## COURSE DESCRIPTIONS

### INDEX FOR ABBREVIATIONS FOR FIELDS OF INSTRUCTION

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<td>ACC</td>
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<td>ACT</td>
<td>Architectural Engineering</td>
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<td>ADE</td>
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<td>AEC</td>
<td>Architecture-Engineering</td>
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<td>AJ</td>
<td>Administration of Justice</td>
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<td>BCT</td>
<td>Construction Engineering</td>
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<td>BSC</td>
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<td>BTE</td>
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<td>CD</td>
<td>Child Development</td>
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<td>CED</td>
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<td>CET</td>
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<td>CHE</td>
<td>Chemistry and Biochemistry</td>
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<td>CHS</td>
<td>Community Health Sciences</td>
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<td>CIE</td>
<td>Curriculum and Instruction: Elementary</td>
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<td>CIR</td>
<td>Curriculum and Instruction: Reading</td>
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<td>CIS</td>
<td>Curriculum and Instruction: Secondary</td>
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<tr>
<td>CISE</td>
<td>Curriculum, Instruction, and Special Education</td>
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<tr>
<td>COA</td>
<td>Coastal Sciences</td>
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<td>COH</td>
<td>College of Health</td>
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<tr>
<td>COS</td>
<td>Computational Science</td>
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<td>CS</td>
<td>Computer Science (Gulf Coast)</td>
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<td>CSC</td>
<td>Computer Science</td>
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<td>CSS</td>
<td>Computer Science and Statistics</td>
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<td>DAN</td>
<td>Dance</td>
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<td>ECO</td>
<td>Economics</td>
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<td>ED</td>
<td>Economic Development</td>
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<td>EDA</td>
<td>Educational Administration</td>
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<td>EET</td>
<td>Electronics Engineering</td>
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<td>ENG</td>
<td>English</td>
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<td>ESC</td>
<td>Environmental Science</td>
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<td>FAM</td>
<td>Family Studies</td>
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<td>FCS</td>
<td>Family and Consumer Sciences</td>
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<td>FIN</td>
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<td>FL</td>
<td>Foreign Languages</td>
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<td>FML</td>
<td>Film</td>
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<td>FMA</td>
<td>Fashion Merchandising</td>
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<td>FRE</td>
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<td>FSC</td>
<td>Forensic Science</td>
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<td>GER</td>
<td>German</td>
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<td>GHY</td>
<td>Geography</td>
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<td>GLY</td>
<td>Geology</td>
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<td>GRK</td>
<td>Greek</td>
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<td>GS</td>
<td>General Studies</td>
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<td>HE</td>
<td>Higher Education Administration</td>
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<td>HIS</td>
<td>History</td>
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<td>HM</td>
<td>Hospitality Management</td>
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<td>Human Performance and Recreation</td>
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<td>HYD</td>
<td>Hydrographic Science</td>
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<td>IB</td>
<td>International Business</td>
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<td>ID</td>
<td>Interior Design</td>
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<td>IDV</td>
<td>International Development</td>
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<td>IET</td>
<td>Industrial Engineering Technology</td>
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<td>IT</td>
<td>Instructional Technology</td>
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<td>ITA</td>
<td>Italian</td>
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<td>ITC</td>
<td>Information Technology</td>
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<td>LAT</td>
<td>Latin</td>
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<td>LIS</td>
<td>Library and Information Science</td>
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<td>MAR</td>
<td>Marine Science</td>
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<td>MAT</td>
<td>Mathematics</td>
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<td>MBA</td>
<td>Master of Business</td>
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<td>HEA</td>
<td>Higher Education Administration</td>
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<td>MCG</td>
<td>Mass Communication</td>
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<td>MCL</td>
<td>Mass Communication and Journalism</td>
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<td>MED</td>
<td>Music Education</td>
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<td>MGT</td>
<td>Management</td>
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<td>MIS</td>
<td>Management Information Systems</td>
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<td>MKT</td>
<td>Marketing</td>
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<td>M-REP</td>
<td>Mathematics Refresher and Enrichment Program</td>
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<td>MTC</td>
<td>Medical Technology</td>
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<td>MUP</td>
<td>Music Performance Studies</td>
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<td>Music</td>
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<td>NFS</td>
<td>Nutrition and Food Systems</td>
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<td>NSG</td>
<td>Nursing</td>
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<td>Philosophy</td>
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<td>PLS</td>
<td>Planning</td>
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<td>PS</td>
<td>Political Science</td>
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<td>PSC</td>
<td>Polymer Science</td>
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<td>PSY</td>
<td>Psychology</td>
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<td>REF</td>
<td>Research and Foundations</td>
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<td>REI</td>
<td>Real Estate and Insurance</td>
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<td>REL</td>
<td>Religion</td>
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<td>SCM</td>
<td>Speech Communication</td>
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<td>SHS</td>
<td>Speech and Hearing Sciences</td>
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<td>SME</td>
<td>Science and Mathematics Education</td>
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<td>SWK</td>
<td>Social Work</td>
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<td>THE</td>
<td>Theatre</td>
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<td>THY</td>
<td>Therapy</td>
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<td>TOE</td>
<td>Technical and Occupational Education</td>
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<tr>
<td>TSL</td>
<td>Teaching English to Speakers of Other Languages</td>
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<td>WS</td>
<td>Women's Studies</td>
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<td>WTD</td>
<td>Workforce Training Development</td>
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The plus (+) sign in front of a course indicates that a special fee is charged for that course.  
(See SPECIAL FEES AND EXPENSES in this Bulletin.)
Accounting (ACC)

511. Accounting for Decision-Making. 3 hrs. Prerequisite: Computer literacy. A conceptual study of financial and managerial accounting principles designed to enable decision makers to properly use accounting information in making decisions. 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.

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.


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. Prerequisite: ACC 320. 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 or equivalent. 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.

Administration of Justice (AJ)

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 for 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.


542. Advanced Criminal Investigation. 3 hrs. Specialized areas of investigation such as cybercrimes, interview and interrogation, statement analysis, serial crimes, and terrorism.

550. Administration of Criminal Corrections. 3 hrs. An in-depth study of administration of correctional systems, including management, the incarceration process, probation, and parole.


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.

564. Family Violence, Investigation, and Deterrence. 3 hrs. A study of child and spousal abuse within the family, emphasizing detection, investigation, and deterrence.

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.

575. Private Security: Law and Loss Prevention. 3 hrs. Basic concepts of the private security industry and the law that controls and directs the profession.

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.

582. Criminal Justice Ethics. 3 hrs. An examination of the myriad of ethical dilemmas that arise in the criminal justice system, and of tools for nurturing an ethical life.

589. Caribbean Studies. 3 hrs. A comparative study of criminal law, courts, and corrections through lectures, field exercises, and research.


600. Seminar in Theory of Criminal Justice. 3 hrs. Prerequisites: CJ 325 or equivalent, and consent of instructor. An intensive examination of the theory of justice generally, and of corrective justice in particular, exploiting the published works of leading thinkers from Plato to the present.

620. Advanced Research Methods for Criminal Justice. 3 hrs. Prerequisite: CJ 520 or consent of instructor. Research theory and methodology in criminal justice, research designs, conceptual models, design and preparation of master's thesis prospectus.

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. 1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, 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, 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.

700. Qualitative Research and Analysis. 3-6 hrs. A tutorial examining qualitative research methods, the principal theoretical literature of justice, and the role of qualitative methods in the student's area of study.

710. Research and Analysis in Legal Inquiry. 3 hrs. A tutorial examining legal research methods, the major holdings of jurists pertaining to justice administration, and the role of legal research in the student’s area of study.

720. Quantitative Research and Analysis. 3-12 hrs. A tutorial examining quantitative research methods, the leading studies in justice administration, and the role of quantitative methods in the student’s area of study.


740. Administration of Justice. 3 hrs. Prerequisite: CJ 535 or CJ 550. Survey of administration and management patterns in justice administration.
Independent Study and Research. 3-12 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester.

Dissertation. 1-12 hrs. Prerequisites: AJ 700, 710, 720 and completion of all doctoral cognates.

Adult Education (ADE)

Methods and Materials in Adult Education. 3 hrs. A course in teaching methods and the format of instructional materials for adults with emphasis on self-instructional techniques.

Foundations of Adult Literacy Instruction. 3 hrs. This course involves an examination of the basis of reading instruction for the low literate adult.

Methods and Materials for Adult Literacy Education. 3 hrs. Instructional and diagnostic materials and methods for dealing with functionally illiterate adults.

Sociocultural Context of Adult Education. 3 hrs. A study of education for adults whose educational experiences were not priviledged, including adults with language, literacy, and numeracy needs; adults with disabilities; some ethnic and migrant groups; economically disadvantaged adults; and adults who have experienced violence and/or abuse.

Learning in Adult Education. 3 hrs. A study of adult development and adult learning theories.

Applied Educational Gerontology. 3 hrs. This course prepares individuals to design and implement educational programs for older adults.

Special Problems in Adult Education. 1-3 hrs. Special areas of interest arranged for an individual or a group with common interests.

Foundations of Adult Education. 3 hrs. A survey of the history, philosophies, form, structure, and current developments in the field of adult education.

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.

Human Resource Development as a Special Form of Adult Education. 3 hrs. This course explores human resource development in organizations with a focus on adult learning taking place in business, government, and non-profit entities.

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.

Issues in Adult Education. 3 hrs. Examination of contemporary issues related to the education and learning of adults in a seminar format.

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.

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.

Internship in Adult Education. 3-6 hrs. A direct work experience in an adult education setting unrelated to student’s employment.

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.

Education and the Older Adult. 3 hrs. A study of the older adult and the implications of those characteristics for adult education programs.

Readings in Adult Education. 3 hrs. Students select readings in the adult education literature for discussion in a seminar format.

Research in Adult Education. 1-16 hrs. Prerequisite: Approval of the major professor.

Special Problems. 3 hrs.

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 chair.

Independent Study and Research. 3 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester.
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 Center for International and Continuing Education.

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.

524. Religion and Healing. 3 hrs. This course studies several examples of religious healing practices found in ethnographic literature creating a dialogue between indigenous and academic theories of healing.

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, and mental illness.

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. Advanced Prehistoric Analysis. 3 hrs. Corequisite: ANT 531L. Overview of analytical techniques and prehistoric technologies.

531L. Advanced Prehistoric Analysis Laboratory. 1 hr. Laboratory to accompany Advanced Prehistoric Analysis (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. 3-6 hrs. Methods of fieldwork through participation in organized field projects.

