requirements for the Master of Science degree include: thirty-six (36) hours of course work. A thesis is optional.

Master of Science, Concentration in Public Law and Administration

Requirements include twenty-seven (27) hours of course work in political science, a minor of nine (9) hours in a related discipline, and a comprehensive examination in three fields of Political Science.

Master of Science, Concentration in Comparative and International Politics

Requirements include twenty-seven (27) hours of course work in political science, a minor of nine (9) hours in history, and a comprehensive examination in three fields of Political Science. A thesis is optional.

Course Requirements in the Major

Graduate students who expect to receive the Master of Arts degree will select three fields in Political Science in which to concentrate their course work. Graduate students who expect to receive the Master of Science degree should, select an outside minor, with the advice and consent of their committee.

The fields of Political Science and the courses in each field are:

Political Theory and Methodology
511, 512, *520, 521, 525, 721

American Government and Politics
501, 502, 504, 505, 506, 507, 508, 509, 700, 710

International Relations

531, 532, 535, 730, 731

Comparative Government and Politics

550, 551, 552, 556, 557, 558, 559, 597, 750

Public Administration

571, 572, 573, 574, 770

Public Law

580, 581, 582, 584, 585, 588, 589, 781

*Required of all graduate students

Comprehensive Examination

A comprehensive examination will be given at or near the end of the course work in the three fields of concentration.

Department of Speech and Hearing Sciences

Stephen E. Oshrin, Chair
Hattiesburg, MS 39406-5092
(601) 266-5216

The Department of Speech and Hearing Sciences offers programs leading to the Master of Arts and the Master of Science degrees. Emphasis is possible in three principal areas: (1) speech-language pathology, (2) audiology, and (3) education of the deaf.

New students are accepted by the Department of Speech and Hearing Sciences for the master's program in Speech-Language Pathology, Audiology, or Education of the Deaf prior to each registration period. Students must have regular admission status to register for practicum courses.

Non-degree students are not permitted to register for courses in Speech and Hearing Sciences without permission.

Potential graduate students should refer to other sections of the **Bulletin** for information regarding admission requirements as set forth by the Graduate School. Regular admission to the master's programs is based upon the previous academic records, submission of scores on the **Graduate Record Examinations**, and recommendations. The size of the graduate program is limited by accreditation standards and admission is made on a competitive basis. The average grade point average of successful students (on a 4.0 scale) has been 3.59 for the last two years of undergraduate study, with a range of 3.21-3.92.

Students who do not qualify for regular admission may be admitted on conditional status if space allows. Conditional students are required to take additional coursework for graduation. In addition, a student whose initial admission is on a conditional or non-degree basis may register for no more than one hour of clinical practicum during any semester of their graduate program. Conditional students whose grade point average is less than 3.0 after the first nine (9) hours will be dropped from the program.

A major in speech-language pathology at the master's level requires a minimum of fifty-four (54) semester hours, while a major in audiology at the master's level requires a minimum of forty-five (45) semester hours. The Master of Arts degree in speech-language pathology requires a thesis, four semester hours of clinical practicum, no less than twelve three semester hour courses, and the successful completion of a comprehensive examination. The master's comprehensive examination is the National Examination in Speech-Language Pathology and Audiology; the passing score for this year is 600. The Master of Science degree in speech-language pathology requires four semester hours of clinical practicum, no less than 15 three semester hour courses, and the successful completion of a comprehensive examination. The Master of Arts degree in audiology requires a thesis, three semester hours of clinical practicum, no less than nine three semester hour courses, and the successful completion of a comprehensive examination. The Master of Science degree in audiology requires three semester hours of clinical practicum, no less than 11 three semester hour courses, and the successful completion of a comprehensive examination.

Master's Degree with Emphasis in Audiology

The master's degree with an emphasis in audiology is a clinical degree designed to meet the academic and practicum requirements for the Certificate of Clinical Competency in Audiology awarded by the American Speech-Language-Hearing Association. The following courses are required: SHS 528, 601, 621, 623, 625, 688, 698 or 692, 701, 722, 723, 724, 726.



Master's Degree with Emphasis in Education of the Deaf

The program leading to the master's degree with an emphasis in education of the deaf is individualized to the needs of the student. Specialization in education of the deaf may be pursued in a number of areas including pre-primary, elementary (grades 1-8), secondary, secondary special subject, or a specialty area. Selection of specialization areas is governed by the candidate's background, interests, and employment objectives.

The master's degree program enables a student to qualify academically for a master's degree teaching certificate. However, some states may impose other requirements prior to an individual's obtaining compensation at the master's level. Mississippi requires a teacher to have two years of experience before being compensated at the master's degree level; thus a person holding a master's degree but with no teaching experience must be paid at the bachelor's level until two years' experience has been obtained.

Requirements differ from state to state and it is the responsibility of the student to be aware of these differences.

Master's Degree with Emphasis in Speech-Language Pathology

The master's degree with emphasis in speech-language pathology is a clinical degree designed to meet the academic and practicum requirements for the Certificate of Clinical Competence in Speech-Language Pathology awarded by the American Speech-Language-Hearing Association. The following courses are to be taken by candidates for the master's degree in this emphasis area: SHS 513, 516, 518, 519, 601, 642, 643, 644, 646, 648, 650, 687, 694, and/or 695, 702, 712, 716, 719.

A student in speech-language pathology or audiology must complete practicum in three different settings. Off-campus sites must be approved by the faculty adviser, and students must have a minimum grade point average of 3.0 before beginning off-campus practicum.

Accreditation

The master's degree programs in Speech-Language Pathology and Audiology are accredited by the Educational Standard Board, and the USM Speech and Hearing Clinic is accredited by the Professional Standards Board. Both accreditations are by the American Speech-Language-Hearing Association, and are recognized by the Council on Post-Secondary Accreditation and the U.S. Office of Education.

The master's degree program with emphasis in Education of the Deaf is certified by the National Council for Accreditation of Teacher Education (NCATE). This certification is reciprocal among approximately 40 states.

Admission Requirements for International Students

In addition to meeting the requirements for admission stated in this **Bulletin**, international students are required to submit a TOEFL score of 560 and submission of scores from the **GRE**.

College of Nursing

Graduate Degrees

1998-1999

School	Major	Degree
	Nursing	Master of Science in Nursing
	Nursing	Doctor of Philosophy

Nursing

College of Nursing

Gerry Cadenhead, Dean
Pat Kurtz, Graduate Program Chair
Hattiesburg, MS 39406-5095
(601) 266-5639

Mission

The College of Nursing provides educational programs to prepare professional practitioners in the discipline of nursing for diverse populations; promotes service activities to the community, nursing profession, and University; and fosters research and scholarly activities to expand nursing knowledge and practice. The curricula prepare the beginning generalist in professional nursing and the advanced practitioner for leadership in health care systems.

The faculty envision the College of Nursing as an academic entity in which a diversified body of undergraduate and graduate students are prepared as expert nursing professionals and are able to think critically and provide leadership at various levels in their fields of practice. The College is viewed as a center for the development of new knowledge and improved forms of practice for nursing.

The faculty envision that the College of Nursing of The University of Southern Mississippi will be distinguished as

1. a statewide and regional center for nursing education, practice expertise, and leadership;
2. a center of academic excellence grounded in the most innovative nursing education and the most advanced research;
3. a provider of regional health initiatives to promote and maintain the health care of citizens; and
4. a center of doctoral education in nursing for the state.

Organization and Administration

The College of Nursing offers programs at three sites- Hattiesburg, the Gulf Coast, and Meridian. The Dean of the College of Nursing is responsible for the implementation of programs on all sites. There is a campus coordinator at Meridian and the Gulf Coast who coordinate scheduling and student admission and advisement at these sites. The Graduate Program Chair is responsible for admission and advisement of graduate students on the Hattiesburg campus.

Master of Science in Nursing Degree Program

The College of Nursing offers the Master of Science in Nursing (MSN) degree with specialization in Adult Health Nursing, Community Health Nursing, Family Nurse Practitioner, Nursing Service Administration and Psychiatric Nursing.

The purposes of the master's program in nursing are to provide advanced study in nursing practice and role development and to provide a foundation for doctoral study.

Admission Requirements

The College of Nursing adheres to the University policies with regard to the admission of graduate students. In a limited number of cases, conditional admission may be granted to applicants who do not meet the minimum requirements. Members of all under represented groups are strongly encouraged to apply. In addition to meeting The University requirements for admission to graduate study, the master's program applicant must have:

1. graduated from a baccalaureate program accredited by the National League for Nursing Accrediting Commission or the Commission on Collegiate Nursing Education,
2. a 3.0 Grade Point Average (GPA) in undergraduate nursing courses,
3. completed an introductory course in statistics,
4. physical assessment skills,
5. submitted scores on the verbal and analytical sections of the Graduate Record Examinations (GRE),
See the range of scores for successful applicants in the back of this bulletin.
6. registered nurse (RN) license and experience as an RN,
7. proof of immunization against the Hepatitis B virus,

- 8. current Cardio-pulmonary resuscitation (CPR) certificate,
- 9. a yearly tuberculosis (TB) skin test, and
- 10. proof of a recent health examination.

Exceptions to the above criteria must be approved by the Chair of the Graduate Program, the Dean of the College of Nursing, and the Dean of the Graduate School.

In addition to the above requirements, students who select the Family Nurse Practitioner Program must also

- 1. submit a letter of application to the College of Nursing Graduate Admissions Committee by March 1 for consideration for the fall class and
- 2. submit three letters of reference, one from an employer, referring to the applicant's potential for a position as a nurse practitioner.

Academic Progression

A student must maintain a 3.0 grade point average each semester and may not earn more than one grade of C in one course in the program of study. Failure to meet this requirement will result in denial of progression in the graduate nursing program. Students enrolled in any laboratory course must adhere to agency guidelines and must maintain their nursing license to practice throughout the program of study. Students must purchase liability insurance through The University. The insurance fee will be charged for each semester the student is enrolled in a clinical course at the time of registration.

Curriculum

Forty-five(45) to fifty-five(55) credit hours are required to complete the program: 24 hours in the core and 21 to 31 hours in the area of emphasis, including clinical courses, guided electives, and support courses.

Depending upon enrollment and resources, all nursing emphases may not be available at the Hattiesburg, Gulf Part, and Meridian campuses.

Emphasis Areas

Students may select from the following emphasis areas:

Adult Health Nursing

Required courses: NSG 646, 647, 648/648L, 640/640L, 641/641L

Community Health Nursing

Required courses: NSG 621, 622/622L, 623/623L, and electives

Family Nurse Practitioner

Required courses: NSG 646, 647, 648/648L, 661/661L, 662/662L, 663/663L, 664L, MTC 601

Upon graduation, students are eligible to sit for the national certification examinations.

Nursing Service Administration

Required courses: NSG 612, 618/618L, 619, 679L, and electives

Psychiatric Nursing

Required courses: NSG 631, 632/632L, 633/633L, and electives

Core Courses:	Hours
Graduate Level Statistics Course	3
NSG 600 Issues in Nursing and Health Care	3
NSG 601 Theory Development in Nursing	3
NSG 603 Nursing Research I	3
NSG 604 Nursing Research II	3
NSG 613 Advanced Practice Role	3
NSG 698 Thesis or NSG 691 Project and Elective	6

Master of Science in Nursing for Graduates of Diploma and Associate Degree Programs

In keeping with its commitment to excellence and leadership in nursing, the College of Nursing offers a Master of Science in Nursing degree designed for nurses holding an Associate Degree (ADN) or a Diploma in Nursing. ADN or Diploma nurses may complete the degree requirements in two to two and



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one half (2-2 1/2) years of full time study. With this plan, students do not receive the Baccalaureate degree, but after completing prerequisites they may proceed with the graduate level courses. Students may elect to pursue the program of study on a part time basis. Students select an emphasis area on admission.

Admission Requirements

1. an Associate Degree or Diploma in Nursing from a program accredited by the National League for Nursing Accreditation Commission or the Commission on Collegiate Nursing Education
2. evidence of a Registered Nurse License
3. one year of clinical experience
4. an overall GPA of 2.75 in courses required for admission
5. a minimum of a C grade in each course applicable to the nursing curriculum (only one natural science course may be repeated once)
6. a GPA of 3.0 in all nursing courses
7. completion of the NLN Nursing Mobility Profile II exams to validate 30 hours of lower division nursing courses
8. proof of immunization against Hepatitis B virus
9. proof of recent health examination
10. tuberculosis skin test yearly
11. current CPR certification
12. submission of scores on the verbal and analytical sections of the Graduate Record Examinations (GRE); see range of scores for successful applicants in the back of this bulletin
13. admission to the Graduate School

Program Requirements

The generic Master of Science in Nursing degree requires a minimum of 94 undergraduate credit hours that include 30 hours of credit for Nursing Validation Exams. The student must also complete 23 hours of upper division nursing course with a GPA of 3.0 or better. Students declare their emphasis area at the time of admission to the program. All candidates for the degree must complete a minimum of 45 semester hours of course work leading to the Master of Science in Nursing Degree. Students seeking admission to the Family Nurse Practitioner Program must meet the additional requirements for admission and complete a minimum of 55 semester hours of course work. Academic progression policies are the same for all master's degree students.

The students must complete the entire program of study in order to receive a degree.

Financial Assistance

Traineeships/scholarships may be available from federal and state funding sources depending on the selected area of study and availability of funding in any given year. Financial assistance also is available from the Financial Aid Office of The University. Funding resources are subject to change, and payback clauses may be part of the funding agreement.

Interdisciplinary Minor in Gerontology:

The College of Nursing participates in the Interdisciplinary Gerontology Minor offered with the College of Health and Human Sciences. A designated faculty advisor in the College assists interested students in completing the requirements for that minor. Specific requirements and courses available for the minor can be found in the Health and Human Sciences section of this **Bulletin**.

Doctor of Philosophy Degree

The purpose of the doctor of philosophy degree in nursing is to prepare scholars with expertise in selected, substantive areas who will contribute to the science and practice of nursing through systematic inquiry and theory development. Graduates will be prepared to meet state, regional, and national needs for doctorally prepared faculty in schools of nursing and other leadership positions in health related organizations.

The College has a collaborative program with the University of Mississippi Medical Center School of Nursing. Each University grants its own degree, but there are common admission requirements and a common core of courses which may be taken on either campus. Each institution has different, selected fields of study.

Admission Criteria

Application for admission to the program must be completed by March 1 of the year students seek fall admission. Students will be selected for admission to the program based on the following criteria:

1. Graduation from a Master's program in nursing with a practice focus accredited by the National League for Nursing Accreditation Commission or the Commission on Collegiate Nursing Education,
2. evidence of professional nursing experience,
3. evidence of current licensure to practice professional nursing,
4. three letters of reference, including two from doctorally prepared nurses and one from a current or recent employer, that speak to the applicant's intellectual ability, academic potential, and professional achievement,
5. evidence of communication skills,
6. an acceptable grade point average on all previous graduate work,
7. satisfactory scores on the verbal, quantitative, and analytical sections of the Graduate Record Examinations (GRE) and
8. an interview (personal or telephone) with one or more faculty members.

Academic Progression

A series of examinations and procedures mark the student's progression in the Ph.D. program.

1. A Qualifying Examination administered to determine that the student has the qualities necessary to complete the program and to plan an individualized program of study. The exam will be given between the sixth and tenth week of the first semester of study,
2. A Comprehensive Examination administered after all course work has been completed,
3. Selection of a dissertation committee which will oversee the student's work toward the degree,
4. Final Oral Examination (dissertation defense) which covers the dissertation research and related fields is administered at the completion of the dissertation,
5. Fulfillment of the residency requirement by the completion of 18 semester hours of continuous graduate study on the Hattiesburg campus within two consecutive semesters (at least 9 semester hours each semester), which may include a full summer session, and
6. Fulfillment of The University language requirement.

Curriculum

Common Core—14-15 Semester hours

Course	Semester Hours
Philosophy of Science	3
Theory Development	3
Quantitative Research Designs	3
Qualitative Research Designs	3
Advanced Statistics	2-3

USM College of Nursing Core

(in addition to the common core) 18 Semester Hours

Course	Semester Hours
Theory Development II	3
Advanced Statistics	3
Instrument Development and Analysis	3
Commonalities in Ethics	3
Commonalities in Leadership	3
Commonalities in Policy Analysis	3

Fields of Study

Students may select one of the three major fields of study: ethics, leadership, or policy analysis from which to complete 24 semester hours of study. Students will register for 9-12 semester hours in their fields of study and 12-15 hours of courses that will support their fields of study from other schools and departments in the University.

A total of 12 semester hours is allotted for the Dissertation research. Each semester the student is enrolled in non-nursing courses, the student must also enroll in NSG 792 (Special Topics in Nursing Commonalities) for one semester hour.

College of Science and Technology

Graduate Degrees 1998-1999

Department	Major	Degree
Master's Level		
School of Engineering Technology	Engineering Technology	Master of Science
Biological Sciences	Biological Sciences	Master of Science
	Biological Sciences Emphasis	
	Environmental Biology Emphasis	
	Marine Biology Emphasis	
	Microbiology Emphasis	
Chemistry and Biochemistry	Chemistry	Master of Science
	Chemistry Emphasis	
	Biochemistry Emphasis	
Computer Science and Statistics	Computer Science	Master of Science
	Computer Science Emphasis	
	Computational Science Emphasis	
Geology	Geology	Master of Science
	Geology Emphasis	
Mathematics	Mathematics	Master of Science
	Mathematics Emphasis	
	Computational Science Emphasis	
Medical Technology	Medical Technology	Master of Science
Physics and Astronomy	Physics	Master of Science
	Physics Emphasis	
	Computational Science Emphasis	
Polymer Science	Polymer Science	Master of Science
	Polymer Physics Emphasis	
Science Education	Science Education	Master of Science
	Biology Education Emphasis	
	Chemistry Education Emphasis	
	Earth Science Education Emphasis	
	Physics Education Emphasis	

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Department	Major	Degree
Doctoral Level		
School of Mathematical Sciences	Scientific Computing	Doctor of Philosophy
Biological Sciences	Biological Sciences	Doctor of Philosophy
	Biological Sciences Emphasis	
	Environmental Biology Emphasis	
	Marine Biology Emphasis	
	Microbiology Emphasis	
Chemistry and Biochemistry	Molecular Biology Emphasis	
	Chemistry	Doctor of Philosophy
	Chemistry Emphasis	
Polymer Science	Biochemistry Emphasis	
	Polymer Science	Doctor of Philosophy
Science Education	Science Education	Doctor of Education
		Doctor of Philosophy
	Biology Education Emphasis	
	Chemistry Education Emphasis	
	Computer Science Emphasis	
	Earth Science Education Emphasis	
	Mathematics Emphasis	
Physics Education Emphasis		



College of Science and Technology

Stephen A. Doblin, Dean
C. Howard Heiden, Associate Dean
R. D. Ellender, Associate Dean
Hattiesburg, MS 39406-5165
(601) 266-4883

The College of Science and Technology offers degrees as outlined on the previous two pages. Please check each department/school section for specific admission, course, and graduation requirements as well as for descriptions of areas of specialization. In addition, present and prospective students should consult earlier sections of this Bulletin for the general Graduate School requirements and regulations that apply to all graduate programs and degrees.

The Center for Science Education, in cooperation with the Departments of Biological Sciences, Chemistry & Biochemistry, Computer Science & Statistics, Geology, Mathematics, and Physics & Astronomy offers the M.S., Ed.D., and Ph.D. degrees in Science Education with areas of specialization as indicated in the college's graduate degrees listing. These units also cooperate with the College of Education and Psychology to offer the course work to support the M.Ed. and Ed.D. in Secondary Education with various science and mathematics specialization areas.

The College offers an interdisciplinary minor in Environmental Science. Interested students may obtain a listing of the available courses from the chair of their department or graduate committee.

The faculty of the College of Science and Technology have organized numerous specialized centers and institutes, several of which address interdisciplinary issues. Brief descriptions of the principal ones follow.

Center for Coal Product Research

David L. Wertz, Director
Hattiesburg, MS 39406-5043
(601) 266-4701

The Center for Coal Product Research (CCPR) was organized in 1985. It exists as a loose group of university scientists whose specialties range across the spectrum of coal science from microbiology to analytical chemistry. Coal product characterization research has been the constant theme in the Center. CCPR is now collaborating with scientists at several national laboratories and offers the X-ray characterizations as well as chromatographic and mass spectral analysis, environmental electron microscope analysis, surface area analysis, microbial beneficiation, and toxic metals studies. CCPR has been used effectively by the Mississippi Research Consortium (MRC) to secure U.S. Department of Energy funds for graduate traineeships.

Center for Macromolecular Photochemistry and Photophysics

David Creed, Coordinator
Hattiesburg, MS 39406-5043
(601) 266-4714

This Center was established in 1992 to promote closer cooperation and synergism amongst those faculty interested in the technologically important area of polymer photochemistry. The Center has mainly a coordinating function, particularly in such activities as inviting visiting speakers to the campus, continuing a program of in-house seminars and research discussions, promoting ties with industry, facilitating cooperative research projects, and purchasing and maintaining common research equipment. In 1995, the Center received funding from the National Science Foundation EPSCoR program for development activities including support of student research and visits by external seminar speakers and consultants. Faculty from the Department of Chemistry and Biochemistry, Polymer Science, and Physics and Astronomy currently participate in Center activities.

Center for Molecular and Cellular Biosciences

Glen Shearer, Coordinator
Hattiesburg, MS 39406-5018
(601) 266-4722

The Center is composed of scientists with expertise in the disciplines of biochemistry, microbiology, molecular biology and molecular genetics. The Center facilitates research in these areas by means of a weekly Journal Club, which reviews the current literature, and the Distinguished Scientists Seminar Series, which brings world-renowned researchers to the Hattiesburg campus. In addition, the Center provides a forum for interaction among graduate and undergraduate students working in the laboratories of the participating faculty. Faculty currently associated with the Center are members of the Department of Biological Sciences or the Department of Chemistry and Biochemistry.

Institute for Formulation Science

Robert Y. Lochhead, Director
Hattiesburg, MS 39406-0076
(601) 266-4868

The Institute for Formulation Science supports and coordinates research in formulation science. The Institute is an integral part of the College of Science and Technology and functions in concert with the Department of Polymer Science.

Mississippi Polymer Institute

Robert K. Schlatter, Director
Hattiesburg, MS 39406-0003
(601) 266-4607

The Mississippi Polymer Institute was authorized by the Mississippi Legislature in 1983. The purpose of the Institute is to conduct research designed to support the rapidly growing polymer industry in Mississippi by building the infrastructure and providing technical assistance. The Institute is an integral part of the College of Science and Technology and functions in concert with the Department of Polymer Science.

School of Engineering Technology

R. A. Cade, Director
Hattiesburg, MS 39406-5137
(601) 266-4895/4896

Master of Science in Engineering Technology

The School of Engineering Technology offers a program leading to the Master of Science in Engineering Technology with specialization in Construction, Electronics/Computer Systems, and Industrial/Manufacturing Technology. The degree can be obtained through research thesis, significant project, or coursework options. Advanced study in industrial use of computers includes Computer Aided Drafting (CAD), Computer-Aided Manufacturing (CAM), Computer Integrated Manufacturing (CIM), construction scheduling and estimating, and robotics. Electronics and computer systems courses focus upon the introduction and implementation of state-of-the-art technology. Students are encouraged to develop degree plans which include technical electives in management, computer science, mathematics, environmental science, and related academic disciplines to prepare themselves for leadership roles in high technology industries.

Admission Requirements

For regular admission, students must have an undergraduate degree from an ABET accredited program or from a closely related program. Students must submit test scores from the Graduate Record Examinations (GRE) or Graduate Management Admission Test (GMAT). Students whose native language is not English must achieve a TOEFL score of 575 or more.

Conditional admission may be granted to students who do not meet requirements for regular admission. Students admitted on a conditional basis may be required to complete additional course work and must have a minimum GPA of 3.0 on the first nine hours of graduate courses prior to being granted regular admission.

Program Requirements

In addition to the degree requirements established by the Graduate School, students earning the Master of Science in Engineering Technology must satisfy the degree requirements listed below.

- 1) Students must select a degree option (thesis, project, or coursework) and develop a degree plan to be approved by a faculty adviser and the School of Engineering Technology Graduate Coordinator prior to the completion of more than nine hours of graduate work.
 - (a) **Thesis Option:** The thesis is intended to be a scholarly piece of research designed to expand the student's education in an area of engineering technology. This research must be conducted and defended before the student's graduate committee, and the final thesis report accepted by the USM Graduate Reader and the USM Graduate School. The thesis, when completed, receives six (6) graduate hours. The thesis option requires 30 hours total: 12 hours of core courses, 6 hours of thesis, and 12 additional hours. Students who elect to prepare a thesis should enroll in ENT 691, ENT 697, and ENT 698. Students are strongly encouraged to publish their work in engineering technology journals. (30 hours)
 - (b) **Project Outline:** The project is also intended to be a scholarly piece of research. The project must be conducted, written up, and defended before the student's graduate committee. The project is worth 3 graduate hours. The project option requires 33 hours total: 12 hours of core courses, 3 hours of project, and 18 additional hours. Students who select the project option should enroll in ENT 699 for project credit. Students are strongly encouraged to present their project work at engineering technology conferences. (33 hours)
 - (c) **Coursework Option:** The coursework option requires 36 hours total: 12 hours of core courses and 24 additional hours. (36 hours)
- 2) Students must satisfactorily complete the following School of Engineering Technology core courses:

ENT 610—Advanced Quality Assurance	(3 hours)
ENT 620—Advanced Computer Applications in Engineering Technology	(3 hours)
ENT 640—Resources in Engineering Technology	(3 hours)
ENT 650—Advanced Design Systems in Engineering Technology	(3 hours)
- 3) During the first year of graduate study, students must select a Graduate Committee comprised of three member of which two must be members of the graduate faculty of the School of Engineering Technology.
- 4) Students must perform satisfactorily on a comprehensive examination which is required for graduation. This exam is normally administered during the final semester of graduate work.
- 5) Students must maintain a cumulative GPA of 3.0 based on all graduate courses completed.

School of Mathematical Sciences

Grayson H. Rayborn, Director
Hattiesburg, MS 39406-5165
(601) 266-4739

The School of Mathematical Sciences comprises the Departments of Computer Science and Statistics, Mathematics, and Physics and Astronomy. In addition to the degree programs offered by the departments separately, they cooperate through the School of Mathematical Sciences to offer master's degrees with emphasis in computational science and, at the Stennis Space Center, the Doctor of Philosophy in Scientific Computing.

Master of Science Program—Emphasis in Computational Science

Students seeking this emphasis for a M.S. degree from any of the three participating departments will complete the common core by taking three of the four courses from each of the following departmental offerings:

Computer Science and Statistics

- CSC 513 Algorithms
- CSS 515 Mathematical Statistics I
- CSC 625 Computer Graphics
- CSC 636 Modeling and Simulation

Mathematics

- MAT 560 Numerical Analysis I
- MAT 605 Ordinary Differential Equations
- MAT 606 Partial Differential Equations
- MAT 610 Numerical Linear Algebra

Physics and Astronomy

- PHY 551 Physical Applications of the Fourier Transform
- PHY 555 Fluid Dynamics
- PHY 603 Statistical Physics
- PHY 606 Methods of Mathematical Physics

The student must complete an additional nine (9) semester hours in the department which awards the degree as well as meet other requirements imposed by that department. To determine which nine (9) semester hours are needed and what other degree requirements must be met, the student should consult the department from which he or she wishes to receive the degree.

Doctor of Philosophy in Scientific Computing

Michael Mascagni, Coordinator
Hattiesburg, MS 39406-10057
(601) 266-6516

Admission Requirements

Students expecting regular admission to the program should hold a bachelor's or master's degree in computer science, mathematics, physics, or a closely related field and possess a grade point average of at least 3.5 on all graduate work attempted. Prospective students should submit scores from the General section of the Graduate Record Examination.

Program Requirements

A minimum of fifty-four (54) graduate semester hours beyond the master's is required for the degree. Students are expected to possess a reasonable proficiency at the undergraduate level in computer science, mathematics, and physics. Students not proficient may be required to take additional courses. All students in the program are required to complete a core curriculum consisting of the following courses:

- SC 710 Computational Methods for Physical Systems
- SC 720 Mathematics for Scientific Computing I
- SC 721 Mathematics for Scientific Computing II
- SC 730 Parallel Algorithms
- SC 740 Seminar (must be taken twice)

Other course requirements depend upon individual needs and are selected with the advice of the student's research director and doctoral committee.

Other Requirements

Students must meet the requirements of the Graduate School of the University of Southern Mississippi. They are required, additionally, to pass a comprehensive examination covering the core curriculum, to submit a formal prospectus (research proposal) that has been approved by the doctoral committee, and to present an acceptable copy of the dissertation to the doctoral committee at least fourteen (14) calendar days prior to the defense of the dissertation. This defense will take place at an advertised research seminar, open to members of the University community.

The Comprehensive and Qualifying Examinations

To remain in good standing in the program each student, upon completion of the core curriculum, must take and pass a comprehensive examination. The examination, which is administered in the spring and fall of each year, consists of three sections covering the three corresponding areas of the core curriculum, and is prepared by a committee of scientific computing faculty. Students must register for the examination two months prior to the examination date and will have one, and only one, additional opportunity to pass the examination, retaking only those sections of the examination which they failed to pass at the first sitting. The opportunity to try the examination a second time must be exercised no later than the corresponding semester in the year immediately following the first attempt. Students failing to pass all sections of the examination after the second try will be dismissed from the program.

The qualifying examination is prepared by each student's graduate committee and is designed to determine whether or not the student is qualified to embark on dissertation research.

Department of Biological Sciences

Frank R. Moore, Interim Chair
Hattiesburg, MS 39406-5018
(601) 266-4748

The Department of Biological Sciences offers graduate degrees with emphases in Environmental Biology, Marine Biology, Microbiology, and Molecular Biology. BSC courses cross-listed as MAR courses are generally taught at the University's Institute of Marine Sciences' Gulf Coast Research laboratory (GCRL) at Ocean Springs, MS. GCRL faculty may function as a student's major professor.

Admission Requirements

Granting of regular admission to the Master of Science degree program or the Doctor of Philosophy degree program is based on several criteria, including but not limited to the following:

- 1) Undergraduate record (grade point average on undergraduate work in biological, chemical, and physical sciences). Regular admission to the Master's Degree Program requires a grade point average of 3.0 or higher on relevant undergraduate courses. Regular admission to the Doctoral Program requires a grade point average of 3.5 or more on all previous graduate work.
- 2) Submission of results from the General section of the Graduate Record Examination.
- 3) A writing sample (essay), stating research interests and career goals (required of both master's and doctoral applicants). The Department will not begin its review of an application until this statement is provided. The statement is used in two ways in the admissions process. It provides a sample of the applicant's writing competency and communication skills, and it provides information concerning the compatibility of the applicant's interests with departmental research interests.
- 4) Letters of recommendation. At least two letters of recommendation are required. Applicants should arrange to have these letters sent to the Graduate School. The Department will not begin its review of an application until letters of recommendation are provided.

Because more qualified applicants are received than can be accepted, admission to the Department's program is very selective.

Conditional admission to Departmental programs is considered only for students who meet Graduate School standards for conditional admission and who are sponsored by a member of the faculty of the Department. The sponsor must provide a written statement indicating willingness to serve as the applicant's major professor.

Applications for admission for the fall and spring semesters will be reviewed by March 15 and September 15, respectively. All applications received after these dates will be considered if space is available, or will be placed in consideration for the next term. Applications for teaching assistantships will be considered beginning March 15.

Master of Science Program

Program Requirements

A minimum of thirty (30) graduate hours is required for this degree. Students must meet the general requirements set forth by the Graduate School of the University of Southern Mississippi. The following are major additional requirements:

- 1) Complete interviews with the Biological Sciences faculty by the end of the first semester.
- 2) Arrange for a major professor or temporary faculty sponsor by the end of the second semester.
- 3) Establish a three-member graduate thesis committee once a major professor and research area are chosen.
- 4) Submit a research prospectus approved by the graduate thesis committee.
- 5) Pass a written and/or oral comprehensive examination.
- 6) Present an acceptable copy of a thesis to the graduate thesis committee ten days prior to a public defense of the thesis at a research seminar presented at an advertised meeting.

Doctor of Philosophy Program

Program Requirements

A minimum of eighty-four (84) graduate hours beyond the bachelor's degree or a minimum of fifty-four (54) graduate hours beyond the master's degree is required. Students must meet the general requirements set forth by the Graduate School of the University of Southern Mississippi. The following are major additional requirements:

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- 1) Arrange for a major professor or temporary faculty sponsor by the end of the second semester.
- 2) Establish a five-member doctoral committee by the beginning of the third semester.
- 3) The doctoral committee will consider the student's academic record and interview the student at a committee meeting to assess the student's ability to pursue additional graduate work by the end of the third semester of enrollment. This assessment fulfills the requirement for a qualifying examination as determined by the Graduate Council of the University as stated in this Bulletin.
- 4) Establish a program of study by the end of the fourth semester of enrollment in the doctoral program.
- 5) Pass a comprehensive examination consisting of written and oral sections that is administered by the doctoral committee. The comprehensive examinations should be taken by the end of the third year (sixth semester) of enrollment in the doctoral program.
- 6) Submit a formal prospectus (research proposal) to be approved by the doctoral committee.
- 7) Present an acceptable copy of the dissertation to the doctoral committee ten days prior to a public defense of the dissertation at a research seminar presented at an advertised meeting.

Department of Chemistry and Biochemistry

Stella D. Elakovich, Chair
Hattiesburg, MS 39406-5043
(601) 266-4701

Admission Requirements

Applicants wishing to enter either the Master of Science degree program or the Doctor of Philosophy degree program within the department must satisfy the requirements for the Graduate School. Among those factors considered in the admission decision are the GPA and submission of test scores on the GRE. Students whose native language is not English must achieve a score of 590 or above in the TOEFL exam.

Master of Science Program

The Department of Chemistry and Biochemistry offers the Master of Science degree with specialization in analytical, inorganic, organic, physical, biochemistry, or chemistry education. The M.S. programs jointly emphasize area course work and research/thesis.

Program Requirements

The master's program requires a minimum of thirty (30) hours. Placement examinations to identify deficiencies and to indicate remedial studies to remedy these deficiencies, participation in the seminar program, and a familiarity with computer programming are required for the M.S. degrees, along with specific but flexible coursework programs. Completion of a comprehensive examination in the student's area of specialization is also required.

Doctor of Philosophy Program

The Department of Chemistry and Biochemistry offers the Doctor of Philosophy degree with specialization in analytical, inorganic, organic, physical, biochemistry, and chemical education. The Ph.D. programs emphasize excellence in research. Qualified students holding a bachelor of science are encouraged to enter directly into the doctoral program. Individuals who are adequately prepared may take the qualifying examination at the beginning of their first semester of graduate work, but in no case can it be postponed beyond the second semester of graduate work.

Program Requirements

The Ph.D. programs require eighty-four (84) graduate hours beyond the bachelor's degree or fifty-four (54) graduate hours beyond the master's degree. Specific course requirements depend upon individual needs and are selected with the advice of the student's research director and doctoral committee.

Among other requirements are:

- 1) Completion and oral defense of a Research Prospectus;
- 2) Completion of a Ph.D. Comprehensive Examination;
- 3) Participation in the seminar program;
- 4) a. Proficiency in two foreign languages judged acceptable by the Department and the Graduate School;
b. Proficiency in one foreign language and a nine (9) hour minor of courses outside the department, the hours for which do not apply towards the degree; or
c. Proficiency in one foreign language and in statistics or computer science.
- 5) Completion of a substantial research project and successful oral defense of a dissertation.

Department of Computer Science and Statistics

Frank K. Nagurney, Chair
Hattiesburg, MS 39406-5106
(601) 266-4949

The Department of Computer Science and Statistics offers the Master of Science degree in Computer Science and a Master of Science Degree in Computer Science with an Emphasis in Computational Science. Requirements for the Emphasis in Computational Science and the Ph.D. in Scientific Computing may be found in the School of Mathematical Sciences.

Master of Science Program in Computer Science

For the M.S. degree in Computer Science, a minimum of thirty-three (33) hours of graduate work is required. Of these hours at least 21 must be computer science courses (non-thesis/project) numbered 600 or above. In addition a student will complete either a thesis (6 hours) or a project (3 hours) in computer science.

The master's program is designed to provide a fundamental understanding of theoretical and applied computer science which will allow the student to begin exploring special topics and state-of-the-art subjects. It will prepare a student for advanced applications, development, and research positions in industry or for doctoral level studies.

Admission Requirements

In addition to meeting the entrance requirements set forth by the Graduate School of the University of Southern Mississippi, the student must be admitted by the departmental admissions committee on a regular or conditional basis. Students must submit scores on the **Graduate Record Examination** and transcripts of all undergraduate work. During the past year, successful applicants have had a mean GPA of 3.47. Students are encouraged to submit additional information which documents their potential for doing graduate work in computer/computational science. This would include industrial work experience and training and graduate work already completed. Students with minor deficiencies may be granted conditional admission.

For students who do not come from an undergraduate program where the courses clearly equate with the USM courses, the graduate admissions committee will review a student's transcript and decide what, if any, deficiencies can be met with undergraduate courses. A student will not be granted regular admission to the computer/computational science graduate program until those deficiencies are met. See the general policies of the Graduate School for further requirements of conditional admission for students.

Credit will NOT be given toward the master's degree for any course taken to meet deficiencies, admission requirements, or for undergraduate prerequisite courses.

The student must select a three-person advisory committee. The chair of this committee must be from the Department of Computer Science and Statistics (one member may be from outside the Department of Computer Science and Statistics)

Program Requirements

- 1) Completion of prerequisites. A student applying for admission will normally have a B.S. degree from a computer science or closely-related program. Minimum coursework required for admission includes the equivalent of CSC 101, 102, 203, 204, 205, 306, 307, 308 and any three out of courses CSC 410 through CSC 415 (see the USM Undergraduate and Graduate Bulletins for course descriptions) and mathematics through integral calculus, basic probability, discrete math, and linear algebra.
- 2) Completion of CSC 513 if the student has not completed CSC 413.
- 3) Completion of 33 hours of graduate course work to include CSC 616, CSC 623, CSC 626, and three courses from among the following: CSC 620, CSC 624, CSC 632, CSC 633, and CSC 638.
- 4) Satisfactory completion of a thesis (6 hours credit) or a project (3 hours credit).
- 5) Satisfactory completion of a final comprehensive examination.

M.S. in Computer Science with an Emphasis in Computational Science

The department also awards an M.S. degree with an emphasis in computational science. A degree plan for this emphasis area must include a common core of courses taken from the departments of Computer Science and Statistics, Mathematics, and Physics. Details on the common core are specified in the computational science emphasis area listed under the School of Mathematical Sciences. Nine (9) additional hours of Computer Science courses must be taken.

Admission Requirements

See admissions requirements in the above section.

Program Requirements

- 1) Completion of prerequisites. A student applying for admission will normally have a B.S. degree from a computer science, mathematics, physics, or closely-related program. Minimum coursework required for admission includes the equivalent of CSC 101, CSC 102, CSC 307, MAT 385, MAT 326, and PHY 351 or PHY 361.
- 2) Completion of at least 36 hours of graduate work
- 3) Completion of the Computational Science core courses listed under the School of Mathematical Sciences in this Graduate Bulletin.
- 4) Satisfactory completion of a comprehensive examination.

Department of Geology

Gail S. Russell, Chair
Hattiesburg, MS 39406-5044
(601) 266-4526

The Department of Geology offers a program leading to the Master of Science degree in Geology. The curriculum is designed to provide both a thorough understanding of geology as preparation for employment as a professional geologist or for doctoral studies and to provide specialization in a selected area of research. The Department of Geology at The University of Southern Mississippi emphasizes both the importance of a field-based education and the application of new technologies to geologic investigations. The Department of Geology collaborates with the Center for Science and Mathematics Education in programs leading to the M.S., Ph.D., and Ed.D. with an emphasis in Earth and Environmental Education.

Admissions Requirements

Admission is based on grade point average (GPA), letters of recommendation, and submission of results on the Graduate Record Examination (GRE). Both the overall GPA and a GPA calculated for courses (excluding special problems courses) in geology and other sciences, mathematics, computer science and statistics will be considered. Applicants who do not have degrees in geology will be considered for admission but will be required to remedy any deficiencies, including geology field camp, compared to the courses required for the B.S. in Geology at The University of Southern Mississippi. Students who are not admitted as regular graduate students may be considered for conditional admission.

Program Requirements

A minimum of thirty (30) graduate hours, including six (6) hours of thesis credit, is required. Eighteen (18) hours must be in courses numbered 600 or above. Entering students are required to take two (2) hours of seminar. The student must complete an original research project, submit and defend a thesis, and pass a final comprehensive examination. A thesis committee which supervises these activities is established when the student is formally admitted to degree candidacy.

Department of Mathematics

Wallace Pye, Chair
Hattiesburg, MS 39406-5045
(601) 266-4289

The Department of Mathematics offers the Master of Science degree with emphases in mathematics and computational science. It also offers, through the School of Mathematical Sciences, the Doctor of Philosophy degree in Scientific Computing with an emphasis in Computational Mathematics. For further information about this Ph.D. program, please see the School of Mathematical Sciences section of this Bulletin.

Admission Requirements

Regular admission to the M.S. programs in mathematics requires that the applicant satisfy the general admission and academic requirements for all M.S. programs at the University as set forth in this **Bulletin**. In addition, in evaluating applications, the admission committee utilizes these criteria:

- 1) The undergraduate record indicates that the applicant satisfies the present undergraduate requirements for a major in mathematics at the University of Southern Mississippi;
- 2) Applicants must include scores from the General Test of the **Graduate Record Examination (GRE)**;
- 3) The application includes three letters of recommendation and a current resume, if the student is applying for a teaching assistantship;
- 4) Applicants whose native language is not English must achieve a TOEFL score of 580 or more.

The department chair can recommend conditional admission for an applicant whose credentials strongly meet all regular admission requirements save one. This student must then meet all conditional admission requirements as set forth in this **Bulletin** as well as any additional requirements imposed by the chair.

Requirements Common to All Master of Science Emphases

Before completing one semester of graduate work, the student should select a three-person advisory committee from the graduate faculty. The student, with the help of his or her academic advisor, should prepare an "Application for Approval of Graduate Program" form. The advisor will distribute copies to the graduate faculty, the student's advisory committee, the department chair, the departmental file, and the applicant. Subsequent changes in the program must be approved by the department chair and all three committee members.

Each candidate for the master's degree will be expected to demonstrate mastery of subject matter on the Master's Comprehensive Examinations. These examinations consist of two parts: a written examination and an oral examination. The written examination's content is dependent on the program emphasis and thesis option. The oral examination may cover all course work, including courses taken as an undergraduate. These examinations must be successfully completed two weeks prior to graduation.

The student who desires to write a thesis must select a graduate faculty member who agrees to serve as thesis director. Prior to beginning the thesis, a student must submit (for approval to his or her advisory committee) a prospectus, the guidelines for which are available in the departmental office.

M.S. in Mathematics Program Requirements

The student must enroll in the two-semester advanced calculus sequence at the graduate level at the beginning of the graduate program if the equivalent of this sequence was not included in the student's undergraduate preparation. Neither course can be used to satisfy any part of the minimum hour requirement for the master's degree, and a grade of B or above must be earned in each of the two courses.

The following minimal requirements must be included in the program:

- 1) 33 hours of graduate course work beyond the equivalent of a USM undergraduate degree in mathematics.
- 2) 21 hours of courses numbered above 600.
- 3) 18 hours of mathematics courses numbered above 600, which includes MAT 689 I and II (Mathematics Seminar I and II).

NOTE: Subject to approval of the department chair and the student's advisory committee, an outside minor consisting of 9 semester hours may be used as a portion of the 33-hour program.

Courses offered by the department are grouped into seven areas. The student should select a suitable balance in at least three of these seven areas. The written exam will cover the content of two courses (selected by the advisory committee in consultation with the student) from each of the student's three areas of specialization. The student whose thesis prospectus has been approved need select only two areas of specialization (other than the one in which the thesis is written). The written exam will cover the content of two courses from each of these two areas. The oral examination will then consist primarily of a defense of the thesis.

Seven Specialty Areas

1. Topology/Geometry: 575, 601, 675, 683
2. Analysis: 536, 636, 637, 682
3. Algebra and Linear Algebra: 521, 523, 524, 526, 603, 610, 681
4. Optimization and Numerical Analysis: 518, 519, 560, 561, 610, 685
5. Real Analysis and Probability: 520, 641, 642
6. Combinatorics and Graph Theory: 537, 539, 629
7. Applied Analysis: 515, 517, 520, 605, 606, 684, 685

M.S. in Mathematics with an Emphasis in Computational Science

Program Requirements

This multidisciplinary degree program requires that the student complete a 27 hour core (three courses from each of the three disciplines in the School of Mathematical Sciences) and an additional 9 hours in mathematics. The student must enroll in the two-semester advanced calculus sequence at the graduate level at the beginning of the graduate program if the equivalent of this sequence was not included in the student's undergraduate preparation. Neither course can be used to satisfy any part of the minimum hour requirement for the master's degree, and a grade of B or above must be earned in each of the two courses. The student who has been awarded an assistantship must also include 6 hours of mathematics seminar in his or her program. These minimum requirements are as follows:

- 1) Core (27 hours) Please see the School of Mathematical Sciences section of this **Bulletin**.
- 2) MAT 689 I and II (Mathematics Seminar I and II) are required of those students who receive an assistantship.
- 3) MAT 561 (Numerical Analysis II) plus six additional hours to be chosen from: MAT 629, 684, 685, and the remaining MAT core course.

The master's comprehensive exam will cover the content from six courses: MAT 560, 561; two courses from MAT 605, 606, 685; and two courses from MAT 610, 629, 684.

Department of Medical Technology

M. Jane Hudson, Chair
Hattiesburg, MS 39406-5134
(601) 266-4908

Master of Science Program

The Master of Science in Medical Technology degree programs seek to provide the student with skills and knowledge for professional enhancement. Graduates of the programs may be candidates for positions as laboratory managers, education coordinators, hospital or college/university medical technology faculty members, researchers, departmental supervisors, etc. The program is structured to provide the student with an area of emphasis.

The Department of Medical Technology offers two programs leading to the Master's degree in Medical Technology. One program is for the individual who possesses certification as a medical technologist from a recognized national certifying agency. This certification is an entrance requirement.

The second program is for the individual who does not hold certification as a medical technologist from a recognized national certifying agency. This program includes a medical technology practicum that allows the individual to become eligible to take a national certification examination. Certification from a recognized national certifying agency is a mandatory exit requirement.

Admission Requirements

For both programs, in addition to meeting the general requirements of the Graduate School and University as stated in this Bulletin, the applicant must submit scores from the GRE. Students admitted will receive either regular or conditional admission, as described earlier in this **Bulletin**. Students admitted on conditional basis must make a grade point average of at least 3.00 the first semester on specific courses designated by the department faculty. Regardless of previous college experience, if English is not the native language of any student, evidence of English proficiency must be provided prior to admission into the graduate program. The MTELP (Michigan Test of English Language Proficiency) requirement is "Proficiency II" and is preferred by the department. Alternatively a TOEFL of 550 may be accepted. In addition, a score of 4 ("functional language skills") must be earned on a fluency test administered by the English Language Institute. This fluency test is specifically designed to determine listening and speaking skills with respect to situations and language expected during the practicum phase of the program.

In order to receive maximum consideration, graduate applications for the Fall semester should be received by the Department by April 15, and applications for the Spring semester should be received by November 1.

Program Requirements

A minimum of thirty (30) semester hours of course work, excluding hours awarded for thesis, is required for the thesis option. A minimum of thirty-six (36) semester hours of course work is required for the non-thesis option. In addition, individuals who do not hold certification at admission must complete a practicum of forty-seven (47) hours. A minimum of eighteen (18) semester hours must be in courses numbered 600 or above. The courses should interrelate and be directed toward an area of emphasis. An area of emphasis such as microbiology, chemistry, hematology, immunology, management, or education will be chosen by the student, and all course work designated and approved by the student's graduate committee during the first semester of the program. Students selecting the thesis option are required to write a thesis under the direction of a Medical Technology department faculty member on a subject approved by the student's graduate committee. The student's graduate committee is composed of a chair and two members recommended by the department chair and appointed by the Graduate Dean. Courses in which a student receives less than a "C" will not be counted toward the degree. A student may not have more than two practicum courses and two other courses with a grade of "C" or below. Upon completion of course work, all students must pass oral and written comprehensive examinations. Additionally, student selecting the thesis option must successfully present an oral defense of the master's thesis.

Non-major masters students must obtain permission of the instructor to register for MTC 500, 500L, 502, 502L, 504, 504L, 506, 506L. Registration for practicum level courses is limited as described in this Bulletin.

Department of Physics and Astronomy

William E. Hughes, Chair
Hattiesburg, MS 39406-5046
(601) 266-4934

The Department of Physics and Astronomy offers a program leading to the Master of Science degree with a major in Physics. The curriculum is designed to provide students with knowledge of both the fundamental areas of physics as well as selected applied physics topics. Research areas from which a thesis may be chosen include Digital Signal Processing, Acoustics, Viscous Fluid Flow, Turbulence/Chaos, Mathematical Physics, Statistical Mechanics, Many-Body Methods in Nuclear and Condensed Matter, and General Quantum Field Theory.

In addition to the traditional master's program in physics, the Department also offers emphasis areas in Polymer Physics and Computational Science. The latter is a 36 semester hour interdisciplinary program offered in cooperation with the Department of Mathematics and the Department of Computer Science and Statistics.

Admission Requirements

Admission to the Master of Science Program is based upon several factors including a student's previous academic performance, recommendation letters, and scores on the Graduate Record Examination (GRE). A score of 540 on the TOEFL examination is required of those applicants for whom English is not their native language. Prospective graduate students should have completed mathematics through differential equations, and satisfactorily completed courses in introductory physics, mechanics, electricity and magnetism, modern physics and quantum mechanics at the undergraduate level. Students with inadequate preparation may be admitted on a conditional basis but will be required to complete make-up courses with a grade of B or better. It is recommended, but not required, that students applying for a stipend take the Advanced Physics GRE.

Master of Science Program in Physics

Program Requirements

- 1) Completion of a minimum of thirty (30) hours of graduate work
- 2) Completion of the Physics Core courses:
 - PHY 601, 602, 603, 650.....12 hours
- 3) PHY 689 (I, II, III, IV): Physics Seminar4 hours
- 4) Satisfactory completion of a Comprehensive Examination
- 5) Development and completion of an original research project, thesis, and oral defense:
 - PHY 698: Thesis6 hours



M.S. Program in Physics with an Emphasis in Polymer Physics

Program Requirements

Students choosing this optional program to the M.S. in Physics must have successfully completed at least one full year of General Chemistry with Laboratory and it is strongly recommended that one semester of Organic Chemistry be taken for credit. Attendance at relevant seminars in the Department of Polymer Science is required.

- 1) Completion of a minimum of thirty (30) hours of graduate work
- 2) Completion of the Physics Core for the Polymer Option:
PHY 601, 602, 603, 650, 689 (I, II, III)15 hours
- 3) Polymer Science coursework (at least 9 hours from the following):
PSC 710, 711, 712, 730, 811, 8129+hours
- 4) Satisfactory completion of a Comprehensive Examination
- 5) Development and completion of an original research project, thesis, and oral defense
PHY 698: Thesis (in the area of Polymer Physics)6 hours

M.S. Program in Physics with Emphasis in Computational Science

Program Requirements

- 1) Completion of at least thirty-six (36) semester hours of graduate work
- 2) A degree plan for this M.S. option must include at least three (3) courses from each of the three supporting disciplinary areas which make up the Computational Science Program. These core courses are listed under the School of Mathematical Sciences in this **Graduate Bulletin**.....27 hours
- 3) Additional hours of Physics courses to be taken must include the following:
PHY 601, 602, and 6509 hours
- 4) Satisfactory completion of a Comprehensive Examination
- 5) Attendance at seminars in the Department of Physics is strongly recommended

Department of Polymer Science

Robert Y. Lochhead, Chair
Hattiesburg, MS 39406-0076
(601) 266-4868

The Department of Polymer Science offers programs at the master's and doctoral levels. Curricula are designed to provide both a fundamental understanding of polymer chemistry and engineering and advanced courses dealing with special topics and state-of-the-art subjects. Both the M.S. and Ph.D. degrees require extensive research in areas involving basic investigations and developments applied to current and future problems of our society and world.

Master of Science Program

Admission Requirements

Admission to the master's program is based upon previous academic performance and scores on the General section of the Graduate Record Examinations. Requirements include the following: a minimum grade point average of 2.75 or better on the last 60 hours of undergraduate work, two letters of recommendation and submission of scores on the GRE.

Program Requirements

Graduation is based upon:

- 1) Completion of 30 hours of graduate work including the 21 hours of PSC core courses with a GPA of 3.0 or better.
- 2) Satisfactory development of an original research project and a thesis.
- 3) Satisfactory completion of the final comprehensive examination.

Required Coursework

PSC 701, 702, 710, 711, 720, 721, 730, and 703 or 712.....21 hours
PSC 691, 698: Research in Polymer Science and Thesis.....10-15 hours
PSC 789: Polymer Science Seminar2-4 hours

Doctor of Philosophy Program

Admissions Requirements

The Department usually admits students only to the master's program because of the diversity of entering students' backgrounds. Demonstrated excellence is required in coursework and examinations before a student is allowed to enter the doctoral program. Admission of students with previous graduate coursework or master's degrees from other institutions will be considered on an individual basis.

Regular admission to advanced standing requires (1) obtaining a minimum GPA of 3.0 on the 26 hours of core courses; (2) obtaining a minimum GPA of 3.5 in at least 30 hours of graduates courses taken at USM including the core courses and research; and (3) passing all three sections of the written comprehensive examination. In addition, a student's transcript must show no more than 2 "C"s and no grade lower than a "C" in the core courses. There is no option for conditional admission for advanced study.

Additional requirements for the Ph.D. degree dealing with residency, the research tools, the committee, the dissertation, the dissertation defense, application for candidacy and graduation are described elsewhere in this **Bulletin**.

Program Requirements

Minimum course requirements for the doctorate are seventy-eight (78) semester hours not including research tools and dissertation. Fifty-four (54) semester hours are required beyond a master's degree in Polymer Science or a related area. Doctoral students must take all core courses (PSC 701, 702, 703, 710, 711, 712, 720, 721, 730, 740) as well as two 800-level courses that are offered. Graduate students must register for one hour of polymer science seminar (PSC 789) each semester that they are in residence.

Qualifying Examination

This examination is taken during the first week prior to the student's first semester of graduate work. It requires a minimum proficiency in organic and physical chemistry.

Comprehensive Examination

The written comprehensive examination is given once a year at the beginning of the summer term. This three-part examination covers the areas of organic, physical, and practical polymer science. A student who fails any part of the examination must retake and pass that part at the end of summer term. Only one additional attempt is allowed.

Dissertation Prospectus

Within 9 months of completing the written comprehensive examination, a written dissertation prospectus which includes an annotated bibliography must be approved by the student's committee. The prospectus summarizes the student's work accomplished to date and gives an outline of research objectives for the dissertation project.

Proposition Presentation and Oral Defense

Within 18 months of completing the comprehensive examination, the student must submit an independently conceived and developed written proposal dealing with an original proposition unrelated to his or her dissertation research. This proposal is then presented orally and defended before the faculty. Oral evaluation of the student's general knowledge of polymer science is carried out concomitant with his or her defense of the proposal.

Center for Science and Mathematics Education

Don R. Cotten, Director
Hattiesburg, MS 39406-5087
(601) 266-4739

The Center for Science and Mathematics Education, recognizing the national goal of improving the delivery of science instruction and the accompanying demand for individuals with advanced degrees in science education, provides programs for the Master of Science, Doctor of Philosophy, and Doctor of Education degrees in Science Education.

Master of Science Program

The program of study at the master's degree level is designed to increase the professional competency of science teachers and to provide the course work necessary to meet standards of teaching certification at this advanced level. The Master of Science Education degree is offered with an emphasis in biology, chemistry, earth and environmental sciences, or physics. The program outcomes expressed in terms of student learning include demonstration of (a) graduate-level mastery of knowledge in the student's selected emphasis area; (b) the ability to integrate content knowledge into curricular, instructional, and assessment strategies for students at different educational levels; (c) the ability to formulate, implement, and sustain changes in reforming science education to meet national standards at a school level.

Admission Requirements

In addition to the general admission and academic requirements for all graduate programs as set forth in this **Bulletin**, regular admission to the Master's program in Science Education requires a Bachelor of Arts degree in any area of science (or combination of science and professional education), a minimum grade point average of 3.0 for undergraduate study, and a Class A teaching certification. Applicants are required to present to the Center Director for consideration verbal and quantitative scores on the Graduate Record Examination or the core battery and area examination scores on the National Teachers Examination, three letters of recommendation, and a one- to two-page statement of the applicant's teaching philosophy in the areas of knowledge to be addressed, teaching methodology, and assessment.

Students who fail to meet the criteria for regular admission may be considered for conditional admission if the Program Admissions Committee, Center Director, Dean of the College, and Dean of the Graduate School are satisfied that the applicant shows promise of successfully completing graduate degree requirements. Regular admission will be granted with the completion of nine (9) semester hours of USM graduate work with a minimum of a B average, the removal of deficiencies, and a positive recommendation of the student's adviser.

Program Requirements

The Master's degree requires a minimum of thirty-four (34) semester hours of graduate work as specified below.

- (a) A minimum of twelve (12) semester hours in a science emphasis area—biology, chemistry, earth and environmental sciences, or physics.
- (b) Nine (9) semester hours in a related discipline.
- (c) Six (6) semester hours in professional education (REF 601 and REF 607 if seeking AA certification in the State of Mississippi).
- (d) Seven (7) semester hours in science education (including SME 601 and limiting hours of special problems to 3 semester hours).

By the end of the second semester, the student should arrange through the Center Director for the appointment of a three-member graduate committee by the Dean of the Graduate School. To graduate, students must complete an approved program of studies with an acceptable grade point average, compile and submit a portfolio showing evidence of mastery of the program learning outcomes, and pass an oral comprehensive examination. The student's graduate committee will be responsible for monitoring the student's progress, administering the comprehensive examination, and determining if all criteria have been met for graduation.

Doctor of Philosophy and Doctor of Education Programs

The Center for Science and Mathematics Education offers programs leading to the Doctor of Philosophy and Doctor of Education degrees in Science Education with emphasis in biology, chemistry, computer science, earth and environmental sciences, mathematics, or physics.

Within the framework of the overall curriculum requirements, programs are planned to accommodate the professional goals of the individual graduate student. For students holding Class AA certification from the Mississippi State Department of Education, the doctoral program in each emphasis area can be planned to provide for Class AAAA advanced certification if desired. Graduates of the program are prepared as candidates for teaching positions at the secondary school, community college, and senior college levels as well as positions in curriculum supervision, curriculum development, educational research, and the informal delivery of education in their chosen discipline.

Admission Requirements

In addition to the general admission and academic requirements for all graduate programs as set forth in this **Bulletin**, regular admission to the doctoral program in Science Education requires a master's degree, a Class AA teaching certificate in one of the emphasis areas if an advance in certification to Class AAAA is desired, three years of teaching experience at the secondary or college level, and a minimum GPA of 3.5 for all previous graduate work. Applicants are required to present for consideration verbal and quantitative scores on the Graduate Record Examination, three letters of recommendation, and a letter of intent expressing academic, professional, and research goals to the Center Director.

Initial admission to the program will be conditional for all students. Students are expected to possess proficiency at the undergraduate level in the chosen emphasis for advanced study. Students not proficient may be required to take additional undergraduate courses. Regular status will be granted with the completion of 12 semester hours of USM graduate work with a minimum grade of B in each course, a positive recommendation of the Center Director, the removal of any deficiencies, and acceptable performance on the qualifying examination.

Program Requirements

The doctoral degree in science education requires a minimum of fifty-seven (57) semester hours of graduate work beyond the master's degree, excluding the hours for the dissertation and foreign language requirements, as specified below.

- (a) Fifteen (15) to twenty-one (21) semester hours in an emphasis discipline
- (b) Three (3) to nine (9) semester hours in a related discipline
- (c) Three (3) semester hours in professional education
- (d) Twenty-four (24) semester hours in science education (including 3 hours of seminar, 3 hours of SME 691, Research Practicum, and limiting hours of special problems to 3 semester hours)
- (e) Six (6) to nine (9) semester hours of electives—science education, emphasis discipline, related discipline, or professional education

Additional requirements include demonstrated proficiency in educational statistics, proficiency in a foreign language if pursuing the Ph.D., and independent research culminating in an acceptable dissertation. The research may focus on a problem in the student's emphasis area that is related to the teaching/learning of the discipline or a more general educational research problem. During the second semester of enrollment, the department requires a written qualifying examination. This examination is designed to assess both the student's fitness to pursue doctoral work and to provide diagnostic information to the student's committee in planning a program. The student's program will be directed by a five-member graduate committee consisting of two faculty members affiliated with the center for Science and Mathematics Education, one from the emphasis discipline, one from educational research, and one open for selection according to the student's research focus. The committee will approve the student's program plan and dissertation prospectus, and conduct the comprehensive examination, which is administered near the completion of the student's course work. Upon acceptance of the dissertation by the student's committee and at least four weeks prior to graduation, a final oral examination in defense of the candidate's dissertation will be administered. Furthermore, it is required that a report presenting the candidate's research be prepared and submitted to a refereed journal for publication.

The University of Southern Mississippi–Gulf Coast

James O. Williams, Vice President
730 East Beach Boulevard
Long Beach, MS 39560-2699
(228) 865-4500

The University of Southern Mississippi–Gulf Coast serves students at four locations: the Gulf Park Campus in Long Beach, the Keesler Center on Keesler Air Force Base, the Stennis Space Center in Bay St. Louis, and the USM Jackson County Center located on the Jackson County Campus of the Mississippi Gulf Coast Community College in Gautier. Refer to the USM Gulf Coast publication for specific information concerning courses and programs.

Graduate Degree Programs

USM Gulf Coast provides a flexible delivery system designed to meet the educational needs of Mississippi Gulf Coast citizens. Consequently, new courses and programs are added as student demand warrants and resources permit. A sufficient number of courses are now available so that USM Gulf Coast students may earn the following graduate degrees:

Master's Degrees

Adult Education
Business Administration
Master of Professional
Accountancy
Master of Business
Administration
Computer Science
Criminal Justice
Educational Administration
and Supervision
Elementary Education
English (In cooperation with
the Hattiesburg Campus)

History (In cooperation with
the Hattiesburg Campus)
Nursing
Political Science-
Public Administration
Public Relations
Reading
School Counseling
Secondary Education
Social Work (In cooperation
with the Hattiesburg Campus)
Special Education
Technical and
Occupational Education

Specialist's Degrees

Adult Education*
Elementary Education*
Special Education*
* In conjunction with Hattiesburg Campus

Educational Administration
Secondary Education*

Admission

USM Gulf Coast graduate admission requirements and procedures are identical to those outlined elsewhere in this Bulletin. All students, with the exception of the Master of Business Administration and Master of Professional Accountancy majors, initiate procedures through the USM Gulf Coast Office of Student Services. Applicants to the Master of Business Administration or Master of Professional Accountancy program should contact the Division of Business Administration at the Gulf Park campus for information and application forms. In order to facilitate proper advisement and predetermination of admission status, students must furnish transcripts and complete applications for admission prior to registration. Transcripts and completed applications should be sent to the Office of Student Services, USM Gulf Coast, 730 East Beach Blvd., Long Beach, MS 39560-2699.

Graduate Residency Requirements

Specialist and doctoral level students are reminded that graduate residency requires intensive full-time study of an individualized nature. In addition, some departments have options to meet specialized needs. These students must have their degree plans approved in writing in advance by their department chair prior to course enrollment.

Course Load

USM Gulf Coast course load requirements are identical to those for the Hattiesburg campus described elsewhere in this **Bulletin**.

Fees

(All fees are subject to change without notice)

Graduate\$127.00 per semester hour

One-half of a student's fees are due and payable at the time of registration. Fees deferred past the last day to register each semester will be billed monthly. A monthly service charge of 1.5% will be applied to the unpaid balance. MasterCard® and Visa® credit cards will be accepted.

Financial aid may be used to satisfy the minimum payment with the following exceptions: financial aid cannot be applied to prior balances, and work study or other forms of aid paid periodically to students may not be used to defer fees. All financial aid must be applied to fees before a refund can be made.

A general tuition level cap of \$1159.00 has been set graduate students enrolled for 9-13 semester hours during the fall and spring semesters. Graduate students enrolled for more than thirteen (13) hours will be assessed \$127.00 for each additional hour.

Students who are not residents of Mississippi will be assessed an additional fee of \$129.00 per semester hour for undergraduates, \$172.00 per semester hour for graduates, up to a maximum of \$1551.00.

Full-Time Student Tuition

Graduate
\$1159.00
9-13 hrs.

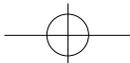
Special Fees

Vehicle Registration (GP & JC)\$10.00
Late Registration Fee\$50.00

Calendar

The USM-Gulf Coast academic calendar and holidays follow the same schedule as the Hattiesburg Campus calendar found elsewhere in this **Bulletin**.

SEMESTER	CLASSES BEGIN	FINAL EXAMS
Fall 1998-1999	August 22-28, 1998	December 8-18, 1998
Spring 1998-1999	January 9-15, 1999	May 5-14, 1999
Summer 1998-1999	May 29 - June 4, 1999	August 2-6, 1999



Institute of Marine Sciences

Darrell Jay Grimes, Director
Sharon H. Walker, Associate Director for Outreach
Vernon L. Asper, Associate Director for Research and Sponsored Programs
William E. Hawkins, Associate Director for Research and Laboratory Operations
Denis A. Wiesenburg, Associate Director for Academic Programs
P.O. Box 7000
Ocean Springs, MS 39566-7000
(228) 872-4200

The Institute of Marine Sciences offers a multidisciplinary graduate-level, research-oriented academic degree program. The Institute has three missions: research, education, and outreach. Research is marine-related, focused on all marine environments from the open ocean to coastal environments and from continental shelves to estuaries. Research areas are aquaculture, biodiversity and systematics, biological oceanography, chemical oceanography, coastal ecology, coastal oceanography, environmental fate and effects, fisheries science, geological oceanography, marine biology, marine chemistry, marine geology, marine sedimentology, numerical ocean modeling, science education, and physical oceanography.

Institute faculty are located on the Mississippi Gulf Coast and in Hattiesburg. Gulf Coast locations include the John C. Stennis Space Center, near Bay St. Louis, the J. L. Scott Marine Education Center and Aquarium in Biloxi, and the Gulf Coast Research Laboratory in Ocean Springs. The Institute offers Master of Science and Doctor of Philosophy programs in **Marine Science** (through the Department of Marine Science) and **Marine Biology** (through the Department of Biological Sciences). Pending approval of degree programs, the Institute will also offer Master of Science and Doctor of Philosophy degrees in Coastal Sciences through the Department of Coastal Sciences. Faculty in the Department of Geology, Department of Chemistry, Center for Science and Mathematics Education, and the Scientific Computing program are also associated with the Institute.

Marine Science graduate emphasis areas are Biological Marine Science, Physical Marine Science, Geological Marine Science, and Chemical Marine Science. Undergraduates interested in preparing for graduate study in **Marine Science** should pursue a bachelor's degree program in their department of choice, developing a strong background in biology, chemistry, geology, physics, and mathematics through calculus. Students interested in the graduate **Marine Biology** program in the Department of Biological Sciences should review that section.

Gulf Coast Research Laboratory (GCRL)

Darrell Jay Grimes, Director
P.O. Box 7000
Ocean Spring, MS 39566-7000
(228) 872-4200

The GCRL, located in Ocean Springs, has offered summer courses in the marine sciences since 1947. The Laboratory has a three-fold mission of research, education, and service in the marine sciences. Research focuses on the disciplinary areas of biology, chemistry, geology, and physics of coastal and continental shelf waters. Areas of emphasis include aquaculture, biodiversity and systematics, coastal ecology, environmental fate and effects, fisheries sciences, and coastal hydrodynamics. Over 27 upper-level courses in Marine Science (MAR), Biological Sciences (BSC), and Science and Mathematics Education (SCE) are offered at the Gulf Coast Research Laboratory, mainly during the summer. The Institute and GCRL also cooperate with the Departments of Geology, Physics and Astronomy, and Chemistry and Biochemistry to provide state-of-the-art research and educational opportunities.

Department of Marine Science

Denis A. Wiesenburg, Chair
Department of Marine Science
John C. Stennis Space Center
Stennis Space Center, MS 39529
(228) 688-3177

The Department of Marine Science offers both the Master of Science and Doctor of Philosophy degrees in **Marine Science**. Graduate level education and research programs are offered in four emphasis areas of marine science (biological, geological, chemical, and physical). These areas include aquaculture, fisheries and numerical ocean modeling. The Marine Science faculty are drawn from its locations at the Stennis Space Center (near Bay St. Louis), the Gulf Coast Research Laboratory (Ocean Springs), the J. L. Scott Marine Education Center and Aquarium (Biloxi), and from other departments in the College of Science

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and Technology (Hattiesburg). Scientists affiliated with the Naval Research Laboratory, National Oceanographic and Atmospheric Administration, National Aeronautics and Space Administration and other agencies at the Stennis Space Center and elsewhere provide additional state-of-the-art research and educational opportunities in Marine Science.

The best preparation for students interested in pursuing a graduate degree in Marine Science would be to develop a strong working knowledge in calculus, applied mathematics, statistics, the basic sciences (biology, chemistry, geology, physics) and engineering. Experience with computers is highly recommended. We realize that not all students will have gained the ideal background for pursuing a M.S. or Ph.D. in Marine Science. Deficiencies will normally be made up during the student's first year.

Master of Science Program

Admission Requirements

In addition to the general admission and academic requirements for all graduate programs as set forth in this Bulletin, regular admission to the Master's program in Marine Science requires successful completion of the Graduate Record Examination (verbal plus quantitative) and a high grade point average for the last two years of undergraduate study. Successful applicants usually score 500 or above on the verbal as well as the quantitative portions of the GRE and have grade point averages of 3.0 or above. Also required are three letters of recommendation and a letter of intent to the Associate Director expressing personal academic, research, and career goals. This letter is used in two ways in the admission process. It provides a sample of the applicant's writing competency and communication skills, and provides information concerning the compatibility of the applicant's interests with departmental research interests. A minimum score of 560 is required on the Test of English as a Foreign Language (TOEFL) for applicants whose native language is other than English. Applicants whose grade point average of GRE scores do not make them eligible for regular admission may be considered for conditional admission. Conditionally-admitted students must maintain a 3.0 GPA for the first nine (9) hours of course work numbered 500 and above. If this requirement is not met, the student is not allowed to remain in the program. Upon recommendation by the department chair and approval by the Graduate Dean, the conditionally-admitted student may have their admission status changed to "regular admission." For students wishing to be considered for graduate assistantships for the academic year beginning in the fall semester, application materials should be received no later than March 1.

Program Requirements

A total of 34 hours of graduate level courses with a minimum GPA of 3.0 must be completed in order to fulfill the Master of Science degree requirements. All entering graduate students must complete the four core courses, generally by the end of their first year in residence. Students advance to candidacy for the M.S. degree by completing all the core courses with a grade of B or better, successfully passing the department qualifying examination (administered after the core courses completed), and completing a thesis prospectus. A graduate student can accumulate no more than two Cs. Other program course requirements include six (6) hours of Thesis and at least one (1) hour of Seminar in Marine Science. The required courses account for 23 of the total 34 hours; the remaining 11 hours (courses numbered 600 and above) must be chosen by the student (after consultation with the student's adviser) from a list of elective courses approved by the department. More information on Marine Science degree requirements and additional course listings can be obtained by writing to the Associate Director.

Required Courses

Hours

MAR 501	Biological Oceanography	3
MAR 501L	Biological Oceanography Laboratory.....	1
MAR 541	Marine Chemistry	3
MAR 541L	Marine Chemistry Laboratory	1
MAR 561	Physical Oceanography	3
MAR 561L	Physical Oceanography Laboratory.....	1
MAR 581	Geological Oceanography	3
MAR 581L	Geological Oceanography Laboratory	1
MAR 689	Seminar in Marine Science	1
MAR 698	Thesis	6
	Approved Electives	11

Doctor of Philosophy Program

The Institute of Marine Sciences offers a Doctor of Philosophy in Marine Science with specialization in a wide range of marine science fields, including biological, geological and physical oceanography, and marine chemistry. Other areas of specialization include aquaculture, fisheries, and numerical ocean modeling. The Ph.D. program emphasizes excellence in research. Qualified students holding either a bachelor's or master's degree in a relevant field of science, mathematics, or computer science are encouraged to apply for admission to the Ph.D. program.

Students must meet the general requirements set forth in the **Graduate Bulletin** of the University of Southern Mississippi. The Ph.D. in Marine Science requires eighty-four (84) graduate hours beyond the bachelor's degree or fifty-four (54) graduate hours beyond the master's degree.

Admission Requirements

In addition to the general admission and academic requirements for all graduate programs as set forth in this **Bulletin**, regular admission to the Ph.D. program in Marine Science requires successful completion of the **Graduate Record Examination** (verbal plus quantitative) and a high grade point average for the last two years of undergraduate study as well as all previous graduate study. Successful applicants usually score 500 or above on the verbal as well as the quantitative portions of the GRE and have a grade point average of 3.0 or above for undergraduate work and 3.5 for graduate study. During the last three years, the average GRE scores of successful Marine Science Ph.D. applicants has been 495 (verbal) and 698 (quantitative). Also required are three letters of recommendation and a letter of intent to the Associate Director expressing personal academic and research goals. A minimum score of 550 is required on the Test of English as a Foreign Language (TOEFL) for applicants whose native language is other than English. For students wishing to be considered for graduate assistantships for the academic year beginning in the fall semester, application materials should be received by the department no later than March 1.

Program Requirements

Required Courses

	Hours
MAR 501 Biological Oceanography	3
MAR 501L Biological Oceanography Laboratory	1
MAR 541 Marine Chemistry	3
MAR 541L Marine Chemistry Laboratory	1
MAR 561 Physical Oceanography	3
MAR 561L Physical Oceanography Laboratory	1
MAR 581 Geological Oceanography	3
MAR 581L Geological Oceanography Laboratory	1
MAR 689 Seminar in Marine Science	2
MAR 898 Dissertation	12
Approved Electives	12*

*MAR 691, MAR 791 - Directed Research in Marine Science, MAR 697, MAR 797- Independent Study and Research, MAR 698 - Thesis and MAR 898 - Dissertation, do not count toward this twelve (12) credit hour approved elective requirement for the Ph.D. The above courses account for forty-two (42) of the total fifty-four (54) hours (students entering with a master's degree) or eighty-four (84) hours (students entering with a bachelor's degree) required for the Ph.D. Additional course listings can be obtained by writing to the Associate Director.

Other Requirements

1. The student is required to pass an oral and/or written qualifying examination which is administered after successful completion of the four (4) core courses.
2. The Ph.D. program requires (a) proficiency in two of the following languages: French, German, Russian, or Spanish, or (b) proficiency in one language and in statistics or computer science, or (c) proficiency in one language and a nine (9) hour minor, the hours for which do not apply toward the degree.
3. Selection and approval of a suitable research problem.
4. The student is required to pass an oral and/or written comprehensive examination to determine the student's comprehension of course material and the student's ability to pursue the proposed research.
5. Completion and successful defense of a scholarly dissertation based on the student's original research.

Department of Coastal Sciences

Department of Coastal Sciences
P.O. Box 7000
Ocean Springs, MS 39566-7000
(601) 266-4746

Pending approval of proposed degree programs, beginning in the Fall of 1998 the Institute of Marine Sciences will also provide opportunities for USM graduate students to take classes and to conduct the research portion of their degree program at the Gulf Coast Research Laboratory through the Department of Coastal Sciences. Departmental approval must be obtained before a student can enter this program. There are some teaching and research assistantships available through the Laboratory. For further information contact: Office of Student Services, Gulf Coast Research Laboratory, P.O. Box 7000, Ocean Springs, MS 39566-7000; telephone (228) 872-4201.

Department of Biological Sciences

Frank R. Moore, Interim Chair
Department of Biological Sciences
Hattiesburg, MS 39406
(601) 266-4746

The Institute of Marine Sciences offers both the Master of Science and Doctor of Philosophy degrees in Biological Sciences with an emphasis in **Marine Biology**. Institute faculty in this emphasis area are located on the Hattiesburg campus and at the Gulf Coast Research Laboratory in Ocean Springs and at the J. L. Scott Marine Education Center and Aquarium in Biloxi. See the Department of Biological Sciences section of this **Bulletin** for admission and program requirements.

Summer Academic Program

Cynthia A. Moncreiff, Summer Program Coordinator
Institute of Marine Sciences
Gulf Coast Research Laboratory
P.O. Box 7000
Ocean Springs, MS 39566-7000
(228) 872-4201

The Institute of Marine Sciences (IMS) offers a selection of accelerated, field-oriented, graduate and undergraduate courses during the summer at its Ocean Springs campus, the Gulf Coast Research Laboratory (GCRL). Summer courses at GCRL are listed in this Bulletin under Marine Science (MAR) and Biological Sciences (BSC) and, where appropriate, are cross-listed by Geology, Chemistry, and Science and Mathematics Education. Summer courses are available for graduate credit. Graduate students may also conduct thesis, dissertation, and directed research at GCRL under the direction of faculty in the Department of Coastal Sciences (COA).

Admission

Students are admitted to Summer Program courses on the basis of academic performance and credentials. Students are asked to apply directly to IMS/GCRL for admission to the accelerated summer courses so that their records can be reviewed for admission. Admissions will be made on a competitive basis, with a limited number of seats held open for general registration during the STARS program to accommodate the Marine Science and Coastal Sciences graduate degree programs and the Marine Biology undergraduate degree program within USM. Contact the Office of Student Services, Institute of Marine Sciences, Gulf Coast Research Laboratory, P.O. Box 7000, Ocean Springs, MS 39566-7000 for application materials. The Gulf Coast Research Laboratory is affiliated with 65 colleges and universities whose students participate in the summer academic program on a competitive basis at both the graduate and undergraduate levels. Applications for admission to the IMS/GCRL summer academic program are accepted beginning the second week of January. Decisions on admission to Summer Program courses will be made during the last week of March. Date of application is used to award space in cases where academic credentials are similar; early application to the program is prudent.

Course Loads

The summer academic program courses are offered during two five-week terms. Because courses are taught at an accelerated pace, i.e., an entire semester of lecture and laboratory are taught in five weeks, a student is allowed to enroll in only one course each term. Students are able to earn up to twelve (12) semester hours credit during the summer. Classes meet each weekday with particular times scheduled for field trips, classroom instruction, and laboratory work.

Housing/Meals for the Summer Program

Housing is available on campus in an air-conditioned dormitory (double occupancy). The dining hall serves three meals daily to dormitory residents. Commuters may also purchase meals on campus for a modest cost.

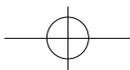
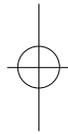
Fees

Deposit	\$ 50.00
Graduate	\$116.00 per semester hour
Housing and Meals	\$ 84.00 per week

Students pay fees directly to GCRL. Fees are subject to change without prior notice.

Calendar

Application Deadline	March 26, 1999
First summer term begins	May 24, 1999
Second summer term begins	June 28, 1999
Summer session ends	July 30, 1999



COURSE DESCRIPTIONS

INDEX FOR ABBREVIATIONS FOR FIELDS OF INSTRUCTION

ACC	Accounting	IB	International Business
ACT	Architectural Engineering Technology	ID	Interior Design
ADE	Adult Education	IET	Industrial Engineering Technology
AMS	American Studies	ITA	Italian
ANT	Anthropology	JOU	Journalism
ARE	Art Education	LAT	Latin
ART	Art	LIS	Library and Information Science
BCT	Construction Engineering Technology	MAR	Marine Science
BSC	Biological Sciences	MAT	Mathematics
BTE	Business Technology Education	MBA	Master of Business Administration
CD	Child Development	MC	Mass Communication
CEC	Cooperative Education	MED	Music Education
CET	Computer Engineering Technology	MET	Mechanical Engineering Technology
CHE	Chemistry and Biochemistry	MFG	Manufacturing Technology
CHS	Community Health Sciences	MGT	Management
CIE	Curriculum and Instruction:Elementary	MIS	Management Information Systems
CIS	Curriculum and Instruction:Secondary	MKT	Marketing
CJ	Criminal Justice	M-REP	Mathematics Refresher and Enrichment Program
CSC	Computer Science	MSM	Master of Science in Systems Management
CSS	Computer Science and Statistics	MTC	Medical Technology
DAN	Dance	MUP	Music Performance Studies
ECO	Economics	MUS	Music
ED	Economic Development	NFS	Nutrition and Food Systems
EDA	Educational Administration	NSG	Nursing
EET	Electronics Engineering Technology	PHI	Philosophy
ENG	English	PHY	Physics
ENT	Engineering Technology	PLG	Planning
ESC	Environmental Science	PS	Political Science
FAM	Family Relations	PSC	Polymer Science
FIN	Finance	PSY	Psychology
FL	Foreign Languages	REF	Research and Foundations
FMA	Fashion Merchandising and Apparel Studies	REI	Real Estate and Insurance
FRE	French	REL	Religion
FSC	Forensic Science	RTF	Radio-Television-Film
GER	German	SC	Scientific Computing
GHY	Geography and Area Development	SCM	Speech Communication
GLY	Geology	SHS	Speech and Hearing Sciences
GRK	Greek	SME	Science and Mathematics Education
GS	General Studies	SOC	Sociology
HEE	Home Economics Education	SPA	Spanish
HIS	History	SPE	Special Education
HPR	Human Performance and Recreation	SWK	Social Work
HRT	Hotel, Restaurant and Tourism Management	THE	Theatre
		THY	Therapy
		TOE	Technical and Occupational Education
		TOX	Toxicology
		TSL	Teaching Speakers of Other Languages

The plus (+) sign in front of a course indicates that a special fee is charged for that course. (See SPECIAL FEES AND EXPENSES.)

Accounting (ACC)

502. **Advanced Accounting II.** 3 hrs. Prerequisite: ACC 401 with a grade of C or better. An introduction to consolidated financial statements, accounting for fiduciaries.
511. **Financial Accounting.** 3 hrs. Prerequisite: Computer literacy. Fundamentals of accumulating, reporting, and interpreting financial accounting information for internal and external uses. See also MBA 511.
512. **Seminar on Contemporary Accounting Topics.** 1.5 hrs. Selected readings and discussions of current accounting topics.
560. **Managerial Accounting.** 3 hrs. Prerequisite: ACC 511 or the equivalent. An analysis of the use of accounting information in managerial decision making. See also MBA 560.
598. **International Accounting Seminar Abroad.** 3 hrs. Prerequisite: Permission of Program Director. Conducted in London, England: a series of lectures and discussions involving authorities on international accounting issues and practices.
605. **Current Accounting Theory & Research.** 3 hrs. Prerequisites: 15 hours of accounting above accounting principles. A study of financial accounting literature and the use of data bases to solve contemporary accounting problems.
610. **Advanced Auditing.** 3 hrs. Prerequisites: 15 hours of accounting above accounting principles including ACC 409. A study of the professional practice of auditing and the role of theory, methodology, and technology.
620. **Advanced Cost/Managerial Accounting.** 3 hrs. A study of the theory associated with, and systems and procedures designed to develop and integrate accounting data for management.
630. **Tax Seminar I.** 3 hrs. Prerequisite: ACC 330 or equivalent. Tax planning with emphasis on corporations, partnerships, tax option corporations, and tax administration and practice.
631. **Tax Seminar II.** 3 hrs. Prerequisite: ACC 330. Tax planning and research with emphasis on exempt entities, trusts and estates, transfer taxes, and the ethical responsibility of tax practice.
660. **Controllership.** 3 hrs. The interrelationship of the controller and modern information systems.
692. **Special Problems in Accounting.** 1-6 hrs. Individual study of specific topics in accounting.
699. **International Accounting Research Abroad.** 3 hrs. Prerequisite: Consent of Program Director. A research course in international accounting offered for students enrolled in ACC 598.

Adult Education (ADE)

540. **Methods and Materials in Adult Education.** 3 hrs. A course in method and format of instructional materials for adults with emphasis on self-instructional techniques.
541. **Foundations of Reading Instruction for the Adult.** 3 hrs. This course involves an examination of the basis of reading instruction for the nonliterate adult.
542. **Methods and Materials for Teaching Adults to Read.** 3 hrs. Instructional and diagnostic materials and methods for dealing with functionally illiterate adults.
545. **Teaching the Disadvantaged Adult.** 3 hrs. A study of the educational problems of culturally deprived and handicapped adults in terms of programs and procedures found to be successful.
576. **Learning in Adult Education.** 3 hrs. A study of learning in adulthood related to a range of educational programs.
578. **Specialized Studies in Developmental Disabilities.** 1-6 hrs. Specialized study and skill acquisition in the area of developmental disabilities. Topics vary.
580. **Applied Educational Gerontology.** 3 hrs. This course prepares individuals to design and implement educational programs for older adults.
590. **Special Problems in Adult Education.** 1-3 hrs. Special areas of interest arranged for an individual or a group with common interests.
597. **Professional Collaboration for Developmental Disability Services.** 3 hrs. Study of the interdependent contributions of relevant disciplines in training, service, and research.
601. **Principles of Adult Education.** 3 hrs. A survey of the history, philosophies, form, structure, and current developments in the field of adult education.
602. **Organization and Administration of Adult Education.** 3 hrs. A survey of organizational and management theory as applied to adult education agencies. The case study approach is used.
603. **Human Resource Development as a Special Form of Adult Education.** 3 hrs. The course compares and contrasts human resource development in organizations to other more traditional forms of adult education.
607. **Program Planning and Curriculum Development in Adult Education.** 3 hrs. The design of programs and courses of study related to a wide variety of adult education agencies.

650. **Issues in Adult Education.** 3 hrs. Examination of contemporary issues related to the education and learning of adults in a seminar format.
688. **Medical Aspects of Developmental Disabilities.** 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.
692. **Special Problems I, II, III.** 1-3 hrs. A study to develop knowledge and facility in a field of special interest to the student. Requires preparation of a scholarly paper under supervision of a graduate professor.
701. **Delivery Systems for Adult Education.** 3 hrs. Prerequisites: ADE 601 and ADE 607. Introduction and orientation to a variety of organizations and agencies responsible for conducting adult education programs.
737. **Practicum in Adult Education.** 3 hrs. A direct work experience in an adult education setting unrelated to student's employment.
741. **Assessment in Adult Education.** 3 hrs. Prerequisite: ADE 576, REF 601, or permission of instructor. Explore, develop, and evaluate various assessment methods and strategies used in adult education.
750. **Education and the Older Adult.** 3 hrs. A study of the elderly adult and the implications of those characteristics for adult education programs.
760. **Readings in Adult Education.** 3 hrs. Students select readings in the adult education literature for discussion in a seminar format.
791. **Research in Adult Education.** 1-16 hrs. Prerequisite: Approval of the major professor.
792. **Special Problems.** 3 hrs.
794. **Field Problems in Adult Education I, II, III.** 1-3 hrs. arr. A project dealing with a specific problem in an adult education agency. Registration must be approved by student's major professor and departmental chairman.
797. **Independent Study and Research.** 3 hrs. Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
798. **Specialist Thesis.** 6 hrs. A field study or thesis type research study representing the major research component of the specialist's degree.
889. **Seminar in Adult Education.** 3 hrs. Seminar required for adult education doctoral students in residence. The focus is on the dissertation research process.
898. **Dissertation.** 12 hrs.

American Studies (AMS)

504. **Issues in America.** 3 hrs. Topics vary according to professor and department.
599. **British Studies: Anglo-American Studies.** 3-6 hrs. A seminar conducted in Great Britain under the auspices of the USM Institute of Anglo-American Studies.

Anthropology (ANT)

516. **Ethnographic Field Methods.** 1-6 hrs. Methods of ethnographic fieldwork through participation in organized field studies. Permission of instructor required.
520. **Culture and Ethnicity.** 3 hrs. An analysis of culture and ethnicity with special reference to the problem of modernization.
521. **Anthropological Theory.** 3 hrs. A general survey of historical anthropological thought and of the major contemporary schools of anthropological theory.
522. **Ecological Anthropology.** 3 hrs. An examination of human cultural strategies for adaptation to different environments.
523. **Economic Anthropology.** 3 hrs. The evolution of economic systems, cross-cultural analysis of economic systems, and the role of economic forces in cultural change.
525. **Kinship and Social Organization.** 3 hrs. A comparative study of kinship and social organization, and a survey of the major anthropological theories concerning organizational variability.
526. **American Folklore.** 3 hrs. An analysis of folklore, oral narratives, performance, and material culture with special reference to America and the American South.
527. **Psychological Anthropology.** 3 hrs. Cross-cultural analysis of personality formation, perception and cognition, mental illness, and altered states of consciousness.

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528. **Political Anthropology.** 3 hrs. A comparative survey of patterns of group decision-making, leadership, resolution of conflict and social control in human societies.
529. **Topics in Cultural Anthropology.** 3 hrs. Variable content. May be repeated three times in separate topical offerings.
531. **Prehistoric Archaeology.** 3 hrs. Corequisite: ANT 531L. Overview of analytical techniques and prehistoric technologies.
- 531L. **Prehistoric Archaeology Laboratory.** 1 hr. Laboratory to accompany Prehistoric Archaeology (ANT 531).
533. **Prehistory of Southeastern Indians.** 3 hrs. A survey of the prehistoric archaeology of the Southeastern United States, especially Mississippi and adjoining states, from first inhabitants to the time of European contact.
534. **Historical Archaeology.** 3 hrs. A study of questions and techniques used on archaeological sites dating from the 15th century to the early 20th century.
535. **Urban Archaeology.** 3 hrs. An examination of archaeological remains recovered in American cities.
536. **Archaeology Field Methods.** 3 hrs. Methods of fieldwork through participation in organized field projects.
537. **Archaeology and Public Policy.** 3 hrs. Prerequisite: ANT 231, ANT 331, or ANT 333. The history and present state of public policy issues related to archaeological and historic resources, in their role in the planning process.
539. **Topics in Archaeology.** 3 hrs. Variable content. May be repeated three times in separate topical offerings.
541. **Human Variation.** 3 hrs. An examination of human biological variation, including its sources, its classification, and its expression in different environments.
542. **Medical Anthropology.** 3 hrs. Introduction to the relationship between human culture and disease especially cross-cultural comparisons of perception and treatment of illness.
545. **Bioarchaeology.** 3 hrs. Methods and theories used in interpretation of skeletal and mortuary data in archaeological contexts.
549. **Topics in Physical Anthropology.** 3 hrs. Variable content. May be repeated three times in separate topical offerings.
551. **Language Planning, Culture, and Politics.** 3 hrs. Study of language planning, cultural identity and politics around the world.
552. **Language, Gender, and Culture.** 3 hrs. Cross-cultural study of the social basis of gender differences in language.
559. **Topics in Linguistic Anthropology.** 3 hrs. Variable content. May be repeated three times in separate topical offerings.
593. **Irish Studies.** 4 hrs. Variable content. Lecture series and study in Ireland under the auspices of the Center for International Education.
599. **British Studies.** 3-6 hrs. Variable content. Lecture series and research offered abroad under the auspices of the Institute of Anglo-American Studies.
601. **Teaching Anthropology.** 1-3 hrs. An in-depth examination of the resources and techniques of introducing undergraduates to the discipline of anthropology. May be repeated three times.
607. **Applied Anthropology.** 3 hrs. The application of anthropology to the solution of contemporary social and cultural problems.
621. **Seminar in Ethnology.** 3 hrs. A comprehensive examination of method and theory in contemporary sociocultural anthropology, focusing particularly on the problems of ethnographic production and comparative analysis.
631. **Seminar in Archaeology.** 3 hrs. An in-depth examination of the method and theory of archaeological archaeology.
641. **Seminar in Physical Anthropology.** 3 hrs. A comprehensive examination of the method and theory of physical anthropology.
651. **Seminar in Anthropological Linguistics.** 3 hrs. An in-depth examination of the method and theory of anthropological linguistics.
691. **Cooperative Internship in Archaeology.** 3-9 hrs. Prerequisites: Faculty approval. Supervised experience in specific professional settings arranged by the department with public agencies.
692. **Special Problems.** 1-3 hrs.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs.
792. **Special Study Projects in Anthropology.** 1-6 hrs. Special projects in reading, survey, or research in anthropology.

Architectural Engineering Technology (ACT)

526. **Specifications.** 3 hrs. Prerequisite: Permission of instructor. An introduction to development and writing of architectural project specifications.
592. **Special Problems.** 1-3 hrs. Prerequisite: Senior standing and approval of faculty adviser.

Art (ART)

500. **The Art of Italy.** 3 hrs. An examination of art in Italy. A travel/study course.
513. **Crafts II.** 3 hrs. The creation and design of jewelry.
514. **Crafts III.** 3 hrs. The creation of surface designs for fabrics.
531. **Ancient Art History.** 3 hrs. 4000 B.C. to circa 600 A.D.
532. **Medieval Art History.** 3 hrs. 600 A.D. to circa 1300 A.D.
533. **Renaissance Art History.** 3 hrs. 1400 A.D. to 1600 A.D.
534. **Baroque and Rococo Art History.** 3 hrs. 17th and 18th centuries.
535. **Nineteenth Century Art History.** 3 hrs.
536. **Twentieth Century Art History.** 3 hrs.
570. **Individually Directed Problems in Printmaking.** 3 hrs. Prerequisite: *Study of appropriate printmaking media for advanced problems. May not be utilized to fulfill graduate degree requirements. May be repeated.
598. **British Studies, Art History.** 3 or 6 hrs. Variable content. Lecture series and research offered abroad under the auspices of the Institute of Anglo-American Studies.
599. **British Studies, Art Studio.** 3 or 6 hrs. Variable content. Studio series offered abroad under the auspices of the Institute of Anglo-American Studies.
600. **Studio Foundations.** 3 hrs. A review, through studio problems, of some fundamental problems of plastic expression. Hours earned may not be used to fulfill degree requirements. Repetition may be required.
601. **Drawing Studio.** 3 hrs. Form problems in drawing. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.
602. **Drawing Studio.** 3 hrs. Form problems in drawing. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.
603. **Drawing Studio.** 3 hrs. Form problems in drawing. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.
610. **Crafts: Jewelry Design for Teachers.** 3 hrs. The study of visual forms as pertaining to the jewelry crafts.
615. **Trends in Current Plastic Expression.** 3 hrs. A course designed to keep the student abreast of current trends in the plastic arts.
620. **Adapting Selected Current Art Trends to School Practice.** 3 hrs. Current art trends are identified and selections of them are developed in terms of philosophies, practitioners, background, and techniques.
621. **Painting Studio.** 3 hrs. Form problems in painting. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.
622. **Painting Studio.** 3 hrs. Form problems in painting. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.
623. **Painting Studio.** 3 hrs. Form problems in painting. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.
631. **Directed Museum and Gallery Tour.** 1-3 hrs. Tour of museums and galleries for the purpose of viewing and studying original works.
651. **Ceramics Studio.** 3 hrs. Permission of instructor and department chair required for admission.
652. **Ceramics Studio.** 3 hrs. Permission of instructor and department chair required for admission.
653. **Ceramics Studio.** 3 hrs. Permission of instructor and department chair required for admission.
661. **Sculpture Studio.** 3 hrs. Permission of instructor and department chair required for admission.
662. **Sculpture Studio.** 3 hrs. Permission of instructor and department chair required for admission.
663. **Sculpture Studio.** 3 hrs. Permission of instructor and department chair required for admission.
671. **Printmaking Studio.** 3 hrs. Prerequisite: * and **. Intensive graduate study and criticism in advanced printmaking problems.

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672. **Printmaking Studio.** 3 hrs. Prerequisite: * and **. Intensive graduate study and criticism in advanced printmaking problems.
673. **Printmaking Studio.** 3 hrs. Prerequisite: * and **. Intensive graduate study and criticism in advanced printmaking problems.
680. **Workshop in Art.** 1-3 hrs. Art experiences with variable content. May be repeated.
701. **Drawing Studio.** 3 hrs. Form problems in drawing. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.
702. **Drawing Studio.** 3 hrs. Form problems in drawing. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.
703. **Drawing Studio.** 3 hrs. Form problems in drawing. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.
721. **Painting Studio.** 3 hrs. Form problems in painting. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.
722. **Painting Studio.** 3 hrs. Form problems in painting. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.
723. **Painting Studio.** 3 hrs. Form problems in painting. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.
731. **Seminar.** 1 hr. Seminar in Art issues.
732. **Seminar.** 1 hr. Seminar in Art issues.
733. **Seminar.** 1 hr. Seminar in Art issues.
739. **Directed Study in Art History/Criticism.** 1-6 hrs. for a total of six hours.
751. **Ceramics Studio.** 3 hrs. Permission of instructor and department chair required for admission.
752. **Ceramics Studio.** 3 hrs. Permission of instructor and department chair required for admission.
753. **Ceramics Studio.** 3 hrs. Permission of instructor and department chair required for admission.
761. **Sculpture Studio.** 3 hrs. Permission of instructor and department chair required for admission.
762. **Sculpture Studio.** 3 hrs. Permission of instructor and department chair required for admission.
763. **Sculpture Studio.** 3 hrs. Permission of instructor and department chair required for admission.
771. **Printmaking Studio.** 3 hrs. Prerequisite: * and **. Intensive graduate study and criticism in advanced printmaking problems.
772. **Printmaking Studio.** 3 hrs. Prerequisite: * and **. Intensive graduate study and criticism in advanced printmaking problems.
773. **Printmaking Studio.** 3 hrs. Prerequisite: * and **. Intensive graduate study and criticism in advanced printmaking problems.
799. **Creative Project.** 6 hrs. An individually motivated, sustained project of original art works demonstrating professional competence and stature, culminating in an exhibition. Oral and written proposal and defense required.

Art Education (ARE)

600. **Art Education Theory.** 2 hrs. A comprehensive survey of Art Education trends and philosophies.
601. **Research in Art Education.** 3 hrs. A lecture/study seminar of past, present art education research; emphasis on understanding the nature of educational research in art, various research methods, how research translates into practical classroom application; includes review, critique, application, development of research topics.
602. **Art Techniques and Materials for Teachers.** 3 hrs. A comprehensive survey of teaching techniques emphasizing the pedagogical potential and limitation of plastic media.
603. **Teaching the Visual Relationships.** 3 hrs. A lecture/study seminar course dealing with the teaching of the visual characteristics and relationships, and integrating them with the current practice and procedures in art education, including studio-based art experiences for students of all ages, ability levels; emphasis on individual student's studio strengths, augmented by curricula in two-dimensional and three-dimensional concepts, percepts, and materials.
604. **Teaching the Exceptional Student Contemporary Processes.** 3 hrs. A course devoted to the pedagogical potential of contemporary processes for use with exceptional students.
605. **Techniques of Dissemination of Student Art Work.** 3 hrs. Techniques of advanced pedagogy in the selection, display, and showing of student work.

606. **History and Philosophy of Art Education.** 3 hrs. A lecture/study seminar course. History of art education; emphasis on changing philosophies, theories of learning, subsequent goals and objectives made apparent in curriculum development.
616. **Advanced Art Education Seminar for Selected Topics.** 3 hrs. Topics may include past, present approaches to curriculum development; special populations; aesthetics; art history, criticism; art and technology; art and society; critical analysis; philosophic reflections on art, art education; others. May be repeated for credit.
625. **Supervision of Art Education Programs.** 3 hrs. A lecture/study seminar course on the problems and solutions involved in the supervision of public school art programs in grades K-12.
626. **Curriculum and Instruction in Art Education.** 3 hrs. A lecture/study seminar course on past, present curriculum instruction; includes historical component as foundation for understanding current teaching strategies; various teaching approaches are analyzed and formalized into applicable classroom art experiences.
691. **Research Project in Art Education.** 1-16 hrs. Prerequisite: Approval of the major professor.
692. **Special Problems in Art Education I, II, III.** 1-3 hrs. each.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hours. A written thesis.

Biological Sciences (BSC)

500. **History of Biology.** 3 hrs. Lectures and papers concerning the development of biological sciences.
501. **Natural History of Animals.** 1 hr. Prerequisite: Consent of instructor. Life histories of animals.
- 501L. **Natural History of Animals Laboratory.** 2 hrs.
502. **Natural History of Plants.** 1 hr. Prerequisite: Consent of instructor. Life histories of plants.
- 502L. **Natural History of Plants Laboratory.** 2 hrs.
503. **Natural History of Infectious Diseases.** 3 hrs. A study of infectious diseases and their effect on man.
504. **Field Biology.** 1-2 hrs. ar. Ecological and taxonomic studies. Offered between semesters as 4- and 12-day field trips.
- 504L. **Field Biology Laboratory.** 2-4 hrs. To be taken concurrently with BSC 504.
506. **Zoogeography.** 3 hrs. Prerequisite: Consent of instructor. A descriptive and analytical study of the distribution of animals.
507. **Biology of Vertebrates.** 3 hrs. Corequisite: BSC 507L. The ecology, evolution, behavior and conservation of vertebrate animals. Field trips when possible.
- 507L. **Biology of Vertebrates Laboratory.** 1 hr. Corequisite for BSC 507.
508. **Invertebrate Zoology I.** 2 hrs. Functional morphology, systematics, and life histories of the phyla Porifera through the minor protostomes.
- 508L. **Invertebrate Zoology I Laboratory.** 1 hr.
509. **Invertebrate Zoology II.** 2 hrs. Prerequisite: BSC 508 or consent of instructor. Functional morphology, systematics, and life histories of invertebrate phyla through the Hemichordata.
- 509L. **Invertebrate Zoology II Laboratory.** 1 hr.
510. **Human Parasitology.** 3 hrs. Life histories, medical significance, and diagnosis of helminths and protozoa parasitic in man.
- 510L. **Human Parasitology Laboratory.** 1 hr.
511. **Entomology.** 2 hrs. Structural adaptations, classification, life histories and habits, and the economic importance of insects.
- 511L. **Entomology Laboratory.** 1 hr.
512. **Medical Entomology.** 2 hrs. Prerequisite: Consent of instructor. Anthropod vectors and agents of disease.
- 512L. **Medical Entomology Laboratory.** 1 hr.
513. **Arachnida Biology.** 2 hrs. Biology, morphology, and classification of the arachnids.
- 513L. **Arachnida Biology Laboratory.** 1 hr.
514. **Ichthyology.** 2 hrs. Evolutionary relationships, morphology, physiology and zoogeography of fishes, with emphasis on identification of local forms.

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- 514L. **Ichthyology Laboratory.** 1 hr.
515. **Biology of Fishes.** 2 hrs. Prerequisite: Consent of instructor. Function morphology, ecology and behavior of fishes.
- 515L. **Biology of Fishes Laboratory.** 2 hrs.
516. **Introduction to Fishery Science.** 2 hrs. A survey of the biology, management, and potential yield of fish populations.
- 516L. **Introduction to Fishery Science Laboratory.** 1 hr.
517. **Herpetology.** 3 hrs. Collection, preservation, identification, and distribution of amphibians and reptiles. Field trips when possible.
- 517L. **Herpetology Laboratory.** 1 hr.
518. **Avian Biology.** 3 hrs. Prerequisite: BSC 361 recommended. Morphology, taxonomy, life history, distribution, evolution, and adaptations of birds.
- 518L. **Avian Biology Laboratory.** 1 hr.
519. **Mammalogy.** 2 hrs. Prerequisite: BSC 361 recommended. Morphology, taxonomy, life history, distribution, evolution, and adaptations of mammals.
- 519L. **Mammalogy Laboratory.** 1 hr.
521. **Marine Invertebrate Zoology.** 3 hrs. Morphology, distribution and ecology of the phyla from Protozoa through Protochordates. May be taken as MAR 503.
- 521L. **Marine Invertebrate Zoology Laboratory.** 3 hrs. Corequisite for BSC 521. May be taken as MAR 503L.
523. **Science and Society: from Copernicus to the Bomb.** 3 hrs. Traces the development of science and technology and their role in society from the Renaissance to the present. (Cross-listed as HIS 523 and PHY 585.)
524. **Parasites of Marine Animals.** 3 hrs. Prerequisite: Permission of instructor. Emphasis on morphology, taxonomy, life histories, and host-parasite relationships. May be taken as MAR 504.
- 524L. **Parasites of Marine Animals Laboratory.** 3 hrs. Corequisite for BSC 524.
525. **Marine Phycology.** 2 hrs. Prerequisites: General botany and plant taxonomy. A survey of the principal groups of marine algae. May be taken as MAR 520.
- 525L. **Marine Phycology Laboratory.** 2 hrs. Corequisite for BSC 525. May be taken as MAR 520L.
526. **Introductory Mycology.** 3 hrs. Prerequisite: Consent of instructor. Systematics, morphology, physiology, and ecology of fungi.
- 526L. **Introductory Mycology Laboratory.** 1 hr. Corequisite for BSC 526.
527. **Introductory Phycology.** 2 hrs. Prerequisite: Consent of instructor. Taxonomy, physiology, and biochemistry of the algae. May be taken as MAR 520.
- 527L. **Introductory Phycology Laboratory.** 1 hr. May be taken as MAR 520L.
528. **Plant Anatomy.** 2 hrs. A study of the anatomy of vascular plants.
- 528L. **Plant Anatomy Laboratory.** 1 hr.
529. **Bryophytes and Vascular Plants.** 3 hrs. Life cycles, evolution, and morphology of bryophytes and vascular plants.
- 529L. **Bryophytes and Vascular Plants Laboratory.** 1 hr.
530. **Aquatic and Marsh Plants.** 2 hrs. Collection, identification, and ecology of plants of fresh and brackish water.
- 530L. **Aquatic and Marsh Plants Laboratory.** 1 hr.
531. **Plant Physiology.** 3 hrs. Prerequisite: Organic chemistry recommended. The basic physiological processes of green plants.
- 531L. **Plant Physiology Laboratory.** 1 hr.
532. **Economic Botany.** 2 hrs. Origin, distribution, and significance of plants most important to man.
- 532L. **Economic Botany Laboratory.** 1 hr.
533. **Taxonomy of Local Flora.** 2 hrs. The classification of the local flora.
- 533L. **Taxonomy of Local Flora Laboratory.** 1 hr.
534. **Dendrology.** 2 hrs. The taxonomic and ecological characteristics, and the distribution of trees.
- 534L. **Dendrology Laboratory.** 1 hr.
535. **Plant Ecology.** 3 hrs. Prerequisite: Advanced standing in botany. Relationship of plants to their environment.
- 535L. **Plant Ecology Laboratory.** 1 hr.
536. **Conservation Biology.** 3 hrs. Prerequisite advanced standing in botany and zoology, or with permission of instructor. The biology of plant and animal populations in human-generated environments, with emphasis on their long-term management.

- 536L. **Conservation Biology Laboratory.** 1 hr. Corequisite for BSC 536. Lab consists of six day-long field trips held on Saturdays.
537. **Coastal Vegetation.** 2 hrs. A study of general and specific aspects of coastal vegetation, with emphasis on local examples. May be taken as MAR 521.
- 537L. **Coastal Vegetation Laboratory.** 1 hr. Corequisite for BSC 537. May be taken as MAR 521L.
538. **Salt Marsh Plant Ecology.** 2 hrs. The botanical aspects of local marshes: includes plant identification, composition, and structure. May be taken as MAR 522.
- 538L. **Salt Marsh Plant Ecology Laboratory.** 2 hrs. Corequisite for BSC 538. May be taken as MAR 522L.
539. **Marine Ecology.** 3 hrs. The relationship of marine organisms to their environment. May be taken as MAR 505.
- 539L. **Marine Ecology Laboratory.** 2 hrs. Corequisite for BSC 539. May be taken as MAR 505L.
540. **Ecology.** 3 hrs. Prerequisite: Consent of instructor. The study of the relationships of organisms to their environment and to each other.
- 540L. **Ecology Laboratory.** 1 hr.
541. **Population and Community Ecology.** 2 hrs. Collection, analysis, and interpretation of data on natural populations and communities.
- 541L. **Population and Community Ecology Laboratory.** 1 hr.
542. **Behavioral Ecology.** 3 hrs. The adaptive significance of behavior.
- 542L. **Behavioral Ecology Laboratory.** 1 hr. Corequisite for BSC 542.
543. **Freshwater Biology.** 3 hrs. Prerequisite: Consent of instructor. The study of the biota of ponds, lakes, rivers, and streams.
- 543L. **Freshwater Biology Laboratory.** 1 hr.
544. **Limnology.** 2 hrs. Prerequisites: BSC 540 and consent of instructor. The physical, chemical and biological dynamics of inland waters.
- 544L. **Limnology Laboratory.** 1 hr.
545. **Introduction to Biological Oceanography.** 3 hrs. Prerequisites: BSC 110, 111, 201. Marine biological regimes and the influence of geological, physical, and chemical oceanographic factors.
- 545L. **Introduction to Biological Oceanography Laboratory.** 1 hr. Corequisite for BSC 545.
546. **Aquaculture.** 2 hrs. Prerequisites: 12 hours of biology and 8 hours of chemistry. Production of aquatic organisms in natural and artificial environments.
- 546L. **Aquaculture Laboratory.** 1 hr.
547. **Marine Aquaculture.** 3 hrs. Problems and procedures relating to the culture of commercially important crustaceans, fish, and mollusks. May be taken as MAR 507.
- 547L. **Marine Aquaculture Laboratory.** 3 hrs. Corequisite for BSC 547. May be taken as MAR 507L.
548. **Fauna and Faunistic Ecology and Tidal Marshes.** 2 hrs. Taxonomy, distribution, trophic relationships, reproductive strategies and adaptation of tidal marsh animals. May be taken as MAR 506.
- 548L. **Fauna and Faunistic Ecology of Tidal Marshes Laboratory.** 3 hrs. Corequisite for BSC 548. May be taken as MAR 506L.
549. **Marine Fisheries Management.** 2 hrs. Prerequisite: statistics recommended. A statistical review of the world fisheries. May be taken as MAR 510.
- 549L. **Marine Fisheries Management Laboratory.** 2 hrs. Corequisite for BSC 549. May be taken as MAR 510L.
550. **General Physiology.** 3 hrs. Organismic function and the adaptations which characterize major animal groups.
551. **Mammalian Physiology.** 3 hrs. The functions of mammalian systems; interrelationships and regulation are emphasized.
552. **Environmental Physiology.** 3 hrs. Physiological adaptations enabling animals to meet environmental challenges.
553. **Invertebrate Physiology.** 3 hrs. A functional approach to the major invertebrate phyla.
- 554L. **Physiology Laboratory.** 2 hrs. Experimental techniques in physiology. To be taken once only, as an optional laboratory with BSC 550, BSC 551, BSC 552, or BSC 553.
555. **Animal Behavior.** 3 hrs. Classical and current concepts of animal behavior including individual and social behavioral patterns.
- 555L. **Animal Behavior Laboratory.** 1 hr.
558. **Marine Ichthyology.** 3 hrs. Prerequisite: Sixteen semester hours of biology including comparative anatomy or consent of instructor. Marine fishes including evolutionary relationships, morphology, physiology, and zoogeography. May be taken as MAR 508.

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- 558L. **Marine Ichthyology Lab.** 3 hrs. Corequisite for BSC 558. May be taken as MAR 508L.
559. **Marine Mammals.** 3 hrs. Prerequisite: Twelve semester hours of biology including MAR 301 or Marine Ichthyology or permission of instructor. Natural history and population ecology of cetaceans. Will include life history, distribution, population dynamics, diet and feeding, social behavior, evolution and zoogeography. May be taken as MAR 523.
- 559L. **Marine Mammals Laboratory.** 2 hrs. Corequisite for BSC 559. May be taken as MAR 523L.
560. **Pharmacology.** 3 hrs. Prerequisites: Vertebrate biology and organic chemistry. The response of living organisms to drugs.
561. **Histology.** 4 hrs. Prerequisite: 12 hours of biology. Microscopic anatomy of mammalian organ systems.
- 561L. **Histology Laboratory.** Must be taken concurrently with BSC 561; no separate credit given for the laboratory.
562. **Microtechnique.** 1 hr. Techniques for sectioning, mounting, and staining tissue and making whole mounts.
- 562L. **Microtechnique Laboratory.** 2 hrs.
563. **Pathobiology.** 2 hrs. Prerequisite: BSC 461 or 561. Principles of histopathology in vertebrates and invertebrates.
- 563L. **Pathobiology Laboratory.** 1 hr.
565. **Embryology.** 2 hrs. Maturation, fertilization, cleavage, histogenesis, and organogenesis.
- 565L. **Embryology Laboratory.** 2 hrs.
566. **Human Embryology.** 3 hrs. Prerequisite: BSC 465 or 565. Factors which activate and regulate developmental processes.
567. **Diseases of Aquatic Animals.** 2 hrs. Bacterial, fungal, viral and parasitic diseases of freshwater and marine fish, shellfish, and crustacea.
- 567L. **Diseases of Aquatic Animals Laboratory.** 2 hrs.
568. **Comparative Histology of Marine Organisms.** 3 hrs. Histology of Marine organisms, including tissue processing techniques. May be taken as MAR 530.
- 568L. **Comparative Histology of Marine Organisms Laboratory.** 3 hrs. Corequisite for BSC 568. May be taken as MAR 530L.
569. **Developmental Biology.** 3 hrs. A comprehensive survey of the experimental, genetic, and molecular analysis of processes that occur during the development of complex organisms.
571. **Advanced Genetics.** 2 hrs. Prerequisite: BSC 370 or 475 or 575. A continuation of BSC 370.
- 571L. **Advanced Genetics Laboratory.** 2 hrs. Corequisite for BSC 571. Laboratory exercises to illustrate basic genetic principles.
575. **Medical Genetics.** 3 hrs. The basic principles of human genetics with emphasis on the causation of abnormality and disease.
576. **Molecular Biology.** 3 hrs. Prerequisite: BSC 370 or 477. Molecular biology of viral, prokaryotic and eukaryotic systems.
577. **Microbial Genetics.** 3 hrs. Prerequisites: BSC 370, 380. The genetics and molecular biology of microorganisms and viruses.
- 577L. **Microbial Genetics Laboratory.** 1 hr. Prerequisite: Permission of instructor. Laboratory exercises to demonstrate principles of bacterial and viral genetics. Must be taken concurrently with BSC 577.
- 578L. **Molecular Biology Laboratory.** 4 hrs. Prerequisite: BSC 576 or 577 or permission of instructor. The paradigms of molecular biology in a laboratory setting.
579. **Applications of Biotechnology in Marine Biology.** 3 hrs. Prerequisites: BSC 110, 111, 201, CHE 106, 107, 255, 256; CHE 420/520 or 421/521, 422/522 recommended or permission of instructor. Basic biochemical and molecular techniques used to conduct research in marine biology.
- 579L. **Applications of Biotechnology in Marine Biology Laboratory.** 3 hrs. Corequisite for BSC 579.
581. **Pathogenic Microbiology.** 3 hrs. Prerequisites: BSC 370, BSC 380, and BSC 576 or BSC 577 or permission of instructor. The molecular mechanisms of microbial pathogenesis, emphasizing the major groups of disease-producing microorganisms.
- 581L. **Pathogenic Microbiology Laboratory.** 1 hrs.
582. **Advanced Pathogenic Microbiology.** 2 hrs. Continuation of BSC 581.
- 582L. **Advanced Pathogenic Microbiology Laboratory.** 2 hrs.
584. **Virology and Tissue Culture.** 3 hrs. Viral classification, replication, and molecular biology.
- 584L. **Virology and Tissue Culture Laboratory.** 1 hr. Corequisite for BSC 584. Basic and applied tissue culture techniques.
585. **Viral Pathogenesis and Diagnosis.** 3 hrs. Host-viral interaction from a pathological and immunological viewpoint.
- 585L. **Viral Pathogenesis and Diagnosis Laboratory.** 1 hr. Principles of viral serology and isolation.
586. **Immunology and Serology.** 3 hrs. Studies of infection, resistance, types of immunity and hypersensitivity.