537. Heritage Resources and Public Policy. 3 hrs. The history and present state of public policy issues related to archaeological and historic resources, and 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.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>593</td>
<td>Irish Studies</td>
<td>4 hrs.</td>
<td>Variable content. Lecture series and study in Ireland under the auspices of International Programs.</td>
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<tr>
<td>594</td>
<td>Topics in Caribbean Anthropology</td>
<td>4 hrs.</td>
<td>Variable content; lecture series, study, and fieldwork (archaeological and ethnographic) in the Caribbean under the auspices of International Programs.</td>
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<tr>
<td>599</td>
<td>British Studies</td>
<td>3-6 hrs.</td>
<td>Variable content. Lecture series and research offered abroad under the auspices of International Programs.</td>
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<tr>
<td>601</td>
<td>Teaching Anthropology</td>
<td>1-3 hrs.</td>
<td>An in-depth examination of the resources and techniques of introducing undergraduates to the discipline of anthropology. May be repeated three times.</td>
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<tr>
<td>602</td>
<td>Researching Anthropology</td>
<td>3 hrs.</td>
<td>This course covers research and writing for professional anthropologists. Formulating hypotheses, collecting and analyzing data, and reporting are stressed. May be repeated for up to six (6) credit hours.</td>
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<tr>
<td>605</td>
<td>Presenting Heritage I</td>
<td>3 hrs.</td>
<td>This course is the first of a two-part seminar (with 606) on public history, folklore, and anthropology. It emphasizes theory and method in public presentation to prepare students for public sector employment.</td>
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<tr>
<td>606</td>
<td>Presenting Heritage II</td>
<td>3 hrs.</td>
<td>This course is the second of a two-part seminar (with 605) on public history, folklore, and anthropology, emphasizing the development and management of public humanities programming.</td>
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<tr>
<td>607</td>
<td>Applied Anthropology</td>
<td>3 hrs.</td>
<td>The application of anthropology to the solution of contemporary social and cultural problems.</td>
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<td>621</td>
<td>Seminar in Ethnology</td>
<td>3 hrs.</td>
<td>A comprehensive examination of method and theory in contemporary sociocultural anthropology, focusing particularly on the problems of ethnographic production and comparative analysis.</td>
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<td>631</td>
<td>Seminar in Archaeology</td>
<td>3 hrs.</td>
<td>An in-depth examination of the method and theory of anthropological archaeology.</td>
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<tr>
<td>641</td>
<td>Seminar in Physical Anthropology</td>
<td>3 hrs.</td>
<td>A comprehensive examination of the method and theory of physical anthropology.</td>
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<tr>
<td>691</td>
<td>Cooperative Internship</td>
<td>3-9 hrs.</td>
<td>Prerequisites: Faculty approval. Supervised experience in specific professional settings arranged by the department with public agencies.</td>
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<tr>
<td>692</td>
<td>Special Problems</td>
<td>1-3 hrs.</td>
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<tr>
<td>697</td>
<td>Independent Study and Research</td>
<td>Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester.</td>
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<tr>
<td>698</td>
<td>Thesis</td>
<td>1-6 hrs.</td>
<td>for a total of 6 hrs.</td>
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<tr>
<td>792</td>
<td>Special Study Projects in Anthropology</td>
<td>1-6 hrs.</td>
<td>Special projects in reading, survey, or research in anthropology.</td>
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**Architectural Engineering Technology (ACT)**

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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>526</td>
<td>Specifications</td>
<td>3 hrs.</td>
<td>Prerequisite: Permission of instructor. An introduction to development and writing of architectural project specifications.</td>
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<tr>
<td>548</td>
<td>Modeling and Animation Applications I</td>
<td>3 hrs.</td>
<td>Prerequisite: ACT 132 or demonstrated computer-aided design and drafting experience. Computer modeling and animation developed with AutoDesk Viz.</td>
</tr>
<tr>
<td>549</td>
<td>Modeling and Animation Applications II</td>
<td>3 hrs.</td>
<td>Prerequisite: ACT 548. Advanced topics in computer modeling and animation developed with AutoDesk Viz.</td>
</tr>
<tr>
<td>550</td>
<td>Virtual Reality Applications I</td>
<td>3 hrs.</td>
<td>Comprehensive study of virtual reality techniques for real-time visualization of engineering technology topics.</td>
</tr>
<tr>
<td>551</td>
<td>Virtual Reality Applications II</td>
<td>3 hrs.</td>
<td>Study of advanced virtual reality scenebuilding techniques.</td>
</tr>
<tr>
<td>592</td>
<td>Special Problems</td>
<td>1-3 hrs.</td>
<td>Prerequisite: Senior standing and approval of faculty adviser.</td>
</tr>
<tr>
<td>605</td>
<td>Digital Imaging</td>
<td>3 hrs.</td>
<td>Processing, manipulating, and analyzing images while they are in the form of virtual discrete digital quantity.</td>
</tr>
</tbody>
</table>

**Architecture-Engineering-Construction (AEC)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>505</td>
<td>Environmental Impact Statements</td>
<td>3 hrs.</td>
<td>Preparation of environmental impact statements (EISs) for projects with significant environmental impact.</td>
</tr>
<tr>
<td>510</td>
<td>Foundations in Computer-aided Drafting and Design</td>
<td>3 hrs.</td>
<td>Fundamentals of computer use for drafting and design using commercial software.</td>
</tr>
</tbody>
</table>
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.

521. Computer-aided Design and Drafting III. 3 hrs. Prerequisite: ENT 520 or CADD experience. Advanced CADD topics applied to architectural and engineering drawing using AutoLISP.


530L. Solar Heating and Cooling Laboratory. 1 hr. Corequisite: ENT 530.

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.


550. Safety Compliance. 3 hrs. Prerequisite: Graduate standing or permission of instructor. A comprehensive overview of safety standards, regulations, concepts, and processes relating to the modern industrial workplace.

551. Fire Safety. 3 hrs. Codes and technology used in fire prevention, detection, protection, and suppression.

552. Ergonomics. 3 hrs. Standards, statutes, and technology used in ergonomic analysis of worksites. Prevention and control of ergonomic risk conditions.

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.

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.

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.

658. Problem Identification. 1 hr. Prerequisite: Permission of instructor. Identify the state-of-the-art knowledge regarding a specific problem, need or opportunity in the industry.

668. Problem Preparation. 3 hrs. Prerequisite: Permission of instructor. Develop a well grounded proposal to address a specific problem, need, or opportunity in the industry.

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.

688. Project Implementation. 3 hrs. Prerequisite: AEC 668 and permission of instructor. Implement the project according to the proposal. Max of 8hr can be applied.

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. arranged. Not to be counted as credit toward degree. Students actively working on a thesis or project, consulting with major professor, or using university resources and who are not in residence and are not enrolled in at least 3 hours. 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.

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.
Course Descriptions

531. Ancient Art History. 3 hrs. Art of the ancient world from the beginning of civilization to the fourth century.

532. Medieval Art History. 3 hrs. Art of Europe from the fourth through 14th centuries.

533. Northern Renaissance Art History. 3 hrs. Art of northern Europe during the 14th through 16th centuries.

534. Italian Renaissance Art History. 3 hrs. Art of Italy during the 14th through 16th centuries.

535. Baroque and Rococo Art History. 3 hrs. Art of Europe from the close of the 16th century through the 18th century.

536. Nineteenth Century Art History. 3 hrs.

537. Art 1900-1940. 3 hrs. Prerequisite: ART 334. An analysis of Fauvism, Expressionism, Cubism, Futurism, Dada, and Surrealism.

538. Art 1940-Present. 3 hrs. Prerequisite: ART 334. An analysis of the many trends in art in the post-World War II period.

539. Studio Art for M.A.E. Students. 3 hrs. With the permission of the studio instructor(s) students may choose from studio areas offered by the department. May be repeated.

+540. 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.

542. British Studies, Art History. 3 or 6 hrs. Variable content. Lecture series and research offered abroad under the auspices of the Center for International and Continuing Education.

543. British Studies, Art Studio. 3 or 6 hrs. Variable content. Studio series offered abroad under the auspices of the Center for International and Continuing Education.

544. 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.

545. Drawing Studio. 3 hrs. Form problems in drawing. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.

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566. Drawing Studio. 3 hrs. Form problems in drawing. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.

567. Drawing Studio. 3 hrs. Form problems in drawing. Professional level of performance with intense criticism. Permission of instructor and department chair required for admission.

568. 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 and 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, and 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 and 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.

607. Teaching Studio Art. 3 hrs. Students will pursue studio endeavors while considering methods, philosophies, and historical and contemporary issues in art and education.

616. Advanced Art Education Seminar for Selected Topics. 3 hrs. Topics may include past and present approaches to curriculum development; special populations; aesthetics; art history, criticism; art and technology; art and society; critical analysis; philosophic reflections on art and 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 and 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.
657. **Aesthetics.** 3 hrs. Aesthetic theories are examined through critical strategies and ways of thinking intrinsic to philosophical aesthetics.

680. **Psychology of Art.** 3 hrs. A look at the relationship between mind and art. Topics relevant to psychology, art, and creating are explored.

690. **Supervised Teaching.** 3 hrs. Graduate students who are teaching at Southern Miss will design and implement curricula while considering philosophies and current issues in art education.

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, 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, 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. The development of biological sciences in western culture from pre-Socratic Greece to the present.

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: BSC 226. 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. arr. Ecological and taxonomic studies. Offered between semesters as four- and 12-day field trips.

504L. **Field Biology Laboratory.** 2-4 hrs. To be taken concurrently with BSC 504.

505. **Palaeobiology.** 3 hrs. Prerequisite: General Zoology. Study of life forms existing in prehistoric or geologic times as represented by plants, animals, and other organisms.

505L. **Palaeobiology Lab.** 1 hr. Corequisite: BSC 505.

506. **Biogeography.** 3 hrs. Prerequisite: BSC 110 and BSC 111; GHY 325 or BSC 340. Study of plant and animal distributions from geographic, geological and biological perspectives.

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 phylum Porifera through the minor protostomes.

508L. **Invertebrate Zoology I Laboratory.** 1 hr.

509. **Invertebrate Zoology II.** 2 hrs. Prerequisite: Consent of instructor. Functional morphology, systematics, and life histories of advanced 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.


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.