- 586L. **Immunology and Serology Laboratory.** 1 hr. A laboratory introduction to cellular and serologic immune reactions and their diagnostic usefulness.
587. **Microbial Physiology.** 3 hrs. A comprehensive survey of bacterial structure, nutrition, and biochemistry.
- 587L. **Microbial Physiology Laboratory.** 1 hr.
588. **Food Microbiology.** 2 hrs. Microorganisms affiliated with the preparation, spoilage, pathogenicity, and sanitation of foods.
- 588L. **Food Microbiology Laboratory.** 2 hrs.
589. **Environmental Microbiology.** 3 hrs. Microbiology of water/air/soil; bioremediation.
- 589L. **Environmental Microbiology Laboratory.** 1 hr. Corequisite for BSC 589.
590. **Marine Microbiology.** 3 hrs. Prerequisite: General Microbiology. An introduction to the role of microorganisms in the overall ecology of the oceans and estuaries. May be taken as MAR 509.
- 590L. **Marine Microbiology Laboratory.** 2 hrs. Corequisite for BSC 590. May be taken as MAR 509L.
604. **Early Life History of Marine Fishes.** 2 hrs. Reproductive strategies and early developmental processes of marine fishes. May be taken as MAR 604.
- 604L. **Early Life History of Marine Fishes Laboratory.** 2 hrs. Corequisite for BSC 604. May be taken as MAR 604L.
648. **Aquatic Insect Ecology.** 2 hrs. Prerequisites: BSC 411, 440, 443.
- 648L. **Aquatic Insect Ecology Laboratory.** 1 hr.
691. **Research.** 1-16 hrs.
692. **Special Problems.** 2-6 hrs.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs.
706. **Principles of Biological Systematics.** 3 hrs. The organized study of factors and processes causally responsible for patterns of organic diversity through phylogenetic evaluation, taxonomic hierarchical devices, and nomenclature.
707. **Planktology.** 2 hrs. Prerequisite: Permission of instructor. Morphological adaptations and life histories of plankton.
- 707L. **Planktology Laboratory.** 1 hr.
717. **Advanced Herpetology.** 2 hrs. Systematics, natural history, distribution, and economic importance of reptiles and amphibians.
- 717L. **Advanced Herpetology Laboratory.** 1 hr.
740. **Topics in Marine Biology.** 2 hrs. Current topics in marine research.
741. **Fisheries Biology.** 2 hrs. Prerequisite: BSC 416 or 516, or consent of instructor. Statistics and management of exploited fish populations.
- 741L. **Fisheries Biology Laboratory.** 1 hr.
742. **Advanced Biological Oceanography.** 3 hrs. Prerequisite: BSC 441 or 541 or permission of instructor. The sea as a biological environment.
743. **Marine Ecology.** 2 hrs. Prerequisite: BSC 441 or 541. The marine environment and the ecology of marine organisms.
- 743L. **Marine Ecology Laboratory.** 1 hr.
745. **Landscape Ecology.** 3 hrs. The ecology of spatially dynamic ecosystems. Fire, windstorms, land use, and the dilemmas they create for individual species.
- 745L. **Landscape Ecology Laboratory.** 1 hr. Corequisite of BSC 745. Spatial analysis in ecology.
746. **Current Topics in Population and Community Ecology.** 3 hrs. Prerequisite: upper-level ecology course or permission of instructor. The formation, organization, and control of biological populations and communities.
750. **Physiology of Marine Animals.** 3 hrs. The environmental physiology of marine animals.
751. **Seminar in Animal Behavior.** 3 hrs. Topics in the behavior and ecology of animals.
752. **Seminar in Physiology.** 2 hrs. Special topics in physiology in areas of individual interest.
760. **Cell Ultrastructure.** 3 hrs. Prerequisite: Permission of instructor. Structure and function of cells and cell organelles at the sub-cellular level.

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761. **Functional and Ecological Vertebrate Morphology.** 3 hrs. Prerequisites: BSC 110, BSC 111, BSC 201, PHY 111, BSC 361, and BSC 361L recommended, or permission of instructor. An integrative, functional analysis of vertebrate structure related to ecological contexts.
776. **Topics in Gene Regulation.** 4 hrs. An intensive review of the recent primary literature in molecular genetics and molecular biology, as defined by the topic chosen each semester.
780. **Principles of Immunochemistry.** 3 hrs. A study of the chemistry of antigens, antibodies and complement and the mechanism of their interaction.
- 780L. **Principles of Immunochemistry Laboratory.** 1 hr.
781. **Immunohematology.** 3 hrs. A study of serological genetic, and anthropological aspects of human blood groups, isoantigens and antibodies.
782. **Advanced Microbial Physiology.** 4 hrs. Concepts of microbial nutrition, metabolism, adaptation, and genetics as related to growth and environment.
789. **Microbiology Seminar.** 1 hr. The presentation and defense of current, classical concepts and principles of microbiology. May be repeated for credit.
790. **Biology Seminar.** 1 hr. The presentation of current concepts in special areas of individual interest.
791. **Research in Biology.** 1-16 hrs. Prerequisite: Approval of the major professor.
792. **Special Problems.** 2-6 hrs.
793. **Research in Zoology.** 1-6 hrs.
795. **Research in Genetics.** 1-9 hrs.
796. **Research in Microbiology.** 1-9 hrs.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
864. **Electron Microscopy.** 1 hr. Theory and use of the electron microscope, ultramicrotome, and associated specimen preparation.
- 864L. **Electron Microscopy Laboratory.** 2 hrs. Practical use of the electron microscope and ultramicrotome. Introduction to specimen preparation and darkroom techniques.
898. **Dissertation.** 12 hrs.

Business Technology Education (BTE)

552. **History and Philosophy of Vocational Education.** 3 hrs. For business and distributive education teachers. History, concepts, trends, occupations, employment opportunities, procedures, and techniques.
553. **Techniques of Coordination.** 3 hrs. Techniques and procedures used in coordinating office occupations and DE programs.
554. **Methods and Materials in Teaching Distributive Education.** 3 hrs. Principles, concepts, program plans, curricula, methods and materials, activities, research, and evaluation.
555. **Organization and Administration of Distributive Education.** 3 hrs. Basic problems, objectives, and characteristics of DE programs as applied in their development.
560. **Administrative Office Management.** 3 hrs. Principles of management; office organization, procedures, and supervision; layout, supplies, machines, personnel, forms, reports, and services.
561. **Information Processing I.** 3 hrs. Microcomputer knowledge and skill development via document production utilizing integrated software (word processing, database, chart/spreadsheet, communication), in conjunction with the Macintosh Operating System.
563. **Information Processing II.** 3 hrs. Microcomputer knowledge and skill development through the production of documents and business/technical presentations utilizing integrated and presentation software within the MS DOS / Windows environment.
565. **Microcomputers in Business Education.** 3 hrs. Skill development in use of multiple software packages relative to business education.
567. **Desktop Publishing & Presentation Graphics.** 3 hrs. Prerequisite: Any 3 hr. computer course or permission of instructor. Office based microcomputer production of typeface/graphics enhanced media, designed to be both pleasing in appearance and effective in communication.

569. **Computer Based Instructional Technology.** 3 hrs. Prerequisite: Any 3 hr. computer course or permission of instructor. Interactive instructional design and applications. Introduction to hypermedia tools, authoring systems, CAI software reviews/evaluations, and hands-on interactive module production.
577. **Medical Transcription.** 3 hrs. Prerequisites: BET 102 or equivalent and 108. Emphasis on medical terminology, records, and forms with transcription from tapes.
578. **Advanced Medical Transcription.** 3 hrs. Prerequisite: BET 577. Emphasis on additional medical terminology, with increased emphasis on transcription.
579. **Review for the Certified Professional Secretary Examination.** 3 hrs. Preparation for CPS Examination. Does not count as credit toward a degree.
580. **Research and Report Writing.** 3 hrs. Concepts and methods of business research and style; problems in researching and reporting business data in written form.
592. **Special Problems.** 1-6 hrs. Study approved and directed by the department chairman.
602. **Concepts and Practices in Word Processing.** 3 hrs. To acquaint business teachers with word processing equipment and provide an overview of evolving concepts and practices in word processing, including the use of computers in WP, with "hands-on" keyboarding application. Laboratory included.
608. **Curricula in Business Education.** 3 hrs. Factors influencing curriculum construction; content organization, instructional materials, and techniques.
651. **Principles of Business Education.** 3 hrs. Junior high through university programs; guidance; qualifications and professional activities of teachers; and public relations.
652. **Seminar in Business Education.** 3 hrs. An intensive study of specific problems in business education, and a survey of literature pertaining to the problems.
653. **Improvement of Instruction in Nonskill Subjects.** 3 hrs. Methodology, instructional materials, evaluation, and review of significant research in the nonskill subjects of bookkeeping, basic business, and consumer economics.
655. **Improvement of Instruction in Skills Subjects.** 3 hrs. Teaching procedures, instructional materials, measurement of skills, standards of achievement, and review of related research in typewriting, shorthand, and transcription.
669. **Research and Evaluation in Business Education.** 3 hrs. Concept of evaluation; construction, selection, administration, and scoring of tests; review of related research.
680. **Readings in Business Education.** 3 hrs. Readings in both periodical literature and research. Presentation of findings in a scholarly report. Approval of department chairman required.
691. **Research in Business Education.** 1-16 hrs.
692. **Special Problems I, II, III.** 1 hr. each. Prerequisite: 9 semester hours of advanced courses in business education. Scholarly paper on approved problem.
694. **Field Problems.** 3 hrs.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs.
701. **Seminar in Business Education.** 3 hrs. Analysis and evaluation of significant research studies in the field of business education and research of a problem.
750. **Business Education in the Junior College.** 3 hrs. Forces affecting junior college business curricula; philosophy; programs; public relations; trends, and related research.
760. **Administration and Supervision of Business Education.** 3 hrs. Principles; techniques of administration and supervision of business education in junior high, senior high, evening schools, and colleges.
780. **Readings in Business Education.** 3 hrs. Readings in both periodical literature and research. Presentation of findings in a scholarly report.
791. **Research in Business Education.** 1-16 hrs.
794. **Field Problems.** 1-3 hrs.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using the other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
798. **Specialist Thesis.** 1-6 hrs.

Chemistry and Biochemistry (CHE)

500. **Chemical Literature.** 2 hrs. Prerequisites: CHE 256 and 311. The selection and use of the reference materials of chemistry: periodicals, journals, texts, patents, and other sources of information.
504. **Spectral Elucidation of Structure.** 3 hrs. Prerequisite: Permission of the instructor. Applications of vibrational, electronic, nuclear magnetic resonance, and mass spectroscopy to structure determination.
505. **Problems in Chemistry.** 3-6 hrs. Prerequisite: Undergraduate coursework in the area and permission of the instructor. An intensive review of specialized areas in chemistry.
506. **Modern Chemical Problem Solving I.** 3 hrs. Prerequisite: Permission of instructor. Techniques of solving relevant problems relating to the quantitative aspects of chemical reactions.
507. **Modern Chemical Problem Solving II.** 3 hrs. Prerequisite: Permission of instructor. Solving problems relating to chemical dynamics, periodicity and bonding.
509. **Chemistry Laboratory Teaching.** 1 hr. Prerequisite: Permission of the instructor. Instruction and practice for teaching assistants in the academic chemistry laboratory.
510. **Safety Principles and Procedures in the Chemical Sciences.** 1 hr. Prerequisite: CHE 256 or permission of instructor. Common laboratory hazards and their remediation. (May be taken as PSC 510).
511. **Instrumental Analysis.** 3 hrs. Prerequisite: CHE 462. Theory and practice of instrumental methods of analysis; absorption spectroscopy, magnetic resonance, mass spectroscopy, electrometric methods and fundamental electronics.
- 511L. **Instrumental Analysis Laboratory.** 1 hr. Corequisite: CHE 511. A laboratory designed to accompany CHE 511.
520. **Principles of Biochemistry.** 3 hrs. Prerequisite: CHE 251 or equivalent. A one semester course surveying the fundamentals of biochemistry.
- 520L. **Principles of Biochemistry Laboratory.** 1 hr. Corequisite: CHE 520. A laboratory course to accompany CHE 520 with emphasis on using knowledge of biochemical techniques in the student's profession.
521. **Biochemistry I.** 3 hrs. Prerequisite: 256. The properties of amino acids, proteins, carbohydrates, lipids, and nucleic acids; actions of enzymes and protein synthesis.
- 521L. **Biochemistry I Laboratory.** 2 hr. Corequisite: CHE 521. An optional laboratory course to accompany CHE 521.
522. **Biochemistry II.** 3 hrs. Prerequisite: 521. Major metabolic pathways with emphasis on energy considerations and inter-relationships of the pathways.
- 522L. **Biochemistry II Laboratory.** 2 hr. Prerequisite: CHE 521L. Corequisite: CHE 522. A continuation of CHE 521L.
523. **Analytical Biochemistry.** 3 hrs. Prerequisite: CHE 521. A survey of methods used by biochemists to detect and characterize biologically important molecules.
531. **Inorganic Chemistry.** 3 hrs. Prerequisite: CHE 462. Electronic state transitions and spectra, coordination chemistry, reaction kinetics and mechanisms, special topics.
- 531L. **Inorganic Chemistry Laboratory.** 1 hr. Corequisite: CHE 531. A laboratory designed to accompany CHE 531.
561. **Physical Chemistry.** 3 hrs. Prerequisite: Permission of the instructor. Chemical Thermodynamics.
- 561L. **Laboratory for CHE 561.** 1 hr. A laboratory designed to accompany CHE 561. Concurrent registration in CHE 561 is required.
562. **Physical Chemistry.** 3 hrs. Prerequisite: Permission of the instructor. Kinetics and Quantum Chemistry.
- 562L. **Laboratory for CHE 562.** 1 hr. A laboratory designed to accompany CHE 562. Concurrent registration in CHE 562 is required.
570. **Toxicology.** 3 hrs. Prerequisite: CHE 256. A one semester survey course in toxicology.
600. **Chemical Safety in the Teaching Laboratory.** 3 hrs. Prerequisite: Permission of the instructor. Application of the principles of chemical safety to the creation of a safe environment in high school and college science laboratories.
601. **Introductory Structural Chemistry.** 3 hrs. Prerequisite: Permission of the instructor. A study of symmetry including group theory and point group designation, stereochemistry, and the origin of spectra.
605. **Chemical Analysis I.** 2 hrs. Prerequisites: CHE 311 and CHE 256. Separation methods including chromatography and centrifugation. Includes three hours of laboratory per week.
606. **Chemical Analysis II.** 2 hrs. Prerequisites: CHE 311 and CHE 256. NMR, ESR, mass spectrometry and x-ray diffraction. Includes three hours of laboratory per week.
607. **Chemical Analysis III.** 2 hrs. Prerequisites: CHE 311 and CHE 256. IR, UV-visible, ORD, CD, AA spectroscopy, flame photometry and fluorometry. Includes three hours of laboratory per week.
608. **Chemical Analysis IV.** 2 hrs. Prerequisites: CHE 311 and CHE 256. Radiochemical, electrochemical, electrophoretic and thermal analysis. Data handling. Includes three hours of laboratory per week.
609. **Applied Descriptive Chemistry.** 3 hrs. Prerequisite: Permission of the instructor. Principles of chemical periodicity applied to a laboratory based study of reactivity.

611. **Advanced Analytical Chemistry.** 3 hrs. Prerequisite: CHE 411 or permission of instructor. Sampling techniques, equilibria and activity, chemical and physical separations, and chemical methods of analysis.
621. **Advanced Biochemistry.** 3 hrs. Prerequisite: Permission of instructor. The inter-relationships of metabolic pathways with emphasis on control mechanisms.
651. **Advanced Organic Chemistry.** 3 hrs. Prerequisite: Successful completion of Organic Qualifying Examination or in special instances, permission of the instructor. The structure of organic compounds and its relationship to chemical bonding, stereochemistry, resonance, and reactivity.
652. **Advanced Synthetic Organic Chemistry I.** 3 hrs. Prerequisite: CHE 651. The synthesis of organic compounds emphasizing modern reagents and methods.
661. **Advanced Physical Chemistry.** 3 hrs. Prerequisite: Successful completion of Physical Chemistry Qualifying Examination, or in special instances, permission of the instructor. Molecular and thermodynamic basis for chemical phenomena. Emphasis: Applications of thermodynamics and statistical thermodynamics to chemical disciplines.
689. **Chemistry Seminar.** 1 hr.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs. Prerequisite: Consultation with and permission of major professor.
702. **Photochemistry.** 3 hrs. Prerequisite: CHE 651 or permission of instructor. An introduction to the physical and chemical properties of the excited state.
711. **Analytical Spectroscopy.** 3 hrs. Prerequisite: CHE 411. Quantitative determinations by I.R., visible, U.V., and x-ray spectroscopy techniques including atomic emission and absorption.
713. **Analytical Separations.** 3 hrs. Prerequisite: Permission of instructor. Gas, ion exchange, and thin layer chromatography; precipitation and crystallization; zone refining and electromigration.
719. **Current Topics in Analytical Chemistry.** 3 hrs. Prerequisite: Permission of instructor. Current topics of interest such as electroanalytical chemistry, instrumentation, chemometrics, new spectroscopic methods, etc.
721. **Proteins.** 3 hrs. Prerequisite: CHE 521 or permission of instructor. Protein purification, methods of primary, secondary, and tertiary structure determinations, and the relationship between structure and biological activities.
722. **Physical Biochemistry.** 3 hrs. Prerequisite: CHE 521. Application of physical-chemical methods to the study of biological macromolecules.
723. **Enzymes.** 3 hrs. Prerequisite: CHE 521. Mechanisms of enzyme action, and the kinetics, regulation, and synthesis of enzymes.
725. **Lipids.** 3 hrs. Prerequisite: Permission of instructor. Study of the structure, functions, and metabolism of lipids.
726. **Hormone Biochemistry.** 3 hrs. Prerequisite: Permission of instructor. The structure, biosynthesis, secretion, regulation, and mode of action of hormones.
729. **Current Topics in Biochemistry.** 3 hrs. Prerequisite: Permission of instructor. Topics of current interest in biochemistry such as neurochemistry, plant molecular biochemistry, photosynthesis, aging, hormonal control.
739. **Current Topics in Inorganic Chemistry.** 3 hrs. Prerequisite: Permission of instructor. Topics of current interest such as transition metal complexes, reaction mechanisms or physical methods.
751. **Physical Organic Chemistry.** 3 hrs. Prerequisite: CHE 651. Selected topics including application and use of quantum mechanics, kinetics, cryoscopy, isotopes, etc., to organic chemistry.
752. **Mechanisms of Organic Reactions.** 3 hrs. Prerequisite: CHE 651. Mechanisms of organic reactions with emphasis on stereochemistry, kinetics, thermodynamics, and new developments as reported in the chemical literature.
755. **Chemistry of Liquid Crystals.** 3 hrs. Prerequisite: CHE 651. Survey of the structure, synthesis, and properties of the liquid crystalline state.
759. **Current Topics in Organic Chemistry.** 3 hrs. Prerequisite: Permission of instructor. Topics of current interest in organic chemistry such as natural products, stereochemistry, novel synthetic methodology.
761. **Special Topics in Statistical Thermodynamics.** 3 hrs. Prerequisite: CHE 661 or permission of instructor. Statistical mechanical theory and techniques applied to calculations of thermodynamics properties. Topics: theory of liquids, real gas behavior, etc.
763. **Introduction to Quantum Chemistry.** 3 hrs. Prerequisite: CHE 661 or permission of instructor. Development of quantum theory relating to energy levels and bonding in chemical systems.
764. **Elements of Diffraction.** 4 hrs. Scattering, phase relationships, and structural techniques via diffraction for gases, liquids, solutions, and solids. Includes 3 hours of laboratory per week.

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769. **Current Topics in Physical Chemistry.** 3 hrs. Prerequisite: Permission of instructor. Topics of current interest in physical chemistry such as magnetic resonance, quantum theory, etc.
789. **Chemistry Seminar.** 1 hr.
791. **Research in Chemistry.** 1-15 hrs. Prerequisite: Approval of major instructor.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
811. **Analytical Electrochemistry.** 3 hrs. Prerequisite: Permission of instructor. Thermodynamics of electrochemistry, theoretical derivation of electrochemical techniques and applications thereof.
821. **Biosynthetic Pathways.** 3 hrs. Prerequisite: Permission of instructor. An indepth study of selected metabolic pathways.
822. **Nucleic Acid and Protein Synthesis.** 3 hrs. Prerequisite: CHE 621 or permission of instructor. Protein and nucleic acid biosynthesis, with emphasis on biological control mechanisms.
831. **Organometallic Compounds.** 3 hrs. Prerequisites: CHE 631 and 651 or permission of instructor. The preparation, structure, physical properties and chemical reactions of compounds containing carbon-metal and carbon-metalloid bonds.
851. **A Survey of Heterocyclic Chemistry.** 3 hrs. Prerequisite: CHE 651. Nomenclature, synthesis, and reactions of the more common heterocyclic system.
861. **Special Topics in Quantum Chemistry.** 3 hrs. Prerequisite: CHE 661. Topics of current interest in quantum chemistry such as magnetic resonance, electron spectroscopy, etc.
862. **Chemical Kinetics.** 3 hrs. Experimental techniques of measuring chemical reaction rates and the mathematical treatment of rate data.
898. **Dissertation.** 12 hrs.

Child Development (CD)

550. **Administration of Programs for Young Children.** 3 hrs. Prerequisite: 3 hrs. in Child Development. Evaluation of policies and procedures; organizational structure and management will be emphasized.
551. **Infant Development.** 2 hrs. Corequisite: CD 551L. Emphasis will be given to the development and behavior of the infant. Supervised laboratory experiences included.
- 551L. **Infant Development Laboratory.** 1 hr. Corequisite: CD 551. A laboratory for studying the growth, development, and behavior of infants and toddlers.
552. **Child Development Methods and Materials.** 2 hrs. Prerequisite: Permission of Instructor. Corequisite: 552L. Provisions are made to evaluate and select materials for use in developing teaching techniques and planning play activities for children. Includes weekly laboratory experiences.
- 552L. **Child Development Methods and Materials Laboratory.** 1 hr. Corequisite: CD 552. A laboratory for evaluating and selecting materials, developing teaching techniques, and planning programs for young children.
553. **Creativity in Young Children.** 2 hrs. Corequisite: CD 553L. A study of creative activities for preschool children. Includes weekly laboratory experiences.
- 553L. **Creative Activities for the Preschool Child Laboratory.** 1 hr. Corequisite: CD 553. A laboratory for the study and application of developmentally appropriate creative activities for young children.
555. **Supervised Participation.** 6 hrs. Prerequisite: CD 452. Directed participation in programs for young children.
578. **Specialized Studies in Developmental Disabilities.** 1-6 hrs. Specialized study and skill acquisition in the area of developmental disabilities. Topics vary.
598. **Families of the Developmentally Disabled.** 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.
650. **Advanced Child Development.** 3 hrs. A study of children in early childhood, investigated in light of personality development theories and current research.
652. **Current Trends and Theories in Child Development.** 3 hrs. A survey of selected theories in Child Development and an examination of current problems and critical issues.
654. **Seminar in Child Development.** 3 hrs. May be repeated for a total of 6 hours. Selected topics in Child Development.
655. **Practicum in Child Care Administration.** 3 hrs.
678. **Assessment and Intervention for Handicapped Children 0-5.** 3 hrs. Current issues and theories regarding assessment and intervention procedures for at-risk and handicapped young children, birth through 5.

- 688. **Medical Aspects of Developmental Disabilities.** 3 hrs.
- 691. **Research in Child Development.** 1-16 hrs.
- 692. **Special Problems in Child Development.** 1-4 hrs.
- 697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
- 698. **Thesis.** 1-6 hrs. for a total of 6 hrs.

Communication

Mass Communication (MC)

- 607. **Mass Communication Theory.** 3 hrs. Examination of diverse theoretical approaches to the study of mass communication; theory building in mass communication.
- 609. **Communication Seminar.** 3 hrs. A rotating seminar that addresses topics in the areas of Radio-TV-Film and Journalism.
- 620. **Public Relations Theory.** 3 hrs. Prerequisite: Undergraduate study of public relations or communication, or permission of instructor. Explores theories of excellent communication and public relations management appropriate for grounding the work with internal and external publics of an organization.
- 621. **Public Relations Campaigns.** 3 hrs. Prerequisite: MC 620 or permission of instructor. Examines issues affecting design and implementation of persuasive public communication campaigns for business organizations, non-profit organizations, political or issue campaigns.
- 622. **International Public Relations.** 3 hrs. Prerequisite: MC 620 or permission of instructor. Explores theories of communication and culture in international business environments with the purpose of developing public relations theory and practice.
- 623. **Seminar in Public Relations.** 3 hrs. Prerequisite: MC 620 or permission of instructor. Analysis of problems and processes of public relations with special emphasis upon theories, principles, and research.
- 625. **Process and Effects of Mass Communication.** 3 hrs. A study of the major areas of mass communication research literature, emphasizing mass communication effects research.
- 629. **Communication Internship.** 3 hrs. Students will serve an internship during one semester with a professional media or public relations agency.
- 691. **Research in Communication.** 1-9 hrs. For independent reading projects of broad general nature. Normally limited to topics not covered in regular courses.
- 692. **Special Problems.** 3 hrs. For independent research projects designed to answer specific questions in applied or theoretical communication.
- 697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
- 698. **Thesis.** 3-6 hrs., for a total of 6 hrs.
- 699. **British Studies: Comparative National Media Systems.** 3-6 hrs. To instruct students through lectures, research, and field trips about the similarities and differences between the American and British media systems.
- 720. **Introduction to Graduate Research in Communication.** 3 hrs. Analysis of types of problems, concepts, variables, definitions, designs measurement techniques, and interpretation of data prevalent in communication research. Involves elementary statistics and development of research proposals and designs. May also be taken as SCM 720.
- 721. **Content Analysis of Communication.** 3 hrs. Study of theory and methods of defining, categorizing, coding, and interpreting verbal and non-verbal elements of the communication process. Emphasizes source and message elements. Elementary statistical analysis, research report, and design of studies. May also be taken as SCM 721.
- 722. **Communication Research Methods.** 3 hrs. A study of the techniques and strategies used in conducting empirical studies of communication. Topics will include measurement, sampling, and content analysis. May also be taken as SCM 722.
- 740. **Telecommunication Policy and Regulation.** 3 hrs. A study of U.S. telecommunication policy and regulation as shaped by technology, industry, politics, government, and the public. Social and political implications of policy are evaluated.
- 747. **International Communication Systems.** 3 hrs. An overview of international communications: comparative broadcasting systems, international broadcasting, world press.

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760. **Seminar in Mass Communication History.** 3-6 hrs. Exploration of cultural, economic, intellectual, social and political trends in mass communication history, 1450 to present. May be repeated for a total of six hours credit.
770. **Seminar in Advertising Theory.** 3 hrs. Introduction to advertising theory, principles, practices, and law. Advertising's role in American business and society will be explored.
771. **Advertising and the Consumer.** 3 hrs. Examination of major behavioral science contributions to the understanding of buyer behavior with emphasis on advertising and marketing applications of these contributions.
772. **Advertising Research.** 3 hrs. Planning and conducting accurate, effective advertising research programs, including preparation of questionnaires, reports, and strategies. While focus is on quantitative research methodology, qualitative research is also explored.
773. **Seminar in Advertising.** 3-6 hrs. Analysis of problems and processes of advertising, exploring various current topics in the field. May be repeated for total of six hours credit.
780. **Media, Culture and Society.** 3-6 hrs. Critical analysis of cultural, economic, political, social and technological dimensions of contemporary mass media performance. May be repeated for total of six hours credit.
791. **Research in Communication.** 1-9 hrs. For independent reading projects of a broad general nature. Normally limited to topics not covered in regular courses.
792. **Special Problems.** 3 hrs. For independent research projects designed to answer specific questions in applied or theoretical communication.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
809. **Communication Seminar.** 3 hrs. A rotating seminar that addresses topics in the areas of Radio-TV-Film and Journalism.
862. **Seminar in Mass Media Control and Ethics.** 3 hrs. Alternate years. Problems and case studies concerned with regulation, deregulation, industry codes, and ethics.
898. **Dissertation.** 3-12 hrs, for a total of 12 hours.

Journalism (JOU)

505. **Problems in Newspaper Production.** 3 hrs. Practical training in the production of student newspapers and advising of staffs.
521. **Public Relations.** 3 hrs. Introduction to the professional practice of public relations, emphasizing its function and process, publics, tools and media of communications, and professional ethics.
522. **Public Relations Writing and Publication Design.** 3 hrs. Prerequisites: 202, 312, 421/521. Concentrates on designing total public relations packages for public, business, and non-profit organizations. Requires production of a publicity campaign.
526. **Public Relations Research.** 3 hrs. Prerequisite: JOU 421/521. Introduction to quantitative and qualitative methods of applied, basic, and evaluative research used in developing and managing public relations programs.
528. **Public and Press Relations Management.** 3 hrs. Emphasizes systematic analysis of clients and publics, formulation of goals and strategies, and multimedia communications. Evaluation of effectiveness and budget preparation included. Case studies and field project.
529. **Internship in Public Relations.** 3 hrs.
550. **History of Journalism.** 3 hrs. Major events, issues and personalities of American mass media examined within interdisciplinary framework. Historical relations of print media and public institutions emphasized.
552. **Press and Society.** 3 hrs. Study of the relationship between the press and the culture and institutions of society.
555. **Media Ethics.** 3 hrs. Examination of major moral dilemmas, issues and practices of mass media through lectures and case studies, with emphasis on moral decision-making.
560. **Press Law and Ethics.** 3 hrs. Rights and constraints of the press, including libel, privacy, copyright, monopoly, contempt, regulation, and other aspects of mass media law.
570. **Newspaper Organization and Management.** 3 hrs. Study of the interrelationships of the various departments in newspaper organizations of varying circulation sizes and management techniques used to direct their activities.
580. **Seminar in Journalism.** 3 hrs. Examination of theoretical concepts in Journalism and the setting for their application.
598. **British Studies in Photography.** 3-6 hrs. Lecture and research in British Photography offered abroad under the auspices of the Institute of Anglo-American Studies.
599. **British Studies in Journalism.** 3-6 hrs. Lecture and research in British Journalism offered abroad under the auspices of the Institute of Anglo-American Studies.

Radio-Television-Film (RTF)

507. **Theories of Mass Communication.** 3 hrs. An analysis of processes and effects of mass communication.
516. **Telecommunication Media Management.** 3 hrs. Examination of management responsibilities in broadcast radio and TV, cable TV, and other electronic media and media delivery systems.
525. **Telecommunication Media Research.** 3 hrs. Prepares students to utilize and evaluate professional telecommunication research services and to conduct elementary studies of media audiences.
531. **Advertising Management and Sales.** 3 hrs. Prerequisite: RTF 330. A continuation of RTF 330, with emphasis upon case studies in advertising management and sales.
540. **Advanced Television Production.** 3 hrs. Prerequisite: RTF 340 or permission of instructor. Advanced topics in video post-production theory and practice.
547. **Television Production Workshop.** 2 hrs. Prerequisites: RTF 340 and 440 or permission of instructor. A flexible format course designed to serve the career objectives and needs of advanced students. The workshop may involve large or small group productions or individual projects, or some combinations.
548. **Seminar in Radio-TV.** 3 hrs. Prerequisite: Permission of instructor. Examination of a telecommunication topic. May be repeated with a different topic or combined with RTF 578 for a total of six credit hours.
549. **Television Criticism.** 3 hrs. Examines major genres and historical trends in television programming with emphasis on television criticism. Selected examples of programs will serve as models for practical television criticism.
560. **Issues in Telecommunication.** 3 hrs. Examination of structural, regulatory, policy, and social concerns related to the U.S. telecommunication industry.
571. **Advanced Cinematography.** 3 hrs. Prerequisite: Consent of instructor. Advanced instruction and practical production experience in 16mm motion picture cinematography. Repeatable for up to six (6) hours.
573. **The Documentary Film.** 3 hrs. Evaluation of the documentary tradition in film through viewing and analysis of selected documentaries and review of pertinent literature.
574. **Techniques in Film Acting and Directing.** 3 hrs. A course designed for advanced film and acting students in the techniques of performing before the motion picture camera.
575. **Film Business Procedures and Management.** 3 hrs. Prerequisite: Consent of instructor. Study of the business practices and problems involved in film production.
576. **British Studies: The British Film.** 3-6 hrs.
577. **Advanced Film Production Workshop.** 3 hrs. Prerequisite: Consent of instructor. Students enrolled in this course will serve as director, cinematographer or film editor of a complete 16mm motion picture production.
578. **Seminar in Film.** 3 hrs. Prerequisite: Permission of instructor. Examination of a film topic. May be repeated with a different topic or combined with RTF 548 for a total of six hours.
579. **Film Theory and Criticism.** 3 hrs. Study of major film theories through study of the literature of film theory and screening and discussion of selected films.
580. **Comparative Media Systems.** 3 hrs. Study of the structure, function, and historical/ political features of the electronic media systems of selected nations.
581. **International Broadcasting.** 3 hrs. Prerequisite: permission of instructor. An examination of the development, structure, functions, programming, and audiences of international broadcasting services.
585. **Film Editing.** 3 hrs. Prerequisite: RTF 571. Study of the theory and techniques of film editing. Repeatable for up to six (6) hours.
589. **Caribbean Mass Media Systems.** 3 hrs. Prerequisite: Consent of instructor. Lecture and research on the media systems of the Caribbean Basin with special attention given to coverage of Third World news.
692. **Special Problems in Radio, Television, and Film.** 1-3 hrs. Prerequisites: Consent of instructor. The student analyzes a problem area and proposes a special course arrangement with a faculty member. Problems range from television, film productions, writing scripts, to writing extensive research papers.

Speech Communication (SCM-216)

598. **Teaching Public Speaking.** 1-3 hrs. Provides instruction on how to teach public speaking. Emphasis on course assignments, grading, classroom management.
599. **British Studies in Communication.** 3-6 hrs. Communication research and practice in Great Britain. Taught only in Great Britain under auspices of the Institute of Anglo-American Studies.
600. **Speech Communication Theory & Research.** 3 hrs. A survey of major research traditions in the field of speech communication. Topics will include persuasion, nonverbal communication, networks, and theories of communication.
605. **Interpersonal Communication.** 3 hrs. A comparative approach to the study of interpersonal communication theories and methods.

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609. **Speech Communication Seminar.** 3 hrs. A rotating seminar that addresses topics in Speech Communication.
610. **Problems in Organizational Communication.** 3 hrs. Analysis of work organizations as communication networks. Emphasis on identification, analysis of selected problems, consultation methods, and administration of communication training programs. Field project.
692. **Special Problems.** 3 hrs. For independent research projects designed to answer specific questions in applied or theoretical communication.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 3-6 hrs. for a total of 6 hours.
715. **Message Processes and Effects.** 3 hrs. Examines construction and structuring of messages by communicators to form conversation, the effects of messages upon receivers, and factors which affect construction, structuring, and reception of messages.
720. **Introduction to Graduate Research.** 3 hrs. Analysis of types of problems, concepts, variables, definition, design measurement techniques, and interpretation of data prevalent in communication research. Involves elementary statistics and development of research proposals and designs. May also be taken as MC 720.
721. **Content Analysis.** 3 hrs. Study of theory and methods of defining, categorizing, coding, and interpreting verbal and non-verbal elements of the communication process. Emphasizes source and message elements. Elementary statistical analysis, research report, and design of studies. May also be taken as MC 721.
722. **Communication Research Methods.** 3 hrs. A study of the techniques and strategies used in conducting empirical studies of communication. Topics will include measurement, sampling, and content analysis. May also be taken as MC 722.
730. **Theory and Research in Small Group Communication.** 3 hrs. A study of human interaction in small group settings and the determinants and effects of such interaction.
735. **Rhetorical Theory.** 3 hrs. A study of the development of rhetorical theory, ancient through contemporary. The course will examine classical, medieval, Renaissance, and late European rhetoricians, and re-emergence of rhetorical theory in the twentieth century.
750. **Theory and Research in Nonverbal Communication.** 3 hrs. A study of nonverbal communication and its relation to effective oral communication. Topics include gender and cultural differences, detecting deception, persuasive strategies.
792. **Special Problems.** 3 hrs. For independent research problems designed to answer specific questions in applied or theoretical communication.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
809. **Speech Communication Seminar.** 3 hrs. A rotating seminar that addresses topics in Speech Communication.
898. **Dissertation.** 3-12 hrs., for a total of 12 hrs.

Community Health Sciences (CHS)

508. **Health Education Methods.** 3 hrs. A survey of teaching methods that are appropriate for health education program delivery.
510. **School Health Education Planning.** 3 hrs. Diagnostic phases preceding program development, skills in planning, organization, and implementation of school health education programs.
511. **Health Education Curriculum Development.** 3 hrs. Coordination of curriculum development, content selection, and scope and sequence.
512. **Measurement and Evaluation in Health Education.** 3 hrs. Prerequisite: CHS 509 or CHS 510. Instruments and techniques for measuring and evaluating personal health.
514. **Consumer Health.** 3 hrs. The importance of consumer education as related to advertising theory and methods, health misconceptions, health services, medical quackery and health products.
515. **School Health Program.** 3 hrs. Organization and operation of school health programs with emphasis on instruction, environment, and services.
520. **Communicable and Chronic Disease in Man.** 3 hrs. Problems, control programs, and prevention of communicable and chronic disease.

522. **Drugs and the Whole Person.** 3 hrs. Psychosocial, medical, legal, and health aspects of drugs (including alcohol) and their abuse.
530. **Human Sexuality.** 3 hrs. Physical, emotional, and social aspects of human sexuality.
531. **Sexuality Education.** 3 hrs. Theory, methods, and materials for planning, organizing, and implementing sexuality in school and community settings.
536. **Stress Management Techniques.** 3 hrs. Theory and application of primary prevention strategies in stress management programs.
537. **Health Education in Clinical Settings.** 3 hrs. Analysis of the role, methods and technology of health education pertaining to health care clinics and patient education.
540. **Introduction to Biostatistics.** 3 hrs. Introduction to epidemiological and biomedical statistical analysis. Application to analytic epidemiologic and descriptive/ inferential statistical methods in health services research.
578. **Specialized Studies in Developmental Disabilities.** 1-6 hrs. Specialized study and skill acquisition in the area of developmental disabilities. Topics vary.
590. **Special Topics.** 1-3 hrs.
597. **Professional Collaboration for Developmental Disability Services.** 3 hrs. Study of the interdependent contributions of relevant disciplines in training, service, and research.
598. **Families of the Developmentally Disabled.** 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.
599. **British Studies.** 3-6 hrs. Involves variable topics. Lectures and supervised research in England. Offered exclusively through the USM Institute of Anglo-American Studies.
601. **Introduction to Community Health Practice.** 3 hrs. An overview and orientation to the U.S. health delivery system with emphasis on community networks and programs.
609. **Community Health Education Planning.** 3 hrs. Diagnostic phases preceding program development, skills in planning, organization, and implementation of health education programs in the community.
611. **Internship in Community Health.** 3-9 hrs. Supervised professional experience in a selected community health setting.
622. **Epidemiology.** 3 hrs. A study of epidemiological concepts and methods related to incidence and prevalence of disease.
623. **Biostatistics.** 3 hrs. Prerequisite: one course in statistics. Application of statistics to public health data. Tests include simple and complex, ANOVA, ANCOVA, and multiple regression.
625. **Health Administration.** 3 hrs. Application of management principles to health care organizations; e.g. strategic planning, marketing, human resource management.
627. **Health Policy.** 3 hrs. The role of the health professional in the development of public health policy, influencing social policy, and planning for social change.
638. **Workplace Health Promotion.** 3 hrs. Study of health education theory and practice as applied to occupational health.
640. **Traffic Systems Management.** 3 hrs. An overview of agencies and systems involved in the management of vehicular traffic.
655. **Environmental Health.** 3 hrs. Basic knowledge and skills required to assess impact of the environmental hazards on the nation's health.
656. **Social and Behavioral Aspects of Health.** 3 hrs. Social and behavior determinants of health, illness, and sick role.
657. **Financial Aspects of Health Care.** 3 hrs. An introduction to the financial aspects of health care in which payment systems, budgeting, and the application of quantitative information in health care finance is concerned.
658. **Occupational Health.** 3 hrs. Study of work-place related health problems, identification of contributing factors and presentation methods.
660. **Long Term Care Policy and Administration.** 3 hrs. Introduction to Long Term Care Policy and Administration involving public and private programs and practice of health care for the elderly and special populations.
665. **Public Health Nutrition: Programs and Principles.** 3 hrs. State, national, and international mechanisms of delivery of nutrition and health services; political and social issues in nutrition health policy formulation and implementation.
666. **Nutrition Program Planning and Evaluation.** 3 hrs. Principles and procedures to plan, implement, and evaluate nutrition promotion/disease presentation programs.
670. **Health Law and Justice.** 3 hrs. Prerequisite: CHS 525 or permission of instructor. An examination of social and legal principles impacting health care delivery in the U.S.
678. **Assessment and Intervention for Handicapped Children.** 0-5. 3 hrs. Current issues and theories regarding assessment and intervention procedures for at-risk and handicapped young children, birth through 5.
680. **Research Techniques.** 3 hrs. Prerequisite: Graduate statistics course. Problems, evaluation of problems and procedures, types and techniques of research.

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685. **Contemporary Issues in Health.** 3 hrs. Comprehensive examination of a current health issue of contemporary importance.
688. **Medical Aspects of Developmental Disabilities.** 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.
691. **Research.** 1-16 hrs. Prerequisite: Approval of major instructor.
692. **Special Problems in Safety.** 3 hrs.
710. **Seminar.** 3 hrs. Advanced topics in health administration.
720. **Community Organization for Health Education.** 3 hrs. Communities and community organizations as they relate to health services and health education.
744. **Behavioral Problems in Safety Programs.** 3 hrs. A study of behavioral, attitudinal, and motivational issues in a variety of safety programs.
746. **Administration and Supervision of Safety Programs.** 3 hrs. Administration and supervision of governmental, industrial, agency, and community safety programs.
792. **Special Problems in Health.** 3 hrs. Prerequisite: Approval of instructor.

Computer Engineering Technology (CET)

501. **Microprocessor Architecture and Applications.** 3 hrs. Corequisite: CET 501L. Microprocessor architecture and applications; I/O interfaces; memory organization. Not open to Masters of Engineering Technology candidates who have backgrounds in computer, electrical or electronics engineering technology.
- 501L. **Microprocessor Laboratory.** 1 hr. Corequisite: CET 501.
520. **Embedded Microcomputer Design.** 3 hrs. Prerequisite: CET 501. Corequisite: CET 520L. Embedded computer applications with microprocessor circuit design and commercial product development.
- 520L. **Embedded Microcomputer Design Laboratory.** 1 hr. Corequisite: CET 520.
571. **Small Computer Systems.** 3 hrs. Prerequisite: CET 501. A study of control units, arithmetic units, memories, and microprogramming concepts.
- 571L. **Small Computer Systems Laboratory.** 1 hr. Corequisite: CET 571.
572. **Advanced Programmable Logic Circuits.** 3 hrs. Corequisite: CET 572L. Fundamentals and applications of synchronous and asynchronous design through the use of advanced VLSI programmable logic devices.
- 572L. **Programmable Logic Circuits Laboratory.** 1 hr. Corequisite: CET 572.
574. **Switching Circuits.** 3 hrs. Prerequisite: Permission of instructor. The design and analysis of synchronous and asynchronous state machines and their implementation in PALs, GALs, FPGAs, and other switching circuits.
577. **Introduction to Control Systems Technology.** 3 hrs. Prerequisites: CET 323 and EET 312. Corequisite: CET 577L. Fundamental control system theory and applications; servomechanisms; process control; controllers, measurements and instrumentation.
- 577L. **Introduction to Control Systems Technology Laboratory.** 1 hr. Corequisite: CET 577.
578. **Digital Control Systems.** 2 hrs. Prerequisite: CET 571. Design of control systems incorporating a computer as an on-line element. Design of control algorithms and introduction to optimal control.
- 578L. **Digital Control Systems Laboratory.** 1 hr. Corequisite CET 578.
592. **Special Problems.** 1-3 hrs. Supervised study in the area of computer engineering technology.
620. **Advanced Microcontroller Applications.** 3 hrs. Course covers advanced real-time programming and interfacing techniques. Applications will emphasize sensor interface circuits/systems for data acquisition, positioning, and control. Project management will include written proposals, budgets, verbal presentation, and project demonstrations.
672. **Digital Systems III.** 3 hrs. Prerequisite: CET 571. Fault detection in digital systems and fault tolerant computing.
687. **Advanced VLSI Design.** 4 hrs. Principles of CAD tools in design of digital VLSI systems: stick diagrams; design rules; and layout diagrams for CMOS technology. Design and implementation of custom VLSI integrated circuits.
692. **Special Problems.** 1-3 hrs. Supervised study in the area of computer engineering technology.

Computer Science (CSC)

510. **Operating Systems and Multiprocessing.** 3 hrs. Prerequisites: CSC 306, 306L, 308, MAT 420. Continuation of CSC 306. Emphasis on intra-system communication.
- 510L. **Operating Systems and Multiprocessing Laboratory.**

- 511. **Database Management Systems Design.** 3 hrs. Prerequisites: CSC 306, 307. Design and implementation of DBMS. Survey of research literature.
- 512. **Introduction to Artificial Intelligence.** 3 hrs. Prerequisite: CSC 308. Concepts and techniques of intelligent systems. Survey of research literature.
- 513. **Algorithms.** 3 hrs. Prerequisite: CSC 307. Design and analysis of algorithms. Complexity theory.
- 514. **Software Design and Development.** 3 hrs. Prerequisite: CSC 307. Corequisite: CSC 514L. Formal development of software through team projects.
- 514L. **Software Design and Development Laboratory.** 1 hr. A laboratory designed to support CSC 514.
- 515. **Theory of Programming Languages.** 3 hrs. Prerequisite: CSC 308. Formal treatment of programming language translation and compiler design concepts.
- 521. **Relational Database Management Systems.** 3 hrs. Prerequisite: CSC 511. Theory of relational systems, comparison of relational and conventional systems, use of state-of-the-art relational systems such as Oracle.
- 524. **Software Engineering II.** 3 hrs. Prerequisite: CSC 514. Programming languages and software design, modular/object oriented design, team programming, human factors, case studies.
- 544. **Robotic Systems: Theory, Development, and Analysis.** 3 hrs. Prerequisite: MAT 326 or permission of instructor. Robotic system development, direct kinematics, the arm equation, workspace analysis, trajectory planning and robotic programming methodologies.
- 585. **Information Retrieval in the U.K.-Theory.** 3 hrs. Prerequisite: Permission of the instructor. Design of British information processing systems.
- 586. **Information Retrieval in the U.K.-Applications.** 3 hrs. Prerequisite: Permission of the instructor. Design of information processing systems.
- 592. **Computer Science Problems I.** 3 hrs. Prerequisite: Solution of problems germane to a selected area of study.
- 616. **Automata, Computability, and Formal Languages.** 3 hrs. Prerequisite: CSC 415. Formal models of computation. Computability, complexity, languages.
- 620. **Formal Methods in Programming Languages.** 3 hrs. Prerequisite: CSC 616. Data and control abstractions. Backtracking and nondeterminism. Functional and logic programming. Program specification and verification.
- 623. **Analytical Models for Computer Systems.** 3 hrs. Prerequisite: CSC 410. Examination of the major models that have been used to study operating systems and the computer systems which they manage. Petri nets, data flow diagrams, and other models of parallel behavior. Fundamentals of queuing theory.
- 624. **Computer Communication Networks and Distributed Processing.** 3 hrs. Prerequisite: CSC 623. Study of networks of interacting computers. Problems, rationales, and possible solutions for both distributed processing and distributed databases. Major national and international communication protocols will be presented.
- 625. **Computer Graphics.** 3 hrs. Architecture of display systems, basic 2-D and 3-D mathematics, 3-D viewing and geometry, advanced surface mathematics, advanced architectures for raster and vector displays, hidden line and hidden surface problems, realistic imaging, software design for 3-D systems.
- 626. **Advanced Computer Architecture.** 3 hrs. Prerequisite: CSC 410. Introduction to various architectures and techniques which have been developed or are proposed in the literature. Pipelined architecture, dynamic system architecture, data flow architecture, array processing.
- 629. **Applied Combinatorics and Graph Theory.** 3 hrs. Prerequisite: CSC 616. Study of combinatorial and graphical techniques for complexity analysis including generating functions, recurrence relations, Polya's theory of counting, and NP complete problems.
- 630. **Parallel Programming Techniques.** 3 hrs. Prerequisites: CSC 306 and good knowledge of C and Unix. An application oriented course which will use a hands-on approach to teach methods for programming parallel applications on single and multi-cpu machines.
- 632. **Artificial Intelligence.** 3 hrs. Prerequisites: CSC 412. Relatively unfocused, relatively focused, Heuristic, and probabilistic reasoning. Production rule systems. Knowledge-based and expert systems. Survey of current research.
- 633. **Distributed Database Systems.** 3 hrs. Prerequisite: CSC 623. A consideration of the problems and opportunities inherent in distributed databases on a network computer system. Includes file allocation, directory systems, mutual exclusion, deadlock detection and prevention, synchronization, query optimization, and fault tolerance.
- 634. **Information Storage and Access.** 3 hrs. Prerequisites: CSC 411. Advanced data structures, file structures, and databases, with an emphasis on specialized problem areas. Access and maintenance issues.
- 636. **Modeling and Simulation.** 3 hrs. A study of the construction of models which simulate real systems. Includes probability and distribution theory, statistical estimation and inference, the use of random variates, and validation procedures. A simulation language is used for the solution of typical problems.
- 638. **Advanced Computer Algorithms.** 3 hrs. Prerequisite: CSC 413. Study of recent advances in algorithm design and analysis.

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- 640. **Mathematical Programming.** 3 hrs. Linear programming. Modeling, simplex method and modification, duality. Networks and integer programming algorithms.
- 644. **Advanced Robotic Systems.** 3 hrs. To introduce students to advanced topics and prospective research areas in the field of robotics and its relation to AI, world modeling, and simulation.
- 645. **Expert Systems.** 3 hrs. Prerequisite: CSC 632. Review of classical expert systems. Study of knowledge representation, acquisition and epistemology to formulate rule based systems. Study of inference engines using statistics, Bayes' Theorem, Heuristic Techniques.
- 690. **Seminar in Computer Science.** 1 hr.
- 691. **Topics in Computer Science.** 3 hrs. Special topics in Computer Science of current interest to faculty and students, e.g., Robotics, neural networks, pattern recognition. May be repeated for credit at discretion of academic adviser.
- 695. **Directed Study.** 1-3 hrs. Individual study by a student on an area or problem approved by the student's academic adviser.
- 697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
- 698. **Thesis.** 1-6 hrs. For a total of 6 hrs. Credit deferred until thesis is completed.
- 699. **Project.** 1-3 hrs. For a total of 3 hrs.

Computer Science and Statistics (CSS)

- 500. **Introduction to Computer Education.** 3 hrs. A practical, hands-on introduction to the instructional utility and administrative uses of computers in education. Cannot be used to satisfy any Computer/Computational Science M.S. requirements.
- 501. **Computer Skills for Research.** 3 hrs. Prerequisite: CSS 240. Editing of data files, computer system utilization, use of BMD, SPSS, MINITAB for processing research data. Cannot be used to satisfy Computer/Computational Science M.S. requirements.
- 502. **Structured Basic Programming.** 3 hrs. Prerequisite: CSS 500. Technical presentation of BASIC with scientific problem solving, algorithms and introduction to data structures. Cannot be used to satisfy Computer/Computational Science M.S. requirements.
- 503. **Authoring Systems for Computer Based Learning.** 3 hrs. Prerequisite: CSS 500. Developing computer based instructional modules utilizing the authoring system approach. Cannot be used to satisfy Computer/Computational Science M.S. requirements.
- 504. **Internet Concepts.** 3 hrs. Prerequisite: basic computer literacy. Introduction to the information superhighway via the INTERNET. Cannot be used to satisfy Computer/Computational Science M.S. requirements.
- 505. **Advanced Internet: CGI Programming.** 3 hrs. Prerequisites: Knowledge of the INTERNET, basic HTML, some high level programming language. Basic review of WWW and HTML, forms and forms processing, CGI programming, Java programming, VRML, security, and privacy issues.
- 515. **Methods of Mathematical Statistics I.** 3 hrs. Prerequisite: MAT 168. Continuous and discrete distribution, t-test, Chi-square test and analysis of variance.
- 516. **Methods of Mathematical Statistics II.** 3 hrs. Prerequisite: CSS 515. Orthogonal polynomial contrasts, multi-way classification anova, simple and multiple linear regression, polynomial regression.
- 518. **Sampling Methods.** 3 hrs. Prerequisite: CSS 515. The planning, execution and evaluation of sample surveys. Simple random sampling, stratified random sampling, cluster sampling.
- 525. **Virtual Reality.** 3 hrs. Comprehensive study of Virtual Reality techniques.
- 630. **Communications Engineering Fundamentals.** 3 hrs. Prerequisite: Permission of instructor. Basic concepts of components and systems which provide electrical communications. Does not apply to Computer Science degree.
- 631. **Analog and Digital Communications.** 3 hrs. Prerequisite: CSS 630. Principles and techniques of analog and digital communications. Fourier analysis of various modulation and multiplexing methods. Does not apply to Computer Science degree.
- 632. **Communication Systems Analysis.** 3 hrs. Prerequisite: CSS 631. Principles and techniques for analyzing the technical performance of voice and data communication systems. Does not apply to Computer Science degree.
- 633. **The Computer and Communications.** 3 hrs. Prerequisite: CSS 632. The operation of and uses for digital computers in a communications context. Does not apply to Computer Science degree.

- 636. **Stochastic Processes and Queuing Theory.** 3 hrs. Prerequisite: MAT 385. Poisson process, Markov processes and Queuing theory.
- 637. **Least Squares Techniques.** 3 hrs. Prerequisite: CSS 516. Regression analysis, curvilinear regression, discriminant and factor analysis.

Construction Engineering Technology (BCT)

- 554. **Estimating I.** 3 hrs. Prerequisite: Permission of instructor. Corequisite: BCT 554L. Material quantity survey techniques used in estimating costs of construction.
- 554L. **Estimating I Laboratory.** 1 hr. Corequisite: BCT 554.
- 555. **Estimating II.** 3 hrs. Prerequisite: BCT 554. Corequisite: BCT 555L. Determination of construction cost, bidding procedures, and analysis of job cost data.
- 555L. **Estimating II Laboratory.** 1 hr. Corequisite: BCT 555.
- 558. **Construction Planning and Scheduling.** 3 hrs. Prerequisite: Permission of the instructor. Corequisite: BCT 558L. Critical Path Method (CPM) as a project planning, scheduling, and monitoring technique.
- 558L. **Construction Planning and Scheduling Laboratory.** 1 hr. Corequisite: BCT 558.
- 576. **Construction Labor.** 3 hrs. A study of construction labor resources, labor history, and governmental labor regulations.
- 577. **Construction Project Management.** 3 hrs. Duties and responsibilities of a construction manager. Services provided by CM firms.
- 578. **Applications of Construction Law.** 3 hrs. Analysis of construction law and the construction process; legal problems in the bidding process and in the performance of the contract.
- 580. **Construction Safety.** 3 hrs. Development and management of accident prevention programs in construction.
- 592. **Special Problems.** 1-3 hrs. Prerequisites: Senior standing and approval of faculty adviser.

Cooperative Education (CED)

- +500. **Cooperative Education Work Term.** 0 hr.

Criminal Justice (CJ)

- 500. **Graduate Practicum in Criminal Justice.** 3-9 hrs. Prerequisite: Consent of Chair. Blends theory and practice in a public or private criminal justice career field. It will not count toward course requirements in the degree.
- 520. **Methods of Criminal Justice Research and Planning.** 3 hrs. An in-depth study of criminal justice planning, evaluation and research.
- 526. **Comparative Criminal Justice Systems.** 3 hrs. A study of foreign criminal justice systems with emphasis on how they suggest possible reforms for the American system.
- 530. **Criminal Procedure.** 3 hrs. A survey of procedural criminal law. Due process, statute of limitation, venue, and double jeopardy are covered.
- 531. **Environmental Law.** 3 hrs. A study of environmental law emphasizing regulation, enforcement and detection of unlawful practices damaging to the environment.
- 533. **Evidence, Search, and Seizure.** 3 hrs. An examination of laws of evidence and the procedures for obtaining it with special emphasis on application in criminal court.
- 540. **Police in the United States.** 3 hrs. A study of the policies and human issues affecting law enforcement agencies in the United States.
- 550. **Administration of Criminal Corrections.** 3 hrs. An in-depth study of administration of the correctional systems. To include: management, the incarceration process, probation, and parole.
- 551. **Probation, Parole, and Community Corrections.** 3 hrs. Course examines probation and parole systems, other alternatives to incarceration, and rehabilitative features available for offenders.
- 560. **Juvenile Justice Systems.** 3 hrs. A study of police in delinquency prevention, investigation of juvenile crime, disposition of offenders, and juvenile courts.
- 561. **Juvenile Corrections.** 3 hrs. Course provides the student interested in juvenile corrections with an in-depth perspective of the numerous treatment modalities currently in use.
- 563. **Family Law.** 3 hrs. An in-depth study of common law and statutory law relating to the family emphasizing legal remedies to violence and its effects on the criminal justice system.

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- 564. **Family Violence, Investigation, and Deterrence.** 3 hrs. A study of child and spouse abuse within the family emphasizing detection, investigation, and deterrence.
- 570. **Political Economy of Criminal Justice.** 3 hrs. A study of the politics and economics of crime and justice.
- 571. **Victims of Crime.** 3 hrs. Provides an in-depth study of factors that affect the victims of crime. Specific crimes are studied and remedies explored.
- 572. **Organized Crime.** 3 hrs. A course to familiarize students with the evolution, typology, and etiology of organized crime in the United States.
- 580. **Seminar in Criminal Justice.** 3 hrs. A seminar course dealing with all aspects of the criminal justice system, tying together the knowledge of criminal justice previously learned.
- 589. **Caribbean Studies.** 3 hrs. A comparative study of criminal law, courts, and corrections through lectures, field exercises, and research.
- 598. **British Studies: Comparative Criminal Jurisprudence.** 3-6 hrs. A comparative study abroad of criminal law, courts, and procedures.
- 599. **British Studies: Comparative Drug Law.** 3-6 hrs. A comparative study of the instructional responses to drug abuse and related criminal offenses and an analysis of their differences.
- 625. **Seminar in Criminal Justice Planning and Research.** 3 hrs. Prerequisites: A basic statistics course or its equivalent and consent of instructor. A study of criminal justice planning methodology and research requirements.
- 630. **Seminar in Civil Liberties and Criminal Law.** 3 hrs. A study of the legal and moral responsibility of the criminal justice system to individual rights.
- 631. **Seminar in Anglo-American Criminal Law and Procedure.** 3 hrs. A detailed study of topics in English criminal law and procedure oriented toward understanding the basis of American criminal justice and solutions to common problems.
- 640. **Proseminar in Police Administration.** 3 hrs. A study of legal issues involved in the administration of a modern police agency.
- 650. **Proseminar in Corrections.** 3 hrs. An analysis of comparative treatment methodologies utilized by correctional programs throughout the United States and in Europe.
- 660. **Seminar in Juvenile Law.** 3 hrs. Prerequisite: CJ 460/560 or approval of professor. An in-depth study of specific problems in the law pertaining to battered, neglected and delinquent children and their families.
- 692. **Special Problems.** 1-3 hrs. Permission of instructor.
- 697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
- 698. **Thesis.** 1-6 hrs. for a total of 6 hrs.
- 699. **Seminar in Advanced Topics in Comparative Criminal Justice.** 3 hrs. Prerequisite: CJ 426/526 or approval of professor. Study abroad of selected topics of foreign criminal justice systems. Emphasis is on theory.

Curriculum and Instruction: Elementary (CIE)

- 503. **Kindergarten-Primary Education.** 3 hrs. A practicum designed to give teaching experiences in understanding the social, emotional, and cognitive growth and development of children.
- 540. **Supervision for Effective Student Teaching.** 1 hr. Introduction to the University of Southern Mississippi's student teaching program and the roles and responsibilities of associated personnel.
- 542. **Computational Errors in Elementary Mathematics.** 1 hr. The identification and remediation of pupil errors in addition, subtraction, multiplication, and division of whole numbers.
- 578. **Specialized Studies in Developmental Disabilities.** 1-6 hrs. Specialized study and skill acquisition in the area of developmental disabilities. Topics vary.
- 594. **Learning Resources in Early Childhood Education.** 3 hrs. Students will become acquainted with learning sources, selection, use and production of multimedia materials for kindergarten and primary education.
- 595. **British Studies in Early Childhood Education.** 1-6 hrs. Compares and contrasts the philosophies and current trends of American and British early childhood education.
- 598. **Families of the Developmentally Disabled.** 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.
- 599. **British Studies: Studies in British Education.** 1-6 hrs. Lectures dealing with education in British education.

600. **Foundations of Multicultural Education.** 3 hrs. Examines the affective and theoretical dimensions of pedagogy appropriate for culturally and linguistically diverse students with emphases on research, current social and educational issues, and strategies for teaching tolerance.
602. **Procedural Errors in Mathematics.** 3 hrs. The identification and remediation of procedural errors in the basic operations of elementary school arithmetic.
606. **Teaching Language Arts in the Elementary Grades.** 3 hrs. The basic concepts of language teaching and learning with consideration of all the language arts and their interrelationships.
615. **Student Discipline Techniques and Procedures for Teachers and Administrators.** 3 hrs. Provides a comprehensive overview of strategies for disciplining students.
616. **Teacher/Administrator Legal Rights and Responsibilities.** 3 hrs. Provides a comprehensive overview of the legal rights and responsibilities for teachers and administrators.
678. **Assessment and Intervention for Handicapped Children 0-5.** 3 hrs. Current issues and theories regarding assessment and intervention procedures for at-risk and handicapped young children, birth through 5.
688. **Medical Aspects of Developmental Disabilities.** 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.
692. **Special Problems I, II, III.** 1 hr. each. A problem study to be approved by the department chairman to develop knowledge and facility in a field of interest of the student. Preparation of a scholarly paper is required.
694. **Field Problems in Production I, II, III.** 3 hrs. Prerequisite: Approval of the department chairman. This course provides students with an opportunity to study local school problems in a field setting under the supervision of a graduate professor.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 3 hrs. Credit deferred until thesis is completed.
704. **Multicultural Education: Curriculum Development and Pedagogy.** 3 hrs. Prerequisite: CIE/S 600 or permission of instructor. Evaluates existing curricular materials and pedagogical practices against guidelines for teaching culturally and linguistically diverse students with emphases on making adaptations in curricular materials, using appropriate assessment, effective teaching strategies, and relevant research.
717. **Professional Relationship in Improved Elementary Programs.** 3 hrs. A course designed to investigate behavioral factors and individuals and groups as they affect elementary school environments.
720. **Internship in Reading: Public School.** 3-6 hrs. The student is assigned to a public school in a teaching or supervisory capacity under the direct supervision of a reading faculty member in order to develop competency in instruction, administration or clinical skills.
724. **Problems of Teaching Mathematics.** 3 hrs. Prerequisite: Consent of instructor. A study of elementary school techniques, particularly those related to number concept, of teaching arithmetic based on research studies and current practices.
725. **Social Studies Education in Elementary School.** 3 hrs. A course which deals with programs, practices, trends, and investigation of criteria for evaluating, planning, organizing, and improving social studies programs.
726. **The Development of the Latin Countries.** 3 hrs. A seminar which deals with the historical, political, social, and economic development of the Latin American region.
727. **Diagnostic Techniques in Elementary Mathematics.** 3 hrs. Varied data sources which serve the diagnostic teaching cycle are investigated.
728. **Curriculum in the Elementary School.** 3 hrs. A course involving analysis and evaluation of curriculum elements and procedures in terms of the implications for the individual, the school, and the community. A major paper on a curriculum topic is required.
730. **Practicum in Elementary Mathematics.** 3 hrs. Prerequisite: CIE 724, or permission of the instructor. Provides experience in the diagnosis and developmental instruction of elementary pupils and explores related materials.
753. **Instructional Management.** 3 hrs. Designed to help school districts develop and manage their educational program through clear instructional objectives and matching test items.
756. **Developing Community Education.** 3 hrs. A course designed to acquaint teachers with the concept of community education and its impact on their role in the classroom through strengthening community ties.
762. **Research in Elementary Education.** 3 hrs. Prerequisite: Advanced graduate status or permission of chairman of department. Designed to familiarize the student with the elements and methods of research, with the representative types of research, and with the major contributions of research to the field of elementary education.

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768. **Children's Literature in the Curriculum for the Early Years: An Awareness, Criteria, and Evaluation.** 3 hrs.
770. **Practicum in Early Childhood Education.** 3 hrs. Curriculum planning, administration, and supervision are stressed through research and practice in laboratory settings.
772. **Practicum with Parents.** 3 hrs. Parent-teacher-child intrapersonal and interpersonal relationships are investigated through research and practice in laboratory settings.
776. **Seminar in Early Childhood Education.** 3 hrs. Emphasis is on early childhood practice, theory, and research and their relatedness to psychological, sociological, and intellectual patterns.
777. **Evaluation in Early Childhood Education.** 3 hrs. An introduction to specific principles and practices relative to group and individual evaluation procedures for early childhood education.
778. **Creative and Mental Growth.** 3 hrs. Research in creative thinking and its relationship to mental growth is emphasized.
780. **Research in Child Development.** 3 hrs. A course concerning methods and research in child growth in social, emotional, psychological, and physiological development.
782. **History and Philosophy of Early Childhood Education.** 3 hrs. An investigation of Pestalozzi, Froebel, Montessori, and others representing philosophies influencing today's curricula and programs.
790. **Qualitative Research in Curriculum and Instruction.** 3-6 hrs. Application of Qualitative Research Methodology in the context of investigations in curriculum and instruction.
791. **Research in Elementary Education.** 1-16 hrs. Prerequisite: Approval of the major professor.
792. **Special Problems.** 3 hrs.
794. **Field Problems.** 3 hrs. Prerequisite: Approval of the department chairman. This course provides students with an opportunity to study local school problems in a field setting under the supervision of a graduate professor.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
798. **Specialist Thesis.** 6 hrs. Specialist's degree candidates are required to select a significant educational problem for investigation and to present the findings in a scholarly report under the guidance of a graduate committee.
862. **Seminar in Elementary Education.** 3 hrs. Prerequisite: Advanced graduate status or permission of the chairman of the department. A course which is interdisciplinary in nature and focuses upon contributions of research, philosophy, history, sociology, and educational psychology as it applies to the resolution of major issues in elementary education.
880. **Advanced Graduate Seminar in Education.** 1 hr. A series of in-depth discussions and analyses of significant educational problems and issues for students in advanced programs.
898. **Dissertation.** 12 hrs.

Curriculum and Instruction: Reading (CIR)

512. **Diagnosis and Remediation of Reading Disability for the Classroom Teacher.** 3 hrs. Prerequisites: CIE 306 and 309. Provides relevant practicum experiences in evaluation and gives extended opportunities in child tutoring appropriate to grades 2-8.
541. **Foundations of Reading Instruction for the Adult.** 3 hrs. This course involves an examination of the basis of reading instruction for the nonliterate adult.
591. **The Reading Conference.** 3 hrs. An intensive program consisting of lectures, group discussion and demonstration lessons. Only three hours may be used for degree purposes.
622. **Supervision and Curriculum in Reading.** 3 hrs. The role of reading supervisors and school administrators in developing and implementing programs for improvement of reading instruction in the schools.
691. **Research in Reading.** 1-16 hrs. Designed to provide a student with the opportunity to pursue an individual research project or to make an intensive review of reading research on a selected topic.
705. **Modern Concepts in Reading Skill Development.** 3 hrs. An intensive development of the skills required in classroom reading emphasizing methods and materials required to teach the skills.
706. **Psychology of Reading.** 3 hrs. Considers the components of the reading process, with emphasis on language and reading approached from a theoretical point of view.
713. **Advanced Diagnosis and Remediation of Reading Disability for the Classroom Teacher.** 3 hrs. Prerequisite: CIE 706. Deals with corrective and remedial reading in the elementary school covering causes of disability, procedures in diagnosis, and classroom remedial treatment.

- 715. **Advanced Diagnosis and Remediation of Reading Disability for the Reading Specialist.** 3 hrs. Prerequisite: CIE 706. Deals with the role of the reading specialist, reading clinic organization, diagnostic remedial materials and techniques, with limited testing-teaching and clinical observation experiences.
- 721. **Practicum in Remedial Reading for the Reading Specialist.** 3 hrs. Prerequisite: CIE 715. Provides supervisory experiences in diagnosing and prescribing materials for remediation and in directing remedial reading procedures for small groups of reading disability cases.
- 729. **Reading in the Elementary School.** 3 hrs. Provides for extensive study of recent trends in materials and methods in reading in the elementary school including significant related research studies.
- 730. **Reading and Study Improvement Techniques for the Junior and Senior College Teacher of Reading.** 3 hrs. Summarizes research, methods, and techniques of college reading programs.
- 733. **Practicum in Diagnosis and Remediation of Reading Disability for the Classroom Teacher.** 3 hrs. Prerequisite: CIE 713. Develops the skills necessary in making a complete reading diagnosis including evaluations, interpretations, and recommendations.
- 736. **Practicum in Reading Diagnosis.** 3 hrs. Prerequisite: CIE 713. Enables the student to work with small groups of corrective reading cases diagnosing needs and teaching corrective lessons.
- 737. **Practicum in Remedial Reading Instruction.** 3 hrs. Provides the student experiences in secondary reading diagnosis and remediation with emphasis on techniques in a practicum setting.
- 754. **Reading in the Secondary Schools.** 3 hrs. A course providing for extensive study of trends in materials and methods in secondary school reading including significant research studies which relate to these.
- 785. **Seminar in Reading Instruction.** 3 hrs. Prerequisites: CIE 705, CIE 706, CIE 729. Considers topics pertinent to current research in reading instructions. Topics announced in advance of registration.

Curriculum and Instruction: Secondary (CIS)

- 540. **Supervision for Effective Student Teaching.** 1 hr. Introduction to the University of Southern Mississippi's student teaching program and the roles and responsibilities of associated personnel.
- 542. **Methods and Materials for Teaching Adults to Read.** 3 hrs. Instructional and diagnostic materials and methods for dealing with functionally illiterate adults.
- 570. **Curriculum in the Secondary School.** 2 hrs. A course which examines the present-day structure and nature of the secondary school curriculum.
- 578. **Specialized Studies in Developmental Disabilities.** 1-6 hrs. Specialized study and skill acquisition in the area of developmental disabilities. Topics vary.
- 598. **Families of the Developmentally Disabled.** 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.
- 599. **British Studies: Studies in British Education.** 1-3 hrs.
- 600. **Foundations of Multicultural Education.** 3 hrs. Examines the affective and theoretical dimensions of pedagogy appropriate for culturally and linguistically diverse students with emphases on research, current social and educational issues, and strategies for teaching tolerance.
- 615. **Student Discipline Techniques and Procedures for Teachers and Administrators.** 3 hrs. Provides a comprehensive overview of strategies for disciplining students.
- 616. **Teacher/Administrator Legal Rights and Responsibilities.** 3 hrs. Provides a comprehensive overview of the legal rights and responsibilities for teachers and administrators.
- 688. **Medical Aspects of Developmental Disabilities.** 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.
- 692. **Special Problems I, II, III.** 1 hr. each. A problem study to be approved by the department chairman to develop knowledge and facility in the field of interest of the student. Preparation of a scholarly paper is required.
- 694. **Field Problems.** 3 hrs. Prerequisite: Approval of the department chairman. This course provides students with an opportunity to study local school problems in a field setting under the supervision of a graduate professor.
- 697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
- 698. **Thesis.** 3 hrs. Credit deferred until thesis is completed.

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- 700. **Seminar in Secondary Education.** 3 hrs. An investigation of the major trends and objectives of the secondary school with emphasis upon the disciplinary areas of the curriculum.
- 701. **Algebra for Secondary Teachers.** 3 hrs. Consideration is given to the problems relating to the teaching of algebra and a new review of special algebraic principles.
- 705. **Professional Subject Matter in Mathematics.** 3 hrs. A study of ways to enrich the teaching of high school mathematics through the introduction of basic topics and concepts of college mathematics.
- 706. **Geometry for Secondary Teachers.** 3 hrs. Consideration is given to the problems pertaining to the teaching of high school geometry and a review of special geometric principles.
- 707. **Materials in the Teaching of Mathematics.** 3 hrs. A study of materials to be used in the teaching of secondary school mathematics both in the classroom and in extraclass activities.
- 708. **High School Curriculum.** 3 hrs. An overview of the field of curriculum and instruction at the secondary-school level with special emphasis upon contemporary trends.
- 710. **Mathematics for Junior High School Teachers.** 3 hrs. Prerequisite: To be teaching junior high school mathematics or have at least a minor in college mathematics. Consideration is given to the problems relative to the teaching of mathematics in grades 7, 8, and 9 and to the organization of mathematical subject matter for these grades.
- 723. **Research and Problems in Mathematics Education.** 3 hrs. A seminar for experienced teachers who wish to plan developmental programs of mathematics instruction in light of recent developments.
- 750. **Advanced Study of Problems and Issues in Teaching Secondary School Social Studies.** 3 hrs. Explores inquiry strategies for the social studies classroom and seeks to foster a firm understanding of basic analytical concepts and principles for the experienced social studies teacher.
- 753. **Instructional Management.** 3 hrs. Designed to help school districts develop and manage their educational program through clear instructional objectives and matching test items.
- 756. **Developing Community Education.** 3 hrs. A course designed to acquaint teachers with the concept of community education and its impact on their role in the classroom through strengthening community ties.
- 790. **Qualitative Research in Curriculum and Instruction.** 3-6 hrs. Application of qualitative research methodology in the contexts of investigations in curriculum and instruction.
- 791. **Research in Secondary Education.** 1-16 hrs. Prerequisite: Approval of the major professor.
- 792. **Special Problems.** 3 hrs.
- 794. **Field Problems.** 3 hrs. Prerequisite: Approval of the department chairman. This course provides students with an opportunity to study local school problems in a field setting under the supervision of a graduate professor.
- 797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
- 798. **Specialist Thesis.** 6 hrs. Specialist degree candidates are required to select a significant educational problem for investigation and to present the findings in a scholarly paper under the guidance of a graduate committee.
- 880. **Advanced Graduate Seminar in Education.** 1 hr. A series of in-depth discussions and analyses of significant educational problems and issues for students in advanced programs.
- 898. **Dissertation.** 12 hrs.

Dance (DAN)

- 553. **Advanced Jazz Dance.** 2 hrs. The study and application of the principles of jazz movement. May be repeated for a total of six (6) hours.
- 568. **Musical Theatre Dance.** 2 hrs.
- 587L. **Practicum in Movement.** 1-2 hrs. May be taken for a total of 9 hrs.
- 599. **British Studies.** 3-6 hrs. Studies in dance and movement sciences abroad (5 weeks).

Economic Development (ED)

- 551. **Theories of Economic Location.** 3 hrs. Principals of economic location analysis with emphasis on locational decision-making and investment by different types of businesses. Relevance to economic development is stressed.
- 651. **Methods of Economic Development Research.** 3 hrs. Examines research methods for local, regional, and state economic development agencies. Prerequisite: Consent of instructor.

- 652. **Contemporary Issues in Economic Development.** 1-3 hrs. variable credit. May be repeated for a total of 9 hrs. Examines critical issues facing economic developers with a focus on policy formulation in the Southeastern U.S.
- 653. **Dynamics of Economic Development.** 3 hrs. Theory and practice of spatial aspects of economic development as applied to local, regional, and national economies and to the world market economy.
- 654. **Preparing for Community Economic Development.** 3 hrs. Provides practical instruction in the operation of a local economic development agency with emphasis on community preparation techniques and concepts.
- 655. **Economic Development Finance.** 3 hrs. Overview of financing principles for managing a local economic development organization, evaluating strategic development plans and specific projects, and coordinating industrial development incentive packages.
- 656. **Rural Economic Development.** 3 hrs. Focuses on rural development problems with emphasis on the Southeastern U.S.; examines national and state policies and practices for stimulating nonmetropolitan development.
- 657. **Promoting Community Economic Development.** 3 hrs. Prerequisite: Consent of instructor. Provides practical instruction in concepts and techniques for promoting a community, region, or state for new and existing business investments.
- 658. **Applied Research Problems in Economic Development.** 3 hrs. This is a capstone course designed to challenge and synthesize the student's proficiency in economic development. It consists of several research problems to be completed and successfully defended during the semester. Problems are assigned based on the student's program of courses and specializations.
- 691. **Internship.** 1-9 hrs. May be repeated for a total of 9 hours. Involves placement in an economic development agency and participation in actual agency activities.
- 692. **Special Problems.** 1-6 hrs. May be repeated for a total of 6 hours. Involves study in a specific topic of work in a specific area of research under the direction of a consulting faculty member.
- 697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
- 698. **Thesis.** 1-6 hrs. for a total of 6 hours. Independent research project initiated, designed, researched, and written by the student under the supervision of a major professor and a thesis committee.

Economics (ECO)

- 520. **Managerial Economics.** 3 hrs. Prerequisites: Computer literacy, calculus. An examination of micro-economic theory as applied to managerial decision making. See also MBA 520.
- 598. **International Economics Seminar Abroad.** 3 hrs. Prerequisite: Consent of Program Director. Conducted in London, England: a series of lectures and discussions involving authorities on international economic issues and practices.
- 606. **Microeconomic Analysis for Business.** 3 hrs. Prerequisites: ECO 201-202 or ECO 520. A study of pricing and resource allocation with emphasis on applying microeconomic concepts.
- 672. **International Trade and Finance.** 3 hrs. Prerequisites: ECO 201-202, FIN 300, and consent of the instructor. A study of international trade theory, balance of payments adjustment mechanisms, exchange rate determination, and the role of the MNC in the international economy.
- 692. **Special Problems in Economics.** 1-6 hrs.
- 699. **International Economics Research Abroad.** 3 hrs. Prerequisite: Consent of Program Director. A research course in international economics offered for students enrolled in ECO 598.

Educational Administration (EDA)

- 540. **Community Education and the Professional Educator.** 1 hr. Introduction to the concept of community education and its importance in building a base of community support for schools.
- 598. **British Studies: Studies in British Education.** 3 hrs. Provides students with information on various topics related to British education and with field experiences related to British educational institutions.
- 599. **British Studies: Research in British Education.** 3-6 hrs. To provide students with supervised research study on British education that relates to their interests or educational specialty.
- 600. **Introduction to Educational Leadership.** 3 hrs. An introduction to leadership for student-centered schools.
- 601. **Introduction to Community Education.** 3 hrs. Designed to acquaint students with the historical development of community education, and to review the basic components of the community school.

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615. **Student Discipline Techniques and Procedures for Teachers and Administrators.** 3 hrs. Provides a comprehensive overview of strategies for disciplining students.
616. **Legal Considerations for School Leadership.** 3 hrs. Provides a comprehensive overview of the legal rights and responsibilities of students, teachers, and administrators.
620. **Instructional Leadership - Supervision and Professional Development.** 3 hrs. The role and functions of the instructional leader in the modern school setting.
628. **Contextual Dimensions of the Principalsip.** 3 hrs. Focus is on skills essential for today's school leaders in student-centered schools.
630. **Organization and Administration of the Elementary School.** 3 hrs. Emphasizes the role, responsibilities, and functions of the principal in the modern elementary school.
632. **Organization and Administration of the Junior High and Middle Schools.** 3 hrs. Examines the Junior High-Middle School function, objectives and program from the viewpoint of the administrator and supervisor.
634. **Organization and Administration of the Secondary School.** 3 hrs. Emphasizes the role, responsibilities, and functions of the principal in the modern secondary school.
636. **Administrative Internship.** 3-12 hrs. Intensive field experience under supervision of practitioner/mentor and university faculty coordinator.
650. **Educational Resources Development and Management.** 3 hrs. Emphasizes the relationship between effective management of financial resources and the instructional program. Includes attention to site-based budgeting.
691. **Research.** 1-16 hrs. arr.
692. **Special Problems I, II, III.** 1-3 hrs. A problem study to develop knowledge and facility in a field of interest for the student which requires preparation of a scholarly paper under the supervision of a graduate professor.
694. **Field Problems in Production I and II.** 3 hrs. Opportunity to study local school problems under careful supervision of a graduate professor.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs. Credit deferred until thesis is completed.
700. **Public School Finance.** 3 hrs. Emphasizes principles of taxation; local, state, and federal financing of public education; equalization of education opportunity.
701. **Analysis of Teaching Behavior.** 3 hrs. Designed to analyze teaching behavior to determine competency, including interaction analysis and microteaching skills.
704. **School Community Relations.** 3 hrs. A study of school community relations purposes, principles, policies, and procedures.
706. **Education Facilities Development and Management.** 3 hrs. A comprehensive study of the administrative function in facilities, renovation, planning, maintenance, and management.
708. **Developing and Managing Human Resources.** 3 hrs. Emphasizes the relationship between effective management of human resources and the instructional program. Includes attention to licensed and support personnel.
710. **School Law.** 3 hrs. Legal aspects of such factors as school money, church-state relationships, injury to pupils, student and teacher rights, and related matters.
711. **Higher Education in the United States.** 3 hrs. This course provides an overview of the development, scope, philosophy, objectives, and recent innovations in colleges and universities.
712. **The Community/Junior College.** 3 hrs. This course treats the development, functions, programs, philosophy, issues, and research related to the two-year college.
713. **Curricula in Higher Education.** 3 hrs. A study of undergraduate, graduate, and professional education curriculum development in community/junior and senior colleges.
715. **Administration and Supervision of College Teaching.** 3 hrs. A study of the administration of college faculty personnel services and of techniques for faculty development.
717. **Continuing Education and Community Service.** 3 hrs. The role and scope of continuing education and community service in higher education, including the community college.
719. **Organization and Administration of Occupational Education in the Community College.** 3 hrs. Economic, social, educational and legal bases for occupational education; administration of secondary and community college programs.
720. **Advanced Curriculum Development.** 3 hrs. Designed for the school administrator who has or will have responsibility for curriculum development in a school system.

730. **Media Skills for Successful School-Community Relations.** 3 hrs. Designed to build communication skills needed for a successful school-community relations program.
736. **Practicum in Educational Administration.** 3 hrs. Seminar-experiences in administrative problems from the standpoint of the chief school officer and the central office staff.
738. **Practicum in Supervision.** 3 hrs. Prerequisite: EDA 620. An advanced seminar in supervisory services and current problems from a central office viewpoint.
740. **Advanced Instructional Supervision.** 3 hrs. Designed to develop a systematic approach to instructional improvement that will be of use to the generalist or specialist. Prerequisites: EDA 600 and EDA 620.
742. **Consensus Decision-Making in Education.** 3 hrs. Designed to help school administrators improve their skills in using faculty and community groups in educational decision-making.
750. **Administrative Workshop I, II, III, and IV.** One and one-half hours per week. (Course may be repeated, with only nine hours counting toward a degree.) 753. **Evaluating Instructional Management.** 3 hrs. Provides strategies for assessing instructional management practices.
755. **The Superintendency.** 3 hrs. Analyzes roles, responsibilities, and relationships as well as problems and issues associated with the position of school superintendent.
756. **Developing Community Education.** 3 hrs. Designed to acquaint educators and agency representatives with the concept of community education and how it builds a strong base of community support for the schools.
780. **Educational Leadership Seminar.** 3 hrs. The nature and roles of leadership in educational settings with emphasis on self assessment and leadership style in educational decision making.
791. **Research in Educational Administration, Supervision, and Curriculum.** 1-16 hrs. Prerequisite: Approval of the major professor.
792. **Special Problems.** 3 hrs.
794. **Field Problems in Administration I, II, III.** 1 hr. A project dealing with a specific problem in school administration. An on-the-job training program with the work being done under the supervision of a graduate professor. This registration must be approved by the departmental chairman upon the recommendation of the student's major professor.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
798. **Specialist Thesis.** 6 hrs. Selection of practical educational problems for solution by candidates for the specialist's degree, using research and professional knowledge. A scholarly report is required.
800. **Seminar: Theories in Educational Organization and Administration.** 3 hrs. This course deals with the theories and concepts underlying present day school organization, administration, and supervision.
814. **Organization and Administration of Higher Education.** 3 hrs. A study of organizational and administrative roles of structure, governance, coordination, control and finance of higher education.
816. **Seminar in Problems in Higher Education.** 3 hrs. Discussion of problems and topics in higher education to be determined by the students and the instructor.
889. **Special Topics Seminar.** 1 hr. (Max. 3 hrs.) A seminar for in-residence doctoral students in educational administration, emphasizing current issues selected by students in consultation with faculty.
898. **Dissertation.** 12 hrs.

Electronics Engineering Technology (EET)

512. **Advanced Network Analysis.** 2 hrs. Prerequisite: Permission of instructor. Corequisite: EET 512L. Transfer functions; network analysis by Laplace transform methods. Not open to Masters of Engineering Technology candidates who have backgrounds in electrical or electronics engineering technology.
- 512L. **Advanced Network Analysis Laboratory.** 1 hr. Corequisite: EET 512.
561. **Electric Power Generation and Distribution.** 3 hrs. Power generation and distribution, load flow, faults, grids, and layout.
592. **Special Problems.** 1-3 hrs. Supervised study in area of electronics engineering technology related to manufacturing.
603. **Digital Signal Processing.** 3 hrs. Theory and applications of processing discrete data. MATLAB will be used in the development of DSP algorithms to manipulate signals, reduce noise, and extract information.
604. **Active and Digital Filtering.** 3 hrs. Practical analog and digital filter design covering Butterworth, Chebyshev, and elliptic filters. Digital filter design to include IIR and FIR. Window function for FIR filters will also be covered.
692. **Special Problems.** 1-3 hrs. Supervised study in the area of electronics engineering technology.

Engineering Technology (ENT)

510. **Foundations in Computer Aided Drafting and Design.** 3 hrs. Fundamentals of computer use for drafting and design using commercial software.
520. **Computer Aided Drafting and Design II.** 3 hrs. Prerequisite: ENT 510. CADD applied to architectural and engineering drawing using AUTOCAD. Graphics programming in two- and three-dimensions.
525. **Virtual Reality.** 3 hrs. Comprehensive study of Virtual Reality techniques for real-time visualization of engineering technology topics.
530. **Solar Heating and Cooling.** 3 hrs. Corequisite: ENT 530L. Solar energy conversion methods; collectors; residential, commercial solar heating and cooling. Economics of solar energy. Total energy systems.
- 530L. **Solar Heating and Cooling Laboratory.** 1 hr. Corequisite: ENT 530.
540. **Workforce Development Models.** 3 hrs. Application of different instructional models to design workforce training of facts, concepts, procedures, and processes.
543. **Strategies for Technology Training.** 3 hrs. Mastery of core competencies to develop and deliver technology training.
560. **Performance Technology I.** 3 hrs. Examine foundations, process models, interventions, and professional practice issues for improving workforce productivity and competence.
565. **Performance Technology II.** 3 hrs. Prerequisites: ENT 560 and TOE 569 or permission of instructor. Investigation of innovative techniques to deliver training and performance interventions.
570. **Electronics for Scientists.** 3 hrs. Corequisite: ENT 570L. Practical electronics needed for maximum utilization of scientific instrumentation, automation, and logic circuits.
- 570L. **Electronics for Scientists Laboratory.** 1 hr. Corequisite: ENT 570.
575. **Workforce Analysis.** 3 hrs. Prerequisite: ENT 560. Applied research methods and tools for the training professional to analyze and evaluate the worker, work processes, and the organization.
592. **Special Problems.** 1-6 hrs. Topics in Engineering Technology I.
593. **Special Problems.** 1-3 hrs. Topics in Engineering Technology II.
601. **Cost Analysis and Control.** 3 hrs. Prerequisite: ENT 390. Applied cost control methods and techniques to establish prices of products for their targeted market segment.
610. **Advanced Quality Assurance.** 3 hrs. Recent advances in quality assurance, customer focus, TQM, process capability, control charts, concurrent engineering, Taguchi's method, product liability and reliability, ISO 9000, QS-9000, Deming and Baldrige awards.
620. **Advanced Computer Applications in Engineering Technology.** 3 hrs. Prerequisite: ENT 520 or permission of instructor. CADD techniques for 3-D wireframe and solid modeling.
640. **Resources in Engineering Technology.** 3 hrs. Operations management and technology, human and technical resources, forecasting, planning and control, project analysis, logistics and distribution, queuing systems.
650. **Advanced Design Systems in Engineering Technology.** 3 hrs. Prerequisite: Permission of instructor. Application of advanced design tools and processes in engineering technology.
680. **Engineering Technology Seminar.** 1-6 hrs. Presentation of engineering technology industrial applications, practices, and problem solutions. May be repeated for a total of 6 hrs.
691. **Research.** 1-6 hrs. Investigation of current research and literature in engineering technology; development of writing skills; a thesis/prospectus must be orally defended. A maximum of 3 hrs. can be applied toward a degree in Engineering Technology.
692. **Topics in Engineering Technology.** 1-6 hrs. Investigation of specific topics related to engineering technology. May be repeated for a total of 6 hrs.
697. **Independent Study and Research.** 1-12 hrs. Hours arranged. Not to be counted as credit toward degree. Students actively working on a thesis or project, consulting with major professor, and/or using University resources and who are not in residence and are not enrolled in at least 3 hrs. of thesis or project credit must enroll in this course for at least 3 hrs. each semester.
698. **Thesis.** 1-6 hrs. For a total of 6 hours. Credit deferred until thesis is complete.
699. **Project.** 1-3 hrs. For a total of 3 hours. Credit deferred until project is complete.

English (ENG)

501. **Advanced Grammar.** 3 hrs. Introduces structural and transformational grammar.
503. **Introduction to Linguistics.** 3 hrs. Introduces the principles of descriptive linguistics.

506. **History of the English Language.** 3 hrs. Surveys the development of the English language from Old English to the present.
513. **Survey of the Modern Novel.** 3 hrs. Examines major British and Continental novels of the last hundred years.
515. **Survey of Modern Poetry.** 3 hrs. Acquaints students with the work of the significant modern poets, as well as the modern period's important poetic innovations and movements.
517. **Survey of Modern Drama.** 3 hrs. Surveys important British and Continental dramas of the twentieth century.
518. **Literature for the Adolescent.** 3 hrs. Study of literature and pedagogical theory for use with secondary school students.
519. **Studies in World Literature.** 3 hrs. Focuses on Continental, British, and American writers of the nineteenth and twentieth centuries. Repeatable to nine hours.
521. **Fiction Writing III.** 3 hrs. Prerequisites: Graduate standing, permission of the instructor, and enrollment in Center for Writers. Provides an opportunity to develop techniques of fiction writing. Repeatable to nine hours.
522. **Poetry Writing III.** 3 hrs. Prerequisites: Graduate standing, permission of the instructor, and enrollment in Center for Writers. Provides an opportunity to develop techniques of poetry writing. Repeatable to nine hours.
523. **Creative Non-fiction Writing.** 3 hrs. Workshop in writing non-fiction prose: Personal essay, reviews, opinion.
525. **Readings in the Theory of Fiction.** 3 hrs. Examines theories and forms of contemporary fiction. Repeatable to six hours.
526. **Readings in the Theory of Poetry.** 3 hrs. Examines theories and forms of contemporary poetry. Repeatable to six hours.
540. **Literary Criticism.** 3 hrs. Provides a historical approach to the study of literary criticism from the classical period to the present. Emphasis will be on major texts and major critics.
550. **Survey of Medieval Literature, 500-1500.** 3 hrs. Surveys world literature of the period.
551. **Chaucer.** 3 hrs. Emphasizes a close reading of *The Canterbury Tales*.
552. **Arthurian Literature.** 3 hrs. Surveys the literature treating the legend of King Arthur.
554. **Survey of Shakespeare.** 3 hrs. Studies a selected group of Shakespeare's work, including plays of several genres.
555. **Studies in Shakespeare.** 3 hrs. Studies a selected group of Shakespeare's work according to genre, theme, or special topic.
556. **Survey of Sixteenth-Century British Literature.** 3 hrs. Studies the more important British writers of this period.
557. **Survey of the Development of British Drama to 1642.** 3 hrs. Studies British drama from its beginnings to 1642, exclusive of Shakespeare.
558. **Survey of Seventeenth-Century British Prose and Poetry.** 3 hrs. Surveys British literature of the period 1600 to 1660, with emphasis on the "schools" of Donne and Jonson.
559. **Milton.** 3 hrs. Studies the poetry and prose of Milton with emphasis on the major works.
560. **Survey of British Literature, 1660-1740.** 3 hrs. Surveys British literature from the Restoration to 1740.
562. **Survey of British Literature, 1740-1798.** 3 hrs. Surveys British literature from 1740 to 1798.
563. **Victorian Fiction Prose.** 3 hrs. Survey of British fiction and non-fiction prose in the period 1830-1900.
564. **Survey of the British Novel to 1900.** 3 hrs. Surveys the development of British fiction from Richardson through Hardy.
565. **Survey of Nineteenth-Century British Literature: Romantic.** 3 hrs. Surveys poetry and prose of the period 1790 to 1830.
566. **Victorian Poetry and Drama.** 3 hrs. Survey of British poetry and drama of the period 1830-1900.
567. **Survey of Twentieth-Century British Literature.** 3 hrs. Studies major twentieth-century British writers, emphasizing novelists and dramatists.
568. **British Women Writers.** 3 hrs. Literature written by British women writers. Variable content.
569. **Studies in British Literature.** 3 hrs. Examines various topics in British literature. Repeatable to nine hours.
570. **Survey of the American Literary Renaissance, 1820-1870.** 3 hrs. Examines the writings of Emerson, Thoreau, Hawthorne, Melville, Whitman, and others.
571. **Survey of the Rise of Realism in American Literature, 1870-1920.** 3 hrs. Examines American literature after the Civil War, focusing on the terms *realism* and *naturalism*.
572. **Survey of American Drama.** 3 hrs. Studies American drama from its beginnings to the present, with emphasis on the twentieth century.
573. **Studies in African-American Literature.** 3 hrs. Focuses on specific genres, topics, or writers of African-American Literature.
577. **Survey of the American Novel 1920 to 1960.** 3 hrs. Studies techniques and historical backgrounds of the major novelists.

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578. **American Women Writers.** 3 hrs. Literature written by American women writers. Variable content.
585. **Literature of the South.** 3 hrs. Emphasizes the fiction, poetry, and drama of Southern writers.
589. **Studies in American Literature.** 3 hrs. Studies notable movements, genres, and problems of American literature. Repeatable to nine hours.
593. **Irish Studies.** 4 hrs. A three-week course taught in Ireland as part of the USM British Studies Program. Content will vary.
596. **Caribbean Studies.** 3 hrs. Variable content. Lecture series under the auspices of the Center for International Education
597. **Special Topics in British Literature.** 6 hrs. A five-week course taught in London, England, offering an intensive study of special topics in British literature.
598. **British Studies I.** 3-6 hrs. A five-week course taught in London, England. Generally offers an intensive study of topics and figures from the beginning of English literature to 1800.
599. **British Studies II.** 3-6 hrs. A five-week course taught in London, England. Generally offers an intensive study of topics and figures in English literature from 1800 to the present.
611. **Topics in Contemporary Literature.** 3 hrs. A critical examination of a theme or themes in contemporary literature. Repeatable to nine hours.
612. **Studies in Genre.** 3 hrs. Provides a focused survey of a literary genre and its critical history. Repeatable to six hours.
625. **Readings in Fiction.** 3 hrs. Studies in contemporary fiction. Repeatable to 6 hours.
626. **Readings in Poetry.** 3 hrs. Studies in contemporary poetry. Repeatable to 6 hours.
627. **Introduction to Publishing.** 3 hrs. A practical introduction to the business of publishing, concentrating on publishing and marketing.
630. **Teaching Composition.** 3 hrs. Introduces students to composition pedagogy.
631. **Composition Research and Scholarship.** 3 hrs. Examines resources and methods for research and scholarship; emphasizes empirical, rhetorical, and historical frameworks.
632. **Contemporary Composition Theory.** 3 hrs. Surveys contemporary theories of composition and considers their implications for teaching writing.
633. **Rhetorical Dimensions of Composition.** 3 hrs. Examines historical and contemporary theories of rhetoric in the context of composition theory and practice.
640. **Bibliography and Methods of Research in English.** 3 hrs. Instruction in the collection, evaluation, and presentation of research materials.
644. **Topics in Literary Theory.** 3 hrs. A critical examination of important trends, movements, or issues in literary theory. Repeatable to six hours.
650. **Studies in Medieval Literature.** 3 hrs. Provides a focused survey of world literature from the period 500-1500. Repeatable up to six hours.
655. **Studies in Shakespeare.** 3 hrs. Provides a survey of a group of Shakespeare's plays chosen on the basis of genre, period, or theme. Repeatable to 6 hours.
658. **Studies in Renaissance Literature.** 3 hrs. Provides a focused survey of literary works from the sixteenth and seventeenth centuries. Repeatable to six hours.
661. **Studies in the Restoration and Eighteenth Century British Literature.** 3hrs. Provides a focused survey in the literature of the restoration period through the eighteenth century. Repeatable to six hours.
663. **Studies in Nineteenth Century British Literature.** 3 hrs. Provides a focused survey of the poetry and/or prose of the nineteenth century. Repeatable to six hours.
667. **Studies in Twentieth-Century British Literature.** 3 hrs. Provides a focused survey of twentieth-century British literature. Repeatable to six hours.
669. **Topics in British Literature.** 3 hrs. A critical examination of important trends, movements, and issues in British literature. Repeatable up to six hours.
670. **Studies in American Literature I.** 3 hrs. Provides a focused survey of selected American writers and movements before 1900. Repeatable to six hours.
671. **Studies in American Literature II.** 3 hrs. Provides a focused survey of selected American writers and movements since 1900. Repeatable to six hours.
672. **Topics in American Literature.** 3 hrs. A critical examination of a theme or themes in American literature. Repeatable to six hours.
673. **Topics in African-American Literature.** 3 hrs. A critical examination of genres, topics or writers of African-American literature. Repeatable to six hours.
678. **Topics in Writing by Women.** 3 hrs. A critical examination of a genre, topic or theme in women's literature.

690. **Teaching Freshman Composition.** 1 hr. Paces English 101 and 102. Provides practical models for writing assignments, teaching techniques, and classroom management for teachers of Freshman Composition. Repeatable to four hours. Credit hours do not count toward degree.
692. **Special Problems.** 3 hrs. Prerequisite: Consent of instructor. Provides the opportunity to pursue a special topic or area of interest.
694. **Studies in Basic Writing.** 3 hrs. Examines theoretical, historical, and cultural issues in the teaching of basic writing.
695. **Advanced Methods in English.** 3 hrs. Analyzes recent theories and practices in the teaching of composition, literature, and language in postelementary institutions. Repeatable to nine hours.
696. **Studies in Technical and Professional Writing.** 3 hrs. Examines the history and theory of scientific and technical discourse as well as pedagogical applications.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs., for a total of six hours.
702. **Readings in Linguistics.** 3 hrs. Examines varying topics, but usually treats practical aspects of classroom problems arising from widely varying dialects in the public schools. Repeatable to nine hours.
703. **Seminar in Teaching English as a Second Language.** 3 hrs. Examines the practical application of linguistic principles to second language teaching.
714. **Tutorial in English and Germanic Philology.** 3 hrs. Develops specialized area of inquiry unavailable in the regular curriculum.
716. **Seminar in Modern World Literature.** 3 hrs. Examines varying topics in British and Continental literature of the twentieth century: authors, movements, and genres. Repeatable to nine hours.
721. **Seminar in Fiction Writing.** 3 hrs. Prerequisites: Graduate standing, permission of the instructor, and enrollment in Center for Writers. Workshop in fiction writing. Repeatable to nine hours for M.A., to eighteen hours for Ph.D.
722. **Seminar in Poetry Writing.** 3 hrs. Prerequisites: Graduate standing, permission of the instructor, and enrollment in Center for Writers. Workshop in poetry writing. Repeatable to nine hours.
723. **Seminar in Non-Fiction Writing.** 3 hrs. Workshop in the writing of non-fiction prose, memoir, and personal essay. Repeatable to nine hours.
730. **Studies in Literacy Theory.** 3 hrs. Considers the role of writing in current conceptions of literacy and explores literacy practices from a cultural perspective.
733. **Teaching/Administrative Internship in Writing.** 1-3 hrs. Prerequisite: Completion of 15 hours of course work in rhetoric and composition and permission of the instructor. Provides doctoral-level students with supervised experience in teaching writing or directing writing programs.
735. **Issues in Writing Program Administration.** 3 hrs. Focuses on issues and research relating to writing program administration in post-secondary institutions.
744. **Seminar in Literary Criticism.** 3 hrs. Examines specific issues in critical theory.
750. **Anglo-Saxon.** 3 hrs. Examines the Old English language and representative English literature prior to 1066.
751. **Beowulf.** 3 hrs. Reading Beowulf in Anglo-Saxon.
753. **Middle English.** 3 hrs. Presents readings in Middle English literature exclusive of Chaucer, emphasizing the language and dialects of English from 1100 to 1500.
754. **Seminar in Medieval Literature.** 3 hrs. Focuses on the works of a major English medieval writer or group of writers. Repeatable to nine hours.
758. **Seminar in Renaissance Literature.** 3 hrs. Studies the works of a major English Renaissance writer or group of writers. Repeatable to nine hours.
760. **Seminar in Seventeenth-Century British Literature.** 3 hrs. Provides extensive study of an author, topic, or genre in seventeenth-century British literature. Repeatable to nine hours.
761. **Seminar in Eighteenth-Century British Literature.** 3 hrs. Provides extensive study of an author, topic, or genre in eighteenth-century British literature. Repeatable to nine hours.
763. **Seminar in English Romanticism.** 3 hrs. Provides extensive study of selected poets and topics from the Romantic Era (1790-1830). Repeatable to nine hours.
764. **Seminar in Victorianism.** 3 hrs. Provides extensive study of selected authors and topics from the Victorian Era (1830-1910). Repeatable to nine hours.

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769. **Seminar in Modern British Literature.** 3 hrs. Offers an examination of important modern British figures and movements. Repeatable to nine hours.
770. **Seminar in American Literature I.** 3 hrs. Presents a detailed study of selected American writers and movements before 1900. Repeatable to nine hours.
771. **Seminar in American Literature II.** 3 hrs. Presents a detailed study of selected American writers and movements since 1900. Repeatable to nine hours.
772. **Readings in American Literature.** 3 hrs. Presents a detailed study of selected American writers and movements. Repeatable to nine hours.
773. **Seminar in African-American Literature.** 3 hrs. Provides a detailed study of selected genres, topics, or writers of African-American literature.
790. **Seminar in Rhetoric and Composition.** 3 hrs. Provides extensive study and research in a special topic (such as Writing Assessment, Feminist Perspectives on Language and Literacy, Discourse Analysis, Cultural Studies and Composition, Composition and the Postmodern). Repeatable to nine hours.
791. **Research in English.** 1-16 hrs. Prerequisite: Approval of major professor. Must be taken pass/fail. Credit hours do not count toward degree.
792. **Special Problems.** 1-6 hrs. Prerequisite: Permission of instructor. Provides the opportunity to pursue a special topic or area of interest.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
898. **Dissertation.** 12 hrs.

Environmental Science (ESC)

501. **Water Quality Analysis.** 3 hrs. Prerequisite: CHE 311, MAT 137 or permission of instructor. Sampling and testing for water quality.
- 501L. **Water Quality Laboratory.** 1 hr.
505. **Environmental Impact Statements.** 3 hrs. Preparation of environmental impact statements, EIS's, for projects with significant environmental impact.
531. **Environmental Safety.** 3 hrs. Detection and control of harmful agents in working environments, such as vapors, gases, mists, radiation, and sound.
- 531L. **Environmental Safety Laboratory.** 1 hr.
592. **Special Problems.** 1-6 hrs. Prerequisite: Graduate standing or permission of instructor. Topics and content related to current research and practice in environmental science.
692. **Special Problems.** 1-6 hrs. Prerequisite: Graduate standing or permission of instructor. Topics and content related to current research and practice in environmental science.

Family Studies (FAM)

550. **Sexuality in the Family.** 3 hrs. Research and theory on the impact of family life cycle changes on sexuality, intimacy, and gender needs and the application of this for the helping professional.
551. **Marriage Adjustment: Communication and Conflict.** 3 hrs. Mate selection, marital adjustment, divorce, and remarriage are examined. Emphasis will be on communication, power struggles, and problem solving in relation to cybernetics theory.
553. **The Family in Later Life.** 3 hrs. An examination of family kinship patterns in later life; relationships with spouse, adult children, and siblings.
578. **Specialized Studies in Developmental Disabilities.** 1-6 hrs. Specialized study and skill acquisition in the area of developmental disabilities. Topics vary.
596. **Families of the Developmentally Disabled.** 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.
597. **Professional Collaboration for Developmental Disability Services.** 3 hrs. Study of the interdependent contributions of relevant disciplines in training, service, and research.
598. **British Studies Program: Studies in Family Relations.** 3-6 hrs. Current topics, trends, and issues which impact the family. Offered in London, England.

600. **Prepracticum in Marriage and Family Therapy.** 3 hrs. Prerequisite: FAM 650, FAM 655, and permission of the instructor. Students are expected to gain basic clinical competencies in preparation for working with families.
640. **Advanced Household Equipment.** 3 hrs. Study of state-of-the-art technology in household equipment.
644. **Seminar in Family Economics and Management.** 3 hrs. May be repeated for a total of 6 hours.
645. **Financial Problems of Families.** 3 hrs. Study of family resource utilization emphasizing methods of assisting families in effective planning.
650. **Advanced Family Systems Theory.** 3 hrs. Content of human interactions and the process of change in family structures over time is assessed in light of systems theory and family life cycle development theory.
651. **Parents and Children: Problem Resolution.** 3 hrs. A study of both functional and dysfunctional relationship patterns between parents and children/adolescents. Focus is on the systematic intervention process.
653. **Aging and the Family.** 3 hrs. Family-oriented problem solving and its relation to major gerontological issues such as intergenerational struggles, independence, loneliness, alternative living arrangements, etc.
654. **Special Topics in Gerontology.** 1-3 hrs. Study of current issues in the field of aging. Topics will vary. May be repeated for a maximum of 9 hours with permission of adviser.
655. **Marriage and Family Systems Intervention I.** 3 hrs. A survey of the major models of systemic interventions such as structural, strategic, intergenerational, contextual, and experiential.
656. **Marriage and Family Systems Intervention II.** 3 hrs. Primary systemic interventions will be assessed in light of indications and contraindications for utilization of specific techniques, rationale for intervention, and role of therapist.
658. **Seminar in Family Relations.** 3 hrs. May be repeated for a total of 6 hrs. Current topics, trends, and issues which concern and affect families.
659. **Ethics and Professional Issues in Marriage and Family Therapy.** 3 hr. Prerequisite: Permission of instructor. A consideration of the ethical foundations for the professional practice of marriage and family therapy. The American Association of Marriage and Family Therapy (AAMFT) Code of Ethics serves as a guide for the study of legal and personal roles and personal responsibilities in therapy, research, and professional development.
660. **Assessment in Marriage and Family Therapy.** 3 hrs. Assessment of dysfunctional relationship patterns using appropriate major mental health assessment instruments and structured techniques designed for systemic intervention.
663. **Contemporary Issues in the Practice of Marriage and Family Therapy.** 3 hrs. A survey of non-normative family experiences as well as current trends in marriage and family therapy.
678. **Assessment and Intervention for Handicapped Children.** 0-5. 3 hrs. Current issues and theories regarding assessment and intervention procedures for at-risk and handicapped young children, birth through 5.
688. **Medical Aspects of Developmental Disabilities.** 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.
690. **Practicum in Family and Consumer Studies.** 3-9 hrs. Prerequisite: HEE 401 or 501 and permission of instructor. Supervised experiences in family and consumer studies.
691. **Research in Family and Consumer Studies.** 1-16 hrs.
692. **Special Problems in Family and Consumer Studies.** 1-4 hrs.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs. Credit deferred until thesis is completed.
790. **Supervised Practicum in Marriage and Family Therapy.** 1-6 hrs. Prerequisite: FAM 656, FAM 660, FAM 600, and permission of the clinical faculty. Supervised clinical training with couples and families. May be repeated.
794. **Marriage and Family Supervision.** 3 hrs. Prerequisite: Permission of Instructor. Major models of marriage and family therapy and supervision are examined.

Fashion Merchandising and Apparel Studies (FMA)

521. **International Fashion Study.** 2-9 hrs. Planned study of international fashion centers with emphasis on clothing, textiles, interiors, and merchandising. May be repeated up to 9 hrs.
531. **Tailoring.** 3 hrs. Prerequisites: Basic construction skills. Principles and techniques of tailoring applied to a suit or coat.
537. **Principles of Apparel Design and Production.** 3 hrs. Prerequisites: CT 332, CT 330 or 334, CT 331, or permission of the instructor. A study of the historical beginnings, the development and current methods used in the design and production of apparel and accessories. Lab emphasis is placed on fashion sketching.

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631. **Seminar in Clothing and Textiles.** 3 hrs. Topics to be announced in advance. May be repeated once for a total of 6 hours.
633. **Flat Pattern Design.** 3 hrs. Prerequisite: Basic construction skills. Application of flat pattern design techniques to the creation of dress designs.
692. **Special Problems in Clothing and Textiles.** 1-4 hrs.

Finance (FIN)

570. **Managerial Finance.** 3 hrs. Prerequisites: Computer literacy; MBA 511. A study of financial analysis in managerial decision making. See also MBA 570.
598. **International Financial Seminar Abroad.** 3 hrs. Prerequisite: Consent of Program Director. Conducted in London, England: a series of lectures and discussions involving authorities on international financial issues and practices.
640. **Money and Capital Markets.** 3 hrs. Prerequisite: FIN 300. Study of the operations of financial markets and financial institutions and their role in the economy.
652. **Problems in Investment.** 3 hrs. Prerequisite: FIN 300. Application of tested and experimental theories by investment managers to problems of short and long-term decision making.
692. **Special Problems in Finance.** 1-6 hrs. Prerequisite: Consent of department chair. A supervised course in individual study and research.
699. **International Finance Research Abroad.** 3 hrs. Prerequisite: Consent of Program Director. A research course in international finance offered for students enrolled in FIN 598.

Foreign Languages (FL)

561. **Methods of Teaching Foreign and Second Languages.** 3 hrs. Prerequisite: Consent of instructor. May be taken for a total of six (6) hours. Introduction to major trends and practices in language teaching.
562. **Translation.** 3 hrs. Prerequisite: Permission of instructor.
581. **Advanced Credit for Study Abroad.** 3-9 hrs. Arr. Prerequisites: Advanced knowledge of the language to be studied; prior arrangements must be made for the evaluation and receipt of credit. Credit will be granted for systematic study of the language and culture or the language and literature of a foreign area. Study must be under the direction of a recognized teaching institution approved in advance by the Department of Foreign Languages and Literatures. The department will examine and grade the progress and achievement of the participants in this program before granting credit.
663. **Applied Linguistics in Second and Foreign Languages.** 3 hrs. Prerequisite: Consent of instructor. Study of fundamental aspects of linguistics with an emphasis on application to second and foreign language learning and instruction.
664. **Second Language Acquisition Theory and Practice.** 3 hrs. Prerequisite: Consent of instructor. Study of current theory on second language acquisition with an emphasis on relevance to second or foreign language learning and instruction.
665. **Sociocultural and Sociolinguistic Perspectives in Language.** 3 hrs. Study of the relationship between language and its social context with an emphasis on application to second and foreign language teaching. Prerequisite: Consent of the instructor.
690. **Foreign Language Teaching Seminar.** 1 hr. Ongoing supervision and professional development for TAs and adjuncts in the Department of Foreign Languages and Literatures. May be repeated for a total of 4 hours.
691. **Research.** 1-9 hrs. Credit hours may not count towards a degree in the Department of Foreign Languages and Literatures.
692. **Special Problems.** 1-9 hrs. By prior arrangement only.
694. **Practicum in Second or Foreign Language.** 3 hrs. Prerequisite: Consent of the instructor. Indirect and direct experiences in language teaching. May be repeated once.
697. **Independent Study.** 1-9 hrs.

French (FRE)

501. **French Reading for Research I.** 3 hrs. Beginning study of fundamental structures and vocabulary to facilitate reading in French for research. Credit hours may not count towards a degree in the Department of Foreign Languages and Literatures.
502. **French Reading for Research II.** 3 hrs. Prerequisite: FRE 501. A continuation of the study of language structures and vocabulary begun in French 501. Readings from a variety of disciplines will be examined. Credit hours may not count towards a degree in the Department of Foreign Languages and Literatures.
505. **French Phonology.** 3 hrs. An introduction to French phonemics and phonetics with intensive practice in the pronunciation of French.

506. **Advanced Composition.** 3 hrs. Practice in descriptive, narrative, analytical, and research composition, with attention to style, vocabulary, and morphology, as well as methods of organization and presentation.
511. **Advanced Conversation.** 3 hrs. Prerequisite: Advanced knowledge of French. Intensive practice in formal and informal language use on topics drawn from print and electronic media.
531. **French Film.** 1-3 hrs. Prerequisite: Permission of instructor. Study of literary and linguistic aspects of French films.
535. **Modern France.** 3 hrs. Contemporary French education, social attitudes, politics, urban and rural life.
536. **Francophone Civilization and Culture.** 3 hrs. Studies in the history, art, beliefs, behaviors, and values of France and French-speaking cultures. Topics will vary. May be repeated once.
542. **Survey of French Literature I.** 3 hrs. French literature from the Middle Ages through the 18th century.
543. **Survey of French Literature II.** 3 hrs. French literature from the 18th century through the mid-20th century.
545. **Topics in French Literature.** 3 hrs. May be taken for a total of six hours if topics vary.
546. **French Novel and Short Story.** 3 hrs. Prose fiction of the 18th and 19th, and 20th centuries, studied in conjunction with films based on the works or thematically related to them.
547. **Négritude Literary Movement.** 3 hrs. A study of different works associated with the Négritude Literary Movement encompassing areas of French-speaking Africa and the Caribbean area.
581. **Advanced Credit for Study Abroad.** 3-9 hrs. Arr. Prerequisite: Advanced knowledge of French; prior arrangements must be made for the evaluation and receipt of credit. Credit will be granted for systematic study of the language and culture or the language and literature of a foreign area. Study must be under the direction of a recognized teaching institution approved in advance by the Department of Foreign Languages and Literatures. The department will examine and grade the progress and achievement of the participants in this program before granting credit.
591. **Advanced Studies in the French Language.** 3 hrs. Permission of the instructor. Content varies in response to students' interests and needs. May be repeated once.
605. **Old French.** 3 hrs. May be taken for a total of six (6) hours.
641. **French Seminar.** 3 hrs. May be taken for a total of nine (9) hours.
692. **Special Problems in the Teaching of French.** 1-3 hrs. By prior arrangement only. May be repeated once.

German (GER)

501. **German Reading for Research I.** 3 hrs. Beginning study of fundamental structures and vocabulary to facilitate reading in German for research. Credit hours may not count towards a degree in the Department of Foreign Languages and Literatures.
502. **German Reading for Research II.** 3 hrs. Prerequisite: GER 501. A continuation of the study of language structures and vocabulary begun in German 501. Readings from a variety of disciplines will be examined. Credit hours may not count towards a degree in the Department of Foreign Languages and Literatures.
505. **German Diction and Phonetics.** 3 hrs. Prerequisite: consent of instructor.
506. **Advanced Grammar.** 3 hrs. Advanced study of German grammar; reading and stylistic analysis.
581. **Study Abroad.** 3-9 hrs. Prerequisite: Advanced knowledge of German; prior arrangements must be made for the evaluation and receipt of credit. Credit will be granted for systematic study of the language and culture or the language and literature of a foreign area. Study must be under the direction of a recognized teaching institution approved in advance by the Department of Foreign Languages and Literatures. The department will examine and grade the progress and achievement of the participants in this program before granting credit.
645. **German Seminar.** 3 hrs. May be taken for a total of nine (9) hours.

Greek (GRK)

545. **Reading in Greek Literature.** 3 hrs.

Italian (ITA)

581. **Advanced Credit for Study Abroad.** 3 hrs. Prerequisite: Advanced knowledge of Italian; prior arrangements must be made for the evaluation and receipt of credit. Credit will be granted for systematic study of the language and culture or the language and literature of a foreign area. Study must be under the direction of a recognized teaching institution approved in advance by the Department of Foreign Languages and Literatures. The department will examine and grade the progress and achievement of the participants in this program before granting credit.

Latin (LAT)

545. **Reading in Latin Literature.** 3 hrs. Prerequisite: LAT 101 or equivalent. May be taken for a total of nine hours if topic varies.

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Spanish (SPA)

- 501. **Spanish Reading for Research I.** 3 hrs. Beginning study of fundamental structures and vocabulary to facilitate reading in Spanish for research. Credit hours may not count towards a degree in the Department of Foreign Languages and Literatures.
- 502. **Spanish Reading for Research II.** 3 hrs. Prerequisite: SPA 501. A continuation of the study of language structures and vocabulary begun in Spanish 501. Readings from a variety of disciplines will be examined. Credit hours may not count towards a degree in the Department of Foreign Languages and Literatures.
- 505. **Spanish Phonetics.** 3 hrs. A contrastive study of the phonetic systems of English and Spanish with emphasis on corrective exercises in Spanish pronunciation.
- 506. **Advanced Composition and Grammar.** 3 hrs. Review of basic grammar, progressing to more sophisticated aspects; idiom study; composition.
- 511. **The Spanish Subjunctive.** 3 hrs. Prerequisite: permission of instructor.
- 521. **Advanced Conversation.** 3 hrs. Prerequisite: SPA 421, equivalent, or permission of instructor. Conversational practice in formal and informal language drawn from print and electronic media with accompanying focus on the teaching of conversation skills.
- 535. **Spanish Culture and Civilization.** 3 hrs. A chronological survey of Spanish history and culture from Celt-Iberian times to the present.
- 536. **Latin American Culture and Civilization.** 3 hrs. A chronological survey of Hispanic civilization and institutions.
- 542. **Survey of Spanish Literature.** 3 hrs. Prerequisite: consent of instructor. May be taken for a total of six hours if topics vary.
- 546. **Don Quixote.** 3 hrs. A study of the Cervantes novel, of its historical and literary background, and of the principal critical materials.
- 552. **Topics in Latin American Literature.** 3 hrs. Prerequisite: consent of instructor. May be taken for a total of six hours if topics vary.
- 581. **Advanced Credit for Study Abroad.** 3-9 hrs. Prerequisite: Advanced knowledge of Spanish; prior arrangements for evaluation and receipt of credit. Credit will be granted for systematic study of the language and culture or the language and literature of an Hispanic area. Study must be under the direction of a recognized teaching institution approved in advance by the Department of Foreign Languages and Literatures. The department will examine and grade the progress and achievement of the participants in this program before granting credit.
- 591. **Advanced Studies in the Spanish Language.** 3 hrs. Prerequisite: consent of instructor. Content varies in response to students' interests and needs. Topics include: syntax, lexicography, and etymology. May be repeated once.
- 605. **Old Spanish.** 3 hrs. May be repeated once.
- 609. **Spanish Lexical Problems.** 3 hrs. A study of correct vocabulary usage, with composition practice.
- 612. **Spanish Pedagogical Grammar.** 3 hrs. Exploration and development of ways of teaching difficult grammar concepts in the school classroom.
- 641. **Spanish Seminar.** 3 hrs. May be taken for a total of nine (9) hours.
- 661. **Spanish Reading.** 3 hrs. Development of reading skills and of suitable reading materials for the Spanish classroom.
- 685. **Teaching Spanish for Special Purposes.** 3 hrs. Methods and materials for teaching such groups as law enforcement, health care, and business personnel. May be taken for a total of six hours if topics vary.
- 692. **Special Problems in the Teaching of Spanish.** 1-3 hrs. By prior arrangement only. May be repeated once.