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.
517L. Herpetology Laboratory. 1 hr. Corequisite: BSC 517
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 Porifera through Protochordates. May be taken as COA 528 or MAR 503.
521L. Marine Invertebrate Zoology Laboratory. 3 hrs. Corequisite for BSC 521. May be taken as COA 528L or 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. (May be taken as HIS 523 and PHY 523.)
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 COA 553 or MAR 504.
524L. Parasites of Marine Animals Laboratory. 3 hrs. Corequisite for BSC 524. May be taken as COA 553L or MAR 504L.
525. Marine Phycology. 2 hrs. Prerequisites: General botany and plant taxonomy. A survey of the principal groups of marine algae. May be taken as COA 533 or MAR 520.
525L. Marine Phycology Laboratory. 2 hrs. Corequisite for BSC 525. May be taken as COA 533L or MAR 520L.
526. Introductory Mycology. 3 hrs. Prerequisite: BSC 226. Systematics, morphology, physiology, and ecology of fungi.
526L. Introductory Mycology Laboratory. 1 hr. Corequisite for BSC 526.
527. Introductory Physiohy. 2 hrs. Prerequisite: Consent of instructor. Taxonomy, physiology, and biochemistry of algae. May be taken as MAR 520.
527L. Introductory Physiohy Laboratory. 1 hr. May be taken as MAR 520L.
528L. Plant Anatomy Laboratory. 1 hr. Prerequisite: BSC 226.
529L. Comparative Morphology of Plants Laboratory. 1 hr. Corequisite: BSC 529.
530. Aquatic and Marsh Plants. 2 hrs. Prerequisite: BSC 226. 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. 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. Prerequisites: BSC 110, 111, 226 or consent of instructor. The nomenclature, classification, identification, and relationships of plants, with an emphasis on the local flora.
533L. Taxonomy of Local Flora Laboratory. 2 hr.
534. Dendrology. 2 hrs. The taxonomic and ecological characteristics, and the distribution of trees.
534L. Dendrology Laboratory. 2 hrs.
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 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 COA 534 or MAR 521.

537L. **Coastal Vegetation Laboratory.** 1 hr. Corequisite for BSC 537. May be taken as COA 534L or 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 COA 535 or MAR 522.

538L. **Salt Marsh Plant Ecology Laboratory.** 2 hrs. Corequisite for BSC 538. May be taken as MAR COA 535L or 522L.

539. **Marine Biology.** 3 hrs. The relationship of marine organisms to their environment. May be taken as COA 546 or MAR 505.

539L. **Marine Ecology Laboratory.** 2 hrs. Corequisite for BSC 539. May be taken as COA 546L or 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.


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 Marine Biology.** 3 hrs. Prerequisites: BSC 110, 111, 201. Marine biological regimes and the influence of geological, physical, and chemical oceanographic factors.

545L. **Introduction to Marine Biology 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 COA 524 or MAR 507.

547L. **Marine Aquaculture Laboratory.** 3 hrs. Corequisite for BSC 547. May be taken as COA 524L or 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 COA 547 or MAR 506.

548L. **Fauna and Faunistic Ecology of Tidal Marshes Laboratory.** 3 hrs. Corequisite for BSC 548. May be taken as COA 547L or MAR 506L.

549. **Marine Fisheries Management.** 2 hrs. Prerequisite: statistics recommended. A statistical review of the world fisheries. May be taken as COA 516 or MAR 510.

549L. **Marine Fisheries Management Laboratory.** 2 hrs. Corequisite for BSC 549. May be taken as COA 516L or MAR 510L.

550. **Comparative Animal 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>555L</td>
<td>Animal Behavior Laboratory</td>
<td>1 hr.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>556L</td>
<td>Laboratory Techniques in Behavioral Neuroscience</td>
<td>3 hrs.</td>
<td>Consent of instructor</td>
<td>Experimental techniques in neurophysiology, neuropharmacology, and behavioral research (cross-listed as PSY 527L).</td>
</tr>
<tr>
<td>557</td>
<td>Neurobiology</td>
<td>3 hrs.</td>
<td></td>
<td>Introduction to current understanding of the function of the brain, with emphasis on connections between molecular and behavioral studies of the nervous system.</td>
</tr>
<tr>
<td>558</td>
<td>Marine Ichthyology</td>
<td>3 hrs.</td>
<td></td>
<td>Prerequisite: 16 semester hours of biology, including comparative anatomy, or consent of instructor. Marine fishes including evolutionary relationships, morphology, physiology, and zoogeography. May be taken as COA 521 or MAR 508.</td>
</tr>
<tr>
<td>558L</td>
<td>Marine Ichthyology Laboratory</td>
<td>2 hrs.</td>
<td>Corequisite for BSC 558.</td>
<td>May be taken as COA 521L or MAR 508L.</td>
</tr>
<tr>
<td>559</td>
<td>Marine Mammals</td>
<td>3 hrs.</td>
<td></td>
<td>Prerequisite: 12 semester hours of biology, including COA 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 COA 543 or MAR 523.</td>
</tr>
<tr>
<td>559L</td>
<td>Marine Mammals Laboratory</td>
<td>2 hrs.</td>
<td>Corequisite for BSC 559.</td>
<td>May be taken as COA 543L or MAR 523L.</td>
</tr>
<tr>
<td>561</td>
<td>Histology</td>
<td>4 hrs.</td>
<td></td>
<td>Prerequisite: 12 hours of biology. Microscopic anatomy of mammalian organ systems.</td>
</tr>
<tr>
<td>561L</td>
<td>Histology Laboratory</td>
<td>1 hr.</td>
<td></td>
<td>Must be taken concurrently with BSC 561; no separate credit given for the laboratory.</td>
</tr>
<tr>
<td>562</td>
<td>Microtechnique</td>
<td>1 hr.</td>
<td></td>
<td>Techniques for sectioning, mounting, and staining tissue and making whole mounts.</td>
</tr>
<tr>
<td>562L</td>
<td>Microtechnique Laboratory</td>
<td>2 hrs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>563</td>
<td>Pathobiology</td>
<td>2 hrs.</td>
<td></td>
<td>Prerequisite: BSC 461 or 561. Principles of histopathology in vertebrates and invertebrates.</td>
</tr>
<tr>
<td>563L</td>
<td>Pathobiology Laboratory</td>
<td>1 hr.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>565</td>
<td>Embryology</td>
<td>2 hrs.</td>
<td></td>
<td>Maturation, fertilization, cleavage, histogenesis, and organogenesis.</td>
</tr>
<tr>
<td>565L</td>
<td>Embryology Laboratory</td>
<td>2 hrs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>566</td>
<td>Human Embryology</td>
<td>3 hrs.</td>
<td></td>
<td>Prerequisite: BSC 465 or 565. Factors which activate and regulate developmental processes.</td>
</tr>
<tr>
<td>568</td>
<td>Comparative Histology of Marine Organisms</td>
<td>3 hrs.</td>
<td></td>
<td>Histology of marine organisms, including tissue processing techniques. May be taken as COA 556 or MAR 530.</td>
</tr>
<tr>
<td>568L</td>
<td>Comparative Histology of Marine Organisms Laboratory</td>
<td>3 hrs.</td>
<td>Corequisite for BSC 568.</td>
<td>May be taken as COA 556L or MAR 530L.</td>
</tr>
<tr>
<td>569</td>
<td>Developmental Biology</td>
<td>3 hrs.</td>
<td></td>
<td>A comprehensive survey of the experimental, genetic, and molecular analysis of processes that occur during the development of complex organisms.</td>
</tr>
<tr>
<td>571</td>
<td>Advanced Genetics</td>
<td>2 hrs.</td>
<td></td>
<td>Prerequisite: BSC 370 or 475 or 575. A continuation of BSC 370.</td>
</tr>
<tr>
<td>571L</td>
<td>Advanced Genetics Laboratory</td>
<td>2 hrs.</td>
<td>Corequisite for BSC 571.</td>
<td>Laboratory exercises to illustrate basic genetic principles.</td>
</tr>
<tr>
<td>572</td>
<td>Population Genetics</td>
<td>3 hrs.</td>
<td></td>
<td>Prerequisite: BSC 370 or consent of instructor. The process of evolutionary change.</td>
</tr>
<tr>
<td>573</td>
<td>Medical Genetics</td>
<td>3 hrs.</td>
<td></td>
<td>The basic principles of human genetics, with emphasis on the causation of abnormality and disease.</td>
</tr>
<tr>
<td>576</td>
<td>Molecular Biology</td>
<td>3 hrs.</td>
<td></td>
<td>Prerequisite: BSC 370 or 477. Molecular biology of viral, prokaryotic, and eukaryotic systems.</td>
</tr>
<tr>
<td>577</td>
<td>Microbial Genetics</td>
<td>3 hrs.</td>
<td></td>
<td>Prerequisites: BSC 370, 380. The genetics and molecular biology of microorganisms and viruses.</td>
</tr>
<tr>
<td>577L</td>
<td>Microbial Genetics Laboratory</td>
<td>1 hr.</td>
<td></td>
<td>Prerequisite: Permission of instructor. Laboratory exercises to demonstrate principles of bacterial and viral genetics. Must be taken concurrently with BSC 577.</td>
</tr>
<tr>
<td>578L</td>
<td>Molecular Biology Laboratory</td>
<td>4 hrs.</td>
<td></td>
<td>Prerequisite: BSC 576 or 577 or permission of instructor. The paradigms of molecular biology in a laboratory setting.</td>
</tr>
<tr>
<td>579</td>
<td>Applications of Biotechnology in Marine Biology</td>
<td>3 hrs.</td>
<td></td>
<td>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. May be taken as COA 565.</td>
</tr>
<tr>
<td>579L</td>
<td>Applications of Biotechnology in Marine Biology Laboratory</td>
<td>3 hrs.</td>
<td>Corequisite for BSC 579.</td>
<td>May be taken as COA 565L.</td>
</tr>
<tr>
<td>581</td>
<td>Pathogenic Microbiology</td>
<td>3 hrs.</td>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>
581L. Pathogenic Microbiology Laboratory. 1 hrs.

582. Advanced Pathogenic Microbiology. 2 hrs. Continuation of BSC 581.

582L. Advanced Pathogenic Microbiology Laboratory. 2 hrs.

583. Viral Ecology. 3 hrs. The interactions between viruses and their hosting species over a wide range of taxonomic levels with emphasis on evolutionary ecology and principal types of transmission cycles.


584L. Virology and Tissue Culture Laboratory. 1 hr. Corequisite for BSC 584.

585. Viral Pathogenesis and Diagnosis. 3 hrs. Fundamental principles of medical virology.

585L. Viral Pathogenesis and Diagnosis Laboratory. 1 hr. Immunological, molecular, and histological techniques for diagnosis of viral diseases.

586. Immunology and Serology. 3 hrs. Studies of infection, resistance, types of immunity, and hypersensitivity.

586L. Immunology and Serology Laboratory. 1 hr. Corequisite: BSC 586. 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 COA 571 or MAR 509.

590L. Marine Microbiology Laboratory. 2 hrs. Corequisite for BSC 590. May be taken as COA 571L or MAR 509L.

594. Experimental Design and Data Analysis in Biology. 3 hrs. Prerequisites: PSY 360, CSS 211 or permission of the instructor. Design of experiments, statistical analysis of data and interpretation of analysis results for biological research.