Teaching English to Speakers of other Languages (TSL)

- 641. **TESOL Seminar.** 3 hrs. May be repeated as content varies. Content varies in response to students' interests and needs.
- 692. **Special Problems in TESOL.** 3 hrs. By prior arrangement only. May be repeated as content varies.

Forensic Science (FSC)

- 530. **Survey of Forensic Toxicology.** 3 hrs. The isolation and identification of drugs and poisons from a biological matrix.
- 540. **Drug Identification.** 3 hrs. Lectures, demonstrations, and discussions covering all aspects of drug identification, particularly related to law enforcement.
- 542. **Arson and Explosives.** 3 hrs. Introduction to the investigation of arson and bombings.
- 542L. **Arson and Explosives Laboratory.** 1 hr.

- 545. **Crime Scene Documentation.** 2 hrs. Prerequisite: Permission of instructor. Concurrent registration in FSC 545L is required. The processing of crime scene, including crime scene photography, sketching of the crime scene, and collecting and processing evidence.
- 545L. **Crime Scene Documentation Laboratory.** 2 hrs. Concurrent registration in FSC 545 is required.
- 591. **Special Projects in Forensic Science.** 1 hr. Individual studies in forensic science principles.
- 591L. **Laboratory for Forensic Science 591.** 3 hrs. Hands-on experience with true forensic science situations.
- 597. **Field Study in Forensic Science.** 3 hrs. Prerequisite: Permission of the director of forensic science field work offering research and practice in a forensic science setting.
- 599. **British Studies.** 1-6 hrs. Variable content. Lecture series and research abroad under the auspices of the College of International and Continuing Education.
- 691. **Research.** 1-16 hrs.

General Studies (GS)

- 500. **Orientation to Instructional Settings.** 1 hr.

Geography and Area Development (GHY)

- 500. **Geography of Mississippi.** 3 hrs. Survey of physical, economic and historical geography of state; emphasis on man-environment relations and problems.
- 501. **Geography of the United States and Canada.** 3 hrs. A geographical analysis of the physical and human characteristics of the region.
- 502. **Geography of Middle America and the Caribbean.** 3 hrs. A geographical analysis of the physical and human characteristics of the region.
- 503. **Geography of South America.** 3 hrs. A geographical analysis of the physical and human characteristics of the region.
- 504. **Geography of Europe.** 3 hrs. A geographical analysis of the physical and human characteristics of the region.
- 505. **Geography of Russia.** 3 hrs. A geographical analysis of the physical and human characteristics of the region.
- 506. **Geography of Africa.** 3 hrs. A geographical analysis of the physical and human characteristics of the region.
- 507. **Geography of East and South Asia.** 3 hrs. A geographical analysis of the physical and human characteristics of the region.
- 508. **Geography of Southwest Asia.** 3 hrs. A geographical analysis of the physical and human characteristics of the region.
- 510. **Advanced Cartography.** 2 hrs. Prerequisite: GHY 310. Corequisite: GHY 510L. Map projections, geodesy, quantitative symbolization, color separation, reproduction.
- 510L. **Advanced Cartography Laboratory.** 2 hrs. Corequisite: GHY 510. Advanced map design, scribing, and reproduction laboratory.
- 511. **Remote Sensing Image Interpretation.** 2 hrs. Corequisite: GHY 511L. Introduction to Remote Sensing; interpretation and application of air photos and other remote sensing images.
- 511L. **Remote Sensing Image Interpretation Laboratory.** 1 hr. Corequisite: GHY 511. Application of remote sensing air photos to natural and cultural environmental problems.
- 512. **Remote Sensing of the Environment.** 2 hrs. Prerequisite: GHY 311 or permission of instructor. Theory of acquisition processing and analysis of remotely sensed data and images and survey of environmental applications of remote sensing.
- 512L. **Remote Sensing Laboratory.** 1 hr. Corequisite: GHY 512. Processing and analysis of data and images collected by remote sensing methods.
- 513. **Field Methods.** 3 hrs. Basic methods used to classify, analyze, and report field-gathered data in geography and planning.
- 516. **Computer Application in Geography.** 2 hrs. Prerequisite: Experience using nonprocedural computer languages. Corequisite: GHY 516L. Concepts and applications of computerized geographic mapping, information, simulation, and analytic systems.
- 516L. **Computer Applications in Geography Laboratory.** 1 hr. Corequisite: GHY 516. Operation of computerized geographic mapping information, simulation, and analytic systems. Uses nonprocedural languages.
- 517. **Geographic Information System Design.** 2 hrs. Prerequisite: FORTRAN or Pascal. Theory, design, and application of geographic data handling and analysis systems.
- 517L. **Geographic Information System Design Laboratory.** 2 hrs. Pre- or Co-requisite: GHY 517. Design and programming of geographic data handling and analysis systems using ARC/INFO.

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518. **Geographic Information Management.** 2 hrs. Prerequisite: GHY 517. Implementation and management of GIS in public sector organizations and use of GIS in decision-making.
- 518L. **Geographic Information Management Laboratory.** 1 hr. Corequisite: GHY 518. Construction and use of a GIS data base in response to decision-making needs.
525. **Applied Climatology.** 3 hrs. An introduction to the application of climate elements to various forms of man's economic and social activities.
527. **Meteorology.** 3 hrs. Study of temporal and areal variations in composition, structure, and workings of the atmosphere. Practice in use of instruments and measurements.
528. **Severe Storms.** 3 hrs. An examination of the causes, characteristics and destructive nature of severe weather.
535. **Historical Geography of the American Landscape.** 3 hrs. Evolution of cultural landscapes of the area now comprising the United States; emphasis on processes of change.
540. **Population and Human Resources.** 3 hrs. A geographical analysis of the biological and cultural characteristics of population.
551. **Theories of Economic Location.** 3 hrs. Principles of industrial location analysis; emphasis on theory, locational decision making, and regional location of manufacturing.
573. **Water Resources.** 3 hrs. Study of hydrologic processes operating in the near-surface environment and their applications to practical problems.
574. **Watershed Management.** 3 hrs. Analysis of hydrological, erosional, and environmental processes important in the management of watersheds; emphasis on erosion, sedimentation, and pollution.
589. **Caribbean Studies.** 3 hrs. Analysis of hydrological, erosional, and environmental processes important in the management of watersheds; emphasis on erosion, sedimentation, and pollution.
599. **British Studies: Geography of the British Isles.** 3-6 hrs. An overview of the human and physical geography of the British Isles. Includes field trips and directed research.
610. **Seminar in Research Techniques and Presentation of Geographic Data.** 1-3 hrs. Required of all geography graduate students.
612. **Seminar in Cartography.** 3 hrs. May be repeated up to six (6) hours with change in content to include cartographic, aerial photo interpretation, remote sensing, statistical, and geographic information systems.
615. **Quantitative Methods in Spatial Analysis.** 3 hrs. An advanced course in statistical and other quantitative techniques applied to problems of spatial analysis.
617. **Geography for Teachers.** 3 hrs. Current theories, practices, and techniques used in teaching geography at the elementary and secondary levels.
623. **Seminar in Environmental Climatology.** 3 hrs. May be repeated up to six (6) hours with change in content.
631. **Seminar in Cultural-Historical Geography.** 3 hrs.
650. **Seminar in Economics Geography.** 3 hrs. May be repeated up to six (6) hours with change in content.
673. **Seminar in Water Resources.** 3 hrs. May be repeated to six (6) hrs. with change in content.
680. **Seminar in History and Development of Geographic Thought.** 3 hrs.
691. **Internship.** 1-9 hrs. May be repeated for a total of nine.
692. **Special Problems.** 1-6 hrs.
693. **Internship in Cartography.** 1-9 hrs. Prerequisite: Permission of instructor.
694. **Prolaboratory in Cartography.** 1-3 hrs. Prerequisite: Permission of instructor. Preparation and presentation of a professional cartographic or remote sensing project. May be repeated with change of content for a total of six (6) hours of credit.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs.

Geology (GLY)

501. **Principles of Stratigraphy.** 3 hrs. Prerequisites: GLY 304, 308, 341, or permission of instructor. A study of the character and distribution of sedimentary rock units in space and time.
503. **Optical Mineralogy.** 3 hrs. Pre- or Corequisite: GLY 304. Introduction to optical mineralogy and thin section study of rocks using polarizing microscope.

- 503L. **Optical Mineralogy Laboratory.** 1 hr. Corequisite: GLY 503.
505. **Sedimentology.** 3 hrs. Study of the character of sediments and sedimentary structures in the context of depositional environments.
- 505L. **Sedimentology Laboratory.** 1 hr. Corequisite: GLY 505.
506. **Fundamentals of Crystallography.** 1 hr. Prerequisite: MAT 103. An introduction to the concepts of crystal systems, morphology, Herman-Mauguin symbols, Bravais lattice, unit cells, Miller indices, and X-ray diffraction.
- 506L. **Fundamentals of Crystallography Laboratory.** 1 hr. Corequisite: GLY 506.
507. **Principles of X-ray Diffraction.** 1 hr. Prerequisite: GLY 301 or permission of instructor. Introduction to principles, analytical techniques, and precautions involved in X-ray diffraction instrumentation.
- 507L. **Principles of X-ray Diffraction Laboratory.** Corequisite: GLY 507.
508. **Petrography.** 3 hrs. Prerequisites: GLY 503 and GLY 503L. Characterization of rock composition and textures, classification, and petrogenesis with use of polarizing microscope and thin sections.
- 508L. **Petrography Laboratory.** 1 hr. Corequisite: GLY 508.
510. **Elements of Geochemistry.** 3 hrs. Prerequisite: GLY 304. Chemical principles governing the formation of minerals and rocks and their reactions with the lithosphere, hydrosphere, atmosphere, and biosphere.
511. **Applied Groundwater Geochemistry.** 3 hrs. Prerequisites: GLY 410/510, GLY 476/576 recommended. Design and implementation of groundwater geochemistry monitoring programs for hydrogeological site assessment.
520. **Applied Geophysics I.** 3 hrs. Prerequisites: GLY 308, MAT 168, and PHY 112 or 202 or permission of instructor. Introduction to seismic methods used in hydrocarbon and mineral exploration.
- 520L. **Applied Geophysics I Laboratory.** 1 hr. Corequisite: GLY 520.
521. **Applied Geophysics II.** 3 hrs. Prerequisites: GLY 308, MAT 168, and PHY 112 or 202 or permission of instructor. Introduction to gravity, magnetic and electrical methods used in hydrocarbon and mineral exploration.
- 521L. **Applied Geophysics II Laboratory.** 1 hr. Corequisite: GLY 521.
522. **Geophysical Well-Logging.** 3 hrs. Prerequisites: GLY 101, MAT 103, and PHY 112 or 202. Pre- or Corequisite: GLY 505. Principles of obtaining data from bore hole instruments, and geological interpretation of data.
- 522L. **Geophysical Well-Logging Laboratory.** 1 hr. Must be taken concurrently with GLY 522.
523. **Geological Remote Sensing.** 2 hrs. Corequisite: GLY 523L. Introduction to the use of multispectral, hyperspectral, and radar remote sensing data and imagery in applied geology.
- 523L. **Geological Remote Sensing Laboratory.** 2 hrs. Corequisite: GLY 523.
530. **Principles of Geology for Science Teachers.** 3 hrs. Principles of physical and historical geology for teachers. Not applicable to geology degree.
543. **Calcareous Micropaleontology.** 3 hrs. Prerequisite: GLY 341. Taxonomy, morphology, and stratigraphic use of calcareous microfossils.
- 543L. **Calcareous Micropaleontology Laboratory.** 1 hr. Corequisite: GLY 543.
544. **Siliceous Micropaleontology.** 3 hrs. Prerequisite: GLY 341. Taxonomy, morphology, and stratigraphic use of siliceous and organic-walled microfossils.
- 544L. **Siliceous Micropaleontology Laboratory.** 1 hr. Corequisite: GLY 544.
550. **Geological Marine Science.** 3 hrs. Pre- or Corequisite: GLY 505 or permission of instructor. Study of the formation and deformation of the oceanic crust and the distribution and character of marine sediments.
- 550L. **Geological Marine Science Laboratory.** 1 hr. Corequisite: GLY 550. Examination and interpretation of marine geological samples and data.
565. **Engineering Geology.** 3 hrs. The integration of geologic and engineering principles and their application in the evaluation and utilization of Earth resources and the mitigation of natural and human-induced hazards.
570. **Petroleum Geology.** 3 hrs. Pre- or Corequisite: GLY 401 or permission of instructor. The origin, occurrence, and accumulation of oil and natural gas.
- 570L. **Petroleum Geology Laboratory.** 1 hr. Corequisite: GLY 570.
574. **Geological Excursion.** 1-4 hrs. Field studies of geological phenomena in areas remote from the campus.
576. **Hydrology.** 3 hrs. An introduction to the origin, distribution, movement, and properties of the waters of the earth.
587. **Industrial Rocks and Minerals.** 3 hrs. Nature and formation of industrial rock and mineral deposits.
600. **Paleoclimatology.** 3 hrs. Past climatic conditions based on the rock, mineral, and biologic record.
601. **Pleistocene Geology.** 3 hrs. Earth history of the Pleistocene epoch, with emphasis on glacial phenomena.
603. **Sedimentary Environments.** 3 hrs. Comparison of modern environments of sedimentation with the evidence regarding paleoenvironments.

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604. **Tectonics.** 3 hrs. Investigation of large-scale crustal deformation.
607. **Sedimentary Petrology.** 3 hrs. Prerequisites: GLY 403/503, 405/505, or permission of instructor. Origin, classification, composition and geochemistry of sedimentary rocks.
- 607L. **Sedimentary Petrology Laboratory.** 1 hr. Corequisite: GLY 607.
608. **Gulf Coast Geology.** 3 hrs. Stratigraphy, structural geology, and mineral resources of the Gulf Coastal Province of the U.S.
612. **Isotope Geology.** 3 hrs. Theory and application of geochronology and the use of isotopes as tracers of geological processes.
615. **Clay Mineralogy.** 3 hrs. Origin, structure, and chemistry of clays, identification techniques, clay-water systems, soil formation and engineering applications.
- 615L. **Clay Mineralogy Laboratory.** 1 hr. Corequisite: GLY 615.
641. **Paleoecology.** 3 hrs. Prerequisites: GLY 341 or equivalent. A study of the relationship between ancient organisms and the environment in which they lived; field trips.
677. **Advanced Groundwater Hydrology.** 3 hrs. The advanced study of groundwater flow and seepage, well hydraulics, water quality, groundwater management, modeling techniques, and exploration methods pertaining to water resource investigations.
689. **Seminar.** 1 hr. Prerequisite: Permission of instructor. May be repeated once for a total of two hours credit.
691. **Research in Geology.** 1-16 hrs. Prerequisite: Approval of major instructor.
692. **Special Problems in Geology I, II, III.** 1-3 hrs. Prerequisite: Approval of chair. Investigation of a specific problem not related to thesis research.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs.

History (HIS)

501. **Themes in the Non-Western World.** 3 hrs. An analysis of economic, political, social, and cultural issues which have shaped relations between the Western and non-Western worlds.
506. **Modern China.** Survey of the historical processes that have transformed China into a modern Marxist society.
507. **Rise and Fall of Communism.** 3 hrs. An analysis of the rise and fall of communism. The topic may vary.
509. **United States Relations with East Asia.** Attempts to explain the dynamic interactions between the United States and China and Japan over the past 200 years.
510. **History of Mexico and the Caribbean.** 3 hrs.
511. **The Caribbean and Central America.** 3 hrs. An analysis of Caribbean and Central American history, with particular emphasis on colonialism, slavery, plantation economies, revolutionary movements, and the influence of the United States.
512. **History of Brazil.** 3 hrs. An examination of Brazilian history, with particular emphasis on the period since independence.
513. **The United States and Latin America.** 3 hrs. A detailed discussion of the relationship between the societies and governments of the United States and Latin America.
515. **World War I.** 3 hrs. An exploration of the causes, conduct, and consequences of World War I.
516. **World War II.** 3 hrs. A study of causes, conduct, and consequences of World War II.
517. **Vietnam War.** 3 hrs. Discussion of military, social, political, and cultural consequences of the war.
520. **Exploration and Discovery.** 3 hrs. Examination of factors contributing to European exploration from the Renaissance to the 19th c.
521. **War and Science in Modern History.** 3 hrs. An examination of the relationship between science and warfare from the 18th c. to the present.
523. **Science and Society: From Copernicus to the Bomb.** 3 hrs. An interdisciplinary course designed for both science and liberal arts students. Traces the development of science and technology and their role in society from the Renaissance to the present. (Cross-listed under BSC 523 and PHY 585.)
526. **Renaissance Europe 1348-1500.** 3 hrs. This course will examine the social, political, and intellectual changes emerging in Europe after the Black Death.

527. **Reformation Europe 1500-1650.** 3 hrs. This course will examine the setting, events, and implications of the religious Reformation in European history.
529. **The Age of the Enlightenment.** 3 hrs. A survey of the political, social, and cultural history of Europe from the Age of Absolutism to the French Revolution.
530. **French Revolution and Napoleon.** 3 hrs. A study of Revolutionary and Napoleonic France and its impact on Europe.
531. **Europe 1815-1870.** 3 hrs. A survey of early nineteenth century Europe, with emphasis on nationalism and the quest for reform.
532. **Europe 1870-1914.** 3 hrs. A survey of late nineteenth and early twentieth-century Europe with emphasis on the growth of democracy, the expansion of empires, and the origins of World War I.
533. **Europe 1914-1939.** 3 hrs.
534. **Europe Since 1945.** 3 hrs. A survey of European history since the end of World War II, covering such key developments as economic reconstruction, the Cold War, NATO, and the Common Market.
536. **Medieval Life and Thought.** 3 hrs.
538. **Family and Society in Medieval and Early Modern Europe.** 3 hrs. This course will study continuity and change in the family from c. 1150-1650. Some topics considered will be the structure of the family, the role of women, misogyny, and sexuality.
540. **History of Socialism in the West.** 3 hrs. This course explores in some detail the historical evolution and meaning of socialism as a theoretical idea and a grass roots social and political movement.
541. **History of Nationalism: Theories and Movements.** 3 hrs. This course is intended to give students a closer awareness and understanding of nationalism in the history of the 19th and 20th centuries.
543. **Revolution, Reaction, and Fascism in Southern Europe.** 3 hrs. A political, social, and cultural history of Spain, Italy, and Portugal during the nineteenth and twentieth centuries.
544. **Intellectual and Cultural History of Modern Europe.** 3 hrs. Philosophy, social thought, and the arts from the Enlightenment to the present.
546. **Tudor-Stuart Britain.** 3 hrs.
547. **Social History of Victorian Britain.** 3 hrs. This course explores the changing social conditions during the 70-year period of the Victorian era, including Victorian values, the position of women and children, popular protest and trade unionism.
549. **History of Modern Spain.** 3 hrs. Survey of the political, social, religious, and national history of Spain since the 18th century.
554. **France, 1815-Present.** 3 hrs. A survey of French history after Napoleon emphasizing the evolution of political and social structures.
555. **History of the German Lands Since 1815.** 3 hrs. This course covers the broad lines of political and social development in the German-speaking regions from the early 19th century to reunification in 1990.
556. **Nazi Germany.** 3 hrs. A study of the political, diplomatic, economic, and social developments in Germany from 1919 through 1945.
558. **Modern Russia and The Soviet Union: 1861-1991.** 3 hrs. An introduction to the history of modern Russia and the Soviet Union from the Great Emancipator to the August 1991 coup.
559. **Eastern Europe in the 20th Century.** 3 hrs. This course introduces students to the diversity of social, political, and cultural experience in the regions of East-Central Europe.
560. **Colonial America.** 3 hrs. Development of social, political, economic, and religious life in the English colonies of North America to 1763.
561. **The American Revolution.** 3 hrs. A discussion course concerning the dispute between Great Britain and its American colonies which led to the development of a new nation.
562. **Age of Jefferson and Jackson.** 3 hrs. A study of political, social, and cultural changes in the United States from 1789 to 1848.
563. **The Sectional Controversy and the Civil War, 1848-1877.** 3 hrs. An examination of sectional conflict, Civil War, and Reconstruction with primary emphasis on political and military history.
564. **The Origins of Modern America, 1877-1919.** 3 hrs. A survey of political, economic, diplomatic, and social developments in the United States from the close of the Civil War through the end of World War I.
565. **Twentieth Century America, 1919-1945.** 3 hrs. A detailed examination of the social, intellectual, political, and economic history of the interwar years.
566. **Our Times.** 3 hrs. A detailed examination of social, intellectual, political, diplomatic, and economic history since World War II.

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567. **The Colonial South.** 3 hrs. Explores the interaction of Indian, European, and African people in the colonial South from about 1500 to 1800.
568. **The Old South.** 3 hrs. The social, economic, and cultural history of the antebellum South with particular emphasis on the plantation system and slavery.
569. **The New South.** 3 hrs. An analysis of the peculiarities of the South's social, economic, political, and intellectual development from 1877 to the present. Emphasis is placed on those factors making the South distinctive in American history.
570. **The Southern Frontier.** 3 hrs. A discussion course concerning pioneer life— primarily in the South—from the Atlantic seaboard to the Mississippi Valley.
571. **The Western Frontier.** 3 hrs. Examines the significance of frontier types west of the Mississippi including explorers, mountain men, cowboys, farmers, miners, railroaders, and Indians.
573. **U.S. Foreign Relations.** 3 hrs. A history of U.S. foreign relations with particular emphasis on Manifest Destiny, the New Imperialism, World War I, the events leading to World War II, World War II, and the Cold War.
576. **Intellectual and Cultural History of the United States.** 3 hrs. A survey of philosophy, social thought and cultural developments from the 17th century to the present.
577. **Women in American Society.** 3 hrs. A survey of the experience of American women from the colonial period to the present with emphasis on the evolution of woman's role in society in response to changing economic and social conditions.
578. **Studies in Civil Rights.** 3 hrs. Prerequisite HIS 340 or permission of instructor. Intensive study (readings, discussion, research) of Twentieth Century African-American protest leadership and the freedom struggle.
581. **Topics in Early Modern European History.** 3 hrs. This course will examine various topics in late medieval and early modern European history.
582. **Studies in European History.** 3 hrs. May be repeated for a total of 9 hrs.
583. **Studies in South American History.** 3 hrs. May be repeated for a total of six hours.
594. **Topics in Mexican History.** 3hrs. Course offered in Mexico as part of the university's study abroad offerings.
595. **Austrian Studies.** 3-6 hrs. Variable topics in central European history. Offered abroad under auspices of Center for International Education. No more than 3 hours to be counted as credit toward degree.
596. **Topics in Modern French History.** 3 hrs. Themes in French history, 18th-20th century.
597. **Asian Cultures and Histories.** 3 hrs. An introduction to traditional cultures and societies of East Asia.
599. **British Studies; Seminar in European Studies.** 3-6 hrs. Lecture series and research in European studies offered abroad under auspices of Institute of Anglo-American Studies. No more than 3 hours to be counted as credit toward degree.
692. **Special Problems, I, II, III, IV.** 1-4 hrs.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in at least 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 3 or 6 hrs. for a total of 6 hrs.
710. **Philosophy and Methods of History.** 3 hrs. Acquaints graduate students with the nature and methods of historical study. Topics include research and bibliographic techniques; topic selection and question-framing; data collection, analysis, and interpretation, including quantification.
711. **Research Seminar in American History.** 3 hrs. May be repeated for a total of nine hours.
712. **Research Seminar in European History.** 3 hrs. May be repeated for a total of nine hours.
713. **Seminar in Medieval History.** 3 hrs. May be repeated for a total of nine hours.
725. **Interpretations and Themes in American History to 1865.** 3 hrs. Study of major historiographical trends in American history before the Civil War.
726. **Interpretations and Themes in American History Since 1865.** 3 hrs. Study of major historiographical trends in American history after the Civil War.
730. **Seminar in Modern European Historiography.** 3 hrs. A course in historiography that will acquaint graduate students with influential historians and their conflicting interpretations of major historical issues.
732. **Seminar in British History.** 3 hrs. May be repeated for a total of nine hours.
733. **Seminar in Central European History.** 3 hrs. May be repeated for a total of nine hours.
734. **Seminar in Western European History.** 3 hrs. May be repeated for a total of nine hours.
735. **Seminar in Early Modern European History.** 3 hrs. May be repeated for a total of nine hours.

736. **Seminar in Modern Military History.** 3 hrs. Discussion of themes in warfare and society from the Napoleonic era to the present.
740. **Seminar in East Asian History.** 3 hrs. May be repeated for a total of nine hours.
745. **Seminar in Latin American History.** 3 hrs. May be repeated for a total of nine hours.
750. **Inter-University Consortium Seminar.** 3 hrs. May be repeated for a total of nine hours. Variable topics in United States and Modern European history offered in conjunction with the History faculty of Mississippi State University.
771. **Seminar in U.S. History to 1877.** 3 hrs. May be repeated for a total of nine hours.
772. **Seminar in U.S. History Since 1877.** 3 hrs. May be repeated for a total of nine hours.
773. **Seminar in African-American History.** 3-6 hrs. as topics vary. Examination of selected topics in black history.
774. **Seminar in American Diplomatic History.** 3 hrs. May be repeated for a total of nine hours.
775. **Seminar in Southern History.** 3 hrs. Variable topics in Southern history. May be repeated for a total of nine hours.
776. **Seminar in Women's History.** 3 hrs. Variable topics in women's history. May be repeated for a total of nine hours.
781. **Themes and Interpretations in Latin America I.** 3 hrs. Study of major themes and historiographical trends in pre-colonial and colonial Latin American history.
782. **Themes and Interpretations in Latin American History II.** 3 hrs. Study of major themes and historiographical trends in post-colonial Latin American history.
785. **Oral History Seminar.** 3 hrs. May be repeated for a total of nine hours.
791. **Research in History.** 1-16 hrs. Prerequisite: Approval of major professor.
796. **Practicum in the Teaching of History in Colleges and Universities.** 3 hrs. May be repeated for a total of nine (9) hours.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in at least 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
799. **British Studies: Advanced Seminar in European Studies.** 3-6 hrs. Lecture series and research in European studies offered abroad under auspices of Institute of Anglo-American Studies. No more than 3 hours to be counted as credit toward degree.
898. **Dissertation.** 1-12 hrs. for a total of 12 hours.

Home Economics Education (HEE)

501. **Family Life Education.** 3 hrs. General philosophy and broad principles of family life education with emphasis on planning, implementing and evaluating such educational programs.
504. **Consumer Economics.** 3 hrs. Study of how consumers, business, and government interact in the exchange of goods and services in the marketplace.
509. **Occupational Home Economics.** 3 hrs. Developing and evaluating teaching units for home economics-related occupational programs.
605. **Supervision of Home Economics Education.** 3 hrs. Practices and procedures in the supervision of vocational home economics.
606. **Selected Topics in Home Economics Education.** 3 hrs. (May be repeated once.) Prerequisite: The corresponding subject matter course. The development and application of units of work in selected areas in the secondary school program.
607. **Curriculum Problems in Home Economics.** 3 hrs. A practicum for developing home economics curriculum materials for local schools.
610. **Seminar in Home Economics Education.** 1-6 hrs. Current trends and issues in home economics.
611. **Evaluation in Home Economics.** 3 hrs. Theory and practice of systematic evaluation of components of home economics programs, including occupational home economics.
612. **Field Experience in Home Economics Related Occupations.** 6 hrs. Supervised work experience in approved Home Economics Occupations. Can only be counted toward Occupational Certification.
615. **Methods, Materials, and Information Technology in Home Economics.** 3 hrs. Emphasis on new developments in teaching home economics, including computer technology.
691. **Research.** 1-4 hrs.
692. **Special Problems in Home Economics Education.** 1-4 hrs.

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697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs. Credit deferred until thesis is completed.
798. **Research Problem.** 6 hrs. Selection of a practical educational problem using research and professional knowledge. A scholarly paper is required.

Course Descriptions

Hotel, Restaurant and Tourism Management (HRT)

540. **Food Service Management.** 3 hrs. A study of management of food service systems and the interrelationship of the components of these systems.
- 540L. **Food Service Management Laboratory.** 2 hrs. Corequisite: NFS 540.
541. **Purchasing for the Hospitality Industry.** 3 hrs. Procurement of food and non-food materials in hospitality and related industries.
542. **Food Service Layout and Design.** 3 hrs. Planning, designing, and layout of food service facilities with emphasis on arrangement and selection of equipment.
545. **Hospitality Financial Management.** 3 hrs. Prerequisite: HRT 380. Study of financial statement analysis, capital expenditures and franchising in the hospitality industry.
582. **Marketing of Hospitality and Travel Services.** 3 hrs. Prerequisite: MKT 300. Analysis of the planning, developing, and marketing of food, lodging, and travel services.
583. **Dimensions of Tourism.** 3 hrs. Study of the components and forces which influence the international and domestic hospitality and travel industries.
590. **International Studies in Hotel, Restaurant and Tourism Management.** 3-6 hrs. Examination of hospitality, tourism, and food service industry via international lectures and field trips.
594. **Tourism Destination Development.** 3 hrs. Prerequisite: HRT 583 or permission of instructor. Study of community impact—positive adverse-of different tourism enterprises. Special emphasis on festivals and community events.
692. **Special Problems in Hotel, Restaurant, and Tourism Management.** 1-3 hrs.
693. **Readings in Hotel, Restaurant, and Tourism Management.** 1 hr. Recent developments in research related to the hospitality industry. May be repeated for a total of 3 hrs.

Human Performance and Recreation (HPR)

501. **Corrective and Adaptive Physical Education.** 3 hrs. Recognition of and corrective exercises for functional abnormalities. Adapted techniques in instructional settings.
504. **Motor Development.** 3 hrs. A study of the motor aspects of human growth and development process.
509. **Psychological and Sociological Aspects of Motor Performance.** 3 hrs. The analysis and study of human behavior patterns as they relate to sport-related performance.
511. **Adapted Activities and Techniques in Therapeutic Recreation.** 3 hrs. The principles and techniques for adapting recreation programs and activities to meet the needs of people with disabilities.
513. **Organization and Administration of Recreation.** 3 hrs. Designed to study the organization and administration of recreation agencies and their policies.
515. **Business Procedures for Parks and Recreation.** 3 hrs. A study of specific business procedures and administrative policies.
517. **Legal Aspects of Recreation and Leisure Services.** 3 hrs. Legal issues related to leisure service management including legal foundations, legal liability, land use policy, employment regulations, disabled services, and current issues.
524. **Community Recreational Resource Services and Organizations.** 3 hrs. A study of the varied agencies which provide community recreation services and the operation of specialized recreation facilities.
533. **Advanced Management in Recreation.** 3 hrs. A study of advanced policy and procedures in recreation programs and services.
534. **Facility Design and Maintenance.** 3 hrs. The principles and applications of design and maintenance concepts as they apply to indoor and outdoor sport and recreation facilities.
536. **Park and Recreation Planning.** 3 hrs. Fundamental principles and methodologies dealing with proper identification, allocation, and use of recreational resources.

543. **Outdoor Education.** 3 hrs. A study of outdoor education, specifically its philosophy, programs, methods, and resources. Organization, programming, and conducting programs and activities in educational settings.
544. **Operational Administration of Commercial Recreation.** 3 hrs. Emphasizes appropriate management skills which are essential to the successful operation of a commercial recreational enterprise.
547. **Interpretation of Cultural and Natural Resources.** 3 hrs. The interpretive process as applied to natural and cultural resources.
550. **Procedures in Therapeutic Recreation.** 3 hrs. Prerequisites: HPR 350, or SPE 400 or 402. The study of theories guiding the delivery of therapeutic recreation services and the application of techniques in therapeutic recreation practice.
551. **Therapeutic Recreation Programming.** 3 hrs. Prerequisite: HPR 350 or SPE 400 or 402. Procedures for conducting and interpreting individual assessment, program plans, selection of interventions, and evaluation of programs.
552. **Gerontology and Therapeutic Recreation.** 3 hrs. Prerequisite: Graduate in recreation program, gerontology minor, or permission of instructor. An overview of the bio-psycho-social aspects of aging and the provision of recreation services for therapeutic recreation.
553. **Administration in Therapeutic Recreation.** 3 hrs. Prerequisite: HPR 350. Must be taken within two semesters of internship. Professional Therapeutic Recreation practice issues including certification, accreditation, ethics, and standards of practice, management and supervision, research and evaluation.
564. **Issues in Commercial Recreation.** 3 hrs. Insight into issues that cause problems and lead to trends for the commercial recreation service industry.
570. **Development of Strength and Conditioning Programs.** 3 hrs. The development and administration of strength, endurance, flexibility, speed, and agility programs.
575. **Medical Aspects of Athletic Training.** 3 hrs. Prerequisite: Instructor permission. Team physician and trainer relationships. Physical examination, emergency equipment, medical terminology, and problems related to the team doctor.
577. **Seminar in Sports Medicine.** 1-3 hrs. Prerequisite: HPR 575. A study of modern techniques used in sports medicine relevant to coaches, trainers, and team physicians.
578. **Specialized Studies in Developmental Disabilities.** 1-6 hrs. Specialized study and skill acquisition in the area of developmental disabilities. Topics vary.
580. **Introduction to Driver Education.** 3 hrs. Critical analysis of traffic accidents, attitudes, factors, essential knowledge of automobile operation, and traffic laws.
581. **Traffic Safety Education.** 3 hrs. An indepth study of major traffic safety problems, including driver, pedestrian, engineering, and enforcement.
582. **Laboratory Programs in Driver Education.** 3 hrs. An examination of aims, objectives, and role of laboratory programs in driver education.
583. **Methods of Driver and Traffic Safety Education.** 3 hrs. Prerequisite: HPR 580. Concurrent enrollment in HPR 583L. Methods of teaching in driver education programs.
- 583L. **Driver Education Laboratory.** 1 hr. Concurrent enrollment in HPR 583. This course is designed to provide students with supervised practical experience in using instructional tools of Driver Education.
584. **Simulation in Driver Education.** 3 hrs. Prerequisites: HPR 580 and 583. Analysis of audiovisual instructional techniques used in Driver Education.
586. **Innovative Programs in Driver Education.** 3 hrs. New and unique teaching methods of driver and traffic safety education.
588. **Motorcycle Safety Education.** 3 hrs. Analysis of motorcycle traffic problems; methods of teaching classroom and laboratory phases of motorcycle education.
589. **Driver Education for Special Students.** 3 hrs. Curriculum development and teaching materials in traffic safety education for special education students.
593. **Exercise Specialist.** 3 hrs. Cognitive and practical learning experience in GXT, interpretation, prescriptions, and supervision of exercise programs.
597. **Professional Collaboration for Developmental Disability Services.** 3 hrs. Study of the interdependent contributions of relevant disciplines in training, service, and research.
598. **Families of Developmentally Disabled.** 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.
599. **British Studies.** 3-6 hrs. Involves variable topics. Lectures and supervised research in England. Offered exclusively through the USM Institute of Anglo-American Studies.
601. **Exercise Physiology.** 3 hrs. The study of the physiological basis of muscular activity with special attention to general effects on body functions.

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602. **Graded Exercise Testing.** 3 hrs. Study and application of graded exercise testing safely and reproductively so as to obtain valid and reliable data.
605. **Policy and Governance in Sport.** 3 hrs. The study of governing agency policy formation processes and administrative implementation in amateur and professional sport organizations.
670. **Organizational Leadership in Sport Administration.** 3 hrs. Special emphasis on problems of the athletic administrator and coach in organizing and directing the athletic programs and sport businesses.
676. **Athletic Seminar.** 3 hrs. An indepth study and analysis of the athletic profession as it relates to trends and issues surrounding coaching and administrative decision-making.
677. **Legal and Ethical Aspects of Sport.** 3 hrs. Legal concepts and ethical issues impacting sport administration and coaching policy formation and practice.
678. **Assessment and Intervention for Handicapped Children.** 0-5. 3 hrs. Current issues and theories regarding assessment and intervention procedures for at-risk and handicapped young children, birth through 5.
679. **Care and Treatment of Athletic Injuries.** 3 hrs. Techniques and facilities for adequate prevention and treatment of athletic injuries.
680. **Research Techniques.** 3 hrs. Prerequisite : Graduate level statistics course or permission of the instructor. Introduction to methods and design problems specific to research in human performance and recreation. Designed to promote an understanding of the theory, tools, and processes involved in designing human performance and recreation research studies.
688. **Medical Aspects of Developmental Disabilities.** 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.
691. **Research.** 1-16 hrs. Prerequisite: Permission of School Director required. Topics and procedures must be approved by graduate advisory committee. For master's level graduate students only.
694. **Field Problems.** 1-6 hrs. Prerequisite: Permission of instructor. Readings and guided experience dealing with problem situations in the field and related institutional settings.
696. **Practicum.** 1-6 hrs. Prerequisite: Permission of instructor. Designed to provide master's level students opportunities for practical application of relevant theories in professional field settings.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in at least 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. For a total of 6 hrs. Credit deferred until thesis completed.
701. **Advanced Exercise Physiology I.** 3 hrs. Prerequisite: HPR 601 or equivalent course. Concurrent enrollment in HPR 701L required. The study of the circulatory, respiratory, nervous, and muscular systems during and after physical activity.
- 701L. **Advanced Exercise Physiology I Laboratory.** 2 hrs. Co-requisite: HPR 701. Use and care of exercise physiology laboratory equipment.
703. **Advanced Kinesiology.** 3 hrs. Prerequisite: Undergraduate anatomy and physiology or permission of instructor. The application of anatomical and physiological principles of kinesiology to physical activity.
704. **Tests and Measurement in Human Performance.** 3 hrs. Tests of fitness, skills, and abilities. Administration and interpretation.
705. **Motor Learning.** 3 hrs. Physical and psychological variables essential to the acquisition of motor skills.
706. **Cardiovascular Physiology.** 3 hrs. Physiology of the heart with emphasis on normal versus abnormal conditions affecting human performance.
707. **Physiological Response of Women to Physical Training.** 3 hrs. Study of women's physiological abilities, susceptibility to injuries, gynecological problems and psychological aspects of coping with physical training.
708. **Pediatric Exercise Physiology.** 3 hrs. The study of the effects of exercise and training in children with particular attention to physiological changes which occur prior to and during puberty.
710. **Problems and Emerging Trends in Recreation.** 3 hrs. Problems and emerging trends related to recreation with emphasis on problem solving and evaluation.
711. **Research and Evaluation in Recreation and Leisure.** 3 hrs. Designed to develop knowledge and understanding relative to research methods most utilized in recreation.
712. **Philosophical Foundations in Recreation.** 3 hrs. Prevailing concepts, theories, and professional philosophies affecting recreation.

713. **Special Field Studies in Recreation.** 3 hrs. Encompasses the application of various theories to realistic field situations and pertinent areas of concern.
715. **Advanced Sport Administration Processes.** 3 hrs. Prerequisite or corequisite: HPR 670 or HPR 720 or equivalent course. Fiscal management processes in sport administration; budgetary decision-making, athletic promotion and fund-raising, finance, economics, and marketing.
720. **Administration of Human Performance Programs.** 3 hrs. Personnel management, budgetary concerns, facilities management, program supervision, and other problems faced by administrators of professional preparation programs.
722. **Administration of Intramural and Extramural Activities.** 3 hrs. Planning and implementation of secondary and collegiate level recreational sport programs.
723. **Advanced Methods of Teaching Physical Education.** 3 hrs. Advanced teaching functions in the physical education contextual framework. Styles of teaching, reflective experience, and systematic observation techniques introduced.
725. **Facilities Management in Human Performance and Recreation.** 3 hrs. Prerequisite: HPR 434/534 or course equivalent. Management of instructional, recreational, and sports facilities including planning processes of facilities design and renovation, maintenance, program scheduling, special events, and funding resources.
730. **Cardiac Rehabilitation.** 3 hrs. Attention is given to components of myocardial infarction and cardiac rehabilitation programs.
735. **Electrocardiography.** 3 hrs. Prerequisite: HPR 706 or equivalent course. This course is designed to provide an understanding of resting and exercise electrocardiogram.
742. **Program Design in Human Performance.** 3 hrs. Fundamental principles and bases of curriculum construction for physical education programs in school and non-school instructional settings.
744. **Foundations and Trends in Human Performance and Recreation.** 3 hrs. Historical trends and current issues surrounding the development of the sub-disciplines within human performance and emerging professions.
745. **Analysis of Teaching and Supervision in Physical Education.** 3 hrs. Prerequisite: HPR 723 or instructor approval. Issues and techniques in supervision of teaching in physical education. Advanced methods in analysis of teacher/student behavior and content development.
780. **Graduate Seminar.** 1 hr. May be repeated for a total of 2 hours. Current trends and issues in human performance.
790. **Seminar in Recreation.** 3 hrs. A seminar course pertaining to selected current professional topics in all areas of recreational study.
791. **Research.** 1-16 hrs. Prerequisite: Permission of Department Head. Topics and procedures must be approved by graduate advisory committee. For doctoral students only.
792. **Special Problems.** 3 hrs.
796. **Practicum.** 2-6 hrs. Prerequisite: Permission of instructor. Designed to provide doctoral students with opportunities for practical applications of relevant theories in professional field settings.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
801. **Physiology of Aging.** 3 hrs. The study of the physiological basis of human aging through examination of organ systems and the impact of physical activity on the aging process.
805. **Advanced Exercise Physiology II.** 3 hrs. Prerequisite: HPR 701. Emphasis on systems of energy delivery and utilization, enhancement of energy capacity, and work performance. Concurrent enrollment in HPR 805L required.
- 805L. **Advanced Exercise Physiology II Laboratory.** 2 hrs. Prerequisite: HPR 701. Co-requisite: HPR 805. Application of advanced laboratory in techniques in the study of human performance.
807. **Functional Evaluation and Exercise Testing.** 3 hrs. Emphasis will be placed on functional anatomy, exercise, physiology, pathophysiology and electrocardiography.
821. **Advanced Administration of Human Performance Programs.** 3 hrs. Prerequisite: HPR 720 or HPR 670, instructor permission. Analysis of leadership and supervision for effective management of collegiate human performance programs.
831. **Gross Anatomy.** 3 hrs. Prerequisite: HPR 703. Special attention is given to osteology, myology, and neurology, with hands-on dissection experience acquired from cadaveric specimens. Concurrent enrollment in HPR 831L required.
- 831L. **Gross Anatomy Laboratory.** 2 hrs. Prerequisite: HPR 703. Co-requisite: HPR 831. Designed to study dissection techniques and to provide opportunity for doctoral level students to dissect cadaveric specimens.
833. **Nutrition and Human Performance.** 3 hrs. The study of diets and dietary ingredients thought to increase physical capacity with special attention paid to ongoing research in nutrition and athletic performance.

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834. **Advanced Biomechanics.** 3 hrs. Prerequisite: HPR 703. The study of the mechanical foundations and advanced analytical techniques of human motion.
840. **Readings in Human Performance.** 3 hrs. Prerequisite: Permission of instructor. Extensive reading and discussion of human performance in Physical Education Administration and pedagogy.
845. **Research on Teaching Physical Education.** 3 hrs. Prerequisite: HPR 745. The analysis, synthesis, and evaluation of past and present research concerning teaching effectiveness in psychomotor skill instruction.
898. **Dissertation.** 12 hrs. Credit deferred until dissertation completed.

Course Descriptions

Industrial Engineering Technology (IET)

505. **Production and Inventory Control Systems.** 3 hrs. Corequisite: IET 505L. Principles of production and inventory planning and control. Forecasting techniques, EOQ, MRP, production scheduling, line balancing, CPM/PERT.
- 505L. **Production and Inventory Control Systems.** 0 hrs. Corequisite: IET 505.
506. **Industrial Automation.** 3 hrs. Automation and its implications to industrial processes, economics, and interpersonal relations.
507. **Personnel in Technology.** 3 hrs. The procurement, development, and utilization of technical personnel.
508. **Innovations in Technology.** 3 hrs. Introduction to factors involved in technological change within an industrial operation.
509. **Plant Layout and Material Handling.** 3 hrs. Effectiveness of plant layout to the production activity involving personnel, materials, tools, and equipment.
510. **Motion and Time Study.** 3 hrs. Corequisite: IET 510L. A study of the optimization of the relationship between technology and personnel.
- 510L. **Motion and Time Study Laboratory.** 1 hr. Corequisite: IET 510.
540. **Alternate Energy Systems.** 3 hrs. Study of alternative sources of energy and power.
541. **Industrial Energy Management.** 3 hrs. Technical and economic aspects of industrial energy management, energy conservation techniques, and alternate energy sources.
560. **Manufacturing Engineering Technology.** 2 hrs. Corequisite: IET 560L. Principles and functions essential to the manufacture of tangible products. Materials, processes, quality, and other technical considerations.
- 560L. **Manufacturing Engineering Technology Laboratory.** 1 hr. Corequisite: IET 560. Industrial Simulation and Modeling. 3 hrs. Prerequisite: CSS 240. Analysis of discrete-event systems in industry such as plant layouts, materials handling, production methods, and inventory control.
580. **Industrial Simulation and Modeling.** 3 hrs. Prerequisite: CSS 240. Analysis of discrete-event systems in industry such as plant layouts, materials handling, production methods, and inventory control.
592. **Special Problems.** 1-3 hrs. Prerequisite: Senior standing and approval of adviser. Supervised study in selected areas of Industrial Engineering Technology.

Interior Design (ID)

597. **British Housing and Interiors.** 3-6 hrs. A series of lectures and tours by English authorities on interior design topics.

International Business (IB)

598. **International Business Seminar Abroad.** 3-6 hrs.
692. **Special Problems in International Business.** 1-6 hrs.

Library and Information Science (LIS)

501. **Introduction to Reference Resources and Services.** 3 hrs. An introduction to reference materials, services, activities and functions as well as methods for locating information.
- +505. **Cataloging and Classification.** 3 hrs. Principles and methods of cataloging and classifying library materials. Provides practice in bibliographical description and subject analysis.
506. **Advanced Cataloging and Classification.** 3 hrs. Prerequisite: LIS 505. Advanced study of the principles and methods of descriptive and subject cataloging and classification with attention to non-print materials.
508. **School Library Media Centers.** 3 hrs. Study of the development and administration of the school library media center.

511. **Development of Library Collections.** 3 hrs. Philosophy and principles governing the selection and procurement of all types of library materials, including the use of selection aids and bibliographic sources for developing both print and non-print collections.
- +516. **Utilization of Audiovisual Media and Equipment.** 3 hrs. A survey of media resources and equipment with an emphasis on utilization in libraries. Provides experience with equipment.
517. **Literature and Related Media for Children.** 3 hrs. A survey of children's literature, traditional and modern, and other related materials for use by and with children of grades 1-6.
518. **Literature and Related Media for Adolescents.** 3 hrs. Study of adolescent literature and other related materials for use by and with young people of grades 7-12.
525. **Instruction and Assessment in Media Programs.** 3 hrs. The assessment of individualized styles and models of instruction in media programs and media centers.
528. **Storytelling.** 3 hrs. Prerequisite: LIS 517 or 518. A study of oral tradition and folk literature with emphasis upon selection of stories and the art and techniques of storytelling. Provides practice in storytelling.
533. **History of the Book.** 3 hrs. A study of the origins and early development of books and printing in Western Europe and the Americas.
545. **Sources of Information for a Multicultural Society.** 3 hrs. Overview of the diversity of information resources available in print and other media for a multicultural society and the diversity of information utilization by that society.
557. **Microcomputer Applications in Libraries.** 3 hrs. Examine the various applications in which microcomputers are and will be utilized in different types of information centers and libraries.
558. **Internet Resources and Applications.** 3 hrs. Introduce the practical and theoretical issues related to information collection, storage, access, and retrieval in a technologically oriented society, using Internet as the underpinning for both discussion and practical exploration.
580. **British Studies: Studies in Librarianship.** 3 hrs. Comparative studies of library and information-related institutions, bibliographic organization, models of service and professional practice in the United States and Great Britain.
581. **British Studies: Seminar in Children's and Young Adult Literature.** 3 hrs. Intensive study of specific topics of British interests in literature for children and adolescents.
586. **British Studies: Historical Studies in Children's Literature.** 3 hrs. Traces the development of children's literature in England and the United States to the early 20th Century.
587. **British Studies: Research.** 3 hrs. To provide the opportunity for in-depth research projects using the resources of metropolitan London.
591. **The Library Media Center and the School Curriculum.** 3 hrs. Examines the relationship of the media center program in the school curriculum with emphasis on the role of the media specialist.
593. **Issues in Public Librarianship.** 3 hrs. Considers problems involved in the administration and supervision of public libraries. Emphasizes topics relevant to participants.
605. **Library Management.** 3 hrs. Analysis of administrative theory and principles of management in libraries.
609. **Seminar in Library Management.** 3 hrs. Prerequisite: LIS 605. Survey of the problems in the management of library programs. Emphasis on organizing, staffing, financing, and use of evaluation standards.
624. **Creative Library Programs.** 3 hrs. Prerequisite: LIS 517 or 518. Explores the development of creative visual forms and use of cultural resources in library services to children and adolescents.
629. **Studies in Children's Literature.** 1-3 hrs. Prerequisite: LIS 517 or 518. Advanced study and evaluation of children's literature and publishing trends in the field.
631. **History of Libraries.** 3 hrs. Development of libraries from ancient times to the present with special reference to the relationship of libraries to sociocultural, economic, and political trends.
634. **History of Children's Literature.** 3 hrs. Prerequisites: LIS 517 or 518. Traces the development of children's literature in England and the United States to the early twentieth century.
636. **The Library in American Society.** 3 hrs. The library as a social institution, its background, and the forces that have shaped its development.
637. **Seminar in the Development of Information Transfer Devices.** 3 hrs. Study of the diversity, development, and uses of information transfer devices from ancient times to the present.
638. **History of Printing and Publishing.** 3 hrs. Study of the history of the book and book trade from Renaissance Europe until present day United States. Analogies between the printing and computer revolutions, and the impact of the computer on modern publishing are identified, developed, and discussed.
640. **Academic Libraries.** 3 hrs. The development and administration of the academic library.
641. **Public Libraries.** 3 hrs. The development and administration of the public library. Problems in public library services.

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642. **Special Libraries.** 3 hrs. The development and administration of the special libraries serving businesses, institutions, and government agencies.
646. **Special Collections and Archives.** 3 hrs. Prerequisites: LIS 501 and 505. The acquiring, processing, servicing, and management of collections composed of rare books, manuscripts, archival papers, oral history files, and other special materials.
647. **Introduction to Archival Organization.** 3 hrs. Basic instruction in handling materials of archival significance, and on the development of the archives-library relationship.
648. **Archival Practicum.** 2-4 hrs. Prerequisite: LIS 647. Provides an opportunity for supervised practice in special collections and archival operations.
649. **Preservation of Documentary Materials.** 3 hrs. The care and preservation of documentary materials in their various formats including techniques for conservation, preservation, and restoration.
651. **Introduction to Information Science.** 3 hrs. Survey of information science as a field of study; examines the role of the library as an information transfer model and the associated implications to the profession and the future.
653. **Library and Information Database Systems.** 3 hrs. Prerequisites: LIS 505 and LIS 557. Foundations of constructing library and information databases, impacts of bibliographic standards, library functions and interconnectedness on these database applications, and evaluation and measurement.
654. **Library Automation.** 3 hrs. Prerequisite: LIS 557 or permission of the instructor. Systems analysis, planning, and implementation of automation in various library and information settings.
655. **On-Line Technical Services.** 3 hrs. Prerequisite: LIS 505. Coverage of the technical services aspects of bibliographic utilities, chiefly OCLC (an online computer library center), its subsystems, and the MARC formats.
656. **On-Line Public Services.** 3 hrs. Prerequisites: LIS 501 and LIS 557 or permission of instructor. Applications and issues related to the on-line resources currently available.
663. **Subject Bibliography.** 1-3 hrs. Prerequisite: LIS 501 for library science students. An evaluation of information resources in various subject fields with emphasis on characteristics of subject literatures, problems of use, and bibliographical control and organization.
664. **Government Publications.** 3 hrs. Prerequisite: LIS 501. Study of the types of government publications and tools for their bibliographic organization.
665. **Humanities Resources.** 3 hrs. Prerequisite: LIS 501. Study, evaluation, and utilization of information resources in the humanities.
666. **Social Sciences Resources.** 3 hrs. Prerequisite: LIS 501. Study, evaluation, and utilization of library and information resources in the social sciences.
667. **Science and Technology Online Resources.** 3 hrs. Prerequisite: LIS 501. Study evaluation, and utilization of information resources in the pure and applied sciences.
668. **Research Methods in Library and Information Science.** 3 hrs. Survey of scientific research methods and their application to the field of library and information science.
670. **Library Services and Resources for Adults.** 3 hrs. The role of libraries in meeting informational and recreational needs of adults; lifelong learning, services to special groups, and popular culture collections.
675. **Seminar in the Organization of Materials.** 3 hrs. Prerequisites: LIS 505 and LIS 506. An examination of the historical, theoretical, and practical aspects of processing information through an analysis of descriptive and subject techniques (schemes and lists) with emphasis on the Library of Congress Classification.
689. **Library Practicum.** 2-4 hrs. Prerequisite: Permission of the practicum coordinator.
691. **Research in Library Science.** 1-16 hrs. Prerequisite: Permission of Director.
692. **Special Problems in Librarianship.** 1-3 hrs. A problem study to be approved by the Director.
694. **Field Problems.** 3 hrs. Prerequisite: Permission of Director. Practical experiences in dealing with problem situations in the field and related institutional settings.
695. **Master's Project.** 2 hrs. A written project dealing with a specific problem or issue in the field of library and information studies under faculty supervision.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
702. **Bibliography for Music Research.** 3 hrs. Prerequisite: LIS 501. An extensive examination of research materials, including music and non-music reference works.

Management (MGT)

500. **Management Theory.** 3 hrs. An analysis of managerial functions, concepts, and practices within organizations. See also MBA 500.
598. **International Management Seminar Abroad.** 3 hrs. Prerequisite: Consent of Program Director. Conducted in London, England: A series of lectures and discussions involving authorities on international management issues and practices.
610. **Organizational Management.** 3 hrs. Prerequisite: MBA 500 or the equivalent. Applications of analytical and communication skills in solving complex management problems. See also MBA 610.
620. **Organizational Behavior and Practice.** 3 hrs. Prerequisite: MBA 500 or the equivalent. Study and skill-building in interpersonal and small-group relationships as found in various organizations.
630. **Survey of Labor-Management Relations.** 3 hrs. Prerequisite: MBA 500 or the equivalent. A survey of the development of labor law and collective bargaining.
640. **Advanced Personnel Administration.** 3 hrs. Prerequisite: MBA 500 or the equivalent. An in-depth study of U.S. and international human resource administration.
645. **International Management.** 3 hrs. Prerequisite: MBA 500 or the equivalent. A case course of comparisons of problems in Management in the U.S. with those of other countries.
692. **Special Problems in Management.** 1-6 hrs. Prerequisite: Permission of department chair.
699. **International Management Research Abroad.** 3 hrs. Prerequisite: Consent of Program Director. A research course in international management offered for students enrolled in MGT 598.

Management Information Systems (MIS)

580. **Management Information Systems.** 3 hrs. Prerequisite: Computer literacy. An analysis of the impact of information systems and technology on organizations. See also MBA 580.
606. **Business Data Communications.** 3 hrs. Prerequisite: MBA 650. This course develops the knowledge and skills of a manager in the usage and management of business data communications systems.
688. **Advanced Topics in Information Systems Management.** 3 hrs. A comprehensive study of various aspects of contemporary information technologies and their uses for business decision support.
692. **Special Problems in Management Information Systems.** 3 hrs. A problem study to be approved by department chair.

Manufacturing Technology (MFG)

630. **Advanced Manufacturing Systems.** 3 hrs. Study of manufacturing as a system; economics; optimization of machining; modern production processes; tool and work materials (diamonds, composites and ceramics).
640. **CAD/CAM Technology I.** 2 hrs. Corequisite: MFG 640L. CAD/CAM techniques utilizing micro-computers and modern CAD/CAM software; solid modeling; finite element analysis; design for manufacturing, including assembly.
- 640L. **CAD/CAM Technology I Laboratory.** 1 hr. Corequisite: MFG 640.
641. **CAD/CAM Technology II.** 2 hrs. Prerequisite: MFG 640. Corequisite: MFG 641L. Extension of MFG 640 in the area of CNC machining and other considerations in manufacturing products.
- 641L. **CAD/CAM Technology II Laboratory.** 1 hr. Corequisite: MFG 641.
650. **Plant Engineering Technology.** 3 hrs. Manufacturing facility as operating system; plant and preventive maintenance; signature analysis; health and safety at work-place; quality of worklife; utilities management.
660. **Computer Integrated Manufacturing.** 3 hrs. CIM concept and technology; FMS, CAPP, GT; data communication and networks; data base management/systems; management and human resources issues; factory of the future.
- 670L. **Advanced Manufacturing Laboratory.** 2 hrs. Experiments employing advanced techniques to demonstrate the interrelation at various phases of producing manufactured goods.
691. **Research in Manufacturing Technology.** 1-9 hrs. Investigation of current research and literature in manufacturing; development of writing skills; a thesis/project prospectus must be orally defended. A maximum of 6 hours credit can be applied toward a degree in Engineering Technology.
692. **Special Problems in Manufacturing.** 1-6 hrs. Investigation and study of a specific problem not related to thesis research.
693. **Manufacturing Industry Internship.** 1-3 hrs. Study of a local industry through shop-floor training to appreciate the manufacturing environment. A specific project must be approved prior to enrollment.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students who are not in residence and are not enrolled in at least 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.

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698. **Thesis.** 1-6 hrs. Prerequisites: Consultation with and permission of major professor. Credit deferred until thesis is completed.

Marine Science (MAR)

501. **Biological Oceanography.** 3 hrs. Marine biological regimes and the influence of geological, physical, and chemical oceanographic features.

501L. **Biological Oceanography Laboratory.** 1 hr. A laboratory for MAR 501.

502. **Marine Environmental Science.** 3 hrs. A study of the problems that affect the coastal and nearshore environments of the Gulf of Mexico.

503. **Marine Invertebrate Zoology.** 3 hrs. Morphology, distribution and ecology of the phyla from Protozoa through Protochordates. May be taken as BSC 521.

503L. **Marine Invertebrate Zoology Laboratory.** 3 hrs. Corequisite: MAR 503. May be taken as BSC 521L.

504. **Parasites of Marine Animals.** 3 hrs. Prerequisite: Permission of instructor. Emphasis on morphology, taxonomy, life histories, and host-parasite relationships. May be taken as BSC 524.

504L. **Parasites of Marine Animals Laboratory.** 3 hrs. Corequisite: MAR 504. May be taken as BSC 524L.

505. **Marine Ecology.** 3 hrs. The relationship of marine organisms to their environment. May be taken as BSC 539.

505L. **Marine Ecology Laboratory.** 2 hrs. Corequisite: MAR 505. May be taken as BSC 539L.

506. **Fauna and Faunistic Ecology of Tidal Marshes.** 2 hrs. Taxonomy, distribution, trophic relationships, reproductive strategies and adaptation of tidal marsh animals. May be taken as BSC 548.

506L. **Fauna and Faunistic Ecology of Tidal Marshes Laboratory.** 3 hrs. Corequisite: MAR 506. May be taken as BSC 548L.

507. **Marine Aquaculture.** 3 hrs. Problems and procedures relating to the culture of commercially important crustaceans, fish, and mollusks. May be taken as BSC 547.

507L. **Marine Aquaculture Laboratory.** 3 hrs. Corequisite: MAR 507. May be taken as BSC 547L.

508. **Marine Ichthyology.** 3 hrs. Lecture and laboratory survey of marine chordates, including fishes, reptiles, mammals, and shore birds.

508L. **Marine Ichthyology Laboratory.** 3 hrs. Corequisite: MAR 508.

509. **Marine Microbiology.** 3 hrs. Prerequisite: General Microbiology. An introduction to the role of microorganisms in the overall ecology of the oceans and estuaries. May be taken as BSC 590.

509L. **Marine Microbiology Laboratory.** 2 hrs. Corequisite: MAR 509. May be taken as BSC 590L.

510. **Marine Fisheries Management.** 2 hrs. Prerequisite: Statistics recommended. A statistical review of the world fisheries. May be taken as BSC 549.

510L. **Marine Fisheries Management Laboratory.** 2 hrs. Corequisite: MAR 510. May be taken as BSC 549L.

520. **Marine Phycology.** 2 hrs. Prerequisites: General botany and plant taxonomy. A survey of the principal groups of marine algae. May be taken as BSC 527.

520L. **Marine Phycology Laboratory.** 2 hrs. Corequisite: MAR 520. May be taken as BSC 527L.

521. **Coastal Vegetation.** 2 hrs. A study of general and specific aspects of coastal vegetation, with emphasis on local examples. May be taken as BSC 537.

521L. **Coastal Vegetation Laboratory.** 1 hr. Corequisite: MAR 521. May be taken as BSC 537L.

522. **Salt Marsh Plant Ecology.** 2 hrs. The botanical aspects of marshes; includes plant identification, composition, and structure. May be taken as BSC 538.

522L. **Salt Marsh Plant Ecology Laboratory.** 2 hrs. Corequisite: MAR 522. May be taken as BSC 538L.

523. **Marine Mammals.** 3 hrs. Prerequisite: 16 hrs. Biol. Sci. or permission of instructor. Corequisite: MAR 523L. Course will emphasize natural history and population ecology of cetaceans. Will include life history, distribution, population dynamics, diet and feeding, social behavior, evolution, and zoogeography.

523L. **Marine Mammals Laboratory.** 2 hr. Corequisite: MAR 523. A laboratory designed to accompany MAR 523.

530. **Comparative Histology of Marine Organisms.** 3 hrs. Histology of marine organisms, including tissue processing techniques. May be taken as BSC 568.

530L. **Comparative Histology of Marine Organisms Laboratory.** 3 hrs. Corequisite: MAR 530. May be taken as BSC 568L.

541. **Marine Chemistry.** 3 hrs. Prerequisites: BSC 111, CHE 352, MAT 179 or permission of instructor. Sea water chemistry and cycles and their impact on the marine environment.

541L. **Marine Chemistry Laboratory.** 1 hr. Corequisite: MAR 541. A laboratory designed to accompany MAR 541.

543. **Environmental Estuarine Chemistry.** 3 hrs. Prerequisites: BSC 111, CHE 256, and MAT 179 or permission of instructor. Corequisite: MAR 543L. Sources, reactions, transport, fate and effects of environmental chemical species in aquatic environments with special emphasis on estuaries.
- 543L. **Environmental Estuarine Chemistry Laboratory.** 1 hr. Corequisite: MAR 543. A laboratory designed to accompany MAR 543.
556. **Techniques in Marine Science Education.** 3 hrs. Prerequisite: Permission of instructor. Designed to acquaint teachers with the marine resources of the Mississippi Coastal Zone. May be taken as SME 556.
557. **Marine Science for Teachers.** 3 hrs. Prerequisite: Permission of instructor. Emphasis will be placed on measurements and analysis of the marine habitat and ecological relationships. May be taken as SME 557.
558. **Marine Science for Elementary Teachers.** 3 hrs. Prerequisite: Permission of instructor. Designed to acquaint teachers with marine science concepts. May be taken as SME 535.
559. **Coastal Ecology for Teachers.** 3 hrs. Prerequisite: Permission of instructor. Corequisite: MAR 559L. Designed to provide teachers with a background in basic coastal ecology. May be taken as SME 559.
- 559L. **Coastal Ecology for Teachers Laboratory.** 1 hr. Prerequisite: Permission of instructor. Corequisite: MAR 559. May be taken as SME 559L.
561. **Physical Oceanography.** 3 hrs. Prerequisites: PHY 112, or 202 and MAT 179 or permission of instructor. An introduction to the physical properties and processes of the oceans. May be taken as PHY 571.
- 561L. **Physical Oceanography Laboratory.** 1 hr. A laboratory designed to accompany MAR 561.
566. **Acoustics.** 3 hrs. Prerequisites: MAT 471, permission of instructor. Principles of the generation, transmission and reception of acoustic waves. May be taken as PHY 546.
581. **Geological Oceanography.** 3 hrs. Prerequisite: GLY 101, 103 or permission of instructor. Study of the formation and deformation of the oceanic crust and the distribution and character of marine sediments.
- 581L. **Geological Oceanography Laboratory.** 1 hr. Pre- or corequisite: MAR 581. Examination and interpretation of marine geological samples and data.
582. **Coastal Marine Geology.** 3 hrs. Prerequisites: 12 credit hours in geology. A study of inshore and nearshore geological processes, sedimentation patterns and landform development. May be taken as GLY 531.
585. **Microcomputer Applications in Marine Science Instrumentation.** 3 hrs. Introduction to programming and hardware concepts relevant for marine science applications.
590. **Special Problems in Marine Science.** 1-6 hrs. Prerequisite: Permission of instructor. Independent research.
591. **Special Topics in Marine Science.** 1-6 hrs. Prerequisite: Permission of instructor. Directed study in area for which no formal courses are offered.
601. **The Marine Scientist and Public Policy.** 3 hrs. Prerequisite: Permission of the instructor. The examination of marine science and marine policy, marine policy in Mississippi, the Law of the Sea and integrated coastal and ocean management.
604. **Early Life History of Marine Fishes.** 2 hrs. Reproductive strategies and early developmental processes of marine fishes. May be taken as BSC 604.
- 604L. **Early Life History of Marine Fishes Laboratory.** 2 hrs. Corequisite for MAR 604. May be taken as BSC 604L.
620. **Marine Sediments and Sedimentary Environments.** 3 hrs. Prerequisites: GLY 501 and MAR 581 or permission of instructor. Principal marine sedimentary environments characterized by constituents, facies, and dispositional processes.
641. **Global Carbon System.** 3 hrs. Prerequisite: MAR core courses or permission. An examination of the biogeochemical cycling of carbon through global systems with an emphasis on the problem of climate change.
650. **Coastal Marine Chemistry.** 3 hrs. Prerequisite: Consent of instructor. Examination of oceanic phenomena of the coastal ocean and estuarine zone from a chemical perspective.
651. **Marine Organic Geochemistry.** 3 hrs. Prerequisite: MAR 541 or permission of instructor. Geochemical cycles of organic compounds in the marine environment.
652. **Marine Pollution.** 3 hrs. An exploration of pollution in the marine environment emphasizing geochemical aspects of the sources, transport and fates of pollutants.
655. **Estuaries.** 3 hrs. Prerequisite: MAR core courses or permission of instructor. An introduction to estuary processes and ecology with discussion of the impact of human activities.
661. **Introduction to Numerical Ocean Modeling.** 3 hrs. Prerequisite: MAT 385 or permission of instructor. This course explores basic concepts of numerical modeling in general oceanography available to students from different disciplines.
662. **Introduction to Dynamical Oceanography.** 3 hrs. Prerequisite: Permission of instructor. An introductory course that describes the different types of motions observed in the oceans and on its surface. It includes the study of ocean currents and waves starting with basic principles of physics. May be taken as PHY 510.
663. **Ocean Dynamics.** 3 hrs. Prerequisites: PHY 351, MAT 385 or permission of instructor. Intended to develop the first level understanding of the basic physical mechanisms controlling the ocean circulation.

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665. **Oceanographic Data Analysis.** 3 hrs. Prerequisites: MAR 561 or 562 or permission of instructor. Analysis techniques with applications to physical oceanographic time series data. Topics will include correlation, spectral, and principal component analyses.
669. **Wave-Current Interactions with Applications to Remote Sensing.** 3 hrs. An introductory study of different approaches to wave-current interactions, their underlying assumptions and their effects on remote sensing and on upper ocean dynamics.
670. **Coastal Physical Oceanography.** 3 hrs. Prerequisites: MAR 561 and MAR 562 or permission of instructor. Dynamic circulation of continental shelves; includes steady and time-varying flows, pressure gradients, wind stress, bottom friction and oceanic forcing.
671. **Introduction to Geophysical Fluid Dynamics.** 3 hrs. Prerequisites: MAT 385 and PHY 351 or permission of instructor. The course will provide basic concepts required to understand oceanic and atmospheric processes.
682. **Special Topics in Biological Oceanography.** 1-9 hrs. Prerequisite: permission. Study of a selected area in biological marine science. May be repeated.
683. **Special Topics in Marine Chemistry.** 1-9 hrs. Prerequisite: permission. Study of a selected area in chemical marine science. May be repeated.
684. **Special Topics in Geological Oceanography.** 1-9 hrs. Prerequisite: permission. Study of a selected area in geological marine science. May be repeated.
685. **Special Topics in Physical Oceanography.** 1-9 hrs. Prerequisite: permission. Study of a selected area in physical marine science.
686. **Oceanography and Coastal Processes for Teachers.** 2 hrs. Corequisite: MAR 686L. This course for K-8 teachers will encompass the following topics: physical processes, plate tectonics, marine and aquatic habitats and resources, deep-sea research and pollution.
- 686L. **Oceanography and Coastal Processes for Teachers Laboratory.** 1 hr. Corequisite: MAR 686. A laboratory designed to accompany MAR 686.
687. **Global Environmental Education for Teachers.** 3 hrs. Corequisite: MAR 687L. This course for 5-9 teachers will involve the following topics: sea level rise, acid rain, pollution, ozone depletion, biodiversity, population, deforestation, and greenhouse effects.
- 687L. **Global Environmental Education for Teachers Laboratory.** 1 hr. Corequisite: MAR 687. A laboratory designed to accompany MAR 687.
689. **Seminar in Marine Science.** 1 hr. Prerequisite: Permission of instructor. Current topics in marine science explored via student discussion and presentation. May be repeated.
691. **Directed Research in Marine Science.** 1-16 hrs. Prerequisite: permission. Independent research conducted under the direction of a faculty member. May be repeated.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. Prerequisite: Permission of instructor.
701. **Marine Bio-Optics.** 3 hrs. Prerequisites: MAR 501, 541, 561 or permission of instructor. This course will provide an understanding of concepts of hydrological optics, particularly as they relate to biological processes in the oceans.
702. **Advanced Biological Oceanography.** 3 hrs. Prerequisite BSC 441 or 541 or MAR 501 or permission of the instructor. The sea as a biological environment. May also be taken as BSC 742.
703. **Advanced Techniques in Biological Oceanography.** 3 hrs. Prerequisites: MAR 501 and 501L or permission of instructor. This course will provide graduate students with practical experience in techniques used in biological oceanography today.
791. **Directed Research in Marine Science.** 1-12 hrs. Prerequisite: Approval of the major professor.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
898. **Dissertation.** 12 hrs. Prerequisite: Approval of major professor.

Marketing (MKT)

550. **Marketing Foundations.** 3 hrs. An analysis of marketing functions, concepts, and practices in managerial decision making. See also MBA 550.

- 595. **International Marketing.** 3 hrs. Prerequisites: MKT 300 and Graduate status. Non-business students only. The economic, political, and cultural aspects of international business operations.
- 598. **International Marketing Seminar Abroad.** 3 hrs. Prerequisite: Permission of Program Director. Conducted in London, England: a series of lectures and discussions involving authorities on international marketing issues and practices.
- 605. **Problems in Marketing Management.** 3 hrs. Prerequisite: MKT 550 or the equivalent. Applications of analytical and communication skills in solving complex marketing problems. See also MBA 605.
- 635. **Seminar in Consumer Behavior.** 3 hrs. Prerequisite: MKT 300. Application of behavioral science concepts to research and marketing decisions.
- 640. **Marketing Planning.** 3 hrs. Prerequisite: MKT 300. An applications-oriented approach to strategic and operational marketing problems.
- 650. **Seminar in Marketing Research.** 3 hrs. Prerequisites: BA 302 and MKT 300. A study of advanced research techniques used in market analysis.
- 692. **Special Problems in Marketing.** 1-6 hrs. Consent of the chair of the Marketing Department is required prior to registration.
- 699. **International Marketing Research Abroad.** 3 hrs. Prerequisite: Consent of Program Director. A research course in international marketing offered for students enrolled in MKT 598.

Mass Communication (MC)

See course listing under Communication.

Master of Business Administration (MBA)

- 500. **Management Theory.** 3 hrs. An analysis of managerial functions, concepts, and practices within organizations. See also MGT 500.
- 511. **Financial Accounting.** 3 hrs. Prerequisite: Computer literacy. Fundamentals of accumulating, reporting, and interpreting financial accounting information for internal and external uses. See also ACC 511.
- 520. **Managerial Economics.** 3 hrs. Prerequisites: Computer literacy; calculus. An examination of microeconomic theory as applied to managerial decision making. See also ECO 520.
- 530. **Statistics for Managers.** 3 hrs. Prerequisite: Computer literacy. An examination of statistical techniques as applied to managerial decision making.
- 545. **Communication Skills for Managers.** 1.5 hrs. Prerequisite: Admission to MBA or MPA program. A course designed to develop communication skills as they relate to managerial effectiveness.
- 546. **Legal Environment of Management.** 1.5 hrs. A survey of the major legal considerations affecting managerial decision making.
- 550. **Marketing Foundations.** 3 hrs. An analysis of marketing functions, concepts, and practices in managerial decision making. See also MKT 550.
- 570. **Managerial Finance.** 3 hrs. Prerequisites: Computer literacy; MBA 511 or the equivalent. A study of financial analysis in managerial decision making. See also FIN 570.
- 580. **Management Information Systems.** 3 hrs. Prerequisite: Computer literacy. An analysis of the impact of information systems and technology on organizations. See also MIS 580.
- 585. **Integrative Management.** 1.5 hrs. Prerequisites: Admission to MBA program. An analysis of strategies and decision making using case studies to integrate all business functions.
- 598. **International Business Seminar Abroad.** 3-6 hrs.
- 600. **Business and Society.** 3 hrs. Prerequisite: Admission to MBA or MPA program. An examination of internal and external factors influencing decision making with an emphasis on ethics, civic responsibility, social responsiveness, and professional values.
- 605. **Problems in Marketing Management.** 3 hrs. Prerequisite: MBA 550 or the equivalent. Applications of analytical and communication skills in solving complex marketing problems. See also MKT 605.
- 610. **Organizational Management.** 3 hrs. Prerequisite: MBA 500 or the equivalent. Applications of analytical and communication skills in solving complex management problems. See also MGT 610.
- 611. **Managerial Accounting.** 3 hrs. Prerequisite: MBA 511 or the equivalent. An analysis of the use of accounting information in managerial decision making.
- 620. **Macroeconomic Analysis for Managers.** 3 hrs. Prerequisites: MBA 520; MBA 530. An examination of the use of macroeconomic analysis and information in managerial decision making.

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- 630. **Operations Management.** 3 hrs. Prerequisite: MBA 500. An analysis of modern operations management in terms of efficiency, productivity, quality, and service to the customer.
- 640. **Problems in Corporate Finance.** 3 hrs. Prerequisite: MBA 570. Applications of financial theory to complex financial problems.
- 650. **Business Modeling.** 3 hrs. Prerequisite: MBA 580. An examination of the theory and applications of formal models in managerial decision making.
- 660. **Managerial Strategy and Planning.** 3 hrs. Prerequisite: Admission to MBA program. An analysis of strategic business planning and implementation from the perspective of top management.
- 685. **Managing in a Global Environment.** 1.5 hrs. Prerequisites: MBA 620. An analysis of the global environment and its implications for managerial decision making.
- 692. **Special Problems in Business Administration.** 1-6 hrs.

Master of Science in Systems Management (MSM)

- 610. **Computer Productivity.** 2 hrs. (10 weeks). An integrated object development approach to software productivity tools, hardware, operating systems, and information creation and acquisition through the Internet.
- 611. **Operation Management.** 1 hr. (5 weeks). A general overview of how the creation of goods and services fits into the overall organizational system.
- 612. **Market/Product Management.** 1 hr. (5 weeks). Application of analytical and process management skills in solving complex marketing problems.
- 613. **Financial Decision Making.** 1 hr. (5 weeks). An integration of financial statement analysis, present-value concepts, capital budgeting techniques, and related topics for business decision making.
- 614. **Human Resource Management.** 1 hr. (5 weeks). An overview of human resource management concepts, practices, and issues, with specific emphasis on legal issues, staffing, performance appraisal, training, compensation, and labor relations.
- 620. **Managerial Communications.** 2 hrs. (10 weeks). An examination of oral and written characteristics in a managerial environment, including the functional and psychological aspects of business communication. Written work will include e-mail, memorandums, letters, reports, and proposals.
- 621. **Management Information Systems.** 2 hrs. (10 weeks). An in-depth exploration of the development and management of information technology in an organization. This course will focus on integrated computer-based information systems.
- 622. **Telecommunications.** 1 hr. (5 weeks). Managerial implications of telecommunications functions, components, and regulatory issues. Topics include computer networks, LAN's, WAN's, VAN's, interorganizational systems and other emerging topics.
- 623. **Behavioral Skills for Managers.** 2 hrs. (10 weeks). An overview of human behavior in organizations with emphasis on personality perceptions, values, attribution, creative thinking, learning, conflict, stress, negotiation, culture and diversity.
- 624. **Leadership.** 1 hr. (5 weeks). An analysis of leadership styles, followship and power, and the impact of strategic change on leadership.
- 625. **Team Building.** 1 hr. (5 weeks). A presentation of the knowledge, skills, and tools that managers need to deal with the problems associated with developing work groups into effective teams.
- 626. **Legal Environment.** 1 hr. (5 weeks). An overview of the legal issues affecting management with emphasis on employment law, environmental law, and workplace safety. Managers and their interaction with the legal system will be emphasized.
- 627. **Decision Making for Technology.** 1.5 hrs. (7 1/2 weeks). The development of statistical and modeling techniques needed to institute and manage a comprehensive quality program and manage the resource allocation function in an organization.
- 628. **Financing for Technology.** .5 hrs. (2 1/2 weeks). An exploration of financial tools and techniques for decision making in financing technology.
- 629. **Quality Management.** 2 hrs. (10 weeks). An overview of quality programs in manufacturing and service industries. Emphasis is on product or service and process design with continuous improvement.
- 630. **Directed Individual Study in Specialty.** 6 hrs. Six semester hours will be used for directed study courses in the specialization area developed by the faculty and tailored to the individual student. These courses will focus on the application project and will either develop specific skills required for the project or provide supplementary information for the student to complement the project.
- 640. **Individualized Application Project in Specialty.** 6 hrs. All application projects will be developed by the student in consultation with and under the guidance of the lead faculty member of the project committee. This faculty member will be selected by the student. Ideally, a combination of skills and knowledge from both the student and faculty member will contribute to the specialty area for the project.

Mathematics (MAT)

500. **Mathematics Teaching Seminar.** 1 hr. Indepth topics related to preparing and presenting lessons, testing and grading, and classroom management, includes videotaping of practice teaching sessions. (Does not count as program credit for M.S. in mathematics.)
508. **Mathematical Foundations for Inservice Elementary School Teachers.** 3 hrs. Numeration, place value, intuitive geometry, measurement, arithmetic algorithms. (Does not count as program credit for M.S. in mathematics.)
509. **Mathematical Foundations for Inservice Middle School Teachers.** 3 hrs. Intuitive geometry, integers, rational numbers, probability, graphing, metric system, word problems. (Does not count as program credit for M.S. in mathematics.)
510. **Mathematics for Teachers of Junior High School Mathematics.** 3 hrs. The real number system and major subsystems, introduction to algebra, informal geometry, consumer mathematics and introduction to BASIC programming. (Open only to elementary and special education majors and does not count as program credit for M.S. in mathematics.)
515. **Introduction to Differential Equations II.** 3 hrs. Prerequisite: MAT 385. Systems of linear differential equations, characteristic equations, operator methods, approximating solutions, Laplace transforms.
517. **Introduction to Partial Differential Equations.** 3 hrs. Prerequisite: MAT 385. Integrability conditions, quasilinear and linear equations, applications to physics, classification of second order equations and canonical forms, separation of variables.
- 518.* **Linear Programming.** 3 hrs. Prerequisite: MAT 326. Convex sets, linear inequalities, extreme-point solutions, simplex procedure, applications.
- 519.* **Optimization in Mathematical Programming.** 3 hrs. Prerequisites: MAT 280, and 418 or 518. Selected topics in optimization from linear and nonlinear programming.
520. **Probability and Mathematical Statistics II.** 3 hrs. Prerequisite: MAT 320. Central limit theorem, estimation, hypothesis tests.
521. **Number Theory.** 3 hrs. Prerequisite: MAT 340. Induction, well ordering, division algorithm, Euclidean algorithm, Fundamental Theorem of Arithmetic, number theoretic functions, congruences.
523. **Modern Algebra I.** 3 hrs. Prerequisite: MAT 340. Elementary notions in groups, Fundamental Theorem of Finitely Generated Groups, permutation groups, quotient groups, the isomorphism theorems, applications of transformation groups.
524. **Modern Algebra II.** 3 hrs. Prerequisite: MAT 423 or 523. Survey of standard algebraic systems: rings, integral domains, fields, modules, polynomial rings, quotient rings, fields of quotients.
526. **Linear Algebra II.** 3 hrs. Prerequisite: MAT 326. Determinants polynomials; complex numbers; single linear transformations; orthogonal, unitary, and symmetric linear transformations.
536. **Theory of Functions of a Complex Variable I.** 3 hrs. Prerequisite: MAT 280. Complex numbers and functions, limits, continuity, differentiation, analytic functions, branches, contour integration, series.
537. **Graph Theory.** 3 hrs. Prerequisite: MAT 340. An introduction to graphs and a sampling of their numerous and diverse applications.
539. **Combinatorics.** 3 hrs. Prerequisites: MAT 326, 340, and 169 or 179. Counting and enumeration techniques, inversion formulas and their applications, and counting schemata relative to permutations of objects.
541. **Advanced Calculus I.** 3 hrs. Prerequisites: MAT 280 and 340. Point set theory, sequences, continuity, uniform continuity, limits, mean value theorems, L'Hospital's rule.
542. **Advanced Calculus II.** 3 hrs. Prerequisite: MAT 441 or 541. Riemann integration, Taylor's theorem, improper integrals, infinite series, uniform convergence.
- 560.* **Numerical Analysis I.** 3 hrs. Prerequisites: MAT 280, 326, and knowledge of a programming language. Methods of solving equations and systems of equations, error analysis, difference equations.
- 561.* **Numerical Analysis II.** 3 hrs. Prerequisites: MAT 385, and 460 or 560. Interpolating polynomials, numerical differentiation and integration, numerical solutions of differential equations, roundoff error.
- * Students will use University computers and appropriate software as a part of course requirements.
572. **Modern Geometry.** 3 hrs. Prerequisite: MAT 280, 316 or 326, and 340. Heuristic and analytic treatment of a branch of modern geometry, such as projective or differential geometry.
575. **General Topology.** 3 hrs. Prerequisite: MAT 169 or 179, and 340. General topological spaces, bases and subbases, continuity.
581. **History of Mathematics.** 3 hrs. Prerequisite: MAT 167 or 178. The history of mathematics from antiquity through the 17th century. (Does not count as program credit for M.S. in mathematics.)

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588. **Mathematics for Inservice Secondary School Teachers I.** 1-3 hrs. Prerequisites: 24 hours of mathematics excluding pre-calculus courses, secondary mathematics teaching experience. Special mathematical topics for inservice secondary school mathematics teachers, to include algebra, number theory, graph theory, and combinatorics. (Does not count as program credit for M.S. in mathematics.)
589. **Mathematics for Inservice Secondary School Teachers II.** 1-3 hrs. Prerequisites: 24 hours of mathematics excluding pre-calculus courses, secondary mathematics teaching experience. Special mathematical topics for inservice secondary school mathematics teachers, to include probability theory, analysis, applied mathematics, topology, geometry. (Does not count as program credit for M.S. in mathematics.)
592. **Special Problems I, II.** 1-3 hrs. each.
601. **Differential Geometry I.** 3 hrs. Prerequisite: MAT 431. An introduction to the theory of plane curves, space curves, and surface.
603. **Modern Algebra.** 3 hrs. Prerequisite: MAT 424 or 524. Simple groups, solvable groups, the Sylow theorems, presentations of groups, category terminology, introductory homological algebra.
605. **Ordinary Differential Equations.** 3 hrs. Prerequisite: MAT 385. Topics from the theory of ordinary differential equations. Specific topics to be selected by the instructor.
606. **Partial Differential Equations.** 3 hrs. Prerequisite: MAT 385. Dirichlet, Neumann, and mixed boundary value problems; classical techniques of solution of partial differential equations & applications.
610. **Numerical Linear Algebra.** 3 hrs. Prerequisite: MAT 326 and a knowledge of eigenvalues and eigenvectors. Theory and practice of matrix computations, matrix norms, singular value decomposition, linear systems, LU decomposition, QR decomposition, methods for eigenvalue problems.
629. **Applied Combinatorics and Graph Theory.** 3 hrs. Prerequisite: CSC 616 or permission of instructor. Combinatorial/graphical techniques for complexity analysis recurrence relations, Polya theory, NP complete problems. May also be taken as CSC 629.
636. **Functions of a Complex Variable II.** 3 hrs. Prerequisite: MAT 436 or 536. Taylor and Laurent series, residue calculus, conformal mapping with applications, integral formulas of the Poisson type, analytic continuation.
637. **Functions of a Complex Variable III.** 3 hrs. Prerequisite: MAT 636. A continuation of MAT 636.
641. **Functions of a Real Variable I.** 3 hrs. Prerequisite: MAT 442 or 542. Foundations of real analysis and introduction to Lebesgue integration.
642. **Functions of Real Variable II.** 3 hrs. Prerequisite: MAT 641. Continuation of MAT 641.
650. **Computer Assisted Mathematics I.** 3 hrs. Prerequisite: permission of instructor. Applications of computer algebra software to mathematical modeling. Modeling projects and experiments employing both numeric and symbolic computation using software such as DERIVE, Maple V, and Mathematica. The laboratory setting and project format will permit investigations of a deeper nature than would be possible due to time constraints in a typical three-hour lecture course. May be repeated for a maximum of six hours credit.
651. **Computer Assisted Mathematics II.** 3 hrs. Prerequisite: permission of instructor. Application of computer algebra software to data analysis, partial differential equations, statistics, non-linear regression, and linear algebra. May be repeated for a maximum of six hours of credit.
675. **Topology.** 3 hrs. Prerequisite: MAT 475 or 575. Properties of topological spaces such as imbedding and extension theorems, metrizable and compactification.
681. **Topics in Algebra I, II, III.** 3 hrs. Prerequisites: MAT 423 or 523, and permission of instructor. May be repeated for a maximum of nine hours credit.
682. **Topics in Analysis I, II, III.** 3 hrs. Prerequisite: Permission of instructor. May be repeated for a maximum of nine hours credit.
683. **Topics in Topology and Geometry I, II, III.** 3 hrs. Prerequisite: Permission of instructor. May be repeated for a maximum of nine hours credit.
684. **Topics in Applied Mathematics I, II, III.** 3 hrs. Prerequisite: Permission of instructor. May be repeated for a maximum of nine hours credit.
685. **Topics in Computational Mathematics I, II, III.** 3 hrs. Prerequisite: Permission of instructor. May be repeated for a maximum of nine hours credit.
689. **Mathematics Seminar I, II.** 3 hrs. Prerequisite: Permission of instructor. Six hours of seminar are required for the M.S. degree in mathematics.
691. **Research in Mathematics.** 1-16 hrs. (Does not count as program credit for M.S. in mathematics.)
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs.

Mathematics Refresher and Enrichment Program (M-REP)

584. **Calculus Review I.** 1-3 hrs. Prerequisite: permission of instructor. A review of topics from single-variable calculus to include limits, continuity, derivatives, and integration, with applications relevant to the high school curriculum.
585. **Calculus Review II.** 1-3 hrs. Prerequisite: MAT 584 or permission of instructor. A review of topics from single-variable calculus to include methods of integration, L'Hospital's rule, improper integrals, infinite series and vectors, with applications relevant to the high school curriculum.
586. **Geometry Review for High School Teachers.** 1-3 hrs. May be repeated for a maximum of 6 semester hours. Topics from Euclidean geometry, transformational geometry, plane analytic geometry, and topology.
587. **Problem Solving in School Mathematics.** 1-3 hrs. Prerequisite: MAT 585 or permission of instructor. May be repeated for a maximum of 6 semester hours. Includes strategies for solving both standard and non-standard mathematical problems.

None of the courses MAT 584 - 587 will count toward any degree in mathematics.

Mechanical Engineering Technology (MET)

510. **Production Materials.** 3 hrs. Study of properties of materials for cutting, drilling, forming, and heat treating operations.
520. **Robotics.** 2 hrs. Fundamentals of hydraulic, pneumatic, and electrically-controlled industrial robots. Robot geometry, installation and applications in industrial processes.
- 520L. **Robotics Laboratory.** 1 hr. Corequisite: MET 520.
592. **Special Problems.** 1-3 hrs. Prerequisite: Senior standing and approval of faculty adviser.

Medical Technology (MTC)

500. **Applied Clinical Procedures.** 2 hrs. Prerequisite: a minimum overall GPA of 2.5, "C" or better in MAT 101, second higher math, CHE 106/106L, and CHE 107/107L. Corequisite: MTC 500L, must be taken with or before other MTC 500 level courses. An introduction to clinical laboratory safety, instrumentation, mathematics, and analytical techniques.
- 500L. **Applied Clinical Procedures Laboratory.** 2 hrs. Prerequisite: a minimum overall GPA of 2.5, "C" or better in MAT 101, second higher math, CHE 106/106L, and CHE 107/107L. Corequisite: MTC 500, must be taken with or before other MTC 500 level courses. A laboratory emphasizing clinical laboratory safety, instrumentation, mathematics, and analytical techniques.
501. **Body Fluids.** 1 hr. Prerequisite: Admission to the practicum or permission of department. Corequisite: MTC 501L. Analysis of the physical, chemical, and microscopic parameters of body fluids—research component.
- 501L. **Body Fluids Laboratory.** 1 hr. Prerequisite: Admission to the practicum. Corequisite: MTC 501.
502. **Clinical Bacteriology I.** 3 hrs. Prerequisite: MTC 300, 300L, BSC 380, 380L or permission of instructor. Corequisite: MTC 502L. Evaluation of clinical specimens with regard to pathogenic microorganisms—research component.
- 502L. **Clinical Bacteriology I Laboratory.** 1 hr. Prerequisite: MTC 300, 300L, BSC 380, 380L or permission of instructor. Corequisite: MTC 502.
503. **Clinical Mycology.** 1 hr. Prerequisite: Admission to the practicum or permission of department. Corequisite: MTC 503L. The study of pathogenic fungi, emphasis is placed on laboratory methods of isolation and identification of medically important fungi—research component.
- 503L. **Clinical Mycology Laboratory.** 1 hr. Prerequisite: Admission to the practicum. Corequisite: MTC 503.
504. **Clinical Chemistry I.** 3 hrs. Prerequisite: CHE 420, 420L, or permission of instructor. Co- or prerequisite: MTC 300, 300L. Corequisite: MTC 504L. The chemical analysis of body fluids—research component.
- 504L. **Clinical Chemistry Laboratory.** 2 hrs. Prerequisite: CHE 420, 420L or permission of instructor. Co- or prerequisite: MTC 300, 300L. Corequisite: MTC 504.
505. **Clinical Parasitology I.** 1 hr. Prerequisite: Admission to practicum or permission of department. Corequisite: MTC 505L. Study of medically significant protozoan and helminthic parasites and their vectors. Emphasis is placed on laboratory methods of detection and identification of these organisms—research component.
- 505L. **Clinical Parasitology Laboratory.** 1 hr. Prerequisite: Admission to practicum. Corequisite: MTC 505.
506. **Fundamentals of Hematology.** 3 hrs. Prerequisite: MTC 300, 300L. Corequisite: MTC 506L. An introduction to the study of blood and blood forming organs—research component.
- 506L. **Fundamentals of Hematology Laboratory.** 1 hr. Prerequisite: MTC 300, 300L. Corequisite: MTC 506.

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507. **Clinical Immunodiagnosics I** 2 hrs. Prerequisite: Admission to practicum or permission of department. Corequisite: MTC 507L. An introduction to immunodiagnostic testing, theory, and practical experience involving antigen-antibody reactions in relation to disease in humans—research component.
- 507L. **Clinical Immunodiagnosics I Laboratory**. 1 hr. Prerequisite: Admission to practicum. Corequisite: MTC 507.
508. **Clinical Immunohematology**. 3 hrs. Prerequisite: Admission to practicum or permission of department. Corequisite: MTC 508L. The theory and techniques of donor selection, processing blood for transfusion, and resolving incompatibilities—research component.
- 508L. **Clinical Immunodiagnosics Laboratory**. 1 hr. Prerequisite: Admission to the practicum. Corequisite: MTC 508.
509. **Clinical Chemistry II**. 3 hrs. Prerequisite: Admission to practicum or permission of the department. Corequisite: MTC 509L. The chemical analysis of body fluids—research component.
- 509L. **Clinical Chemistry II Laboratory**. 1 hr. Prerequisite: Admission to the practicum. Corequisite: MTC 509.
510. **Special Chemistry**. 1 hr. Prerequisite: Admission to the practicum or permission of the department. Corequisite: MTC 510L. Introduction to therapeutic drug monitoring and clinical toxicology with special emphasis on pathophysiology and analyte measurement.
- 510L. **Special Chemistry Laboratory**. 1 hr. Prerequisite: Admission to the practicum. Corequisite: MTC 510.
511. **Coagulation**. 1 hr. Prerequisite: Admission to the practicum or permission of the department. Corequisite: MTC 511L. The study of hemostasis in the human and its application to clinical laboratory testing, normal and abnormal.
- 511L. **Coagulation Laboratory**. 1 hr. Prerequisite: Admission to practicum. Corequisite: MTC 511.
512. **Principles of Clinical Administration and Education**. 1 hr. Prerequisite: Admission to practicum or permission of department. Introduction of basic principles of clinical laboratory administration and education—research component.
522. **Clinical Bacteriology II**. 3 hrs. Prerequisite: Admission to the practicum or permission of department. Corequisite: MTC 522L. Laboratory methods of isolation, identification, and other testing of pathogenic bacteria and their etiologic role in disease—research component.
- 522L. **Clinical Bacteriology II Laboratory**. 1 hr. Prerequisite: Admission to practicum. Corequisite: MTC 522.
526. **Hematology I**. 3 hrs. Prerequisite: Admission to the practicum or permission of department. Corequisite: MTC 526L. The study of blood cells and their abnormalities with emphasis on procedures of laboratory examination—research component.
- 526L. **Hematology I Laboratory**. 1 hr. Prerequisite: Admission to the practicum. Corequisite: MTC 526.
551. **Urinalysis**. 1 hr. Prerequisite: Successful completion of Phase I of practicum. Clinical education at one of the affiliated hospitals—research component.
552. **Clinical Microbiology**. 4 hrs. Prerequisite: Successful completion of Phase I of practicum. Clinical education at one of the affiliated hospital laboratories—research component.
556. **Hematology II**. 3 hrs. Prerequisite: Successful completion of Phase I of practicum. Clinical education at one of the affiliated hospital laboratories—research component.
557. **Clinical Immunodiagnosics II**. 1 hr. Prerequisite: Successful completion of Phase I of practicum. Clinical education at one of the affiliated hospital laboratories—research component.
558. **Blood Bank**. 3 hrs. Prerequisite: Successful completion of Phase I of practicum. Clinical education at one of the affiliated hospital laboratories—research component.
559. **Clinical Chemistry III**. 4 hrs. Prerequisite: Successful completion of Phase I of practicum. Clinical education at one of the affiliated hospital laboratories—research component.
561. **Oncology**. 3 hrs. Prerequisite: Biochemistry or Molecular Biology or permission of instructor. An introduction to the biological and clinical aspects of cancer.
601. **Laboratory Science for Nursing**. 1 hr. Investigation of laboratory medicine topics relevant to nursing.
689. **Medical Technology Seminar**. 1 hr. Presentation of current material related to clinical medicine.
691. **Research**. 1-6 hrs.
692. **Special Problems in Medical Technology**. 1-8 hrs. Individuals will be assigned some specific clinical problem in medical technology to investigate under faculty direction.
697. **Independent Study and Research**. Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis**. 1-6 hrs. for a total of 6 hrs.

Music (MUS)

500. **Writing About Music.** 1 hr. The practices governing the scholarly writing about music (i.e., research, paper, thesis, prospectus, dissertation) along with an introduction to the style manuals that guide such writing.
531. **History of Opera.** 3 hrs. The history of musical theatre from Greek drama to present. Open to non-music majors with permission of instructor.
532. **Music in the United States.** 3 hrs. A study of the development of music in North America. Open to non-music majors with permission of instructor.
533. **20th Century Music.** 3 hrs. Examination of music trends since Debussy and Mahler. Open to non-music majors with permission of instructor.
534. **Ancient, Medieval, and Renaissance Music.** 3 hrs. A study of the rise of music in the ancient world, the beginning of western music and of polyphony. Open to non-music majors with permission of instructor.
535. **Baroque Music.** 3 hrs. The development of musical styles and forms from Monteverdi through J.S. Bach. Open to non-music majors with permission of instructor.
536. **18th Century Music.** 3 hrs. The development of classical styles and forms, emphasis on style galant, empfindsamer stil and the Viennese classicists. Open to non-music majors with permission of instructor.
537. **19th Century Music.** 3 hrs. The development of musical romanticism, emphasis on the expansion of classical forms, and the appearance of new stylistic concepts. Open to non-music majors with permission of instructor.
539. **Diction.** 3 hrs. Systematic introduction to phonetics of various foreign languages as applied to singing. May be taken for a total of six (6) hours. The second registration permitted only into a section in which the languages emphasized are different. (Appropriate substitute courses: GER 505 and FRE 505.)
540. **Vocal Literature.** 2 hrs.
541. **Vocal Literature.** 2 hrs. A continuation of MUS 540.
542. **Keyboard History and Literature I.** 3 hrs. The history and literature of keyboard music from pre-Baroque times to the present.
544. **Organ Literature.** 2 hrs.
545. **Organ Literature.** 2 hrs. A continuation of MUS 544.
546. **Instrumental Literature.** 2 hrs.
548. **Choral Literature I.** 3 hrs. A survey of choral literature. Study will include materials suitable for school and church choirs as well as standard masterworks.
549. **Choral Literature II.** 3 hrs. Selected topics in choral literature, post-Baroque.
550. **Symphonic Literature.** 3 hrs. A history of and literature for the symphony orchestra from 1600 to the present. Open to non-music majors with permission of instructor.
551. **Chamber Music.** 3 hrs. A survey of music for small instrumental ensembles. Open to non-music majors with permission of instructor.
553. **Church Music Literature and Materials.** 3 hrs. Church music repertoire for all choirs and handbells. Supplementary materials such as teaching aids will be included.
560. **Administration of Church Music.** 3 hrs. Administrative procedures for total music program of the church, including basic philosophy, planning, budgeting, promotion, training music leaders, and developing program goals.
562. **Hymnology.** 3 hrs. The history of the Christian hymn from its roots to present-day form.
571. **Seminar in Masterpieces of Music.** 3 hrs. Prerequisite: MUS 232 or consent of instructor. A thorough exploration of major compositions from all musical media. May be taken two times. May be taken by non-music majors with the consent of instructor.
599. **British Studies: Music in Britain Today.** 3 to 6 hrs.
620. **Music Theory Survey.** 3 hrs. A survey of harmonic, melodic, and rhythmic elements of tonal music. Will not apply towards any doctoral degree or a degree with composition emphasis.
630. **Music History Survey.** 3 hrs. A survey of the major periods of the history of music with emphasis on significant works. Sources useful in the investigation of music are surveyed. Will not apply towards a doctoral degree.
680. **Jazz Combo.** 1 hr.
692. **Special Problems.** 1-3 hrs. each. Investigation of specialized areas of interest. May be repeated.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University must enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.

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698. **Thesis.** 1-6 hrs. for a total of 6 hrs.
702. **Bibliography for Music Research.** 3 hrs. An extensive examination of research materials, including music and non-music reference works.
711. **Pedagogy of Theory.** 3 hrs. A course in the teaching of music theory in the senior high school as well as the college level.
713. **Seminar in Music Theory.** 2 hrs. For theory and composition majors; open to others with permission of instructor.
714. **Composition Project.** 6 hrs. Open to students with a major in theory and composition.
715. **Recital.** 1-3 hrs. Prerequisite: Permission of music performance studies instructor and approval by the major professor. Grade of E may be awarded.
721. **Analytical Techniques.** 3 hrs. A course designed to develop technique in analysis of music from the time of early polyphony through the Baroque period.
722. **Analytical Techniques.** 3 hrs. A course designed to develop techniques in analysis of music in the Classical and Romantic periods.
723. **Seminar in 20th Century Compositional Techniques.** 3 hrs. A seminar in techniques utilized by composers in the 20th century. Emphasis will be placed on analysis of selected works.
724. **Pre-Baroque Counterpoint.** 2 hrs. Contrapuntal writing up to eight parts. Prerequisite: MUS 321 or permission of instructor.
725. **Tonal Counterpoint.** 2 hrs. Contrapuntal writing culminating in the fugue. Prerequisite: MUS 322 or permission of instructor.
727. **Advanced Orchestration.** 3 hrs. May be taken three times. Prerequisites: MUS 401 or permission of instructor.
731. **Seminar in Performance Practices I.** 3 hrs. A study of the conductor's and performer's problems in the interpretation and performance of vocal and instrumental music of the 17th and 18th centuries.
732. **Seminar in Performance Practices II.** 3 hrs. A study of the conductor's and performer's problems in the interpretation and performance of vocal and instrumental music of the 19th and 20th centuries.
752. **Band Literature II.** 3 hrs. A survey of band literature, grades V and above.
761. **Topics in Music Literature.** 3 hrs. A course designed to expand the student's knowledge of music literature through a period, historical, or school approach. May be repeated.
786. **Concert Band Arranging.** 3 hrs. Prerequisite: MUS 401 or permission of instructor. Designed to provide the arranger with essential techniques of scoring for concert band, with special focus on existing concert band music.
787. **Arranging for School Chorus.** 3 hrs. Designed to focus on selected choral music and to provide the arranger with essential techniques of scoring for school chorus.
791. **Research in Music.** 1-16 hrs.
792. **Special Problems.** 1-3 hrs. each, arr. Investigation of specialized areas of interest. May be repeated.
794. **Major Solo Role in an Opera.** 1 hr. Permission of instructor and simultaneous enrollment in Opera Theatre are required.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
821. **Advanced Analytical Techniques.** 3 hrs. An in-depth analysis of selected works prior to 1750. Prerequisite: MUS 721 or permission of music theory faculty.
822. **Advanced Analytical Techniques.** 3 hrs. An in-depth analysis of selected works chosen from the Classical and Romantic periods. Prerequisite: MUS 722 or permission of the music theory faculty.
823. **Advanced Analytical Techniques.** 3 hrs. An in-depth analysis of selected works chosen from the 20th century. Prerequisite: MUS 723 or permission of the music theory faculty.
870. **First Doctoral Solo Recital.** 3 hrs. Prerequisite: Permission of applied music instructor and approval of the major professor. Grade of E may be awarded.
871. **Doctoral Lecture Recital.** 3 hrs. A lecture, delivered by the doctoral candidate, that includes a performance in which the candidate is a principal performer. Prerequisite: Permission of applied music instructor and approval of the major professor. Grade of E may be awarded.
872. **Second Doctoral Solo Recital.** 1 hr. Prerequisite: Permission of applied music instructor and approval of the major professor. Grade of E may be awarded.
873. **Concerto Performance with Band or Orchestra.** 1 hr. Prerequisite: Permission of applied music instructor and approval of the major professor. Grade of E may be awarded.

- 874. **Major Solo Role in an Opera.** 1 hr. Permission of applied music instructor and approval of the major professor. Grade of E may be awarded.
- 875. **Major Solo Role in Oratorio.** 1 hr. Prerequisite: Permission of music performance studies instructor and approval of the major professor. Grade of E may be awarded.
- 876. **Chamber Music Recital.** 1 hr. Prerequisite: Permission of music performance studies instructor and approval of the major professor. Grade of E may be awarded.
- 898. **Dissertation.** 12 hrs.

Music Education (MED)

- 501. **Marching Band Methods.** 3 hrs. Techniques for developing marching band programs. Emphasis placed upon music selection, rehearsal organization and drill charting techniques. Provides tools for administering and directing marching band programs.
- 502. **Advanced Computer-Assisted Marching Band Drill Design.** 3 hrs. Introduction to writing marching band drill design. Provides charting-proficient students with skills in developing form and flow. Includes computer lab time.
- 524. **Instrument Repair.** 3 hrs. Designed to give practical experience in preventive maintenance, minor repair and adjustment of string, woodwind, brass and percussion instruments.
- 529. **Piano Tuning and Repair.** 3 hrs. Study of basic techniques of tuning and repairing pianos.
- 538. **Seminar in Band Literature I.** 3 hrs. A study, based upon student needs, of selected masterworks for band. May be repeated.
- 544. **Arranging for Marching Band.** 3 hrs. Designed to provide the arranger with the essential techniques of scoring for the outdoor band. Course will focus on the study of existing arrangements.
- 550. **Vocal Pedagogy.** 2 hrs. Techniques, practices, and materials used in teaching voice; practical experience in teaching voice.
- 551. **Advanced Vocal Pedagogy.** 2 hrs. Advanced study of pedagogical materials.
- 590. **Piano Workshop.** 1-3 hrs. A course designed to meet the needs of the piano teacher, including a survey of standard materials together with a presentation of modern teaching methods. Cannot be applied toward a music degree. May be repeated.
- 591. **Instrumental Workshop.** 1-3 hrs. May be repeated. Cannot be applied toward a music degree.
- 592. **Choral Workshop.** 1-3 hrs. May be repeated. Cannot be applied toward a music degree.
- 593. **Elementary Music Workshop.** 1-3 hrs. Intensive examination of current problems, trends, and materials in the field of elementary music education. Cannot be applied toward a music degree. May be repeated.
- 594. **Marching Band Workshop.** 1-3 hrs. May be repeated. Cannot be applied toward a music degree.
- 595. **Instrumental Conductors Conference.** 2 hrs. May be repeated. Cannot be applied toward a music degree.
- 596. **Choral Conductors Conference.** 2 hrs. May be repeated. Cannot be applied toward a music degree.
- 624. **Practicum in Music Education.** 3 hrs. Examination of theory and research on teaching music to pre-college and college age students with subsequent application in a real environment.
- 692. **Special Problems.** 1-3 hrs. Investigation of specialized areas of interest. May be repeated.
- 697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
- 698. **Thesis.** 1-6 hrs. for a total of 6 hrs. No thesis will be accepted unless accompanied by an abstract. Theses which employ questionnaires will not be accepted unless accompanied by summaries of the findings to be mailed to respondents.
- 714. **Administration and Supervision of Elementary and Secondary School Music Programs.** 3 hrs. The organization, supervision, and evaluation of the total music program, including program development, problems of finance, and selection of personnel and equipment.
- 725. **Foundations and Principles of Music Education.** 3 hrs. Historical and philosophical foundations of the total music education program, and principles of teaching, learning, organization, administration.
- 731. **Graduate Conducting I.** 3 hrs. Development of conducting skill, rehearsal techniques, study and preparation of scores of standard band, choral, and orchestral repertoire. MED 731 and 732 may be repeated but no more than a total of six hours of conducting may be used for a degree.
- 732. **Graduate Conducting II.** 3 hrs. A continuation of MED 731. MED 731 and 732 may be repeated but no more than a total of six hours of conducting may be used for a degree.

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733. **Conducting Pedagogy.** 3 hrs. Techniques, practices, and materials used in teaching conducting. Includes study of various schools of conducting, identifying students' physical, aural, stylistic problems. Observation of undergraduate conducting classes required.
734. **Woodwind Techniques and Materials.** 2 hrs. A course dealing with the problems of teaching woodwind instruments and a comprehensive study of woodwind literature.
735. **Brass Techniques and Materials.** 2 hrs. A comprehensive survey of teaching techniques for the brasses with a survey of teaching materials emphasizing pedagogy textbooks and books designed for class instruction.
736. **Percussion Techniques and Materials.** 2 hrs. Performance techniques of all percussion instruments and a survey of teaching materials and literature for percussion.
737. **String Techniques and Materials.** 2 hrs. A comprehensive survey of teaching techniques for stringed instruments; survey of teaching materials emphasizing pedagogy textbooks and method books.
738. **Keyboard Techniques and Materials.** 2 hrs. An examination of keyboard literature as it relates to the techniques and practices of piano instruction.
739. **Vocal Techniques and Materials.** 2 hrs. Techniques and procedures for teaching correct vocal production habits; examination of choral literature for secondary school and collegiate levels.
740. **Music Education in the Elementary Schools.** 3 hrs. An advanced course in the development of music education programs for children.
750. **Music in General Education.** 3 hrs. An examination of the role of music in the general education of students throughout the educational system.
755. **The Psychology of Music.** 3 hrs. An examination of issues and theoretical positions in the areas of philosophy of music and of musical learning.
756. **Evaluation and Guidance in Music Education.** 3 hrs. The administration and interpretation of tests of musical talent and musical achievement.
792. **Special Problems.** 1-3 hrs. Investigation of specialized areas of interest. May be repeated.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
825. **Doctoral Seminar in Music Education.** 3 hrs. Orientation of doctoral study. Studies in the history and philosophy of music education.
826. **Doctoral Seminar in Music Education.** 3 hrs. Prerequisite: MED 825. Primary focus on advanced research methods, techniques, and procedures appropriate to the doctoral level of music education.
828. **Administration of College and University Music Programs.** 3 hrs. A practical course in the principles of administration, organization, and goals of music programs at the college or university level.
898. **Dissertation.** 12 hrs.

Music Performance Studies (MUP)

- 601, 602, +603. **Piano.** 1-4 hrs.
- 604, 605, +606. **Harpsichord.** 1-4 hrs.
- 611, 612, +613. **Organ.** 1-4 hrs.
- 614, 615, +616. **Flute.** 1-4 hrs.
- 617, 618, +619. **Oboe.** 1-4 hrs.
- 620, 621, +622. **Clarinet.** 1-4 hrs.
- 623, 624, +625. **Saxophone.** 1-4 hrs.
- 626, 627, +628. **Bassoon.** 1-4 hrs.
- 629, 630, +631. **Horn.** 1-4 hrs.
- 632, 633, +634. **Trumpet.** 1-4 hrs.
- 635, 636, +637. **Trombone.** 1-4 hrs.
- 638, 639, +640. **Euphonium.** 1-4 hrs.
- 641, 642, +643. **Tuba.** 1-4 hrs.
- 644, 645, +646. **Violin.** 1-4 hrs.

- 647, 648, +649. **Viola.** 1-4 hrs.
650, 651, +652. **Cello.** 1-4 hrs.
653, 654, +655. **String Bass.** 1-4 hrs.
656, 657, +658. **Percussion.** 1-4 hrs.
661, 662, +663. **Voice.** 1-4 hrs.
664, 665, +666. **Harp.** 1-4 hrs.
667, 668, +669. **Guitar.** 1-4 hrs.
671. **Chamber Music.** 1 hr. May be repeated.
672. **Chamber Music: Southern Chamber Winds.** 1 hr. Ensemble devoted to reading, studying, and performing harmonic music, i.e., original works for woodwind ensembles.
678. **Carillon.** 1 hr. Participation by audition only. May be repeated.
679. **Covenant.** 1 hr. Participation by audition only. May be repeated.
680. **Jazz Combo.** 1 hr. May be repeated.
681. **Orchestra.** 1 hr. May be repeated.
682. **Band.** 1 hr. May be repeated.
683. **Southern Chorale.** 1 hr. May be repeated.
684. **Jazz Lab Band.** 1 hr. May be repeated.
685. **Collegium Musicum.** 1 hr. May be repeated.
686. **Oratorio Chorus.** 1 hr. May be repeated.
688. **University Singers.** 1 hr. May be repeated.
689. **Chamber Singers.** 1 hr. May be repeated.
690. **Opera Theatre.** 1 hr. May be repeated.
691, 692, 693, 694, +695. **Advanced Composition.** 1-3 hrs.
701, 702. **Piano.** 1-4 hrs.
704, 705. **Harpsichord.** 1-4 hrs.
711, 712. **Organ.** 1-4 hrs.
714, 715. **Flute.** 1-4 hrs.
717, 718. **Oboe.** 1-4 hrs.
720, 721. **Clarinet.** 1-4 hrs.
723, 724. **Saxophone.** 1-4 hrs.
726, 727. **Bassoon.** 1-4 hrs.
729, 730. **Horn.** 1-4 hrs.
732, 733. **Trumpet.** 1-4 hrs.
735, 736. **Trombone.** 1-4 hrs.
738, 739. **Euphonium.** 1-4 hrs.
741, 742. **Tuba.** 1-4 hrs.
744, 745. **Violin.** 1-4 hrs.
747, 748. **Viola.** 1-4 hrs.
750, 751. **Cello.** 1-4 hrs.
753, 754. **String Bass.** 1-4 hrs.
756, 757. **Percussion.** 1-4 hrs.
761, 762. **Voice.** 1-4 hrs.
764, 765. **Harp.** 1-4 hrs.
767, 768. **Guitar.** 1-4 hrs.
791, 792, 793. **Composition.** 1-3 hrs.
801, 802. **Piano.** 1-4 hrs.
804, 805. **Harpsichord.** 1-4 hrs.
811, 812. **Organ.** 1-4 hrs.

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- 814, 815. **Flute.** 1-4 hrs.
817, 818. **Oboe.** 1-4 hrs.
820, 821. **Clarinet.** 1-4 hrs.
823, 824. **Saxophone.** 1-4 hrs.
826, 827. **Bassoon.** 1-4 hrs.
829, 830. **Horn.** 1-4 hrs.
832, 833. **Trumpet.** 1-4 hrs.
835, 836. **Trombone.** 1-4 hrs.
838, 839. **Euphonium.** 1-4 hrs.
841, 842. **Tuba.** 1-4 hrs.
844, 845. **Violin.** 1-4 hrs.
847, 848. **Viola.** 1-4 hrs.
850, 851. **Cello.** 1-4 hrs.
853, 854. **String Bass.** 1-4 hrs.
856, 857. **Percussion.** 1-4 hrs.
861, 862. **Voice.** 1-4 hrs.
864, 865. **Harp.** 1-4 hrs.
867, 868. **Guitar.** 1-4 hrs.
891, 892, 893. **Composition.** 1-3 hrs.
896. **Score Reading I.** 3 hrs. The basics of score reading will be covered by reading chorales, canons, and score study exercises at the keyboard. The French system of multiple clef reading and transpositions of all orchestral and band instruments is included.
897. **Score Reading II.** 3 hrs. Continued improvement of score reading skills through a study of clef and transposition studies along with reading 18th- and 19th-century orchestral and wind symphony works. Individually and collectively, students will demonstrate ability to read scores.

Nursing (NSG)

519. **The Computer as a Nursing Tool.** 3 hrs. Exposure to the computer and examination of nursing applications.
522. **Professional Collaboration for Developmental Disability Services.** 3 hrs. Study of the interdependent contributions of relevant disciplines in training, service, and research.
536. **Hospice: Concept and Application.** 3 hrs. Explores concept and operationalization with emphasis on legislation, funding, referrals, advocacy.
537. **Abusive Behavior:** 3 hrs. An Exploration. An inter-disciplinary exploration of abusive behavior across the life span.
539. **Legal Ethical Issues.** 3 hrs. Legal-ethical issues involved in nursing practice.
538. **Health Care Financing.** 3 hrs. Survey of health economics, finance theory, cost control, prospective reimbursement, and trends.
550. **Health Care of the Aged.** 3 hrs. Nursing and health care problems related to aged persons.
578. **Specialized Studies in Developmental Disabilities.** 1-6 hrs. Specialized study and skill acquisition in the area of developmental disabilities. Topics vary.
589. **Caribbean Studies: Health Care Delivery Systems.** 3 hrs. The course examines major issues relevant to the health care delivery system in the West Indies. The students will assess the level of health care delivery among various populations and groups.
591. **Austrian Studies: Variable Topics.** 3 hrs.
593. **Health Care of the Elderly in England.** 3 hrs. Resources for the elderly in U.S. and Great Britain. Attitudes and perceptions of elderly by British health care providers.
594. **Health Care in England.** 3 hrs. Comparison of health care system in United states and England. Philosophies of health and nursing in a community are explored.
595. **Management and Economics of Health Care.** 3 or 6 hrs. United States and British health system, financing, administration, and nursing management.
596. **Nursing: The British Heritage.** 3 or 6 hrs. Evolution of modern nursing in England within the context of international, social, economic, and political events.