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, 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, 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. 2 hrs. Theory and applications in the study of evolutionary relationships, including species concepts, nomenclature, homology assessment, phylogenetic inference, and classification.

706L. Principles of Biological Systematics Laboratory. 1 hr. Corequisite: BSC 706.

707. Planktology. 2 hrs. Prerequisite: Morphological adaptations, systematics, 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.

730. Plant-Animal Interactions. 3 hrs. Prerequisites: BSC 340 or equivalent. Overview of ecological and evolutionary relationships between plants and animals, including pollination biology, dispersal ecology, carnivory and plant-herbivore interactions.

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 445 or 545 or permission of instructor. The sea as a biological environment.
Course Descriptions

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. **Molecular Ecology.** 2 hrs. Prerequisites: BSC 370 and 440 or equivalents. Molecular genetic techniques in ecology, evolutions, behavior and conservation.

750L. **Molecular Ecology Laboratory.** 2 hrs. Laboratory to accompany BSC 750.

751. **Seminar in Animal Behavior.** 3 hrs. Topics in the behavior and ecology of animals.

752. **Cell Ultrastructure.** 3 hrs. Prerequisite: Permission of instructor. Structure and function of cells and cell organelles at the subcellular level.

760. **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.


764. **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, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester.
Business Technology Education (BTE)

510. Production and Integrated Processes for Business Education. 3 hrs. Advanced production and editing of documents with emphasis on speed and accuracy; completion of integrated projects using industry-current software.

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. A study of the techniques, procedures, problems, etc., in the operation of cooperative education programs.


592. Special Problems. 1-6 hrs. Study approved and directed by the department chair.

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 Nonskills Subjects. 3 hrs. Methodology, instructional materials, evaluation, and review of significant research in the nonteaching 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 chair required.

691. Research in Business Education. 1-16 hrs.

692. Special Problems. 1-3 hrs. 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 arr. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, 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, or using other resources of the university must enroll in this course for at least 1 hour 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.

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. Chemical reactivity in the gaseous state and aqueous state, thermochemistry of reactions, oxidation/reduction processes, electrochemistry, and modern atomic theory as it is applied to bonding concepts and reactivity, and nuclear chemistry.

507. Modern Chemical Problem Solving II. 3 hrs. Physical and chemical aspects of liquids and solutions, thermodynamics, kinetics, chemical equilibrium, acid/base equilibria, solubility and complex ion equilibria, and the transition metals.

509. Chemistry Laboratory Teaching. 1 hr. Prerequisite: Permission of the instructor. Instruction and practice for teaching assistants in the academic chemistry laboratory.

511. Instrumental Analysis. 3 hrs. Prerequisite: CHE 461, 461L. Pre- or Corequisite: CHE 462, 462L. 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.


521L. Biochemistry I Laboratory. 2 hrs. 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 interrelationships of the pathways.

522L. Biochemistry II Laboratory. 2 hrs. 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 kinet-ics and mechanisms, special topics.

531L. Inorganic Chemistry Laboratory. 1 hr. Corequisite: CHE 531. A laboratory designed to accompany CHE 531.

551. Intermediate Organic Chemistry. 3 hrs. A survey of selected topics in organic chemistry to include medicinal, heterocyclic, and organometallic chemistry.

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 3 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 3 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 3 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 3 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 interrelationships 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 their relationship to chemical bonding, stereochemistry, resonance, and reactivity.

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, 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, 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.


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.


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, and 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 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, and 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.

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, 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, 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 in-depth 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.


Child Development (CD)

628. Assessment Procedures for Young Children with Disabilities. 3 hrs. To familiarize students with current issues, theories, and practices regarding the assessment of young children who are at risk for or have manifest disabilities.

629. Advanced Intervention Procedures for Young Children with Disabilities. 3 hrs. To familiarize students with current issues, theories, intervention methods, and procedures for young children who are at risk for or have manifest disabilities.

650. Theories in Child and Family Studies. 3 hrs. A survey of selected theories in child development and family studies 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.

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, 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, 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.

Coastal Sciences (COA)

505. Marine Chemistry. 3 hrs. Prerequisites: Biology, chemistry, calculus, and analytic geometry, or permission of instructor. Corequisite: COA 505L. Sea water chemistry and cycles and their impact on the marine environment. May be taken as MAR 541.

505L. Marine Chemistry Laboratory. 1 hr. Corequisite for COA 505. A laboratory designed to accompany COA 505. May be taken as MAR 541L.

506. Environmental Estuarine Chemistry. 3 hrs. Prerequisites: Biology, organic chemistry, calculus, and analytic geometry, or permission of instructor. Corequisite: COA 506L. Sources, reactions, transport, fate, and effects of environmental chemical species in aquatic environments with special emphasis on estuaries. May be taken as MAR 543.

506L. Environmental Estuarine Chemistry Laboratory. 1 hr. Corequisite: COA 506. A laboratory designed to accompany COA 506. May be taken as MAR 543L.

509. Coastal Marine Geology. 3 hrs. Prerequisite: 12 hours in geology. A study of inshore and nearshore geological processes, sedimentation patterns, and landform development. May be taken as MAR 582.


516L. Marine Fisheries Management Laboratory. 2 hrs. Corequisite: COA 516. May be taken as MAR 510L.

517. Field and Laboratory Techniques in Marine Fisheries Science. 3 hrs. Prerequisite: Consent of instructor. Fishery survey design, field techniques, and lab procedures for graduate students. Includes research cruises in offshore and inshore waters.

521L. Marine Ichthyology Laboratory. 3 hrs. Corequisite: COA 521. May be taken as MAR 508L.

522. Elasmobranch Biology. 3 hrs. Prerequisite: COA 301 and COA 521. Corequisite: COA 522L. This course will provide an overview of the biology of sharks, skates, and rays.

522L. Elasmobranch Biology Laboratory. 2 hrs. Prerequisite: COA 301L and COA 521L. Corequisite: COA 522. This course will provide an overview of the biology of sharks, skates, and rays.

524. Marine Aquaculture. 3 hrs. Corequisite: COA 524L. An introduction to principles and technologies applied to the culture of commercially important marine organisms. May be taken as MAR 507.

524L. Marine Aquaculture Laboratory. 3 hrs. Corequisite: COA 524. May be taken as MAR 507L.

528. Marine Invertebrate Zoology. 3 hrs. Corequisite: COA 528L. Morphology, distribution, and ecology of the phyla from Protozoa through Protochordates. May be taken as MAR 503.

528L. Marine Invertebrate Zoology Laboratory. 3 hrs. Corequisite for COA 528. May be taken as MAR 503L.

533. Marine Phyology. 2 hrs. Prerequisites: General botany and plant taxonomy. Corequisite: COA 533L. A survey of the principal groups of marine algae. May be taken as MAR 520.

533L. Marine Phyology Laboratory. 2 hrs. Corequisite for COA 533. May be taken as MAR 520L.

534. Coastal Vegetation. 2 hrs. Corequisite: COA 534L. A study of general and specific aspects of coastal vegetation, with emphasis on local examples. May be taken as MAR 521.

534L. Coastal Vegetation Laboratory. 2 hrs. Corequisite for COA 534. May be taken as MAR 521L.

535. Salt Marsh Plant Ecology. 2 hrs. Corequisite: COA 535L. The botanical aspects of local marshes; includes plant identification, composition, and structure. May be taken as MAR 522.

535L. Salt Marsh Plant Ecology Laboratory. 2 hrs. Corequisite for COA 535. May be taken as MAR 522L.

536. Marine Botany. 2 hrs. Prerequisite: General biology (BSC 110 and BSC 111), general botany (BSC 226); consent of instructor. An overview, including local examples, of the principal groups of marine microalgae, macroalgae and submerged aquatic and emergent marine flowering plants, with a primary focus on their identification and ecology. The lecture and laboratory work for this course are interlaced so that, following the lecture material, laboratory examination of the algae is made. On three occasions, once per week, all-day field trips in the vicinity of the Mississippi Sound and to the barrier islands are made to observe algae and aquatic emergent vegetation, the ecological relationships of these flora, and for collecting material for study in the laboratory.


543. Marine Mammals. 3 hrs. Prerequisites: 16 hours biological sciences or permission of instructor. Corequisite: COA 543L. 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. May be taken as MAR 523.

543L. Marine Mammals Laboratory. 2 hrs. Corequisite for COA 543. May be taken as MAR 523L.

544. Cetacean Behavior. 3 hrs. Review of the literature on the behavior, communication, and cognitive abilities of whales and dolphins as well as field trips and real time observations of marine mammals.

546. Marine Ecology. 3 hrs. Corequisite: COA 546L. The relationship of marine organisms to their environment. May be taken as MAR 505.

546L. Marine Ecology Laboratory. 2 hrs. Corequisite for COA 546. May be taken as MAR 505L.

547. Fauna and Faunistic Ecology of Tidal Marshes. 2 hrs. Prerequisite: Consent of instructor. Corequisite: COA 547L. Taxonomy, distribution, trophic relationships, reproductive strategies, and adaptations of tidal marsh animals. May be taken as MAR 506.

547L. Fauna and Faunistic Ecology of Tidal Marshes Laboratory. 3 hrs. Corequisite for COA 547. May be taken as MAR 506L.

553. Parasites of Marine Animals. 3 hrs. Corequisite: COA 553L. Prerequisite: Permission of instructor. Emphasis on morphology, taxonomy, life histories, and host-parasite relationships. May be taken as MAR 504.

553L. Parasites of Marine Animals Laboratory. 3 hrs. Corequisite for COA 553. May be taken as MAR 504L.

556. Comparative Histology of Marine Organisms. 3 hrs. Corequisite: COA 556L. Histology of marine organisms, including tissue processing techniques. May be taken as MAR 530.

556L. Comparative Histology of Marine Organisms Laboratory. 3 hrs. Corequisite for COA 556. May be taken as MAR 530L.

565. Applications of Biotechnology in Marine Biology. 3 hrs. Prerequisites: 8 hrs. of zoology, general and organic chemistry; biochemistry recommended or permission of instructor. Corequisite: COA 565L. Basic biochemical and molecular techniques used to conduct research in marine biology.
565L. Applications of Biotechnology in Marine Biology Laboratory. 3 hrs. Corequisite for COA 565.

571. Marine Microbiology. 3 hrs. Prerequisites: general microbiology. Corequisite: COA 571L. An introduction to the role of microorganisms in the overall ecology of the oceans and estuaries. May be taken as MAR 509.

571L. Marine Microbiology Laboratory. 2 hrs. Corequisite for COA 571. May be taken as MAR 509L.

585. Marine Science for Elementary Teachers. 3 hrs. Prerequisite: Consent of instructor. Designed to acquaint teachers with marine science concepts. May be taken as MAR 558 or SME 535.