597. **Emergency Nursing: A British View.** 3 or 6 hrs. Introduction to the British health system and roles assumed by British emergency nurses.
598. **Families of the Developmentally Disabled.** 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.
599. **British Studies: Hospice.** 3 hrs. Introduction to hospice concept and symptom control in special units, hospitals, and homes in the United Kingdom.
600. **Issues in Nursing and Health Care.** 3 hrs. Seminar in contemporary problems and trends in nursing and health care.
601. **Theory Development in Nursing.** 3 hrs. Concepts, models, and theories relevant to nursing practice, education, and research.
603. **Nursing Research I.** 3 hrs. Prerequisite: Introductory course in statistics. Prerequisite or concurrent: NSG 601, and first course in emphasis area. Elements of the research process. Preparation for the development of a proposal.
604. **Nursing Research II.** 3 hrs. Prerequisite: NSG 603. Continuation of NSG 603 with a focus on data collection, analysis, interpretation, and dissemination of research findings.
606. **Death and Bereavement.** 3 hrs. An examination of research and theory related to death and bereavement.
607. **Planning and Public Policy Formation for Health.** 3 hrs. Permission of instructor. An examination of issues in health/social planning and public policy at local, state, and national levels.
611. **Curriculum and Teaching in Nursing.** 3 hrs. Prerequisite or concurrent: NSG 601. Curriculum development, selection, design, and evaluation of instructional systems for the teaching of nursing.
612. **Concepts of Organizational Behavior in Nursing.** 3 hrs. Prerequisite or concurrent: NSG 601. Theories and research related to organizational behavior in the administration of nursing services.
613. **Advanced Practice Nursing.** 3 hrs. Seminar focused on theory and research pertaining to the clinical major for practice of advanced nursing.
- 614L. **Practice of Clinical Nurse Specialization.** 3 or 6 hrs. Prerequisite: NSG 613 and permission of instructor. Seminar and advanced practicum in area of nursing specialization as identified by clinical major. May be repeated for total of six hours.
618. **The Nurse Administrator.** 3 hrs. Prerequisites: NSG 603, 612. Concurrent: NSG 618L. Seminar. Analysis of the role of the nurse administrator related to the department of nursing.
- 618L. **Role Practicum.** 3 hrs. Concurrent: NSG 618. Application of role theory related to a department of nursing.
619. **Fiscal Management for Nurses.** 3 hrs. Fiscal responsibility, utilization of financial management principles, techniques and cost control measures in nursing administration.
621. **Concepts and Theories for Community Health Nursing.** 3 hrs. Prerequisites or concurrent: NSG 601 or permission of instructor. An analysis of concepts, theories, and research relevant to community health nursing.
622. **Seminar in Community Health Nursing.** 3 hrs. Prerequisite: NSG 621; Concurrent: NSG 622L. Assessment of communities and design of programs of community health nursing for specific populations. The epidemiological and health planning processes are included.
- 622L. **Community Health Nursing Practicum.** 3 hrs. Concurrent NSG 622. Prerequisite: NSG 621. Implementation and evaluation of community health nursing programs for specific populations.
623. **U.S. and World Community Health Nursing Issues.** 3 hrs. Prerequisites: NSG 622; NSG 603. Concurrent NSG 623L. Analysis of organizations and resources affecting health care and policy setting relevant to the practice of community health nursing.
- 623L. **U.S. and World Community Health Nursing Practicum.** 3 hrs. Concurrent: NSG 623. Synthesis and application of theories and research affecting health care, health planning, and policy setting.
631. **Theories for Psychiatric Mental Health Nursing.** 3 hrs. Prerequisite or concurrent: NSG 601. Analysis of theories and research relevant to mental health nursing.
632. **Psychiatric Nursing with Groups.** 3 hrs. Prerequisite: NSG 631. Concurrent: NSG 632L. Theoretical design and evaluation of psychiatric nursing interventions in the assessment and treatment of individuals in the group setting.
- 632L. **Psychiatric Nursing Practicum.** 3 hrs. Concurrent: NSG 632. Design, implementation, and evaluation of nursing interventions for individuals, families, and groups.
633. **Psychiatric Nursing of Families.** 3 hrs. Prerequisite: NSG 631. Concurrent: NSG 633L. Theory based design and evaluation of nursing interventions in marriage/ family dysfunction.
- 633L. **Psychiatric-Mental Health Nursing Practicum II.** 3 hrs. Prerequisite: NSG 632L. Corequisite: NSG 633. Advanced design, implementation, and evaluation of psychiatric nursing interventions for individuals, families and groups.
640. **Advanced Adult Health Nursing I.** 3 hrs. Prerequisite: NSG 601. Corequisite: NSG 640L. Theories and research related to adult health nursing practice.
- 640L. **Advanced Adult Health Nursing I Practicum.** 3 hrs. Prerequisite: NSG 601. Corequisite: NSG 640. Advanced practice in area of Adult Health specialization.

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641. **Advanced Adult Health Nursing II.** 3 hrs. Prerequisite: NSG 640. Corequisite: NSG 641L. Advanced theories and research related to adult health nursing practice.
- 641L. **Advanced Adult Health Nursing II Practicum.** 3 hrs. Prerequisite: NSG 640. Corequisite: NSG 641. Advanced practice in area of Adult Health specialization.
646. **Advanced Pharmacotherapeutics.** 3 hrs. Prerequisite: permission of instructor. Pharmacological actions of medications based on drug classifications and therapeutic response of clients to drug intervention by nurses.
647. **Advanced Pathophysiology.** 3 hrs. Prerequisite: permission of instructor. Adaptations and alterations in body systems to multi system trauma/illness and stressors. Analyze pathophysiologic states in response to body system alterations and nursing interventions based on adaptation theory.
648. **Advanced Health Assessment.** 2 hrs. Prerequisite: permission of instructor. Corequisite: NSG 648L. Exploration of the role of the Advanced Practice Nurse with an emphasis on family theory and primary care concepts.
- 648L. **Advanced Health Assessment Practicum.** 1 hrs. Prerequisite: permission of instructor. Corequisite: NSG 648. Clinical opportunity to practice advanced nursing health assessment.
660. **Marriage and Family Studies.** 3 hrs. Prerequisite: Permission of instructor. Analysis and conceptualization of family structure and process utilizing systems theory and related research findings.
661. **Family Nurse Practitioner I.** 3 hrs. Prerequisite: NSG 648, NSG 648L. Prerequisite or corequisite NSG 646, NSG 647, NSG 661L. Theory and research of the role of the nurse as a primary care provider with emphasis on management of individuals.
- 661L. **Family Nurse Practitioner I Practicum.** 3 hrs. Prerequisite: NSG 648, NSG 648L. Corequisite: NSG 661. Clinical opportunities to examine the role of the nurse as a primary care provider with emphasis on management of individuals.
662. **Family Nurse Practitioner II.** 3 hrs. Prerequisite: NSG 661, NSG 661L. Corequisite: NSG 662L. Theory and research of the role of the nurse as a primary care provider with emphasis on management of families.
- 662L. **Family Nurse Practitioner II.** 3 hrs. Prerequisite: NSG 661, NSG 661L. Corequisite: NSG 662. Clinical opportunities to examine the role of the nurse as a primary care provider with emphasis on management of families.
663. **Family Nurse Practitioner III.** 2 hrs. Prerequisite: NSG 662, NSG 662L. Corequisite: NSG 663L. Theory and research of the role of the nurse as a primary care provider with emphasis on the professional perspective of advanced nursing practice.
- 663L. **Family Nurse Practitioner III.** 4 hrs. Prerequisite: NSG 662, NSG 662L. Corequisite: NSG 663. Clinical opportunities to examine and practice the advanced role of the Family Nurse Practitioner with a professional perspective of advanced nursing practice.
- 664L. **Family Nurse Practitioner Internship.** 3 hrs. Prerequisite: NSG 663, NSG 663L. Student Family Nurse Practitioner will exemplify the role of the nurse practitioner.
677. **Assessment and Intervention for Handicapped Children 0-5.** 3 hrs. Current issues and theories regarding assessment and intervention procedures for at-risk and handicapped young children, birth through 5.
678. **Role in Teaching.** 3 hrs. Prerequisite: NSG 611. Role, change, and conflict theory; evaluation; legal aspects; university governance; student/faculty relations.
- 678L. **Teaching Practicum.** 3 hrs. Prerequisite or corequisite: NSG 611. Application of theories in classroom/clinical teaching, evaluation process, and faculty role in schools of nursing.
- 679L. **Nursing Administration Practicum.** 3 hrs. Required for majors. Prerequisites: NSG 618, 619. Clinical applications relative to the role of the nurse administrator with multi-disciplinary interaction.
688. **Medical Aspects of Developmental Disabilities.** 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.
691. **Research.** 1-3 hrs. Prerequisite: Graduate research course and approval of instructor. Student selects an area of interest in nursing for study. May repeat.
692. **Special Problems.** 1-3 hrs. Prerequisite: Approval of instructor. Student selects an area of interest in nursing for study. May repeat.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of six hours. Prerequisites: NSG 603, and either 612, 621, 631, 640, or 648. Credit deferred until thesis completed.

Nutrition and Food Systems (NFS)

510. **Intermediate Nutrition.** 3 hrs. Prerequisite: NFS 362 or 367, CHE 420. The study of specific nutrient effects on human metabolism. Roles of specific nutrients in metabolic pathways.
520. **Nutrition in the Life Cycle.** 3 hrs. Prerequisites: NFS 362 or 367, BSC 250, BSC 251. Nutrient needs during the life cycle, including impact of food habits, socioeconomic, and physiological changes on nutrient requirements and intakes.
- 520L. **Nutrition in the Life Cycle Laboratory.** 2 hrs. Corequisite: NFS 520. Development of skills in interviewing, counseling and basic assessment of nutritional status of healthy individuals.
530. **Experimental Foods.** 3 hrs. Prerequisites: NFS 362 or 367, and CHE 251, 251L. Study of selected nutritional, chemical, physical, and sensory properties of foods in relation to preparation procedures.
560. **Advanced Nutrition.** 3 hrs. Prerequisites: NFS 510, CHE 420, and a course in physiology. Biochemical and physiological interactions among vitamins, carbohydrates, proteins, fats and elements in relation to nutritional requirements and utilization.
561. **Clinical Nutrition.** 3 hrs. Prerequisites: NFS 362 or 367, 420, 420L, 410, CHE 420, and a course in physiology. Biochemical and physiological bases of dietary treatment of various disease states.
- 561L. **Clinical Nutrition Laboratory.** 2 hrs. Corequisite: NFS 561. Application of dietetics in a hospital setting.
563. **Applied Community Nutrition.** 3 or 5 hrs. Prerequisites: NFS 420, 420L. Study of nutrition assessment methodology and resources available within the community.
564. **Clinical Dietetics.** 4-15 hrs. Prerequisites: NFS 561 and 563 and permission of instructor. Study of disease states and dietary management in clinical settings.
- 567L. **Practicum in Dietetics.** 1-9 hrs. Prerequisite: Permission of the instructor. Application of dietetics in selected health care settings.
570. **The School Lunch.** 3 hrs. An in depth study of the history, legislation, regulations, philosophy, and need for child nutrition programs.
573. **Food Systems Management.** 4 hrs. Organization and management of food service operations; cost control techniques; and human relations.
577. **Administrative Dietetics.** 3 or 6 hrs. Prerequisites: HRT 540, 540L. Study and application of management theory and techniques in the supervision of food service personnel.
641. **Advanced Clinical Nutrition.** 3 hrs. Prerequisite: NFS 461. A detailed study of the pathophysiology of various disease states as related to nutrition. Emphasis on organ systems: cardiovascular, renal, and pulmonary.
662. **Community Health and Nutrition.** 3 hrs. Analysis of current public policy issues related to nutrition, including impact on health, quality of life, and productivity.
663. **The Nutrition of Children.** 3 hrs. Prerequisite: Minimum of one nutrition course approved by the instructor. Study of eating patterns and nutritional needs of children and the nutritional programs and services available to meet these needs.
664. **Seminar in Food and Nutrition.** 3 hrs. May be repeated for a total of 6 hours.
667. **Nutrition for Teachers.** 3 hrs. Prerequisite: Minimum of one nutrition course approved by the instructor. Programs, theories, methods, techniques, and equipment used for teaching nutrition in the schools.
672. **Quantity Food Preparation.** 3 hrs. Prerequisite: Permission of instructor. Principles of quantity food purchasing, production, and service.
673. **Child Nutrition Program Management.** 3 hrs. Management and supervision of multi-units in child nutrition programs.
675. **Production Management in Food Service Systems.** 3 hrs. An in depth exploration of production planning and control techniques including production scheduling, inventory management, and design and layout of food service systems.
676. **Seminar in Institution Management.** 3 hrs. May be repeated for a total of 6 hours.
691. **Research in Food and Nutrition.** 1-16 hrs.
692. **Special Problems in Nutrition.** 1-4 hrs.
693. **Readings in Nutrition and Food Systems.** 1 hr. Recent developments in research related to nutrition and food systems. May be repeated for a total of 3 hrs.
694. **Current Topics in Food Service Management.** 1-6 hrs. Prerequisite: permission of instructor. Study of a current problem in food service management. May be repeated for credit.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.

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698. **Thesis.** 1-6 hrs. for a total of 6 hrs. maximum. Credit deferred until thesis is completed.
703. **Research Techniques for Nutrition and Food Systems.** 3 hrs. Prerequisite: REF 601 and 602 or CHS 540 and 623. The research process in nutrition and foodservice management with an emphasis on designing research projects and interpreting findings.
704. **Nutritional Aspects of Proteins.** 2 hrs. Prerequisite: NFS 410, Biochemistry, Physiology. A study of digestion, absorption, and metabolism of proteins with emphasis on requirements, deficiencies, and physiological stresses.
705. **Carbohydrates in Nutrition.** 2 hrs. Prerequisite: NFS 410, Biochemistry, Physiology. A study of digestion, absorption, and metabolism of carbohydrates with emphasis on energy metabolism.
706. **Lipids in Nutrition.** 2 hrs. Prerequisite: NFS 410, Biochemistry, Physiology. An advanced study of the digestion, absorption, and metabolism of lipids with emphasis on cholesterol metabolism and energy.
707. **Minerals in Nutrition.** 2 hrs. Prerequisite: NFS 410, Biochemistry, Physiology. Biochemical and physiological aspects of mineral absorption, metabolism, and function; deficiencies and toxicities will be discussed.
708. **Vitamins in Nutrition.** 2 hrs. Prerequisite: NFS 410, Biochemistry, Physiology. Biochemical and physiological aspects of vitamin absorption, metabolism, and function; deficiencies and toxicities will be discussed.
713. **Nutrition Education: Theory, Research, and Practice.** 3 hrs. An analysis of nutrition education theory, research and practice, with emphasis on planning, implementation and evaluation of nutrition education.
715. **Recent Developments in Applied Nutrition.** 3 hrs. A study of current trends in applied nutrition. Topics will vary each time the course is taught.
730. **Digestion, Absorption, and Excretion of Nutrients.** 3 hrs. Prerequisite: NFS 410, Biochemistry, Physiology. An advanced study of the digestion, absorption, and excretion of nutrients with emphasis on macronutrients.
774. **Management of Nutritional Services: A Behavioral Approach.** 3 hrs. Study of individual and group behavior in the management of nutrition services.
776. **Development of Business Opportunities in Food and Nutrition Services.** 3 hrs. Prerequisites: NFS 774 and MKT 300 or 550. Analysis of opportunities to develop food and nutrition businesses targeted to specific markets. Strategies for creating FNS businesses.
777. **Service Systems, Planning and Control.** 3 hrs. Prerequisite: NFS 774. Analysis of service management, TQM and organizational management theories and concepts as applied to food and nutrition service systems.
791. **Doctoral Research in Nutrition and Food Systems.** 1-16 hrs. Prerequisite: Permission of instructor. Research in nutrition and food systems.
792. **Special Problems in Nutrition and Food Systems.** 1-6 hrs. Special problems in nutrition and food systems.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
810. **Food and Nutrition Public Policy.** 3 hrs. An examination of U.S. public policy in food and nutrition, with emphasis on the role of the nutrition professional in influencing the public policy process.
811. **Doctoral Seminar.** 1 hr. Doctoral seminar. One hour to be repeated for a total of 3 hours.
813. **Nutritional Metabolism.** 3 hrs. Prerequisites: NFS 630 and 631. Study of nutrients and intermediary metabolism, including regulation of metabolic pathways.
815. **Nutrition Support.** 3 hrs. Prerequisite: NFS 664. A detailed study of the methods of feeding the stressed patient in relation to disease state and route of feeding.
817. **Advances in Nutrition and Foodservice Management Education.** 3 hrs. Prerequisite: EDA 814. Analysis of the impact of societal and professional issues on nutrition and foodservice management education.
898. **Dissertation.** 1-12 hrs. Dissertation. 1-12 hours for a total of 12 hours.

Philosophy (PHI)

506. **Philosophy of Human Nature.** 3 hrs. Philosophical consideration of the nature of human consciousness including topics in philosophical anthropology, philosophical psychology, and cognitive science.
510. **Classical Philosophy.** 3 hrs. An outline survey of Greek philosophical thought.
512. **Modern Philosophy.** 3 hrs. Survey of 17th and 18th century European philosophy.
536. **Aesthetics.** 3 hrs. Philosophical analysis of theories of art and beauty.
540. **American Philosophy.** 3 hrs. Survey of the development of philosophy in America and major American philosophers.

550. **Existentialism and Phenomenology.** 3 hrs. An examination of the central themes in contemporary European existentialism and phenomenology.
551. **Political Philosophy.** 3 hrs. The major schools of political philosophy from classical to contemporary times.
552. **Health Care Ethics.** 3 hrs. An examination of various conceptual and ethical issues in the health care professions.
553. **Philosophy of Law.** 3 hrs. An inquiry into theories of law.
557. **Environmental Ethics.** 3 hrs. An examination of human responsibilities for nature; the impact of civilization on the natural world; formulation of ethical principles and policies.
558. **Symbolic Logic.** 3 hrs. The basic theory and operations of the sentential calculus, quantification, and the logic of relations.
560. **20th-Century Philosophical Issues.** 3 hrs. An examination of the central themes in contemporary philosophy.
592. **Special Problems.** 3 hrs. A problem study to be approved by the department chair. May be taken for a total of nine hours.
599. **British Studies: Philosophy.** 3-6 hrs. An introduction to the language and techniques of philosophy relevant to practical critical problems.
610. **Philosophy of Religion.** 3 hrs. Seminar topics in philosophical theology.
620. **Seminar in Metaphysics.** 3 hrs. Classical and contemporary metaphysics will be examined. Modern criticism by logicians, analytic philosophers, and philosophers of science will be presented.
625. **Seminar in Modern Philosophy.** 3 hrs. A critical investigation of the writings of selected modern and contemporary philosophers.
630. **Seminar in Epistemology.** 3 hrs. Advanced study of issues concerning the theory of knowledge.
635. **Ethics.** 3 hrs. An advanced study of issues and problem in moral philosophy.
636. **Major Philosopher.** 3 hrs. An advanced study of the contributions of a selected philosopher.
640. **Major Issues in Philosophy.** 3-6 hrs. This course focuses on one or more major issues in philosophy in one or more historical periods of philosophy. The student may repeat this course one time if the course involves a different major issue.
656. **Philosophy of Science.** 3 hrs. An indepth study of the scientific method, the nature of science, hypothesis development, and theory choice.
681. **Departmental Seminar.** 1 hr. Repeatable up to a total of three semester credit hours. Pass/fail only.
691. **Research in Philosophy.** 1-16 hrs. With the approval of the department and under the guidance of the student's major professor, the student will begin research on his/her master's thesis. Pass/fail only.
692. **Special Problems.** 1-6 hrs. A problem study to be approved by the department chairman.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs.

Physics (PHY)

523. **Science and Society: From Copernicus to the Bomb.** 3 hrs. Traces the development of science and technology and their role in society from the Renaissance to the present. (Cross listed as BSC 523 and HIS 523.)
551. **Physical Applications of the Fourier Transform.** 3 hrs. Prerequisites: PHY 202 and MAT 280. The continuous Fourier transform and its symmetries together with its roles concerning measuring devices.
555. **Fluid Dynamics.** 3 hrs. Prerequisites: PHY 350, MAT 385. A mathematical development of the physical principles governing fluid flow.
564. **Fundamentals of Solid State Physics.** 3 hrs. Prerequisite: Permission. The basic physical processes which occur in solids and semiconductors.
565. **Nuclear Physics.** 3 hrs. Prerequisite: PHY 361. Nuclear binding forces, chain reaction, and the non-steady state reactor, radiation detection.
585. **History and Literature of Physics.** 3 hrs. A survey of the history of physics from ancient times, stressing the rise and fall of concepts.
601. **Mechanics.** 3 hrs. Prerequisite: Permission. A formal mathematical development of graduate level mechanics.

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602. **Electricity and Magnetism.** 3 hrs. Prerequisite: Permission. A formal mathematical development of graduate level electricity and magnetism.
603. **Statistical Physics.** 3 hrs. A review of thermodynamics, equilibrium, ensembles and processes, phase transitions and critical phenomena, computational and approximation methods.
604. **Physics for High School Teachers.** 3 hrs. Prerequisite: Permission. Principles of physics designed to up-date the teacher's effectiveness in teaching physics.
605. **Special Topics in Theoretical or Experimental Physics.** 3 hrs. Prerequisite: Permission. Subjects depend upon current interest of students and staff.
606. **Methods of Mathematical Physics.** 3 hrs. Permission. The application of advanced mathematical methods to the study of various physical systems.
610. **Astronomy for Teachers.** 3 hrs. Prerequisite: Permission. Solar-system and stellar astronomy.
640. **Electron Optics and Its Applications.** 3 hrs. Prerequisite: Permission. Electrostatic and magnetic lenses, electron microscopes.
650. **Quantum Mechanics I.** 3 hrs. Prerequisite: Permission. The Schroedinger equation, operators and eigenfunctions, spherically symmetric systems.
651. **Quantum Mechanics II.** 3 hrs. Prerequisite: Permission. Scattering theory, matrix mechanics, angular momentum, perturbation theory.
689. **Seminar I.** 1 hr. Prerequisite: Permission. Study of current literature in physics supplemented by laboratory research.
689. **Seminar II.** 1 hr. Prerequisite: Permission. Study of current literature in physics supplemented by laboratory research.
689. **Seminar III.** 1 hr. Prerequisite: Permission. Study of current literature in physics supplemented by laboratory research.
689. **Seminar IV.** 1 hr. Prerequisite: Permission. Study of current literature in physics supplemented by laboratory research.
691. **Research in Physics.** 1-16 hrs.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hours.

Planning (PLG)

550. **Financing Economic and Community Development.** 3 hrs. An examination of the theory and practice of public finance is provided in this course. Topics include fiscal impact assessment of development, capital budgeting, and current policy issues.
561. **Planning and Development Law.** 3 hrs. The legal context for planning and managing land use and development is provided in this course. The course also provides insight into environmental law as applied to planning.
562. **Environmental Planning and Policy.** 3 hrs. This course provides an introduction to the detailed study of environmental planning analysis and methodology as an element in land-use decision-making systems.
563. **Planning and Development Research Methods.** 3 hrs. This course provides an introduction to research techniques for collection, organization, and analysis of information to aid in the planning and development decision-making process.
564. **Physical Infrastructure for Planning and Development.** 3 hrs. The relationships between physical infrastructure and planning and development are explored in this course. Provisions of physical infrastructure at the site and community levels are examined.
565. **Land Use Planning and Policy.** 3 hrs. This course will examine the planning and development procedures which impact the development market such as land suitability analysis and land use plans.
566. **Economic Development Planning for Communities.** 3 hrs. This course provides an introduction to the strategies, programs, and processes used at the community and regional levels to encourage investment and employment opportunities.
569. **Studio Laboratory: Plan Preparation.** 3 hrs. Preparation and presentation of a professional plan as a collaborative student/community effort. May be repeated with change of content for a total of six (6) hours.
570. **Current Issues Seminar.** 3 hrs. This course is designed to allow flexibility in the topic, depending on student interests. The course will begin by an examination of the profession including its evolution, theory base, ethics, and requirements for professional certifications. A current topic will then be selected for exploration, such as transportation planning, sustainable development, or negotiation and conflict management.

- 599. **Comparative Urban Planning.** 3-6 hrs. This course focuses on urban planning and the development of the urban landscape in the British Isles. Includes lectures, field trips and directed research.
- 662. **Seminar in Environmental Planning.** 3 hrs. Prerequisite: PLG 462/562 or approval of instructor.
- 665. **Seminar in Community and Regional Planning.** 3 hrs. An overview of the development and fundamentals of community and regional planning.
- 667. **Development Dispute Resolution.** 3 hrs. Examines contemporary methods used to resolve urban development disputes.
- 668. **The Context of Public Planning.** 3 hrs. An examination of the political, social, economic and organizational context of public planning.
- 669. **Site Planning and Development.** 3 hrs. A study of design, financing, permitting and scheduling of large scale developments.
- 691. **Internship.** 1-9 hrs. May be repeated for a total of nine hours.
- 692. **Special Problems.** 1-6 hrs.
- 697. **Independent Study and Research.** Arr. Not to be counted as credit toward a degree. Students who are not in residence but are actively working on a thesis and consulting with the major professor or making use of the library or other University facilities must enroll in this course.
- 698. **Thesis.** 1-6 hrs. for a total of 6 hours.

Political Science (PS)

- 501. **Political Socialization.** 3 hrs. An analysis of the American political system on an advanced level.
- 502. **Urban Politics.** 3 hrs.
- 503. **Politics and Environment.** 3 hrs. An examination of the politics of the environment with attention to global and domestic areas and across major ecological issues.
- 504. **The Legislative Process.** 3 hrs.
- 505. **Women and Politics.** 3 hrs. An examination of the women's movement, women in political theory with an emphasis on democratic theory, women and the law and modern feminist thought.
- 506. **Political Parties.** 3 hrs.
- 507. **Mississippi Government.** 3 hrs.
- 508. **The American Presidency.** 3 hrs. An analysis of the selection, role, power, and performance of the presidency.
- 509. **Southern Politics.** 3 hrs. An examination of the politics and political culture of the southern states.
- 511. **Research in Political Science.** 3 hrs.
- 512. **Political Analysis.** 3 hrs.
- 520. **Political Theory to Locke.** 3 hrs.
- 521. **Political Theory Locke to Present.** 3 hrs.
- 526. **20th Century Political Theory.** 3 hrs.
- 531. **International Law and Organization.** 3 hrs.
- 532. **Foreign Policies of the Major Powers.** 3 hrs.
- 535. **Comparative Foreign Policy.** 3 hrs.
- 550. **Comparative Studies in European Politics.** 3 hrs.
- 551. **Governments of Eastern Europe.** 3 hrs.
- 552. **The Political Systems of Great Britain and the Commonwealth.** 3 hrs.
- 556. **Latin American Governments and Politics.** 3 hrs.
- 557. **Political Development.** 3 hrs. A comparative analysis of political change and modernization.
- 558. **Latin American Political and Economic Development.** 3 hrs.
- 570. **Science, Technology and Politics.** 3 hrs. Course investigates the politics inherent in science and technology in contemporary culture. This includes considering nature, as well as the obstacles posed for democracy by these forces.
- 571. **Public Personnel Administration.** 3 hrs.
- 572. **Organization and Management.** 3 hrs.
- 573. **Public Policy.** 3 hrs.
- 574. **The Politics of Taxing and Spending.** 3 hrs. Facets of budgetary administration, emphasizing federal and municipal budgets, theory and process.

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580. **United States Constitutional Law.** 3 hrs.
581. **The American Judicial Process.** 3 hrs.
584. **Administrative Law.** 3 hrs. An introduction to the field of administrative law including the analysis of substantive law which administrative agencies produce as well as the body of requirements that control administrative activities and processes.
585. **International Law.** 3 hrs.
589. **U.S. Supreme Court and Civil Liberties.** 3 hrs. An analysis of the role of the U.S. Supreme Court in protecting individual rights. Primary focus is on litigation involving provisions of the Bill of Rights.
597. **Government-Business Relations in Japan.** 3 hrs. An on-site analysis of business and government linkage in Japan offered under the auspices of the Center for International Education.
599. **Seminar in British Politics.** 3-6 hrs. A seminar conducted in Great Britain under the auspices of the Anglo-American Institute.
691. **Research in Political Science.** 1-16 hrs.
692. **Special Problems.** 1-3 hrs. arr. The student works individually on a paper in political science under the supervision of a graduate faculty member.
693. **Internship in Political Science.** Hrs. arr. Departmental approval required. Student will work with an employer acting in the public sector in order to form practical experience in political and public affairs.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs.
700. **Seminar in U.S. Government.** 3 hrs. May be taken twice for credit. Prerequisite: Course in American national, state, and local government or consent of instructor.
721. **Seminar in Political Theory.** 3 hrs. May be taken twice for credit.
730. **Seminar in U.S. Foreign Relations.** 3 hrs. May be taken twice for credit. Prerequisite: Another course in U.S. foreign policy or history of U.S. foreign policy or permission of instructor. A survey of current United State foreign policies and problems.
731. **Seminar in International Relations.** 3 hrs. May be taken twice for credit. A survey and analysis of classical and modern world politics.
750. **Seminar in Comparative Government and Politics.** 3 hrs. May be taken twice for credit. Prerequisite: One or more courses in comparative government or permission of the instructor. A research-type course in which each student will make an intensive study of the political institutions of one country, or of a group of countries having similar governments.
770. **Seminar in Public Administration.** 3 hrs. May be taken twice for credit.
781. **Seminar in Public Law.** 3 hrs. May be taken twice for credit. Prerequisite: A course in constitutional law or consent of the instructor. A research course in which the students examine in depth various aspects of the judicial system and its relationship to other elements in the political process.
799. **British Studies: Advanced Seminar in British Politics.** 3-6 hrs. Lecture Series and research in British politics offered abroad under the auspices of the Institute of Anglo-American studies.

Polymer Science (PSC)

(Please see Forensic Science-FSC)

510. **Safety Principles and Procedures in the Chemical Sciences.** 1 hr. Common laboratory hazards and their remediation.
550. **Polymer Characterization.** 3 hrs. Macromolecular chemical structure and morphological characterization using state-of-the-art spectroscopic techniques and methods
- 550L. **Laboratory for PSC 550.** 1 hr.
570. **Surface Coatings.** 4 hrs. Study of the physical and chemical properties of the pigments, binders, solvents, and additives employed in surface coatings formulations, paint formulation, dispersion techniques, surface preparation, paint testing, non-polluting application techniques, and surface coatings formulations analysis.
- 570L. **Laboratory for PSC 570.** 1 hr.
691. **Research in Polymer Science.** 1-16 hrs. May be repeated.

697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in at least 3 hours of thesis, but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University, must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs.
701. **Organic Polymer Chemistry I.** 3 hrs. Reaction mechanisms, polymer concepts, step- growth polymerization, and polymer reactivity.
702. **Organic Polymer Chemistry II.** 3 hrs. Kinetics, free radical reaction mechanisms, homogeneous chain growth polymerization of vinyl compounds, copolymerization, and degradation of polymers.
703. **Organic Polymer Chemistry III.** 3 hrs. Methods of studying stereochemistry of polymers, anionic and cationic polymerization, and polymerization via homo- and heterogeneous catalysis.
710. **Polymer Physical Chemistry I: Solution Properties.** 3 hrs. A study of polymer chain conformation, solution thermodynamics, phase equilibria, and transport phenomena.
711. **Polymer Physical Chemistry II: Characterization.** 3 hrs. Polymer characterization to include light scattering, end group analysis, osmometry, fractionation, viscometry, gel permeation chromatography, and molecular weight distributions.
712. **Polymer Physical Chemistry III: Solid State.** 3 hrs. Morphology, crystallization, entropyelasticity, viscoelasticity, glass transition, interfaces of polymers.
- 720, 721. **Polymer Techniques I, II.** 2 hrs., 2 hrs. Laboratory methods of polymer synthesis, structural determination, and characterization.
730. **Polymer Rheology.** 2 hrs. The elastic and viscosity properties of polymer solutions and melts will be studied from a molecular and engineering perspective.
740. **Polymer Kinetics.** 2 hrs. Introduction to polymerization kinetics.
789. **Polymer Science Seminar.** 1 hr. May be repeated each semester while in residence.
791. **Research.** Hrs. arr. 1-16 hrs. May be repeated.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in at least 3 hours of dissertation, but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University, must enroll in this course for at least 3 hours each semester.
801. **Structure and Elasticity of Polymer Networks.** 2 hrs. Prerequisites: PSC 703 and 712, or permission of instructor. Study of the structure, elasticity and mechanical properties of polymer networks.
803. **Polymer Composite Blends and IPN.** 2 hrs. Prerequisites: PSC 703 and 712, or permission of instructor. Deals with modern composites, with discussions of high performance fibers, matrices, and interphases with relevant material included from the areas of blends and interpenetrating networks.
804. **Naturally Occurring Polymers.** 2 hrs. Prerequisites: PSC 703 and 712, or permission of instructor. Study of the structure-property relationships of naturally occurring polymers, including polysaccharides, proteins, and nucleic acids.
805. **Surface Coatings.** 2 hrs. Prerequisites: PSC 703 and 712, or permission of instructor. Scientific principles underlying surface coatings science are studied in depth.
806. **Industrial Monomer and Polymer Science.** 2 hrs. Prerequisites: PSC 703 and 712, or permission of instructor. Industrial monomer and polymer science.
807. **Testing of Polymers.** 2 hrs. Prerequisites: PSC 703 and 712, or permission of instructor. Testing of polymers: adhesives, coatings, fibers, plastics, and elastomers.
808. **Polymer Processing Principles.** 2 hrs. Prerequisites: PSC 703 and 712, or permission of instructor. Quantitative descriptions of extrusion, injection molding, rotational molding.
809. **Morphology of Oriented Polymers.** 2 hrs. Prerequisites: PSC 710, 712. Advanced polymer morphology.
810. **Physical Properties of Macromolecular Solids.** 2 hrs. Prerequisites: PSC 710 and 711, or permission of instructor. Advanced study of glassy and crystalline physical state of macromolecular solids emphasizing the influence of morphological structure.
811. **Polymer Physics.** 2 hrs. Prerequisites: PSC 710 and 711 or permission. Advanced study of polymer conformation, phenomenological and molecular theories of polymer relaxation, diffusion in polymers.
812. **Conformational Analysis, Molecular Design of Polymers.** 2 hrs. Prerequisites: PSC 710, 711, 712. Study of molecular interactions that control polymer conformation. Molecular modeling in material design.

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- 880. **Selected Topics I.** 3 hrs. To include a survey of such topics as thermally stable polymers, silicone elastomers, emulsion polymers, controlled biocide release from polymers, water-soluble high molecular weight polymers, photochemistry.
- 881. **Selected Topics II.** 3 hrs. To include a survey of such topics as thermally stable polymers, silicone elastomers, emulsion polymers, controlled biocide release from polymers, water-soluble high molecular weight polymers, photochemistry.
- 898. **Dissertation.** 1-12 hrs. May be repeated for a maximum of 12 hrs.

Psychology (PSY)

- 511. **Psychological Testing and Assessment.** 3 hrs. Prerequisite: PSY 110 and 360 or equivalent. Introduction to theory and techniques of psychological testing and assessment.
- 512. **Counseling Theory and Practice.** 3 hrs. Prerequisite: PSY 110 or equivalent. Emphasizes theories and principles undergirding the practical application of various helping techniques.
- 513. **Multicultural Counseling.** 3 hrs. Examines cultural diversity in North American society with focus on implications for mental health service providers.
- 518. **History and Systems of Psychology.** 3 hrs. Prerequisite: Permission of instructor. Review of the history of psychology and intensive study of current systems of psychology.
- 520. **Sensation and Perception.** 3 hrs. Prerequisite: PSY 320. A survey of sensory and perceptual processes with emphasis on the visual system.
- 522. **Psychology of Learning.** 3 hrs. Prerequisite: PSY 320. Basic problems, theories, and research in the areas of human and animal learning.
- 523. **Group Procedures.** 3 hrs. The study of behavior in group settings with particular attention given to applications in mental health agencies and institutions.
- 524. **Animal Behavior.** 3 hrs. Prerequisites: PSY 320. The study of animal behavior with special emphasis on the comparison of psychological processes along the phylogenetic scale.
- 526. **Physiological Psychology.** 3 hrs. Prerequisite: PSY 110. Relationship between physiological functions and behavior.
- 532. **Behavioral Interventions.** 3 hrs. An introduction to behavioral interventions as applied to normal and deviant behavior across different environmental settings.
- 533. **Workshop in Psychology.** 3 hrs. Topical workshops related to selected aspects of counseling and psychological practice in educational and/or human service settings.
- 536. **Abnormal Psychology.** 3 hrs. Prerequisite: Permission of the instructor. Study of the major psychoses, and psychoneuroses, and mental deficiency.
- 550. **Social Psychology.** 3 hrs. Prerequisite: PSY 110. Study of the individual in group situations, and the influence of the social environment on behavior and development.
- 555. **Psychology of Personality.** 3 hrs. A study of the factors involved in the development of the mature personality.
- 556. **Psychology of Aging and Death.** 3 hrs. Study of problems and attitudes concerning aging and death.
- 557. **Psychology of Religion.** 3 hrs. Prerequisite: PSY 110. An examination of modern psychological perspectives on religious beliefs, experiences, and practices.
- 578. **Specialized Studies in Developmental Disabilities.** 1-6 hrs. Specialized study and skill acquisition in the area of developmental disabilities. Topics vary.
- 582. **Moral Value Development in Childhood and Adolescence.** 3 hrs. A study of the major theories of moral development and techniques for facilitating moral growth.
- 596. **Families of the Developmentally Disabled.** 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.
- 597. **Professional Collaboration for Developmental Disability Services.** 3 hrs. Study of the interdependent contributions of relevant disciplines in training, service, and research.
- 599. **British Studies.** 3-6 hrs. Lecture and research on variable topics. Offered in Great Britain through the USM College of International and Continuing Education.
- 607. **Professional Ethics and Standards in Psychology.** 1 hr. Permission of Instructor. Professional ethics and guidelines for teaching, research, and practice with special attention given to the American Psychological Association's Ethical Principles of Psychologists and Code of Conduct.
- 608. **Professional Issues in Psychology.** 1 hr. Permission of Instructor. An examination of current trends and issues in the field of professional psychology.
- 609. **Contemporary Topics in Psychology.** 3 hrs. May be repeated up to 12 hrs.
- 610. **Foundations, Organization, and Administration of Guidance.** 3 hrs. An introduction to counseling and guidance services at the elementary/secondary school levels. Attention is given to both the range of services typically offered and to principles for organizing and administering a program of guidance services.

611. **Career Development and Information Services.** 3 hrs. The introduction to theories of career development and an analysis of the world of work. Processes are identified through which occupational/educational and personal/social information may be integrated for career/life planning.
613. **Cultural Bases of Behavior.** 3 hrs. A foundations course designed to develop an understanding of and respect for cultural and individual differences. Generalizations will be made to psychological research and practice.
614. **Testing and Individual Analysis.** 3 hrs. Prerequisite: REF 602 or equivalent. The fundamental principles of psychological assessment including concepts necessary for the administration, scoring, interpretation and use of test results. Attention is also given to ethics and issues involved in the appropriate use of psychological test results.
616. **Proseminar in Clinical Psychology.** 1 hr. Prerequisite: Admission to the clinical training program. An overview of contemporary clinical psychology and an introduction to the scientist/ practitioner model at USM.
621. **Theories of Learning.** 3 hrs. Basic concepts, problems, and research methodology in the studying of learning and motivation.
624. **Physiological Psychology.** 3 hrs. Study of neurophysiological mechanisms in behavior and related problems.
630. **Introduction to Counseling in the Community.** 3 hrs. An introductory course that includes such topics as: history of counseling as a professional field; counseling professional organizations, accreditation, and credentialing; ethical and legal principles; and introduction to the community environment.
635. **Personality.** 3 hrs. Consideration of the major theories of personality, and research on the development and measurement of personality.
639. **Student Personnel Work in Higher Education.** 3 hrs. An introduction to student development services in higher education.
640. **Clinical Assessment I.** 3 hrs. Prerequisites: Admission to the clinical psychology training program and permission of instructor. Theory, administration, and interpretation logic of clinical assessment (intellectual, behavioral, social) from infancy to early childhood.
641. **Clinical Assessment II.** 3 hrs. Prerequisites: PSY 640 and permission of instructor. Clinical assessment techniques (psychometric and behavioral) from childhood through adulthood. Experience includes clinical assessments.
642. **Psychoeducational Assessment I.** 3 hrs. each. Prerequisite: Permission of instructor. Theory and practice of psychoeducational assessment including individual intelligence testing; multicultural issues.
643. **Psychoeducational Assessment II.** 3 hrs. Prerequisite: PSY 642 or permission of instructor. A study of the various psychological tests used in the appraisal and evaluation of exceptional children.
650. **Microskills Laboratory.** 3 hrs. Seeks to develop the microskills which are foundational to helping relationships.
651. **School Counseling Field Practicum.** 3 hrs. Prerequisites: PSY 610, 612, 650. A basic counseling field practicum for school counselors.
652. **Counseling Psychology Practicum I.** 3 hrs. Prerequisites: PSY 612, 614, and prior arrangement with instructor. Beginning clinic practicum in counseling and psychological services. Students are expected to acquire basic competencies in counseling, testing and implementation of a systematic plan for behavior change.
653. **Comprehensive Field Practicum for School Counselors** 3-12 hrs. Prerequisites: PSY 650 and 651. A field practicum for students enrolled in the Counseling and Personnel Services program. Students may repeat for a maximum of 9 hours credit.
654. **College Student Personnel Practicum.** 3 hrs. A basic field practicum for college student personnel specialists.
655. **Survey of Industrial and Organizational Psychology.** 3 hrs. Examination of basic theories, concepts, and issues required for advanced graduate study in industrial and organizational psychology. Permission of instructor is required for non-I/O graduate students.
659. **Research Design.** 3 hrs. Prerequisite: Introductory statistics. An overview of research design and methodology with an emphasis on problems in applied settings.
660. **Advanced Data Analysis.** 3 hrs. Critical evaluation of a variety of analytic techniques.
661. **Research Evaluation in the Behavioral Sciences.** 3 hrs. Seeks to develop skill in evaluating the methodological soundness and usefulness of behavioral science research.
662. **Quantitative Methods I.** 3 hrs. Prerequisite: PSY 360 or permission of instructor. Theory and application of probability, Chi Square, simple and multiple correlation and regression, reliability, validity, and cross validation.
663. **Quantitative Methods II.** 3 hrs. Prerequisite: PSY 660 or permission of instructor. Concepts of measurement, sampling, variability, hypothesis testing, and power as applied to analysis of variance and covariance, including repeated measures.
670. **Advanced Educational Psychology.** 3 hrs. Theory and data bases relating to the contributions of psychology to the schooling process.
671. **Seminar in School Psychology.** 3 hrs. May be repeated to limit of 6 hrs. Prerequisite: Admission to the school psychology training program or permission of instructor. Professional issues and standards; pre-practicum training and experience.

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672. **Social Processes in Classroom Learning.** 3 hrs. Pupil-teacher interaction; instruction in developing goals, changing attitudes, resolving conflicts, and enhancing the individual's sense of worth.
674. **Advanced Child Psychology.** 3 hrs. Mental, motor, social, and emotional development of children of elementary school age.
675. **Advanced Adolescent Psychology.** 3 hrs. Advanced study of the adolescent and his or her needs in the home, school, and community.
676. **Psychology of Mental Retardation.** 3 hrs. Prerequisite: Permission of instructor. Study of personality development, problems of adjustment, and abnormal behavior of the mentally retarded.
677. **Assessment and Intervention for Handicapped Children 0-5.** 3 hrs. Current issues and theories regarding assessment and intervention procedures for at-risk and handicapped young children, birth through 5.
679. **Advanced Developmental Psychology.** 3 hrs. Principles of psychological development across the life span.
688. **Medical Aspects of Developmental Disabilities.** 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.
691. **Research in Psychology.** 1-16 hrs.
692. **Special Problems I, II, III.** 1-3 hr. By prior arrangement only.
693. **Research in School Psychology I, II.** 1 hr. each. Prerequisite: Admission to the school psychology training program. Introduction to scientific inquiry in school psychology.
694. **Field Problems I, II, III.** 1-3 hrs. By prior arrangement only.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs. Credit deferred until thesis is completed.
699. **British Studies: Research in Psychology.** 3 hrs.
701. **Seminar in Teaching of Psychology.** 1 hr. An analysis of the psychoeducational problems involved in the undergraduate and graduate teaching of psychology.
702. **Practicum in Teaching Psychology.** 3-6 hrs. Supervised teaching of courses in psychology.
710. **Group Counseling and Psychotherapy.** 3 hrs. Introduction to theory and practice of group counseling and psychotherapy. Requires participation in experimental quasi-group. Major theoretical models for group work are surveyed.
711. **Theory and Practice of Consultation.** 3 hrs. Introduction to the theory and process of consultation. Emphasis is placed on student acquisition of basic consulting skills/competencies.
712. **Assessment and Diagnosis.** 3 hrs. Prerequisite: PSY 614 or equivalent. An advanced course in psychological assessment and diagnosis. Attention is given to the selection and use of instruments commonly employed by counseling psychologists in clinical settings, and to diagnostic criteria of the DSM-IV.
713. **Intermediate Counseling Theory.** 3 hrs. Prerequisite: PSY 612 or equivalent. An intermediate level course which provides a systematic analysis of major counseling theories with an emphasis on the integration of theoretical constructs with practice and contemporary research.
714. **The Psychology of Vocational Development.** 3 hrs. An advanced study of vocational development as a life process. Concepts from the psychology of vocational development are examined as a basis for implementing the scientist-practitioner model through career counseling.
718. **History of Modern Psychology.** 3 hrs. Historical antecedents of modern psychology with emphasis on how developments occurring at various points in time form part of a historical pattern instead of simply a sequence of isolated events.
719. **Brain Damage and Behavior.** 3 hrs. Prerequisite: Permission of instructor. Causes of brain injury are studied and their effect on the mental and physical behavior of man are considered.
720. **Psychological Interventions with Children.** 3 hrs. An introduction to specialized counseling interventions with children.
721. **Conditioning and Learning.** 3 hrs. An intensive study of the role of contemporary theories of learning and motivation in current research.
722. **Cognitive Processes.** 3 hrs. Theory and research in cognitive psychology and its applications.
723. **Comparative Psychology.** 3 hrs. A detailed consideration of the capabilities of various species (including humans), with special emphasis on explanations of species' similarities and differences.

724. **Psychopharmacology.** 3 hrs. Prerequisite: Psy 624 or equivalent. An introduction to psychopharmacology with a focus on features and characteristics of psychotropic drugs which are commonly used in applied settings of interest to psychologists.
725. **Motivation.** 3 hrs. Prerequisite: Permission of instructor. A study of the current theories and research in the area of human and animal motivation.
726. **Perception.** 3 hrs. Prerequisite: Permission of instructor. The development and nature of human perception.
728. **Advanced Experimental Psychology I, II, III.** 3-9 hrs. For graduate students who wish to conduct publishable research not a part of a graduate thesis. Limit of 9 semester hours.
729. **Psychophysiology.** 3 hrs. Prerequisite: PSY 624 and permission of instructor. Study of psychophysiological principles as they apply to research and clinical problems.
730. **Proseminar in Psychophysiology.** 1-3 hrs. May be repeated to limit of 15 hrs. Prerequisite: Permission of instructor. Analysis of major topics in psychophysiology; laboratory techniques and experience.
732. **Marriage and Family Therapy.** 3 hrs. A survey of marital and family therapy models. Attention is given to the application of systems models.
733. **Applied Psychology Field Experience.** 1-3 hrs. Open only to psychology majors. Supervised applied experience in a variety of applied settings. Limit of 15 hours.
734. **Behavior Therapy.** 3 hrs. Prerequisite: Doctoral track and permission of instructor. Study of the principles of behavioral change and the evaluation of clinical research in behavior modification.
735. **Clinical Psychology Externship.** 3 hrs. Prerequisite: PSY 736, 782, and permission of the Director of Clinical Training. Supervised clinical experience in community, residential, and hospital mental health settings.
736. **Pre-Practicum in Clinical Psychology.** 3 hrs. Prerequisite: Permission of the Director of Clinical Training and doctoral status in clinical psychology. Procedures for the operation of the Psychology Clinic and basic interviewing.
737. **Administration and Supervision in Clinical Psychology.** 3 hrs. Prerequisite: Doctoral status in the Clinical program and permission of instructor. Techniques of administration and supervision of clinical psychologists in mental health settings.
738. **Alcoholism and Drug Abuse.** 3 hrs. Advanced topics in alcoholism and drug abuse. Approximately one-half of the course is devoted to basic concepts with the remainder devoted to design and implementation of intervention strategies.
739. **Topics in Student Personnel Services.** 3 hrs. Prerequisite: PSY 639 or permission of instructor. A topical study of current issues and trends in the design of student development services in higher education.
740. **Objective Personality Assessment.** 3 hrs. Prerequisites: PSY 780 or PSY 777, doctoral track, and permission of the instructor. The use and interpretation of objective personality tests.
741. **Projective Personality Assessment.** 3 hrs. Prerequisites: PSY 635 and 740 and permission of the instructor. The use and interpretation of the Rorschach, Thematic Apperception Test, and other projective personality instruments.
742. **Time-Limited Adult Psychotherapy.** 3 hrs. Prerequisite: Doctoral track and permission of instructor. An overview of brief, empirically supported therapies for adult disorders.
748. **Integration of Clinical Assessment.** 3 hrs. Prerequisites: PSY 641, 740, 741, 782 and permission of the instructor. The use and integration of a battery of assessment devices in generating comprehensive psychodiagnostic evaluations.
750. **Advanced Social Psychology.** 3 hrs. Examination of contemporary theory and research of group influence on the individual.
751. **Performance Appraisal.** 3 hrs. Prerequisite: PSY 655 or permission of instructor. Examination of the development and applications of performance appraisal systems.
752. **Management Training and Development.** 3 hrs. Prerequisite: PSY 451 or 655. Study of the principles and techniques of management appraisal and training.
753. **Leadership.** 3 hrs. Prerequisite: PSY 451 or 655. Study of the factors affecting leadership in a school or industrial setting.
754. **Psychology of Organizational Development.** 3 hrs. Prerequisite: Admission to the I/O program or PSY 451 or 655. Application of psychological principles to organizational problems.
755. **Practicum in Industrial/Organizational Psychology.** 3 hrs. Prerequisite: Permission of the I/O Training Director. May be repeated up to 15 semester hours. Supervised I/O training experiences.
756. **Assessment Centers in I/O Psychology.** 3 hrs. Prerequisites: PSY 655 or permission of instructor. AC practice, research, and related methodologies.
761. **Experimental Design.** 3 hrs. Prerequisites: PSY 660, PSY 663, or permission of instructor. Problems with various experimental designs, with emphasis on complex designs requiring primarily multivariate statistical procedures.
762. **Counseling Psychology Practicum II.** 3 hrs. Prerequisite: PSY 652 and prior arrangement with instructor. An intermediate-level clinic practicum in counseling and psychological services. Students are expected to acquire advanced competencies in counseling and case management and to demonstrate an integration of theory with practice.

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763. **Group Counseling Practicum.** 3 hrs. Prerequisites: PSY 652 (or equivalent), 710 (or equivalent) and permission of instructor. A practicum in which students facilitate and/or co-facilitate groups under supervision. Weekly staffings are scheduled with the supervisor to provide feedback and to allow discussion of problems and issues.
764. **Factor Analysis.** 3 hrs. Prerequisites: PSY 660, 662, or permission of instructor. An introduction to modern factor analytic and clustering techniques with emphasis on computer applications and interpretation of results.
765. **Personnel Selection.** 3 hrs. Prerequisite: PSY 655 or permission of instructor. Examination of psychological methods in the selection and placement of job applicants.
766. **Work Motivation.** 3 hrs. Prerequisite: PSY 655 or permission of instructor. Examination of theories of work motivation, attitudes, and their application.
767. **Attitudes and Social Processes in Organizations.** 3 hrs. Prerequisite: PSY 655 or permission of instructor. Examination of turnover, absenteeism, career development, conflict, occupational socialization, and social interactions in organizations.
768. **Psychometric Theory.** 3 hrs. Prerequisite: PSY 411 or 655 or permission of instructor. Examination of psychometric theory and its application in measurement of psychological variables.
770. **Intelligence: Theories and Development.** 3 hrs. Nature of intelligence and its development; critical evaluation of methods of measurement; relation of intelligence to social efficiency.
771. **Practicum in School Psychology.** 3 hrs. May be repeated to limit of 24 hrs. Prerequisite: Admission to the school psychology training program or permission of instructor. Supervised application of school psychological procedures.
772. **Interventions in School Psychology.** 3 hrs. May be repeated to limit of 18 hours. Prerequisite: Admission to the school psychology program or permission of instructor. Theory and application of various interventions in school psychology.
777. **Psychological Disorders of Childhood.** 3 hrs. A comprehensive analysis of the major behavior disorders of childhood.
778. **Experimental Child Psychology.** 3 hrs. Prerequisite: Permission of the instructor. An intensive study of theory, methodology, and research in child psychology.
779. **Seminar in Developmental Psychology.** 3 hrs. Prerequisite: Permission of the instructor. Consideration of specific contemporary problems and issues in developmental psychology. May be taken for a total of 9 semester hours.
780. **Advanced Psychopathology.** 3 hrs. Prerequisites: Doctoral track and permission of the instructor. Intensive study of personality dynamics as related to aberrant behavior, with emphasis on current research.
781. **Neurological Bases of Behavior.** 3 hrs. Prerequisites: PSY 624, doctoral status, and permission of instructor. An introduction to neuroanatomy and the behavioral consequences of neuropathology.
782. **Clinical Psychology Practicum.** 3 hrs. Prerequisites: PSY 736 and five of the seven clinical core courses, and permission of the Director of Clinical Training. May be repeated up to 15 semester hours. Supervised clinical training in the Psychology Clinic.
784. **Systems of Psychotherapy.** 3 hrs. Prerequisite: Doctoral Clinical track and permission of the instructor. An analysis of the theories and techniques of current systems of psychotherapy.
786. **Counseling Psychology Practicum III.** 3 hrs. Prerequisite: Permission of Instructor. An advanced practicum in which students develop applied competencies appropriate to their area of specialization under supervision.
788. **Medical Aspects of Developmental Disabilities.** 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.
790. **Field Problems.** 3 hrs.
791. **Research in Psychology.** 1-16 hrs. Prerequisite: Permission of the instructor.
792. **Special Problems.** 1-16 hrs.
793. **Research in School Psychology.** 1 hr. May be repeated up to limit of 8 hrs. Prerequisite: Admission to the school psychology training program or permission of instructor. Current research in school psychology.
794. **Psychology Research Apprenticeship.** 3-9 hrs. Prerequisite: Permission of instructor. Research training through participation in programmatic research conducted within the Department of Psychology.
796. **Field Internship.** 3-12 hrs. Prerequisites: PSY 762 and prior arrangement with instructor. Affords opportunity for master's-level and specialist students to receive supervised practice experiences in field setting.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
800. **Health Psychology.** 3 hrs. Designed to acquaint students with concepts in behavioral medicine and with the psychologist's role in health psychology.

802. **Clinical Neuropsychology.** 3 hrs. Prerequisites: PSY 624, 641, 736, 780, doctoral track, and permission of the instructor. An introduction to clinical neuropsychology.
807. **Clinical Health Psychology Practicum.** 3 hrs. Limit of 9 semester hours. Prerequisites: Enrollment in the clinical health psychology sub-specialty program. Hospital, clinic, and practicum experience in the methods and procedures of health psychology, neuropsychology, and clinical psychophysiology.
810. **Doctoral Integrative Seminar.** 1 hr. A weekly seminar designed to integrate instructional experiences of doctoral students during their first year of residency.
811. **Advanced Seminar in Psychotherapy.** 3 hrs. Prerequisites: PSY 713 or PSY 784 and permission of instructor. An advanced study of the domain of psychotherapy with an emphasis on identifying central constructs and the development of synthesis. Students are expected to (a) evaluate various psychotherapeutic approaches at philosophical, conceptual, and practical levels and (b) continue to refine their own developing theoretical positions.
835. **Advanced Practicum in Counseling Psychology.** 1-3 hrs. Prerequisite: Permission of instructor. Supervised practice.
836. **Proseminar in Counseling Psychology.** 2 hrs. A professional issues seminar for advanced students. Topics include: historical antecedents, training models, credentialing, accreditation, and current trends and issues in professional psychology.
840. **Externship.** 3-6 hrs. Prerequisite: Permission of instructor. Supervised experience in off-campus setting.
850. **Advanced Research Seminar.** 3 hrs. Prerequisite: Permission of instructor.
860. **Counseling Psychology Practicum IV.** 1-3 hrs. Prerequisites: PSY 786 and prior arrangement with instructor. An advanced clinic practicum in counseling and psychological services.
870. **Supervision: Theory and Practice.** 3-6 hrs. Prerequisite: Permission of instructor. An advanced seminar in the supervision of others who deliver counseling and psychological services. Students enroll concurrent with the assignment of clinic supervision responsibilities.
880. **Internship in School Psychology.** 4 hrs. Prerequisite: Permission of training director. May be repeated up to 12 semester hours. Supervised, full-time practice of school psychology in an approved setting. Selection of internship must conform to NASP and CDSPP standards.
881. **Internship in Clinical Psychology.** 4 hrs. Prerequisite: Successful completion of PSY 782 and approval of the Director of Clinical Training. To be repeated for 12 semester hours total.
882. **Internship in Industrial/Organizational Psychology.** 4 hrs. Prerequisite: Permission of the I/O Training Director. To be repeated for 12 semester hours total. Full-time practice of I/O Psychology under supervision in an approved setting.
883. **Internship.** 4 hrs. Prerequisites: Approval by program faculty and permission of Training Director. Students receive 1900-2000 hours of supervised training in an off-campus APA-approved internship program in professional psychology. To be repeated for nine semester hours total.
898. **Dissertation.** 12 hrs.

Radio-Television-Film (RTF) See course listing under **Communication.**

Real Estate and Insurance (REI)

532. **Real Estate Finance.** 3 hrs. Prerequisite: FIN 300. A study of the sources of real estate funds and analytical techniques for investment decision making. Non-business students only.
598. **International Insurance Seminar Abroad.** 3 hrs. Prerequisite: Consent of Program Director. Conducted in London, England: a series of lectures and discussions involving authorities on international insurance issues and practices.
692. **Special Problems.** 3 hrs. Prerequisite: Consent of department chair.
699. **International Insurance Research Abroad.** 3 hrs. Prerequisite: Consent of Program Director. A research course in international insurance offered for students enrolled in REI 598.

Religion (REL)

- ANT 524. **Primitive Religion.** (May be taken for credit as a religion course.)
535. **Religions of the Near East.** 3 hrs. A study of Judaism, Zoroastrian, and Islamic literature and thought.
536. **Contemplative Theory and Practices.** 3 hrs. A study of the major themes and issues of religious mysticism-East and West.
537. **Religions of the Far East.** 3 hrs. A study of Hinduism, Buddhism, Taoism, Confucianism, and Shintoism.

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- 590. **Contemporary Religious Problems.** 3 hrs. An examination of specific problems within the broad spectrum of contemporary religious concern.
- 599. **Religious Studies Abroad.** 3-6 hrs. The study of religious themes in various parts of the world. Offered abroad through the Center for International Education.