586. Coastal Ecology for Teachers. 3 hrs. Prerequisite: Consent of instructor. Corequisite: COA 586L. Designed to provide teachers with a background in basic coastal ecology. May be taken as MAR 559 or SME 559.

586L. Coastal Ecology for Teachers Laboratory. 1 hr. Corequisite for COA 586. May be taken as MAR 559L or SME 559L.

587. Techniques in Marine Science Education. 3 hrs. Designed to acquaint teachers with the marine resources of the Mississippi coastal zone. May be taken as MAR 556 or SME 556.

588. Marine Science for Teachers. 3 hrs. Prerequisites: Permission of instructor. Advanced topics in marine science. May be taken as MAR 557 or SME 557.

590. Special Topics in Coastal Sciences. 1-6 hrs. Prerequisite: Permission of instructor. An informal study of current topics in coastal sciences designed for nondegree graduate students. May be repeated.

601. Coastal Processes I. 3 hrs. Abiotic processes, including physical, chemical, and geological factors that influence coastal environments.


603. Professional Skills in Coastal Sciences. 2 hrs. Course will include lectures and workshops designed to improve scientific writing, grantsmanship, and platform/poster presentation skills.

604. Research Tools in Coastal Sciences. 2-3 hrs. Research techniques will be discussed in instructive lectures and discussion sessions by faculty and outside investigators. Attendance at all sessions is required. Course may be repeated for credit.

605. Data Analysis in Coastal Sciences. 3 hrs. Principles of data analysis and research, including study development, data handling, experimental design, and advanced statistical methods.

607. Chemical Toxicology. 3 hrs. Course covers general principles and concepts of toxicology, test procedures, data evaluation and interpretation of specific effect measurements used by environmental scientists.

608. Coastal Water Quality. 3 hrs. Prerequisite: CHE 107 or equivalent. Course covers water quality measures in estuarine waters. Major topics are lab methods, field measurements, analysis problems, quality control, and interpretation.

611. Sediments and Biota. 3 hrs. Course covers the vital influence of geology and sedimentation on marine habitats and environments.


651. Marine Symbiosis I. 4 hrs. Examines a variety of symbiotic relationships ranging from phoretic to parasitic found in the local area by using lectures, demonstrations, and individual research projects.

652. Marine Symbiosis II. 4 hrs. Examines a variety of symbiotic relationships ranging from phoretic to parasitic found in the local area by using lectures, demonstrations, and individual research projects.


654. Describe Species I. 3 hrs. Prerequisite: Consent of instructor. Explores necessary aspects of describing a parasitic species for publication.

655. Describe Species II. 3 hrs. Prerequisite: Consent of instructor. Explores necessary aspects of describing a parasitic species for publication.

690. Special Topics in Coastal Sciences. 1-6 hrs. May include lecture material, student presentations, and discussions moderated by instructor. May be repeated.

691. Research in Coastal Sciences. 1-16 hrs. Prerequisite: Permission of instructor.

692. Special Problems in Coastal Sciences. 2-6 hrs. Prerequisite: Permission of instructor.

697. Independent Study and Research. 1-9 hrs. arranged. Not to be counted as credit towards a degree. Students actively working on a thesis, consulting with the major professor, 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, 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. Prerequisite: Permission of instructor.

728. **Crustacean Taxonomy.** 2 hrs. Corequisite: COA 728L. Morphology, taxonomy, and systematics of higher Crustacea emphasizing the major orders of the three Malacostracan subclasses.

728L. **Crustacean Taxonomy Lab.** 2 hrs. Corequisite: COA 728. Examination and comparison of homologous characters in representatives of the subclasses Phyllocarida, Hoplocarida, and Eumalacostraca.

742. **Topics in Fisheries Ecology.** 1-6 hrs. Prerequisite: Permission of the instructor. Review of primary literature in fisheries ecology as defined by the topic chosen each semester.

746. **Ecology of Fishes.** 3 hrs. Prerequisite: Permission of instructor. Topics range from reproduction to aspects of population and community ecology. Students complete six pre-proposals and lead discussions on topics in fish ecology.

757. **Application of Environmental and Coastal Zone Management.** 6 hrs. This class is designed to teach students environmental and coastal zone management.

762. **Statistical Methods in Environmental Coastal Zone Management.** 3 hrs. Emphasizes relationship among probability and hypothesis testing.

763. **Grantsmanship in Environmental Coastal Zone Management.** 3 hrs. Designed to teach grants writing skill specific to environmental and coastal science proposals. Will allow students to experience issues in identifying/submitting funding opportunities.

790. **Special Topics in Coastal Sciences.** 1-6 hrs. Special topics in coastal sciences. May include lecture material; student presentations and discussions moderated by instructor. May be repeated.

791. **Research in Coastal Sciences.** 1-16 hrs. Prerequisite: Permission of instructor.

792. **Special Problems in Coastal Sciences.** 2-6 hrs. Prerequisite: Permission of instructor.

797. **Independent Study and Research.** 1-9 hrs. arranged. Not to be counted as credit towards a degree. Students actively working on a thesis, consulting with the major professor, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester.

898. **Dissertation.** 12 hours. Prerequisite: Permission of instructor.

### 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. An introduction to measurement techniques and methods for evaluating health programs.

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.

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.


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 basic concepts of descriptive and inferential statistical methods in health sciences.

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 Southern Miss Center for International and Continuing Education.

600. Introduction to Community Health Practice. 3 hrs. An overview of the public health system, including mission, functions, infrastructure, and interventions and results.

601. Community Health Education Planning. 3 hrs. Diagnostic phases preceding program development, skills in planning, organization, and implementation of health education programs in the community.

602. Internship in Community Health. 3-9 hrs. Supervised professional experience in a selected community health setting.

603. Chronic Disease Epidemiology. 3 hrs. Concepts of methods of chronic disease epidemiology; epidemiological study design; prevention of control of chronic diseases.

604. Epidemiology. 3 hrs. Basic concepts of the distribution and determinants of diseases and other health conditions. Apply epidemiological methods in prevention and control of disease.


606. Health Administration. 3 hrs. Application of management principles to health care organizations with a focus on governance and leadership, human resources, control systems, strategic planning, and accountability.

607. Introduction to Health Systems. 3 hrs. Introduction to the American health care system and its component organizations.

608. Health Policy. 3 hrs. Analysis of the role of federal and state institutions and other participants in health policy formulation, implementation, and evaluation.

609. Assessment Procedures for Young Children with Disabilities. 3 hrs. To familiarize students with current issues, theories, and practices regarding the assessment of young children who are at risk for or have manifest disabilities.

610. Advanced Intervention Procedures for Young Children with Disabilities. 3 hrs. To familiarize students with current issues, theories, intervention methods, and procedures for young children who are at risk for or have manifest disabilities.

611. Workplace Health Promotion. 3 hrs. Study of health education theory and practice as applied to occupational health.


615. Health Care Accounting for Managers. 3 hrs. An introduction to the financial aspects of health care impacting program managers. Core topics include historical reimbursement systems, managed care, budgeting, analysis of financial statements and general financial principles.


617. Long-Term Care Policy and Administration. 3 hrs. A study of policy and administrative issues affecting the elderly and disabled populations.

618. 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.

619. Nutrition Program Planning and Evaluation. 3 hrs. Principles and procedures to plan, implement, and evaluate nutrition promotion/disease presentation programs.

620. Health Law and Justice. 3 hrs. An examination of social and legal principles impacting health care delivery in the U.S.

621. Research Techniques. 3 hrs. Prerequisite: Graduate statistics course. Principles, evaluation, and types and techniques of research in health care.

622. Contemporary Issues in Health. 3 hrs. Comprehensive examination of a current health issue of contemporary importance.

623. Medical Aspects of Developmental Disabilities. 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.

624. Research. 1-16 hrs. Prerequisite: Approval of major instructor.

625. Special Problems in Safety. 3 hrs. Prerequisite: Approval of instructor.

626. Independent Study and Research. 1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester.

710. **Seminar.** 3 hrs. Advanced topics in health administration.

716. **Health Economics.** 3 hrs. Assist the student in developing a set of tools that can help them make economic-based administrative and policy decisions in a modern health care organization.

720. **Community Organization for Health Education.** 3 hrs. Communities and community organizations as they relate to health services and health education.

722. **Infectious Disease Epidemiology.** 3 hrs. This course will provide epidemiologic knowledge and skills required to diagnose common infectious diseases in humans, identify populations at risk, and apply measures to control the disease.

723. **Biostatistics II.** 3 hrs. Prerequisite: CHS 623 Biostatistics or an equivalent course. This course will provide knowledge and skills for the application of advanced statistical methods for analysis and interpretation of data.

727. **Health Care Strategic Planning.** 3 hrs. Students use strategic thinking and strategic planning to develop solutions to problems that health care organizations face today.


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.

747. **Health Care Marketing.** 3 hrs. Examines marketing in health care organizations including: consumer orientation, healthcare marketing techniques, marketing research, information systems and planning.


767. **Cases Studies in Health Services Administration.** 3 hrs. Capstone course for Executive Master of Public Health program. Exercises will require the use of knowledge gained in other MPH courses.

785. **Data Management and Analysis in Public Health.** 3 hrs. Prerequisites: CHS 623 or equivalent statistics. Apply knowledge of biostatistics and epidemiology in data analysis using SPSS.

792. **Special Problems in Health.** 3 hrs. Prerequisite: Approval of instructor and director.

### Computational Science (COS)

701. **Visual Techniques.** 3 hrs. Graphical and visual data manipulation, emphasizing the task of report and document generation with visual and graphical data for presentations and professional publications.

702. **Data Analysis Techniques.** 3 hrs. Introduction to numerical data using analytical tools, e.g., signal processing for pre- and post-processing data, and numerical and functional approximation for data analysis.

703. **Data Handling Techniques.** 3 hrs. Storing, receiving, and handling of digital data, including fundamental concepts, in using files and databases.

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.

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 the 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.

781. **Topics in Computational Sciences.** 3 hrs. Prerequisite: Permission of the instructor. Covers topic of interest to students and faculty.

791. **Research in Computational Sciences.** 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.

### Computer Engineering Technology (CET)

501. **Microprocessor Architecture and Applications.** 3 hrs. Corequisite: CET 501L. Microprocessor architecture and applications; I/O interfaces; memory organization.

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.

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. Design of control systems incorporating a computer as an online 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)


510L. Operating Systems and Multiprocessing Laboratory.


512. Introduction to Artificial Intelligence. 3 hrs. Prerequisite: CSC 308. Concepts and techniques of intelligent systems. Survey of research literature.


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 instructor. Design of British information processing systems.