Research and Foundations (REF)

- +516. **Utilization of Audiovisual Media and Equipment.** 3 hrs.
- 525. **Instructional Styles and Models in Media Programs.** 3 hrs.
- 526. **Film and Television in Media Programs.** 3 hrs.
- 536. **Designing Educational Systems for Individualized Instruction.** 3 hrs. Translation of instructional specifications into prototype systems.
- 550. **Test Item Development.** 3 hrs. Includes procedures for mastering test item development techniques through active participation.
- 590. **Instructional Television: Utilization and Production.** 3 hrs. Utilization of television in instructional settings. Emphasis on programming from Mississippi ETV and the use of portopac television equipment.
- 591. **School Media Center Administration Workshop.** 3 hrs.
- 599. **British Studies: Research in British Education.** 3 hrs. To provide students with supervised research study on British education that relates to their own interests or educational specialty.
- 601. **Educational Research: Interpretation and Applications.** 3 hrs. An orientation to the information, skills, and competencies necessary to understanding research in education, along with a rudimentary introduction to conducting action research.
- 602. **Introduction to Educational Statistics.** 3 hrs. Basic concepts and computations in descriptive statistics. Introduction to sampling procedures and inferential processes in educational research.
- 604. **Foundations in American Education.** 3 hrs. A brief survey of the philosophical, psychological, sociological, and historical foundations of American education.
- 605. **Cultural Influences on American Education and Society.** 3 hrs. A study of European educational systems.
- 607. **Developing a Student-Centered Curriculum.** 3 hrs. A comprehensive study of planning and procedures for developing, structuring, implementing, and evaluating school curricula.
- 609. **Administration of Media Centers.** 3 hrs.
- 615. **Student Discipline in the Schools.** 3 hrs. Presentation of general principles, techniques, procedures, and legal aspects of discipline.
- +616. **Instructional Graphics.** 3 hrs.
- 618. **Instructional Photography.** 3 hrs.
- 620. **Foundations of Instructional Technology.** 3 hrs. Survey of the historical aspects of instructional media. Application of research in the development of technology relating to libraries, classrooms, industry, and instructional settings.
- 621. **Selection and Organization of Media Resources.** 3 hrs.
- +622. **Design and Production of Media Materials.** 3 hrs.
- +623. **Advanced Media Productions Techniques.** 3 hrs.
- 625. **Instructional Video and Film Production.** 3 hrs.
- 632. **Measuring Student Success.** 3 hrs. Emphasizes selection and construction of assessment instruments and interpretation of results.
- 644. **Instructional Development I.** 3 hrs. Prerequisite: REF 516 or permission of the instructor. Survey of various instructional development models for the development, revision, or revitalization of educational programs.
- 645. **Computers in Education.** 3 hrs. Applications of computer technology to instructional, information, and administrative programs from the user's point of view.
- 660. **Economic Education for Teachers.** 3 hrs. Emphasis on in-depth understanding of our economic system and integration of economic concepts into the social studies.
- 680. **Direction and Supervision of Student Teaching.** 3 hrs. Designed to guide supervising teachers in orienting and involving student teachers.
- 692. **Special Problems.** 1-3 hrs.
- 698. **Thesis.** 1-6 hrs. for a total of 6 hrs. Credit deferred until thesis is completed.

701. **Analysis of Teaching Behavior.** 3 hrs. Designed to analyze teacher behavior to determine competency, including interaction analysis and microteaching skills.
709. **Social Foundations of Education.** 3 hrs. A study of contrasting motivations and values of various cultural groups and their implications for education.
712. **Computer Applications in Educational Research.** 3 hrs. Prerequisites: REF 761, 762. Skills development course in computer analysis of behavioral science data, systems analysis, financial, and personnel accounting procedures.
718. **Practicum in Educational Research.** 3 hrs. Prerequisites: REF 761, 762. Application of appropriate research models, structure of research reports, critique of published research and of student's research problem.
720. **Measurement in Educational Research.** 3 hrs. Prerequisites: REF 761, 762. Survey of the theory of measurement including true score theory, reliability, validity, item analysis, and item selection techniques.
740. **Programmed Instruction.** 3 hrs. Theories and techniques in designing, producing, and evaluating programmed instructional materials.
742. **Research in Instructional Systems Technology.** 3 hrs. Research in problems of formulating objectives, analyzing audiences, using media, and evaluating education outcomes.
761. **Experimental Design.** 3 hrs. Prerequisite: REF 602 recommended. Probability theory and theoretical distributions in experimental design. Techniques including tests, simple and complex analysis of variance, analysis of co-variance.
762. **Advanced Regression Analysis.** 3 hrs. Prerequisite: REF 761. Correlation and regression theory. Techniques associated with bivariate, partial, and multiple correlation and applied multiple linear regression.
770. **Evaluation Design and Methodology.** 3 hrs. The principles of evaluation. Involvement in a practical evaluation problem employing measurement techniques and statistical methodology.
791. **Field Problems in Educational Research.** 1-12 hrs. Prerequisite: Approval of major professor and Educational Research Staff.
792. **Special Problems in Educational Research I, II, III.** 1 hr. each. Prerequisite: Approval of major professor and Educational Research Staff. Application of specific research procedures in the development of skills in various types of research. The preparation of a scholarly paper is required.
794. **Field Problems.** 3 hrs.
798. **Specialist Thesis.** 3 hrs. Selection and development of a practical educational research problem for the specialist's degree. A scholarly research paper is required.
810. **Design and Methodology in Institutional Research.** 3 hrs. Prerequisites: REF 601, 761, 762. Practical application of institutional research design and methodology emphasizing computer utilization and field work.
816. **History of Public Education in the United States.** 3 hrs. A critical study of the evolution of public education with emphasis on critical issues.
818. **Comparative Philosophies of Education.** 3 hrs. A critical examination of theoretical concepts of leading modern philosophers and their implications for education.
820. **Comparative Education.** 3 hrs. Survey of educational patterns of selected countries.
824. **Advanced Experimental Design.** 3 hrs. Prerequisites: REF 761, 762. Experimental and quasi experimental designs in educational research. Emphasis upon utilization of design principle and appropriate statistical treatment.
830. **Multivariate Analysis in Educational Research.** 3 hrs. Prerequisites: REF 761, 762. Theory and application of multiple regression and discriminant analysis, canonical correlation, multivariate analysis of variance and covariance.
893. **Advanced Educational Research.** 3 hrs. Seminar in types and problems of educational research, observation and data collection methods, and standards of reporting educational research.

Science and Mathematics Education (SME)

522. **British Studies: History of Science.** 3-6 hrs. Lecture series and research in the history of science offered abroad under the auspices of the Institute of Anglo-American Studies. (May be taken as BSC 522 or HIS 522).
532. **Science for Elementary Teachers.** 3 hrs. Prerequisites: 12 semester hours of science. Designed to provide experience in presenting scientific principles to the elementary school child.
535. **Marine Science for Elementary Teachers.** 3 hrs. Prerequisite: Permission of instructor. Designed to acquaint teachers with marine science concepts. (May be taken as MAR 558).
541. **Methods of Teaching the Metric System.** 3 hrs. Lectures and exercises in measurements using the International System of Units.
553. **Earth and Environmental Science for Intermediate School Teachers.** 3 hrs. Prerequisite: Permission of instructor. To familiarize teachers with the materials, methods and techniques of earth and environmental science.

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554. **Biological Sciences for Intermediate School Teachers.** 3 hrs. An examination of the subject matter, techniques, and methods of teaching the life sciences.
555. **Physical Science for Intermediate School Teachers.** 3 hrs. An examination of the subject matter, techniques, and methods for teaching the physical sciences.
556. **Techniques in Marine Science Education.** 3 hrs. Prerequisite: Permission of instructor. Designed to acquaint teachers with the marine resources of the Mississippi Coastal Zone. (May be taken as MAR 556).
557. **Marine Science for Teachers.** 3 hrs. Prerequisite: Permission of instructor. Emphasis will be placed on measurements and analysis of the marine habitat and ecological relationships. (May be taken as MAR 557)
559. **Coastal Ecology for Teachers.** 3 hrs. Prerequisite: Permission of instructor. Corequisite: SME 559L. Designed to provide teachers with a background in basic coastal ecology. (May be taken as MAR 559.)
- 559L. **Coastal Ecology for Teachers Laboratory.** 1 hr. Prerequisite: Permission of instructor. Corequisite for SME 559. (May be taken as MAR 559L.)
560. **Methods in Teaching Science—Secondary.** 3 hrs. Designed to familiarize teachers with current trends, methods, and techniques of teaching science to secondary school students.
561. **Computers and Telecommunications in Science/Mathematics Teaching.** 3 hrs. Prerequisite: An introductory computer science course. A course to develop competency in evaluation of discipline-specific software, utilization of hardware interfaces, and using networks, and the World Wide Web as teaching resources. May be taken at the undergraduate level as SCE 461.
571. **Teaching Chemistry in the Secondary School.** 3 hrs. Prerequisite: Admission to the Graduate Program or permission of instructor. Corequisite: SME 571L. Application of chemical knowledge to designing, developing and assessing instruction. May be taken at the undergraduate level as CHE 471.
- 571L. **Laboratory for Teaching Chemistry in the Secondary School.** 1 hr. Prerequisite: Admission to the Graduate Program or permission of instructor. Corequisite: SME 571. Experience in developing and evaluating laboratory instruction and in establishing and maintaining safety. May be taken at the undergraduate level as CHE 471L.
572. **Physics for Secondary Teachers—Methods and Techniques.** 3 hrs. Prerequisite: Permission of instructor.
590. **Aerospace Resources for Teachers.** 3 hrs. Teachers and administrators are given a review of aerospace science and technology and how to take advantage of students' fascination with flying.
595. **Applications of Basic Concepts in Biology for Secondary School.** 3 hrs. Prerequisite: Admission to the Graduate Program or permission of instructor. Laboratory to accompany SME 595. May be taken at the undergraduate level as BSC 495L.
- 595L. **Application of Basic Concepts in Biology for Secondary School Laboratory.** 2 hrs. Prerequisite: Admission to the Graduate Program or permission of instructor. Laboratory to accompany SME 595. May be taken at the undergraduate level as BSC 495L.
599. **Field Studies in Marine Science Education.** 3-9 hrs. Prerequisite: Permission of instructor. Study and investigate marine environments outside of Mississippi. Offered through the Center for International Education.
601. **Science Education in Contemporary Perspective.** 3 hrs. Prerequisite: Permission of instructor. Focuses on current reform in science education and the supporting learning theories, instructional methodologies, and assessment practices.
691. **Research Practicum in Science/Mathematics Education.** 3 hrs. Prerequisite: REF 602 and permission of instructor. A practicum experience in the design, execution, and reporting of a group research project.
700. **Science Curriculum in the Public Schools.** 3 hrs. Prerequisite: SME 703. An examination of elementary and secondary science curricula.
701. **Issues in Science and Mathematics Education.** 3 hrs. Prerequisite: Permission of instructor. Study of issues related to curriculum and associated research methodologies.
702. **Field Techniques of Demonstrating and Experimenting with Scientific Principles.** 3 hrs. For science teachers considering fundamental aspects of biology, chemistry, geology, and physics.
703. **Foundations of Science and Mathematics Education.** 3 hrs. Prerequisite: Permission of instructor. Study of philosophical premises related to the nature of science and mathematics and psychological and pedagogical theories.
720. **Mathematics Curriculum.** 3 hrs. Prerequisite: Permission of instructor. Exploration of the theoretical, empirical, and practical issues of the mathematics curriculum from K through college. Content and processes of curriculum will be explored.
725. **Readings from Research in Mathematics Education.** 3 hrs. Prerequisite: Permission of instructor. Focuses on current issues and methodologies in research in mathematics education.
730. **Physics for Elementary School Teachers.** 3 hrs. Prerequisites: 6 hours in physical science and 6 hours in biological science. Principles and general ideas that can be directly applied to the elementary grades.
731. **Chemistry for Elementary School Teachers.** 3 hrs. Prerequisites: 6 hours in physical science and 6 hours in biological science. Chemical principles that represent the changes in chemistry that have taken place over the last two decades.

- 732. **Biology for Elementary School Teachers.** 3 hrs. Prerequisites: 6 hours in physical science and 6 hours in biological science. A study of content, techniques, and methods of teaching life science concepts.
- 733. **Earth Science for Elementary School Teachers.** 3 hrs. Prerequisites: 6 hours in physical science and 6 hours in biological science. A study of techniques and methods of teaching earth science concepts.
- 789. **Seminar.** 1-3 hrs. Discussion of current trends and practices in science education.
- 791. **Research in Science Education.** 1-16 hrs.
- 792. **Special Problems.** 1-3 hrs. arr.
- 797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
- 798. **Research Problem.** 3 hrs.
- 898. **Dissertation.** 12 hrs.

Scientific Computing (SC)

- 644. **Advanced Robotic Systems.** 3 hrs. To introduce students to advanced topics and prospective research areas in the field of Robotics and its relation to AI, World Modeling and Simulation.
- 710. **Computational Methods for Physical Systems.** 3 hrs. Prerequisite: High level fortran, familiarities with methods in statistical mechanics and permission of instructor. Monte Carlo sampling and simulations, including multispin and cluster updating, percolation, molecular dynamics, finite size scaling and optimizations in computing.
- 712. **Computational Studies on Phase Separation Kinetics.** 3 hrs. A study of phase separation processes from a computational approach. Knowledge of statistical mechanics at the level of PHY 603 and computational techniques at the level of SC 710 is required.
- 713. **Liquid Crystals: A Computational Approach.** 3 hrs. A Computational approach to the modeling of liquid crystalline materials.
- 720. **Mathematics for Scientific Computing I.** 3 hrs. Prerequisite: Permission of instructor. Numerical methods for the solution of matrix equations and for eigenvector/value finding techniques, including criteria for selection among available algorithms are covered.
- 721. **Mathematics for Scientific Computing II.** 3 hrs. Prerequisite: SC 720 or permission of instructor. Techniques for interpolation and differentiation; computer simulations for the solution of ODEs and PDEs including Runge-Kutta, Adams/Bashforth, spectral, and shooting methods.
- 726. **Remote Sensing I.** 3 hrs. An advanced course emphasizing digital image processing of remotely sensed multispectral data, including use of applications software to process multispectral imaging.
- 730. **Parallel Algorithms.** 3 hrs. Prerequisites: Knowledge of sequential algorithm design and analysis, NP-completeness, proficiency in high level language programming including pointer manipulation. Topics include models of parallel computation, general techniques, graph algorithms, expression evaluation, parallel sorting, parallel string matching, and P-completeness.
- 735. **Scientific Numerical Modeling.** 3 hrs. Prerequisite: permission of instructor. The physical, mathematical, and computational basis for modeling. Physical models are drawn from chemistry, biology, and fluid dynamics.
- 736. **Neural Networks.** 3 hrs. The purpose of this course is to provide an integrated and cohesive exploration of the fundamental concepts and applications of neural networks.
- 740. **Seminar I.** 1 hr. Study of current research techniques and results in scientific computing. Can be taken four times. The objective of this course is to acquaint students with techniques and applications of scientific computing. The students will study the literature in field and hear presentations from practitioners in the field. Letter grades will be assigned on the basis of written or oral reports on assigned topics.
- 750. **Introduction to Computational Fluid Dynamics.** 3 hrs. Prerequisite: Knowledge of the solution of ordinary and partial differential equations. Development of the concepts, numerical methods and algorithms of computational fluid dynamics in conjunction with modeling.
- 751. **Finite Element Methods in Computational Fluid Dynamics.** 3 hrs. Fundamentals of finite-element methods for obtaining numerical solutions to fluid flow and heat transfer problems. A suitable strong background numerical analysis, computational mathematics, and programming in Fortran or C.
- 760. **Underwater Acoustic System Analysis.** 3 hrs. Prerequisite: Knowledge of underwater acoustics and Fourier transforms. Underwater acoustic signal generation, propagation, and analysis including array shading, beam steering, correlation properties of ambient noise, and estimation of signal parameters.

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762. **Computational Ocean Acoustics.** 3 hrs. Prerequisite: Understanding of the numerical solution of partial differential equations, the physics of waves, underwater acoustics, and computer programming. Development of the mathematical framework for underwater acoustic propagation models with special emphasis on the parabolic equation and computer code for its implementation.
781. **Topics in Scientific Computing.** 3 hrs. Prerequisite: Permission of the instructor. Covers topic of interest to students and faculty.
791. **Research in Scientific Computing.** 1-16 hrs. Prerequisite: Approval of major professor.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree.
898. **Dissertation.** 12 hrs.

Social Work (SWK)

Foundation

601. **Human Behavior and Social Environment I.** 3 hrs. Introduction to general systems theory as applied to the analysis of individuals, families, small groups, organizations and communities with particular emphasis upon an ecosystems perspective.
602. **Human Behavior and Social Environment II.** 3 hrs. Prerequisite: SWK 601. Analysis of theory relative to social organizations of varying size with particular emphasis upon groups, communities, and organizations. Primary focus is on theoretical explanations for the development and maintenance of macro-level systems.
605. **Social Welfare Policy.** 3 hrs. History of social work and social welfare; values which influence policy; formation of policy and macro policy analysis.
608. **Social Work Generalist Practice I.** 3 hrs. Systemic and problem-solving approaches to social work practice with individuals, families, organizations, and groups; integrative framework for knowledge, values and skills.
609. **Social Work Generalist Practice II.** 3 hrs. Prerequisite: SWK 608. Differential practice roles and communication processes; resource development, linkage, and utilization.
617. **Social Work Research I.** 3 hrs. Introduction to the foundations of knowledge building through a careful analysis of philosophical premises and examination of new approaches to scientific method. It also covers research designs and other fundamental issues which have bearing on knowledge development in social work.
634. **Social Work in a Diverse Society.** 3 hrs. Comparative cross-cultural theories and concepts related to ethnic-minority groups and alternative life styles.
637. **Social Work Research II.** 3 hrs. Prerequisite: SWK 617. Comparative social work research methodologies with special attention to single subject design and program evaluation.
641. **Field Education I.** 3 hrs. The first practicum is designed to integrate and enhance values, knowledge, and skills at the foundation level with micro and some meso experiences. Includes integrative seminar. A grade of "B" or better must be earned for this course.
642. **Field Education II.** 3 hrs. Prerequisite: SWK 641 and a B average in all Social Work courses. The second practicum designed to build on the integration and enhancement of values, knowledge, and skills developed in SWK 641, completing the foundation level of micro and some meso experiences. Includes integrative seminar. A grade of "B" or better must be earned for this course.

Advanced Practice

635. **Social Service Management and Administration.** 3 hrs. Survey of principal management functions in a systems context; practice applications of key concepts such as leadership and organizational communication.
653. **Individual and Family Assessment.** 3 hrs. This course deals with individual and family pathology, and diagnostic criteria. Students are exposed to DSM IV and the Person in the Environment (PIE).
658. **Advanced Interventive Methods.** 3 hrs. Corequisite: SWK 673. Social work intervention focused on cognition, affect, and behavior with individuals, families, and groups. This course is integrated with field seminar SWK 673.
666. **Community Development and Social Planning.** 3 hrs. Theories and techniques of community development and planning with special attention to practice needs and proposal writing.
673. **Field Education III.** 3-6 hrs. Prerequisites: SWK 641, 642. Corequisite: SWK 658. The third practicum is designed to build an advanced level integrated field experience on the prior learning in SWK 641 and 642. This practicum gives experiences in the macro systems as well as continuing with micro and meso systems. Includes integrative seminar.
674. **Social Work Practice with Families.** 3 hrs. Theories, intervention skills, policy issues related to families and the social service delivery system.
696. **Social Work Practice with Groups.** 3 hrs. Design of preventative, developmental and remedial group services for at risk populations.

Electives

Students must complete all courses in the foundation before enrolling in elective courses.

- 606. **Social Justice and Social Policy.** 3 hrs. Examines the effects of social welfare policy, discrimination, and economic injustice and explores opportunities for advocacy and outgroup empowerment.
- 620. **Computer Use for Human Service Workers.** 3 hrs. Introductory course for social workers and other human service workers; focus is on information systems for social work. Includes hands-on computer experience.
- 651. **Time-Limited Intervention.** 3 hrs. Techniques of task-centered intervention and crisis intervention in social work practice.
- 655. **Social Work Practice in Child Welfare Settings.** 3 hrs. Multidimensional intervention with children and adolescents who have experienced neglect and abusive conditions.
- 663. **Consultation and Supervision.** 3 hrs. Concepts and skills related to consultation and supervision with application to a number of systems but emphasizing agency settings.
- 665. **Social Work and the Law.** 3 hrs. An exploration of the interrelationships between social work and the law.
- 675. **Social Work Practice with Persons in Middle and Late Life.** 3 hrs. Psychosocial variables at critical life transition points are explored with practice and policy perspectives.
- 676. **Social Work Practice in Health Systems.** 3 hrs. Assessment and modification of conditions which affect an individual's health and mental health through intervention skills with individuals, families, and groups.
- 677. **Social Work Practice with Children and Adolescents.** 3 hrs. Practice concepts, theories and skills for work with specific social adjustment problems utilizing a systems framework.
- 688. **Medical Aspects of Developmental Disabilities.** 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.
- 691. **Research Practicum.** 1-3 hrs. Prerequisites: SWK 617 and 637. In-depth knowledge and skills needed to review and use various research designs and designs to evaluate practice effectiveness.
- 692. **Special Problems.** 1-6 hrs. Study of a problem in order to develop knowledge in an area of student interest. Paper and/or project required.
- 698. **Families of the Developmentally Disabled.** 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.

Sociology (SOC)

- 515. **Sex Roles and Gender in Society.** 3 hrs. A study of the relationship between sex roles and broader cultural patterns in various societies.
- 521. **Sociological Topics.** 3 hrs. Variable content; can be repeated three times in separate topical offerings.
- 523. **Sociology of Health.** 3 hrs. An analysis of the field of health and health care delivery from a sociological perspective.
- 524. **Sociology of Aging.** 3 hrs. A survey of demographic, social, and cultural aspects of aging with particular emphasis upon American society and the types of problems encountered by older persons.
- 526. **Sociology of Education.** 3 hrs. A comprehensive study of the educational institution, its relationship to the community and society.
- 530. **Political Sociology.** 3 hrs. A study of politics as a social institution, its relationship with other institutions, and its place in a changing society.
- 544. **Juvenile Delinquency.** 3 hrs. A study of causes and the nature of juvenile delinquency, the development of the juvenile court, probation, and other rehabilitative programs.
- 550. **Social Psychology.** 3 hrs. A study of how the thoughts and behaviors of individuals are influenced by the actual or implied presence of others.
- 560. **Quantitative Methods.** 3 hrs. A survey of quantitative research techniques, focusing on descriptive and inferential statistics and computer applications.
- 561. **Population.** 3 hrs. Prerequisite: SOC 460. An introduction to demography, analyzing significant changes in population composition.
- 562. **Methods of Social Research.** 3 hrs. A study of the production and interpretation of social research with an emphasis on the relationship of theory and method.
- 571. **Social Institutions.** 3 hrs. A study of selected American social institutions, focusing on class and power structures, the rise of post-industrial society, religious and moral divisions, and democratic individualism.
- 575. **Social Inequality.** 3 hrs. Research and theory in social differentiation, class, status, power, and mobility. Analysis of inequality and the effects of socioeconomic status upon behavior and social organization.

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- 582. **Sociological Theory.** 3 hrs. A study of classical and contemporary social theory, focusing on selected theorists (e.g. Weber, Durkheim, Marx, Merton, and Goffman) and selected topics, including anomie and alienation, and rise of capitalism, theories of crime, and concepts of self.
- 589. **Caribbean Studies.** 3 hrs. Variable content lecture series and study abroad under the auspices of the College of International and Continuing Education. May be repeated up to six (6) hours in different topical offerings.
- 593. **Irish Studies.** 4 hrs. Variable content lecture series and study in Ireland under the auspices of the College of International and Continuing Education.
- 599. **British Studies.** 3 hrs. Variable content. Lecture series and research offered abroad under the auspices of the Institute of Anglo-American Studies.
- 692. **Special Study Projects in Sociology.** 1-6 hrs. Special projects in reading, survey, or research in sociology. Work will be under the direction of graduate faculty.

Special Education (SPE)

- 500. **The Psychology and Education of the Exceptional Individual.** 3 hrs. An introduction to exceptional populations and procedures and policies relating to their education and citizenship.
- 560. **Characteristics and Education of Gifted Students.** 3 hrs. This course includes characteristics, educational options, assessment and referral procedures, and legal issues. Teacher attributes and competencies, family characteristics, and local, state, and national issues are also addressed.
- 578. **Specialized Studies in Developmental Disabilities.** 1-6 hrs. Specialized study and skill acquisition in the area of developmental disabilities. Topics vary.
- 597. **Professional Collaboration for Developmental Disability Services.** 3 hrs. Study of the interdependent contributions of relevant disciplines in training, service, and research.
- 598. **Families of the Developmentally Disabled.** 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.
- 630. **Advanced Studies in Learning Disabilities.** 3 hrs. Advanced studies of the social, emotional, physical, and learning characteristics of individuals with learning disabilities across the life span.
- 631. **Programming for Elementary Students with Learning Disabilities: Advanced Studies.** 3 hrs. Advanced studies in methods, materials, and individualized programming for elementary students with learning disabilities.
- 632. **Programming for Secondary Students with Learning Disabilities: Advanced Studies.** 3 hrs. Advanced studies in methods, materials, and individualized education/transition plans for secondary students with learning disabilities.
- 634. **Practicum in Learning Disabilities.** 3-6 hrs. Supervised classroom experience, including observation and teaching of students with learning disabilities.
- 640. **Advanced Studies of Mental Retardation.** 3 hrs. Advanced studies of the social, emotional, physical, and learning characteristics of individuals with mental retardation across the life span.
- 641. **Vocational Education in Mental Retardation.** 3 hrs. Vocational intervention and services promoting the transition from school to gainful employment are addressed.
- 643. **Advanced Curriculum Studies for Individuals with Mental Retardation.** 3 hrs. Study of different approaches to curriculum development, with emphasis on materials and goals for teaching individuals with mental retardation.
- 644. **Practicum in Mental Retardation.** 3-6 hrs. Supervised classroom experience, including observation and teaching of students with mental retardation.
- 645. **Assessment and Intervention for Individuals with Severe and Profound Disabilities.** 3 hrs. Curricula development activities with individuals with extreme learning problems.
- 650. **The Psychology and Education of Individuals with Emotional and Behavioral Disorders.** 3 hrs. Explores the characteristics and causation of emotional and behavioral disorders.
- 651. **Advanced Methods in Behavioral Management for Individuals with Disabilities.** 3 hrs. Explores methods for changing behaviors of individuals with disabilities.
- 652. **Instruction and Programming for Individuals with Emotional and Behavioral Disorders.** 3 hrs. This course explores methods and materials for providing instruction to individuals with emotional and behavioral disorders and the role of the teacher in relation to interdisciplinary and community-based programming.
- 654. **Practicum in Teaching Individuals with Emotional and Behavioral Disorders.** 3 hrs. Supervised practicum experience with individuals with emotional and behavioral disorders.
- 661. **Methods and Materials in Teaching Gifted Students.** 3 hrs. This course includes instructional models, methodologies, and materials appropriate for gifted students. Learning styles, writing and evaluating instructional units, public relations strategies, and sources of funding are included.

662. **Curricula Development in Gifted Education.** 3 hrs. This course includes steps necessary for curriculum development and evaluation for gifted education. Differentiated models, advanced content areas, and process skills are also addressed.
663. **Atypical Gifted Students.** 3 hrs. This course encompasses the assessment and identification, characteristics, and delivery of services for diverse groups within gifted education including the culturally diverse, rural, disabled, female, low socioeconomic, underachiever and highly gifted populations.
664. **Practicum with Gifted Students.** 3 hrs. Supervised practicum with gifted students in a variety of instructional settings. The development of appropriate instruction, attention to individual differences, and evaluation of student progress are also included.
678. **Assessment and Intervention for Handicapped Children 0-5.** 3 hrs. Current issues and theories regarding assessment and intervention procedures for at-risk and handicapped young children, birth through 5.
680. **Advanced Practicum in Special Education.** 3-9 hrs. Practicum for master's degree students unique to individual program plans. The experience will focus on assessment, curriculum, and/or other issues related to exceptional individuals.
688. **Medical Aspects of Developmental Disabilities.** 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.
691. **Research in Special Education.** 1-16 hrs.
692. **Special Problems.** 1 hr. Examination of medical, sociological, biological, psychological, and institutional aspects of exceptional children.
698. **Masters Thesis.** 6 hrs. A scholarly project conducted in the student's area of specialization.
700. **Issues in Special Education.** 1 hr. A study of current theories, models, programs, and reports in special education. Open to non-majors.
709. **Assessment of Exceptional Individuals.** 3 hrs. Formal and informal assessment techniques, including diagnostic-prescriptive teaching strategies, to appropriately meet the needs of students.
770. **Administration and Supervision of Programs for Exceptional Children.** 3 hrs. Designed for educators and supervisors of programs for exceptional children; organization and administration of programs for exceptional children.
772. **Internship in Special Education Administration.** 1-6 hrs. To provide internship experience for specialist and doctoral students in Special Education Administration, institutions, state department.
791. **Research in Special Education.** 1-16 hrs. Prerequisite: Approval of the major professor. To be conducted in the student's area of specialization.
792. **Special Problems.** 3 hrs.
794. **Specialist Field Study.** 1-6 hrs. A practical project conducted in the student's area of specialization that may be selected as the culminating requirement of the specialist degree.
797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
801. **Personnel Preparation in Special Education.** 3 hrs. Development of programs, courses of study, observation techniques, models, micro-teaching units, modules in higher education.
802. **Public Relations, Service, and Leadership in Special Education.** 3 hrs. Inservice training units, conference planning, workshop, parent and national organizations.
803. **Program Evaluation and Grant Writing in Special Education.** 3 hrs. Study of program accountability modes, grant writing, and sources.
804. **Research in Special Education.** 3 hrs. Emphasis is placed on the review, development, preparation, and submission for publication of research manuscripts in the student's area of specialization.
880. **Internship in Teacher Education.** 1-6 hrs. Individual cases are tested by students and all available information is integrated for diagnostic and educational purposes.
898. **Dissertation.** 12 hrs.

Speech Communication (SCM)
See course listing under Communication.

Speech and Hearing Sciences (SHS)

510. **Intervention in Language Disorders.** 3 hrs. Strategies and clinical methods used in habilitation/rehabilitation of language disordered children and adults.
512. **Diagnostic Procedures: Speech Pathology I.** 3 hrs. Prerequisites: SHS 211, 411. Current evaluation procedures in speech-language pathology.
513. **Voice Disorders.** 3 hrs. Prerequisites: SHS 211, 403. Anatomical and physiological bases of voice production and the disorders.
516. **Adult Aphasia and Related Problems.** 3 hrs. Prerequisites: SHS 211, 403, 406 or permission. Presents theory, research findings, and basic therapy methods for neurogenic communicative disorders.
517. **Speech and Language Disorders Related to Cleft Palate.** 3 hrs. Prerequisites: SHS 211, 403 or equivalents. Multidisciplinary management of children and adults with cleft palate is presented.
518. **Advanced Clinical Methods.** 3 hrs. Students engage in an in-depth study of the use of specific treatment and/or diagnostic procedures.
519. **Organic Speech Disorders.** 3 hrs. This course surveys symptomology, etiology, and treatment procedures for organic speech disorders.
521. **Aural Rehabilitation.** 3 hrs. Prerequisite: SHS 221 or equivalent. Covers the management of clients with hearing loss from infants through the elderly.
522. **Diagnostic/Prescriptive Teaching of the Hearing Impaired.** 3 hrs. Presents task analysis, informal test construction and formal assessment for hearing impaired.
525. **Psycho-Social Factors Associated with Hearing Impairment.** 3 hrs. Prerequisite: Permission of instructor. Emphasizes psycho/social growth and development of deaf children.
528. **Clinical Audiology I.** 3 hrs. Prerequisite: SHS 221. Presents concepts in acoustics, calibration standards and basic audiological tests.
530. **Speech Pathology and the Hearing Impaired Child.** 3 hrs. Reviews speech and language problems, and describes methods for management.
531. **Language Disorders I: Assessment of Children with Language Disorders.** 3 hrs. Differentiates normal, disordered, and deviant language with remedial procedures.
532. **Language Disorders II: Habilitation of the Aphasic Child.** 3 hrs. A multisensory intervention program for auditory processing and communication disorders.
533. **Developing Language Skills with the Hearing Impaired.** 3 hrs. Presents development of language by hearing impaired children.
536. **Developing Reading in the Hearing Impaired.** 3 hrs. Prerequisite: SHS 433 or permission. The reading process, diagnostic-prescriptive teaching, and evaluation of reading skills are discussed.
538. **Problems in Academic Subjects for the Hard-of-Hearing and Deaf.** 3 hrs. Prerequisites: SHS 433, 434, 436. Stresses the need for continuous, consistent and coordinated academic programs.
597. **Professional Collaboration for Developmental Disability Services.** 3 hrs. Study of the interdependent contributions of relevant disciplines in training, service, and research.
598. **Families of the Developmentally Disabled.** 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.
599. **British Studies: Comparative Problems in Speech and Hearing Sciences.** 3-6 hrs. Offered abroad under the auspices of the Institute of Anglo-American Studies.
601. **Designs in Research for Speech and Hearing.** 3 hrs. Statistical procedures concerning group and single-subject designs.
602. **Current Topics in Speech and Hearing Sciences.** 3 hrs. Varies each time the course is offered.
621. **Hearing Aids.** 3 hrs. Prerequisite: SHS 221 or permission. Presents components of electroacoustic characteristics of hearing aids and their use.
623. **Clinical Audiology II.** 3 hrs. Prerequisite: SHS 528 or permission. Special auditory tests used to determine the site of lesion of hearing loss.
625. **Audiological Instrumentation.** 3 hrs. Prerequisite: SHS 221 or permission. Covers basic electronics, auditory function measurements, research, and computer use.
633. **School Curricula for the Hearing Impaired.** 3 hrs. Prerequisites: SHS 433, 436, 437. Curricula analysis and review are stressed (majors only).
641. **Medical Diagnosis and Treatment of Speech and Hearing Pathologies.** 1-4 hrs. Prerequisite: permission. Provides opportunities for observation of operations on the auditory or speech mechanism.

642. **Communication Problems of the Aged.** 3 hrs. Prerequisite: permission. Reviews changes in speech, language and hearing associated with aging; presents rehabilitative strategies used with the population.
643. **Evaluation and Treatment of Dysphagia in Adults.** 3 hrs. Prerequisite: permission of instructor. Covers the speech-language pathologist's role in the diagnosis and treatment of swallowing disorders in adults.
644. **Augmentative Communication.** 3 hrs. Methods for providing communication ability using augmentative communication devices and procedures to persons unable to speak.
646. **Multicultural Issues in Communication Disorders.** 3 hrs. Presents information about speech and language development and disorders from a multicultural perspective.
648. **Motor Speech Disorders.** 3 hrs. Covers evaluation and treatment of motor speech disorders associated with lesions of the central nervous system.
650. **Traumatic Brain Injury and Communication Disorders.** 3 hrs. Covers evaluation and treatment of speech and language disorders resulting from traumatic brain injury and neurological disease.
687. **Practicum in Speech-Language Pathology.** 1-9 hrs. Prerequisite: Regular full-time graduate status and permission. Students participate in diagnosis and treatment of children and adults with speech-language disorders.
688. **Practicum in Audiology.** 1-9 hrs. Prerequisite: Regular graduate admission and permission. Students participate in diagnosis and treatment of children and adults with hearing disorders.
689. **Practicum in Education of the Deaf.** 1-9 hrs. Prerequisite: Regular graduate admission and permission. Students participate in habilitative and learning activities with deaf children and adults.
692. **Special Problems.** 1-6 hrs. Prerequisite: permission. Students completing Plan B paper should register for three (3) hours.
694. **Off-Campus Practicum in Speech and Hearing Sciences.** 1-9 hrs. Prerequisite: permission. Students are assigned to medical, institutional, private practice, or clinical settings for supervised experience.
695. **Student Teaching Off-Campus Practicum.** 1-9 hrs. Prerequisite: permission. Students participate in supervised management of speech/language impaired school children.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 3-6 hrs. for a total of 6 hrs.
701. **Seminar in Psychoacoustics.** 3 hrs. Presents methods for studying perception of acoustic signals, detection of stimuli, perception of loudness, and pitch.
702. **Seminar in Language Problems.** 3 hrs. Language pathologies, evaluation procedures, and treatment methods are studied.
703. **Quantitative Methods.** 3 hrs. Enrollment suspended.
711. **Seminar in Aphasia and Related Disorders.** 3 hrs. Etiologies, evaluations in Neurolinguistics and current treatment procedures are presented.
712. **Seminar in Articulation Disorders.** 3 hrs. Current theories, diagnostic procedures, and therapeutic methodologies in articulation and phonology are studied.
713. **Seminar in Cerebral Palsy.** 3 hrs. Current etiologies, evaluation procedures, and treatment techniques are considered.
714. **Seminar in Cleft Palate.** 3 hrs. Students review the current research and interdisciplinary management of cleft lip and palate individuals.
715. **Seminar in Clinical Counseling in Speech-Language Pathology and Hearing.** 3 hrs. Therapeutic communication techniques, interview techniques, and counseling theories are studied.
716. **Seminar in Stuttering and Related Disorders.** 3 hrs. Advanced study of theories, research and remedial procedures related to fluency disorders.
717. **Seminar in Voice Disorders.** 3 hrs. Advanced study of pathologies, diagnosis, procedures, and remedial methods for voice and resonance problems.
718. **Seminar in Psychology of the Deaf and Speech Handicapped.** 3 hrs. Effects of disordered communication on life styles are studied.
719. **Seminar in Problems and Procedures in Evaluating Children.** 3 hrs. The weaknesses and strengths of standardized tests are discussed.
722. **Seminar in Pediatric Audiology.** 3 hrs. Emphasizes behavioral and objective audiological evaluation of infants and young children.

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- 723. **Seminar in Electroacoustic Measurements in Hearing.** 3 hrs. Administration and interpretation of electrophysiological auditory measurements.
- 724. **Seminar in Industrial Hearing Conservation.** 3 hrs. Presents effects of noise exposure on the auditory mechanism, measurement of noise, and legislation related to industrial hearing conservation.
- 726. **Auditory Perceptual Disorders.** 3 hrs. Theories and tests are studied.
- 727. **Seminar: Association Method.** 3 hrs. Prerequisite: permission. Evaluation, management plans and intervention techniques for language disordered children are presented.
- 730. **Language Intervention with Infants.** 3 hrs. Current research in infant language development and intervention are explored.
- 763. **Laboratory in Speech Pathology.** 1-3 hrs. Students conduct supervised laboratory research using instruments.
- 764. **Laboratory in Language Disorders.** 1-3 hrs. Specialized testing procedures are learned.
- 791. **Research in Speech and Hearing Sciences.** 1-16 hrs. Prerequisite: permission. Teaches advanced research procedures.
- 792. **Special Problems.** 3 hrs. Content varies.
- 797. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of dissertation but who are actively working on a dissertation, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
- 898. **Dissertation.** 12 hrs.

Technical and Occupational Education (TOE)

- 500. **Facility Planning and Equipment Selection.** 3 hrs. A study of facility layout, equipment specifications, cost analysis and procurement procedures.
- 533. **Curriculum Construction for Cooperative Education.** 3 hrs. Objectives, content, and arrangement of units for teaching cooperative and evening classes.
- 541. **Philosophy and Principles of Occupational Instruction.** 3 hrs. A methods course for teaching trade, technical and other vocational subjects.
- 542. **Management of the Occupational Learning Environment.** 3 hrs. Organization and management of students, equipment, and physical facilities.
- 543. **Design of the Occupational Based Instruction Program.** 3 hrs. Occupational analysis based design and sequencing of instructional components and the development of appropriate support materials.
- 544. **Development of Occupational Instruction Materials.** 3 hrs. Selection, development and use of instructional aids, with an emphasis on media production.
- 545. **Delivery of the Occupational Instruction Program.** 3 hrs. Learning theory based techniques of instructional delivery in the vocational classroom and laboratory.
- 546. **Evaluation of Occupational Training and Learner Performance.** 3 hrs. Development and utilization of various measuring devices and techniques, statistical treatment of data, and generation of evaluative reports.
- 547. **Industrial Human Relations.** 3 hrs. A study of human behavior and interpersonal dynamics within the industrial organization and environment. Primarily for industrial educators.
- 548. **Industrial and Vocational Safety.** 3 hrs. Analysis of fundamentals of accident prevention and their application in school shops.
- 552. **History and Philosophy of Vocational Education.** 3 hrs. Objectives, principles, aims, and organization of programs in schools and colleges.
- 553. **Problems of the Coordinator.** 3 hrs. A study of the problems, procedures, techniques, etc., in the operation of part-time cooperative education.
- 565. **Microcomputer Applications in Technical Education.** 3 hrs. Skill development in the use of microcomputers and software appropriate to teaching and managing industrial, vocational, and technical education activities.
- 567. **Desktop Publishing & Presentation Graphics.** 3 hrs. Prerequisite: Any 3 hr. computer course or permission of instructor. Office-based microcomputer production of typeface/graphics enhanced media, designed to be both pleasing in appearance and effective in communication.
- 569. **Computer Based Instructional Technology.** 3 hrs. Prerequisite: Any 3 hr. computer course or permission of instructor. Interactive instructional design and applications. Introduction to hypermedia tools, authoring systems, CAI software reviews/evaluations, and hands-on interactive module production.

578. **Specialized Studies in Developmental Disabilities.** 1-6 hrs. Specialized study and skill acquisition in the area of developmental disabilities. Topics vary.
583. **Occupational Safety.** 3 hrs. Organization and administration of safety programs including implementation of the Occupational Safety and Health Act. Primarily for industrial educators.
597. **Professional Collaboration for Developmental Disability Services.** 3 hrs. Study of the interdependent contributions of relevant disciplines in training, service, and research.
605. **History of Technology & Occupational Education.** 3 hrs. A study of leaders, movements, and agencies in the development of technical and occupational education.
607. **Curriculum Design in Technology & Occupational Education.** 3 hrs. A study of the design, development and utilization of various instructional strategies and materials.
609. **Management of Instructional Technologies.** 3 hrs. Applying theories and techniques of management to the development and maintenance of instructional products and services.
611. **Philosophy and Organization of Occupational Education.** 3 hrs. Foundations and development of vocational education under national, state and local influence.
620. **Foundations of Instructional Technology.** 3 hrs. Survey of the historical aspects of instructional media. Application of research in the development of technology relating to libraries, classrooms, industry, and instruction.
636. **Designing Educational Technology Systems.** 3 hrs. Translation of instructional specifications into prototype systems.
642. **Research in Instructional Systems Technology.** 3 hrs. Research in problems of formulating objectives, analyzing audiences, using media, and evaluating educational outcomes.
644. **Instructional Development.** 3 hrs. Survey of various instructional development models for the development, revision, or revitalization of educational programs.
645. **Computers in Education.** 3 hrs. Applications of current and emerging computer technology to instructional and administrative programs from the user's point of view.
648. **Telecommunications and Networks in Education.** 3 hrs. Examines hardware, software, implementation and utilization of telecommunications and computer network technologies as they apply to education.
688. **Medical Aspects of Developmental Disabilities.** 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.
689. **Seminar in Technology Education, I, II, III.** 2 hrs. May be taken three times.
692. **Special Problems in Technical Education.** 1-3 hrs. Advanced individualized project relevant to the student's skill specialty.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
698. **Thesis.** 1-6 hrs. for a total of 6 hrs. Credit deferred until thesis is completed.
701. **Supervision of Vocational and Technical Education.** 3 hrs. A study of the problems of local directors and supervisors of vocational and technical education.
702. **Individualized Instruction in Vocational Technical Education.** 3 hrs. Foundations, principles, and techniques of teaching knowledge and skills on an individual basis.
703. **Contemporary Vocational and Technical Education Programs.** 3 hrs. A comparative analysis of contemporary and emerging programs in vocational education.
704. **Vocational Guidance and Placement.** 3 hrs. An overview of careers available through vocational and technical education, methods of student identification placement, and follow-up.
794. **Field Problem in Industrial and Vocational Education.** 3 hrs. Prerequisites: REF 601, REF 702, and approval of the major professor.
798. **Specialist Thesis.** 6 hrs. Utilizing research and professional knowledge in the solution of a practical educational problem. Scholarly paper required.

Theatre (THE)

501. **Costume Design.** 3 hrs. Prerequisite: Permission of instructor. Costume design in theatrical production.
510. **Stage Sound Engineering.** 3 hrs. Principles and practice in stage sound engineering.
511. **Advanced Voice for the Actor.** 3 hrs. Diction, projection, and techniques for dealing with period language.

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512. **Stage Lighting.** 3 hrs. Prerequisite: Permission of instructor. Theory and application of general and special lighting, color, instrumentation, and control.
514. **Improvisation.** 3 hrs. A performance course for actors, directors and teachers of drama, utilizing improvisation as a tool for instruction.
517. **Period Acting Styles I.** 3 hrs. Study of acting styles from ancient Greece through Shakespeare. Utilizing speech, movement, acting style, and masks.
518. **Period Acting Styles II.** 3 hrs. Study of styles of acting from restoration through 1900. Utilizing speech, movement, and acting style.
527. **Survey of Theatre History.** 3 hrs. A survey of the history of Western theatre.
528. **Historic Theatre Production.** 3 hrs. A survey of historic theatre production techniques.
530. **Summer Theatre I.** 3 hrs. Prerequisite: Permission of staff. Concentrated applied theatre.
531. **Summer Theatre II.** 3 hrs. Continuation of THE 530.
533. **Design Studio I.** 3 hrs. Rendering commonly used theatrical materials.
534. **Design Studio II.** 3 hrs. Scenographic techniques.
550. **The Audition Process.** 3 hrs. Prerequisite: Permission of instructor, audition, or advanced scene study. Methods and techniques needed to audition and interview for the professional theatre.
551. **The Rehearsal Process.** 2 hrs. Prerequisite: Permission of instructor, audition, or advanced scene study. Participation in the dissection and analysis of the rehearsal process from casting through performance.
571. **Performance and Production Internship.** 1-9 hrs. Professional experience in student's area of emphasis received while in residence with an approved professional organization.
581. **Repertory Theatre.** 3-9 hrs. Participation in the analysis and preparation of the performances of four plays in repertory. Daily and nightly involvement (approximately ten hours per day) in theatre workshops (voice, movement, or technical theatre) and in rehearsals for the plays. (Must enroll in three 3-hour sections.)
597. **Theatre Exchange Studies Abroad.** 9-15 hrs. Opportunity to study theatre for one semester in an approved exchange program abroad. Offered under auspices of Center of International Education.
599. **British Studies in Theatre.** 3-6 hrs.
601. **Script Analysis.** 3 hrs. A course in script analysis for actors, directors, and designers.
603. **Advanced Stage Movement.** 2 hrs. An advanced level course in stage movement, stylized movement and stage combat.
606. **Dramatic and Performance Theory.** 3 hrs. A survey of the theoretical relationships of dramatic literature and criticism to the creative process.
611. **Seminar: Contemporary Trends in Theatre.** 3 hrs. An in-depth examination of a specific post-modern dramatist, a complete canon as a reflection of the drama in modern society.
612. **Seminar in Theatre Production.** 3 hrs. A seminar in the integration of research skills into the creative process. Research will encompass historical, critical, biographical, and anthropological fields. The course is designed to include all MFA disciplines.
613. **Seminar in Theatre Design and Structure.** 3 hrs. Research in architectural and acoustical design, lighting, audience arrangement, decor, function, and stage requirements.
614. **Seminar in Acting and Directing.** 3 hrs. An in-depth study of the relationship of the creative processes generated by the actor and the director to methods of production.
616. **Advanced Scene Study.** 3 hrs. Advanced scene study and improvisation techniques including classic, absurdist, surrealist and verse drama.
620. **Advanced Directing.** 3 hrs. An advanced level course in stage directing techniques, including directing classical periods and styles.
626. **Scenic Design.** 3 hrs. Elements of scene design. Play analysis in terms of visualization and style and the mechanics of developing an effective stage setting.
635. **Advanced Scene Design.** 3 hrs. An advanced course in scenography including design techniques applicable to selected period styles. Emphasis placed on scenic design as an element of a total production concept.
645. **Advanced Stage Lighting.** 3 hrs. Advanced stage lighting techniques including stylization and danced lighting. Lighting considered as part of a total production concept.
660. **Advanced Costume Design.** 3 hrs. Costume design as an element of a total production concept. Projects in designing costumes for plays, opera and dance.
661. **Advanced Theatrical Makeup.** 3 hrs. Advanced projects in makeup design and execution. Emphasis placed on three-dimensional makeup techniques for theatre, television and film.

- 679L. **Practicum in Box Office and Publicity.** 1-3 hrs. May be taken for a total of nine (9) hours.
680. **Graduate Design Studio.** 2 hrs. Repeatable for a total of twelve hours. Advanced design techniques. Emphasis on combining textual analysis, design research, rendering and design decision making through the creative process.
- 681L. **Practicum in Acting and Directing.** 1-3 hrs. May be taken for a total of nine (9) hours.
- 682L. **Practicum in Costume and Makeup Technology.** 1-3 hrs. May be taken for a total of nine (9) hours.
- 683L. **Practicum in Technical Theatre.** 1-3 hrs. May be taken for a total of nine (9) hours.
- 684L. **Practicum in Lighting and Sound Engineering.** 1-3 hrs. May be taken for a total of nine (9) hours.
- 685L. **Practicum in Properties.** 1-3 hrs. May be taken for a total of nine (9) hours.
- 686L. **Practicum in Design.** 1-3 hrs. May be taken for a total of nine (9) hours.
- 687L. **Practicum in Dance and Movement.** 1-3 hrs. May be taken for a total of nine (9) hours.
690. **Graduate Acting Studio.** 2 hrs. Repeatable for a total of twelve hours. Advanced acting techniques. Emphasis on combining textual analysis, movement, vocal and advanced acting techniques through the creative process.
691. **Research in Theatre.** 1-16 hrs. A written prospectus and timetable must be submitted and approved by a graduate faculty member before enrolling.
692. **Special Problems I, II, III.** 1-3 hrs. each. Investigation into specialized area of interest in the MFA student's discipline. Proposals with timetable must be submitted and approved by a graduate faculty member before enrolling.
696. **Practicum in Theatre I, II, III.** 3 hrs. each. Students participate in the University Theatre production process in a significant area of responsibility. THE 696 may be taken three times for a total of nine hours. THE 696 may be taken three times for a total of nine hours.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor and/or using other resources of the University may enroll in this course. Students who are not in residence and are not enrolled in, at least, 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, and/or using other resources of the University must enroll in this course for at least 3 hours each semester.
699. **Creative Project.** 1-8 hrs.

Therapy (THY)

511. **Introduction to Kinesiotherapy.** 3 hrs. An introduction to the theory of organizing and conducting kinesiotherapy as it applies to physical and mental rehabilitation.
512. **Kinesiotherapy I.** 3 hrs. Prerequisites: BSC 250 and 251; HPR 303, 370, and 374; THY 511. Emphasis placed on physical evaluation procedures of spine and extremities, musculoskeletal function, goniometry and gait analysis.
513. **Kinesiotherapy II.** 3 hrs. Prerequisites: HPR 308; THY 512 and 551. Rehabilitation as a part of the comprehensive medical core and its application in restoration of physical and mental impairments toward functional independence.
521. **Clinical Experience.** 1-4 hrs. Arr. A supervised internship in various habilitation, rehabilitation or neuropsychiatric clinics. May be repeated.
551. **Neurological and Pathological Foundations in Kinesiotherapy.** 3 hrs. The introductory study of neuroscience and pathology of diseases commonly encountered by kinesiotherapists.
561. **Kinesiotherapy and Rehabilitation Medicine.** 2 hrs. An introduction to the basic concepts and considerations necessary for effective functioning in the clinical setting.
562. **Spinal Cord Injuries and Muscle Disorders.** 2 hrs. A review of normal and abnormal functioning of the motor pathways with emphasis on evaluation and rehabilitation of specific motor disorders and spinal cord injuries.
563. **Normal Human Locomotion.** 2 hrs. An indepth analysis of normal human locomotion and its impact on ambulation training, prosthesis gait deviations and blind mobility training.
564. **Cardiovascular and Respiratory Disorders.** 2 hrs. A review of normal and abnormal functioning and rehabilitation programs for cardiovascular and respiratory disorders.
571. **Accelerated Kinesiotherapy Rehabilitation Ward Program.** 2 hrs. An introduction to the basic concepts and treatment procedures used in accelerated rehabilitation ward programs.
572. **Dynamics of Psychiatric Group Rehabilitation Programs.** 2 hrs. The complexities in directing neuropsychiatric group activities.
573. **Neuro-Psychiatric Geriatric Training.** 2 hrs. An introduction to the multi-problem areas of communication with motivating and treating the geriatric, neuropsychiatric patient.
574. **Programs for the Severely Disturbed Psychiatric Patient.** 2 hrs. An introduction to the problems of treating the psychiatric patient in a locked ward setting.

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578. **Specialized Studies in Developmental Disabilities.** 1-6 hrs. Specialized study and skill acquisition in the area of developmental disabilities. Topics vary.
597. **Professional Collaboration for Developmental Disability Services.** 3 hrs. Study of the interdependent contributions of relevant disciplines in training, service, and research.
598. **Families of the Developmentally Disabled.** 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.
678. **Assessment and Intervention for Handicapped Children 0-5.** 3 hrs. Current issues and theories regarding assessment and intervention procedures for at-risk and handicapped young children, birth through 5.
688. **Medical Aspects of Developmental Disabilities.** 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.

Toxicology (TOX)

570. **Toxicology.** 3 hrs. Prerequisite: CHE 256. A one semester survey course in toxicology.

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STANDARDIZED TEST SCORES MASTER'S LEVEL

Standardized tests are only one measure of admission to USM. Successful applicants for regular admission in the past three (3) years have had a range and mean (in parentheses) of test scores (GRE, GMAT, NTE or MAT) as follows:

	GRE			NTE			GMAT		MAT
	verbal	quantitative	analytical	professional	general	communication	verbal	quantitative	
COLLEGE OF THE ARTS									
Art	370-620 (446)	380-510 (456)							
School of Music	380-700 (507)	330-690 (506)							
Theatre	360-650 (504)	350-670 (471)							
COLLEGE OF BUSINESS ADMINISTRATION									
Accountancy (MPA)							17-63 (30)	13-76 (31)	
Business Administration (MBA)							10-45 (29)	11-51 (33)	
COLLEGE OF EDUCATION & PSYCHOLOGY									
Adult Education	410-630 (498)	310-770 (514)		656-671 (666)	652-673 (662)	652-675 (664)			41-81 (58)
Curriculum & Instruction	310-660 (491)	310-750 (551)							29-88 (55)

Test Scores

Test Scores

MASTER'S LEVEL

	GRE			NTE			GMAT			MAT
	verbal	quantitative	analytical	professional	general	communication	verbal	quantitative		
Educational Administration & Supervision	270-650 (459)	320-770 (5213)		643-679 (663)	643-685 (662)	642-680 (664)			31-90 (52)	
Psychology (School Counseling)**	330-750 (519)	260-780 (560)		648-676 (6632)	649-680 (661)	650-677 (665)			39-72 (49)	
Special Education	270-700 (454)	250-700 (457)		644-680 (664)	642-684 (658)	647-679 (662)			45-72 (62)	
Instructional Technology*	300-680 (463)	340-740 (529)		638-678 (660)	637-683 (659)	644-674 (663)			45-78 (57)	
COLLEGE OF HEALTH & HUMAN SCIENCES										
Center for Community Health	240-740 (474)	360-800 (565)								
Human Performance	310-650 (444)	410-760 (550)								
Recreation	310-570 (450)	410-760 (561)								
School of Family & Consumer Science	260-660 (458)	360-800 (533)								
School of Nursing	350-680 (479)		330-700 (529)							
School of Social Work	340-700 (496)	290-670 (476)								

**Psychology—only School Counseling uses NTE or MAT

*N<5 *New Program

MASTER'S LEVEL

	GRE		NHE				GMAT		MAT
	verbal	quantitative	analytical	professional	general	communication	verbal	quantitative	
COLLEGE OF LIBERAL ARTS									
Anthropology	360-720 (541)	320-770 (565)							
Criminal Justice	300-760 (482)	360-730 (503)							
English	420-780 (596)	310-800 (545)							
Foreign Languages	320-790 (526)	320-790 (523)		646-680 (665)	645-686 (665)	645-683 (668)			38-85 (48)
Geography	300-760 (479)	340-800 (556)							
History	420-780 (556)	340-790 (529)							
Philosophy & Religion	380-720 (562)	410-800 (637)							
Political Science	300-690 (501)	260-710 (491)							
Speech & Hearing Sciences	320-650 (457)	340-710 (516)							
School of Communication	360-690 (526)	350-800 (547)							
School of Library & Information Science	330-800 (534)	330-800 (530)							

Test Scores

MASTER'S LEVEL

	GRE			NIE			GMAT			MAT
	verbal	quantitative	analytical	professional	general	communication	verbal	quantitative		
COLLEGE OF SCIENCE & TECHNOLOGY										
Biological Sciences	380-720 (533)	500-800 (662)								
Chemistry	290-670 (461)	430-790 (609)								
Engineering Technology	260-670 (466)	250-790 (677)								
Geology	290-540 (455)	340-770 (595)								
Marine Sciences	370-740 (516)	460-800 (641)								
Mathematics	260-780 (454)	380-800 (699)								
Medical Technology	330-550 (440)	370-800 (596)								
Physics	260-700 (466)	630-800 (760)								
Polymer Science	350-720 (517)	480-800 (665)								
Science Education	370-510 (440)	370-730 (564)		649-672 (662)	646-679 (666)	651-679 (665)				

Test Scores

DOCTORAL LEVEL

Standardized tests are only one measure of admission to USM. Successful applicants for regular admission in the past three (3) years have had a range and mean (in parentheses) of test scores (GRE, GMAT, NTE or MAT) as follows:

	GRE			NTE			GMAT			MAT
	verbal	quantitative	analytical	professional	general	communication	verbal	quantitative		
COLLEGE OF THE ARTS										
School of Music	300-680 (516)	440-630 (531)								
COLLEGE OF EDUCATION & PSYCHOLOGY										
Curriculum & Instruction	350-700 (544)	420-800 (612)								
Educational Administration	360-710 (540)	350-770 (568)								
Psychology	360-780 (558)	420-800 (593)								
Special Education	380-550 (482)	400-690 (536)								
COLLEGE OF HEALTH & HUMAN SCIENCES										
Human Performance Ed.D.	380-520 (428)	460-760 (657)								
Human Performance Ph.D.	350-720 (485)	460-800 (617)								
Nutrition and Food Systems	410-600 (488)	470-760 (556)								

Test Scores

Test Scores

DOCTORAL LEVEL

	GRE			NHE			GMAT		MAT
	verbal	quantitative	analytical	professional	general	communication	verbal	quantitative	
COLLEGE OF LIBERAL ARTS									
English	400-800 (606)	320-780 (528)							
History	480-780 (581)	280-780 (547)							
School of Communication	400-710 (544)	350-750 (534)							
COLLEGE OF SCIENCE & TECHNOLOGY									
Biological Sciences	290-660 (511)	500-800 (666)							
Chemistry	390-750 (553)	570-780 (708)							
Marine Sciences	350-680 (521)	540-780 (703)							
Polymer Science	360-600 (480)	660-750 (690)							
School of Mathematical Sciences	290-680 (479)	540-800 (739)							
Science Education	430-630 (507)	550-780 (692)							

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