586. Information Retrieval in the U.K.-Applications. 3 hrs. Prerequisite: Permission of 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.

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 queueing 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.


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.


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.


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. 1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, 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, 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.


730. Parallel and Distributed Computing. 3 hrs. Fundamental concepts, techniques, and tools of parallel computer architectures, parallel algorithm design, performance and scalability, MPI and open MP programming, matrix computation, and solving linear system. Introduction to distributed computing.

738. Advanced 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.


742. Computational Geometric Modeling. 3 hrs. Data structures and algorithms used in 2D and 3D computational/discrete geometry transforming several real-world into purely geometric ones and then solve them using modern computational geometry algorithms. Real-world problems will include robotics, graphics, and CAD/CAM.

Computer Science (CS)

(Offered only at Gulf Coast)


508. Programming Languages. 3 hrs. Prerequisite: CS 307. Formal study of programming languages, organization of programming languages, runtime behavior of programs, interpretative languages, lexical analysis, and parsing.

511. Relational Database Management Systems. 3 hrs. Prerequisite: CS 307. Introduction to RDBMSs. Includes database design using the entity relationship model, relational model theory, relational algebra, and the implementation of applications using SQL and a state-of-the-art relational system such as Oracle.


514. Software Engineering I. 3 hrs. Prerequisite: CS 307. Overview of software developments, projects management, programming style, testing, debugging, and other topics.

521. Advanced Topics in Relational Database Management Systems. 3 hrs. Prerequisite: CS 511. A selection of advanced topics representing current trends in RDBMSs. Topics include, but are not restricted to, concurrency, backup and recovery, embedded database calls, distributed RDBMSs, and object oriented RDBMSs.

524. Software Engineering II. 3 hrs. Prerequisite: CS 414/514. Programming languages and software design, modular/object oriented design, team programming, human factors, case studies.


585. Information Retrieval in the U.K.-Theory. 3 hrs. Prerequisites: CSS 342 and permission of instructor. A study of British information processing systems.

586. Information Processing in the U.K.-Applications. 3 hrs. Prerequisites: CS 485 and permission of instructor. Design of information processing systems.


611. Artificial Neural Networks. 3 hrs. Prerequisite: CS 307. An in-depth study of the major neural network models. Emphasis is placed on architecture, implementation and applications. Students will use existing neural net software to design, implement, and test applications. Students will also test and implement a back propagation neural net.

616. Automata, Computability, and Formal Languages. 3 hrs. Prerequisite: CS 415 and formal models of computation, computability, complexity, and languages.

625. Computer Graphics. 3 hrs. Prerequisites: MAT 168 and CS 525. Hardware, software used in computer graphics; refresh, storage, and raster scan hardware; two-dimensional transformations, clipping, windowing, display files, and input devices.

626. Advanced Computer Architecture. 3 hrs. Prerequisites: CS 303, CET 370. Introduction to various architectures and techniques that have been developed or are proposed in the literature. Pipelined architecture, dynamic system architecture, data flow architecture, and array processing.

632. Artificial Intelligence. 3 hrs. Prerequisite: CS 412/512. Computer representation of knowledge, problem solving, automated deductive systems, computer learning, computer implementation of AI problems and expert systems.

636. Statistical Simulation and Modeling. 3 hrs. Prerequisites: CS 307, CSS 515. Formulation of models and the design of simulation programs. Simulation languages such as GPSS, SIMSCRIPT II.5 and NDTRAN.

638. Information Structures. 3 hrs. Prerequisite: CS 307. Analysis of algorithms, recurrence relations, directed and undirected graphs, application of techniques to analysis of algorithms in graph theory, and sorting and searching.

**Course Descriptions**

650. **Computer Networks.** 3 hrs. Prerequisite: CS 406/506 or permission of instructor. An in-depth study of local area and metropolitan and local haul networks including their use, topology, design, and various network protocols.

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, and 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.** 1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, or using other resources of the university may enroll in this course. Students who are not in residence and who are not enrolled in at least 3 hours of thesis but who are actively working on a thesis, consulting with the major professor, 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.** 3 hrs.

**Computer Science and Statistics (CSS)**

500. **Introduction to Computer Education.** 3 hrs. Introduction to concepts, techniques, materials, and resources for teaching computer science concepts, problem solving and programming relative to computer literacy. Research and presentations related to computer science education.

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. Prerequisite: 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.


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.

560. **Unix System and Network Administration.** 3 hrs. Prerequisite: CSS 360. An introduction to implementing gateway services, firewalls, and providing simple network services. Survey of other implementation of the Linux Operating system.

630. **Communications Engineering Fundamentals.** 3 hrs. Prerequisite: Permission of instructor. Basic concepts of components and systems that provide electrical communications. 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.


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)

502. Innovation in Construction Management. 3 hrs. Prerequisite: Permission of instructor. Study the historical development of and possible future.

507. Advanced Construction Equipment. 3 hrs. Methods of specification, selection, and charge rate development for construction heavy equipment.

508. Route Surveying. 2 hrs. Prerequisite: BCT 205. Corequisite: BCT 508L. Principles for the design and layout of routes. Coverage includes horizontal and vertical alignment, route location, earthwork, computation, ground photogrammetric survey methods, and special survey methods for highways, pipelines, transmission lines, and urban construction.

508L. Route Surveying Laboratory. 2 hrs. Corequisite: BCT 508.

509. Boundary Surveying. 2 hrs. Prerequisite: BCT 205. Corequisite: BCT 509L. The application of knowledge of the science of surveying measurement, the legal principles of boundary location, the laws related to boundaries and land use, the land planning and development concepts pertinent to subdivision of land and property surveys.

509L. Boundary Surveying Laboratory. 1 hr. Corequisite: BCT 509.


545. Soils and Foundations. 2 hrs. Theory and application of soil mechanics to foundation design and construction.

545L. Soils and Foundations Laboratory. 1 hr.

546. Hydraulics and Surface Drainage. 2 hrs. Prerequisite: BCT 544. Corequisite: BCT 546L. Hydraulic analysis and design of urban, highway, airport, and watershed drainage problems; discussion of overload and drainage channel flows; hydraulics of storm-drain systems and culverts; determination of design flow of runoff from drainage from highways, airports, and urban areas; design of drainage gutters, channels, sewer networks, and culverts.

546L. Hydraulics and Surface Drainage Laboratory. 1 hr. Corequisite: BCT 546.


554L. Estimating I Laboratory. 1 hr. Corequisite: BCT 554.


555L. Estimating II Laboratory. 1 hr. Corequisite: BCT 555.


556L. Highway Estimating Lab. 1 hr. Corequisite: BCT 556.

558. Construction Planning and Scheduling. 2 hrs. Prerequisite: Permission of 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.


586. Project Controls. 2 hrs. Prerequisite: BCT 555. Corequisite: BCT 586L. Determination of highway construction costs, bidding procedures, and analysis of job cost data.

586L. Project Controls Laboratory. 1 hr. Corequisite: BCT 586.

592. Special Problems. 1-3 hrs. Prerequisites: Senior standing and approval of faculty adviser.

602. Construction It Solutions. 3 hrs. Prerequisite: Permission of instructor. Analysis of information technology; Software and hardware application to construction problems.

636. Advanced Construction Systems. 3 hrs. Prerequisite: Permission of professor. Innovative systems and protocols that enhance the construction process for reductions in construction cycle time and cost, and the integration and automation of project and site metrological information into project information management systems for enhanced project performance.

659. Advanced Scheduling. 3 hrs. Prerequisite: Permission of instructor. Implement the latest method and technology for scheduling construction projects.

678. Construction Risk Management. 3 hrs. Prerequisite: Permission of professor. Risk and uncertainty in construction and their impact on management decisions in construction.

679. International Construction Management. 3 hrs. Prerequisite: Permission of professor. Organizational, management, cultural, and legal issues involved in international construction management.
686. **Cost Engineering and Accounting.** 3 hrs. Methods of monitoring and reporting the financial status of projects and organizations.

692. **Special Problems.** 1-3 hrs.

696. **Construction Internship.** 3 hrs. Prerequisite: Admission to graduate program and completion of at least 9 hours of graduate credit.

### Cooperative Education (CED)

+500. **Cooperative Education Work Term.** 0 hr.

### Counseling Personnel Services (CPS)

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.

612. **Counseling Theory and Practice.** 3 hrs. Emphasizes theories and principles undergirding the practical application of various helping techniques.

615. **The American College Student.** 3 hrs. An overview of the American college student, including historical background, demography, societal, influences, issues, and trends.

616. **Individual Analysis & Group Counseling for School Counselors.** 3 hrs. Prerequisites: REF 602 or equivalent and instructor permission. 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.

617. **Pre-Counseling Lab.** 3 hrs. Seeks to develop the microskills which are foundational to helping relationships.

618. **Group Processes.** 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.

619. **Cultural Diversity in Counseling and Personnel Services.** 3 hrs. A theoretical and skill development course for Student Affairs professionals designed to strengthen multicultural awareness, knowledge, and skills of diverse populations in the higher education setting.

639. **Theory and Practice of Student Affairs.** 3 hrs. An introduction to student development services in higher education.

651. **School Counseling Field Practicum.** 3 hrs. Prerequisites: CPS 610, 612, 617. A basic counseling field practicum for school counselors.

653. **Comprehensive Field Practicum for School Counselors.** 3-12 hrs. Prerequisites: CPS 617, 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.

711. **Theory and Practice of Consultation.** 3 hrs. Introduction to theory and process of consultation. Emphasis is placed on student acquisition of basic consulting skills/competencies.

739. **Current Issues and Trends in Student Affairs.** 3 hrs. Prerequisite: CPS 639 or permission of instructor. A topical study of current issues and trends in the design of student development services in higher education.

740. **Legal and Ethical Issues to Student Affairs.** 3 hrs. This course will serve as an introduction to the legal and ethical aspects of the student affairs profession for the entry to director level professional.

743. **Student Development Theory and Research.** 3 hrs. A basic course in college student development theory and research.

### 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.

598. **Families of the Developmentally Disabled.** 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.


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.

605. **The Process of National Board Teacher Certification.** 3-6 hrs. Provides opportunities to analyze and apply National Board for Professional Teaching standards in the student’s content area using the reflective process. Three hours may be taken at the pre-candidate level or three hours may be taken at the candidate level.

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 of 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 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.** 1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, 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, 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 with 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. **Elementary Mathematics Methods.** 3 hrs. Advanced theory and practices related to the teaching of mathematics; an investigation and analysis of the elementary curriculum based on NCTM standards.

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 that 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 chair 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.

768. **Children’s Literature for the Early Years.** 3 hrs. Principles and practices relative to literature in early childhood education with emphasis on methods of integration into the curriculum.

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.

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 major professor.

792. **Special Problems.** 3 hrs. Prerequisite: Permission of the department chair. Provides the opportunity to pursue a special topic or area of interest.

794. **Field Problems.** 3 hrs. Prerequisite: Approval of department chair. 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.** 1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor, 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, 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 chair of the department. A course which is interdisciplinary in nature and focuses on contributions of research, philosophy, history, sociology, and educational psychology as they apply to the resolution of major issues in elementary education.

880. **Advanced Graduate Seminar in Education.** 1 hr. A series of in-depth discussions and analysis 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, CIE 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 schools.

691. **Research in Literacy.** 1-16 hrs. Analysis, synthesis, and evaluation of literacy research as it relates to the unit and the program conceptual framework.
705. **Components of the Reading and Writing Process.** 3 hrs. A study of phonemic awareness, vocabulary and background knowledge, fluency, comprehension, and motivation and their integration in fluent reading and writing.

706. **Foundations of the Literacy Process.** 3 hrs. A study of the psychological, sociological, and linguistic foundations of the reading and writing processes and variations related to cultural and linguistic diversity.

713. **Literacy Assessment, Diagnosis, and Evaluation.** 3 hrs. A comparison, interpretation and application of a wide range of formal and informal literacy assessment tools and practices.

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. **Reading Specialist/Literacy Coaching Practicum I.** 3 hrs. A field experience for the reading specialist/literacy coach, linking assessment, differentiated instruction and effect on student learning.

728. **Curriculum Design for a Literate Environment.** 3 hrs. Assessment, development, and delivery of an effective student-centered literacy curriculum.

729. **Comprehensive Instruction for Literacy Development.** 3 hrs. Application of research to effective lesson planning, with emphasis on linking assessment, methods, materials, instruction, and interventions for literacy development in K-8.

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. **Comprehensive Assessment for Literacy Development.** 3 hrs. The use of a variety of assessment tools and practices to plan effective literacy instruction and evaluate student learning in a clinical setting.

736. **Reading Specialist/Literacy Coaching Practicum II.** 3 hrs. A field experience for the reading specialist/literacy coach supporting classroom teachers in research-based literacy principles and practices for diverse learners.

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. **Adolescent Literacy in the Content Areas.** 3 hrs. Application of research to lesson planning, with emphasis on linking assessment, methods, materials, instruction, and interventions for adolescent literacy in the content areas.

785. **Seminar in Reading Instruction.** 3 hrs. Prerequisites: CIE 705, CIE 706, CIE 729. Considers topics pertinent to current research in reading instruction. 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.

603. **Management and Organization of Diverse Classrooms.** 3 hrs. Develops knowledge, skills, and attitudes required for teaching students from diverse backgrounds, emphasizing classroom management, organization, and discipline.

605. **The Process of National Board Teacher Certification.** 3-6 hrs. Provides opportunities to analyze and apply National Board for Professional Teaching Standards in the student’s content area using the reflective process. Three hours may be taken at the pre-candidate level or three hours may be taken at the candidate level.

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 chair 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 chair. 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.  1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, 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, 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.

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 extracurricular 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.

718. Research and Trends in English Education.  3 hrs. Uses an action research paradigm to explore current research and trends in the English classroom from various theoretical perspectives.

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 department chair. 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.  1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor, 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, 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 paper under the guidance of a graduate committee.

880. Advanced Graduate Seminar in Education.  1 hr. A series of in-depth discussions and analysis of significant educational problems and issues for students in advanced programs.

Curriculum, Instruction, and Special Education (CISE)
800. Critical Review of Professional Literature. 3 hrs. Doctoral seminar focusing on the review of current literature in elementary, secondary, and special education.
802. Doctoral Seminar: Curriculum Theory. 3 hrs. Interpretive, normative, and critical perspectives of educational history, philosophy, sociology, and psychology. Understand and analyze theory for implementation in practice.
806. Problems in Educational Research: Design I. 3 hrs. Doctoral seminar focusing on research methods. Primary emphasis is placed on the review, development, and evaluation of research topics in the student’s area of specialization.
807. Problems in Educational Research: Design II. 3 hrs. Doctoral seminar focusing on research methods. Primary emphasis is placed on the review, development, and evaluation of research topics in the student’s area of specialization.
808. Seminar in Teacher Education. 3 hrs. Doctoral seminar focusing on exploration of issues and problems in education. Addresses development of programs, courses of study, and modules in higher education.
809. Grant Writing, Policy Analysis, and Program Evaluation. 3 hrs. Doctoral seminar focusing on grant writing, policy analysis, and program evaluation in elementary, secondary, and special education.

Dance (DAN)
504. Advanced Jazz Dance. 2 hrs. The study and application of the principles of jazz movement. May be repeated for a total of 6 hours.
509. Practicum in Movement. 1-2 hrs. May be taken for a total of 9 hrs.
580. Musical Theatre Dance. 2 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.
646. Economic Development Marketing. 1 hr. Examines the principles of strategic comprehensive marketing as applied to economic development practice.
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.
665. Economic Development and Tourism. 2 hrs. Study of tourism as it relates to economic development. Focuses on methods for attracting tourism, hospitality, and gaming businesses as target sectors for economic development. Includes a study of ecotourism and the gaming industry.
667. Community Development II. 3 hrs. Examines applied techniques for implementing a community economic development plan, including downtown development, industrial sites and buildings, workforce development, and infrastructure.
691. Internship. 2 hrs. May be repeated for a total of 6 hours; maximum of 2 hours credit for each academic term. Co-requisite: Admission to master’s degree in economic development or the Ph.D. degree in international development. Internship with the Center for Community and Economic Development under faculty supervision.
692. Special Problems. 1-6 hrs. May be repeated for a total of 6 hours. Involves study in a specific topic or work in a specific area of research under the direction of a consulting faculty member.
697. Independent Study and Research. 1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester.
698. Thesis. 1-3 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.
701. New South Economic Development Course. 2 hrs. Week-long course presenting a comprehensive overview of economic development as a process, a practice, and a profession.
722. Advanced Research Methods in Economic Development. 3 hrs. Prerequisite: ED 663 or equivalent. Examines research techniques applied to economic development problems, including impact, economic base, and retail trade area analysis; gathering, compilation, and presentation of community information; and industry targeting studies. Emphasizes computer analysis and use of the Internet.
724. Advanced Economic Development Finance I. 3 hrs. Prerequisite: ED 650 or equivalent. Credit analysis process, permanent working capital analysis, cash flow analysis, and projections and deal structuring as they are applied in economic development practice.
730. **Theory of Technology Development.** 3 hrs. This course examines the theory, practice, implications, and history of technological innovations.

731. **Stages of Technology Development.** 3 hrs. This course uses a constructivist approach to develop students’ knowledge of the beginning stages of the technology development process.

732. **Fostering Creative Environments.** 3 hrs. This course examines the factors that influence creative ideas and develop methods for promoting creatively which lead to economic development.

748. **International Economic Development Methods.** 1 hr. Prerequisite: ED 646 or equivalent. Examines methods of promoting foreign direct investment and export assistance for domestic producers.

761. **Contemporary Issues in Economic Development.** 1-3 hrs. Analysis of selected issues of current importance to the practice of economic development.

764. **Economic Development Theory I.** 3 hrs. Prerequisite: GHY 350 or equivalent or permission of instructor. Manufacturing, retail, service, and commercial location theory.

765. **Economic Development Theory II.** 3 hrs. Prerequisite: GHY 350 or equivalent or permission of instructor. Regional and local economic development theory, including growth centers, economic base theory, and multiplier analysis.

784. **Best Practices in Economic Development.** 1 hr. Prerequisite: Approval of adviser and instructor. Case studies of selected examples of best practices in economic development.

789. **Applied Problems in Economic Development.** 3 hrs. Prerequisite: Departmental approval. Capstone course in creative problem solving designed to challenge and synthesize the student’s proficiency in economic development practice. Several research problems are completed and defended based on the student’s program of study and specializations.

791. **Apprenticeship.** 2 hrs. May be repeated for a maximum of 6 hrs. Prerequisite: Approval of adviser and consent of supervising instructor. Placement in a mentoring environment in an economic development agency. 2 hours of credit for each academic term. 4 hours required.

**Economics (ECO)**

520. **Economic Analysis for Managers.** 3 hrs. Prerequisites: Computer literacy, calculus. Microeconomic and macroeconomic analysis 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 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. Prerequisite: Permission of department chair.

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.

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 Principalship.** 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.


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. 1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, 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, 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.

702. Administrative Approaches to Technology. 3 hrs. Interactive Web-based course allows administrators to develop skills that enable them to address technological issues in educational administration.

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.

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. Prerequisites: EDA 600 and EDA 620. Designed to develop a systematic approach to instructional improvement that will be of use to the generalist or specialist.

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. 1-5 hrs. per week. (Course may be repeated, with only nine hours counting toward a degree.)


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 major professor.

792. **Special Problems.** 3 hrs.

794. **Field Problems in Administration I, II, III.** 1 hr. each 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 chair upon the recommendation of the student’s major professor.

797. **Independent Study and Research.** 1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor, 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, 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.

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 Circuit Analysis.** 2 hrs. Prerequisite: Permission of instructor. Corequisite: EET 512L. Transfer functions; network analysis by Laplace transform methods. Not open to master’s of engineering technology candidates who have backgrounds in electrical or electronics engineering technology.

512L. **Advanced Circuit Analysis Laboratory.** 1 hr. Corequisite: EET 512.


550L. **Microwave Technology Laboratory.** 1 hr. Corequisite: EET 550.


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.

### English (ENG)


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.

511. **Studies in Postcolonial Literature.** 3 hrs. Examines postcolonial literature from the 19th century to the present.

513. **Survey of the Modern Novel.** 3 hrs. Examines major British and Continental novels of the last 100 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 20th 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 19th and 20th centuries. Repeatable to 9 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.
545. Studies in Children's and Young Adult Literature. 3 hrs. Explores various literary topics in children's or young adult literature in a seminar setting. Repeatable to 6 hours.


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 16th-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 17th-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 nonfiction 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.


566. Victorian Poetry and Drama. 3 hrs. Survey of British poetry and drama of the period 1830-1900.


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 9 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 20th century.

573. Studies in African-American Literature. 3 hrs. Focuses on specific genres, topics, or writers of African-American Literature.


585. Literature of the South. 3 hrs. Emphasizes the fiction, poetry, and drama of Southern writers.


593. Irish Studies. 4 hrs. A three-week course taught in Ireland as part of the Southern Miss British Studies Program. Content will vary.

596. Caribbean Studies. 3 hrs. Variable content. Lecture series under the auspices of the Center for International and Continuing Education.


611. Topics in Contemporary Literature. 3 hrs. A critical examination of a theme or themes in contemporary literature. Repeatable to 6 hours.
612. **Studies in Genre.** 3 hrs. Provides a focused survey of a literary genre and its critical history. Repeatable to 6 hours.


627. **Introduction to Publishing.** 3 hrs. A practical introduction to the business of literary 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.


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 6 hours.

650. **Studies in Medieval Literature.** 3 hrs. Provides a focused survey of world literature from the period 500-1500. Repeatable up to 6 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 16th and 17th centuries. Repeatable to 6 hours.

661. **Studies in the Restoration and 18th-Century British Literature.** 3 hrs. Provides a focused survey in the literature of the restoration period through the 18th century. Repeatable to 6 hours.

663. **Studies in 19th-Century British Literature.** 3 hrs. Provides a focused survey of the poetry or prose of the 19th century. Repeatable to 6 hours.


669. **Topics in British Literature.** 3 hrs. A critical examination of important trends, movements, and issues in British literature. Repeatable up to 6 hours.

670. **Studies in American Literature I.** 3 hrs. Provides a focused survey of selected American writers and movements before 1900. Repeatable to 6 hours.

671. **Studies in American Literature II.** 3 hrs. Provides a focused survey of selected American writers and movements since 1900. Repeatable to 6 hours.

672. **Topics in American Literature.** 3 hrs. A critical examination of a theme or themes in American literature. Repeatable to 6 hours.

673. **Topics in African-American Literature.** 3 hrs. A critical examination of genres, topics, or writers of African-American literature. Repeatable to 6 hours.

678. **Topics in Writing by Women.** 3 hrs. A critical examination of a genre, topic, or theme in women’s literature. Repeatable to 6 hours.

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 4 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. Repeatable to 6 hours.

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 post-elementary institutions. Repeatable to 9 hours. Credit hours do not count toward English degree.

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.** 1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, 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, 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.

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 9 hours.

703. Seminar in Teaching English as a Second Language. 3 hrs. Examines the practical application of linguistic principles to second language teaching.

711. Seminar in Postcolonial Literature. 3 hrs. Examines postcolonial literature from the 19th century to the present.

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 20th century: authors, movements, and genres. Repeatable to 9 hours.

721. Seminar in Fiction Writing. 3 hrs. Prerequisites: Graduate standing, permission of instructor, and enrollment in Center for Writers. Workshop in fiction writing. Repeatable to 9 hours for M.A., to 18 hours for Ph.D.

722. Seminar in Poetry Writing. 3 hrs. Prerequisites: Graduate standing, permission of instructor, and enrollment in Center for Writers. Workshop in poetry writing. Repeatable to 9 hours for M.A., to 18 hours for Ph.D.

723. Seminar in Nonfiction Writing. 3 hrs. Workshop in the writing of nonfiction prose, memoir, and personal essay. Repeatable to 9 hours.

730. Seminar 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 coursework in rhetoric and composition and permission of 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. Repeatable to 9 hours.

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 9 hours.

758. Seminar in Renaissance Literature. 3 hrs. Studies the works of a major English Renaissance writer or group of writers. Repeatable to 9 hours.

760. Seminar in 17th-Century British Literature. 3 hrs. Provides extensive study of an author, topic, or genre in 17th-century British literature. Repeatable to 9 hours.

761. Seminar in 18th-Century British Literature. 3 hrs. Provides extensive study of an author, topic, or genre in 18th-century British literature. Repeatable to 9 hours.

763. Seminar in English Romanticism. 3 hrs. Provides extensive study of selected poets and topics from the Romantic Era (1790-1830). Repeatable to 9 hours.

764. Seminar in Victorianism. 3 hrs. Provides extensive study of selected authors and topics from the Victorian Era (1830-1910). Repeatable to 9 hours.

769. Seminar in Modern British Literature. 3 hrs. Offers an examination of important modern British figures and movements. Repeatable to 9 hours.

770. Seminar in American Literature I. 3 hrs. Presents a detailed study of selected American writers and movements before 1900. Repeatable to 9 hours.

771. Seminar in American Literature II. 3 hrs. Presents a detailed study of selected American writers and movements since 1900. Repeatable to 9 hours.

772. Readings in American Literature. 3 hrs. Presents a detailed study of selected American writers and movements. Repeatable to 9 hours.

773. Seminar in African-American Literature. 3 hrs. Provides a detailed study of selected genres, topics, or writers of African-American literature. Repeatable to 9 hours.

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 9 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.
Environmental Science (ESC)

501. Environmental Sampling. 4 hrs. Methods for sampling and solids, liquids, and gases for environmental testing.

506. Environmental Remediation. 3 hrs. Study of the environmental remediation process and methods for contaminated soils, sludges, slurries, and water systems.

550. Pollution Control. 3 hrs. Study of pollution, its origin and effects, and methods of pollution abatement. Emphasis on control mechanisms, industrial control equipment, operations, and regulations.

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.

Family and Consumer Sciences (FCS)

509. Occupational Family and Consumer Sciences. 3 hrs. Developing and evaluating teaching units for family and consumer sciences-related occupational programs.

601. Family Life Education. 3 hrs. General philosophy and broad principles of family life education with emphasis on planning, implementing, and evaluating such educational programs.

605. Supervision of Family and Consumer Sciences Education. 3 hrs. Practices and procedures in the supervision of vocational family and consumer sciences.

606. Selected Topics in Family and Consumer Sciences Education. 3 hrs. (may be repeated once) Prerequisite: Corresponding subject matter course. The development and application of units of work in selected areas in the secondary school program.


611. Evaluation in Family and Consumer Sciences. 3 hrs. Theory and practice of systematic evaluation of components of family and consumer sciences programs, including occupational family and consumer sciences.

612. Field Experience in Family and Consumer Sciences-Related Occupations. 6 hrs. Supervised work experience in approved family and consumer sciences occupations. Can only be counted toward occupational certification.

615. Methods, Materials, and Information Technology in Family and Consumer Sciences. 3 hrs. Emphasis on new developments in teaching family and consumer sciences, including computer technology.

630. Dimensions of Learning in Family and Consumer Sciences Education I. 3 hrs. The first of a two-semester course sequence providing a broad introduction to the concepts, contexts, and practices of teaching, as well as specific instruction in secondary family and consumer sciences methods. Enrollment is restricted to students admitted to the master of arts in teaching (MAT) degree program. This course includes a clinical supervision component.

631. Dimensions of Learning in Family and Consumer Sciences Education II. 3 hrs. Prerequisite: FCS 630. The second of a two-semester course sequence providing a broad introduction to the concepts, contexts, and practices of teaching, as well as specific instruction in secondary family and consumer sciences methods. Enrollment is restricted to students admitted to the master of arts in teaching (MAT) degree program. This course includes a clinical supervision component.

691. Research. 1-4 hrs.

692. Special Problems in Family and Consumer Sciences Education. 1-4 hrs.

97. Independent Study and Research. 1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, 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, 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.
Family Studies (FAM)


600. Prepracticum in Marriage and Family Therapy. 3 hrs. Prerequisites: FAM 655 and permission of the instructor. Students are expected to gain basic clinical competencies in preparation for working with families.


615. Gender and Culture in the Family. 3 hrs. Designed to help students integrate theoretical, research, and developmental applications of gender and cultural issues into their understanding of the family and in the practice of systems therapy.


650. Individual and Family Life Cycle Development. 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.

652. 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.

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. Theories of Marriage and Family Therapy I: Survey of Major Models. 3 hrs. A survey of the major models of family and systems theory including general systems, family systems, cybernetics, intergenerational, structural, strategic, experiential, and postmodern models.

656. Theories of Marriage and Family Therapy II: Evidence-Based Treatment. 3 hrs. A survey of treatment approaches with demonstrated effectiveness based on empirically validated research.

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. 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. Professional 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.

665. Sex Therapy. 3 hrs. Sexual development and attitudes towards sex are explored. Physical, psychological, emotional, and systemic processes in chronic sexual problems and specific intervention strategies are examined.

675. Practice of Family Research. 3 hrs. Provides conceptual background and application of research methods for the social disciplines.

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: FCS 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 Relations. 1-4 hrs.

697. Independent Study and Research. 1-9 hrs. arranged. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, 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, 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. Supervised Practicum in Marriage and Family Therapy. 1-6 hrs. Prerequisites: 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.
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.

600. 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.

622. 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. Teaching Second Languages: Theory into Practice. 3 hrs. Prerequisite: Consent of instructor. Familiarizes students with the major aspects of foreign/second language teaching theory and with the variety of instructional approaches and techniques pertinent to the foreign/second language teaching and learning situation.

562. Translation. 3 hrs. Prerequisite: Consent 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. Current trends in second language acquisition theory and research. Students will develop an awareness of how SLA theory and research apply to their specific second or foreign language learning and teaching practice.

665. Sociocultural and Sociolinguistic Perspectives in Language. 3 hrs. Prerequisite: Consent of instructor. Provides students with the knowledge of the relationship between language and its social context, with an emphasis on the application of that knowledge to an understanding of second and foreign language acquisition and to the instruction of second and foreign language learners.

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: FL 561. Provides students with opportunities to gain language classroom experience, to enhance their teaching skills, and to reflect on the nature and processes of second or foreign language teaching. These objectives will be reached through reflection, observation, and hands-on experience.

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.

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: Consent of instructor. Study of sociocultural and historical aspects of French films.

534. **France in the Fifth Republic.** 3 hrs. Prerequisite: Consent of instructor. Contemporary French education, politics, social and intellectual attitudes, and urban and rural life.

535. **Modern France.** 3 hrs. Prerequisite: Consent of instructor. Overview of the period of French history from 1870 to 1970, including topics such as the formation of the Third Republic, the foundation of French Socialism, Modernism in art and literature, and colonial and postcolonial upheaval. May be repeated once.

536. **Francophone Civilization and Culture.** 3 hrs. Studies in the history, art, beliefs, behaviors, and values of French-speaking cultures. Topics will vary. May be repeated once.

537. **Topics in French Culture.** 3 hrs. Prerequisite: Consent of instructor. Variable topics in the study of French culture. May be repeated as content varies.

542. **Survey of French Literature.** 3 hrs. Prerequisite: Consent of instructor. May be taken for a total of 6 hours if contents vary.

545. **Topics in French Literature.** 3 hrs. May be taken for a total of 6 hours if topics vary.

546. **French Novel and Short Story.** 3 hrs. Prose fiction of the 18th, 19th, and 20th centuries, studied in conjunction with films based on the works or thematically related to them.

581. **Advanced Credit for Study Abroad.** 1-9 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. Prerequisite: Consent of instructor. Content varies in response to students’ interests and needs. May be repeated once.

611. **Options in the Teaching of Grammar.** 3 hrs. An introduction to approaches to the acquisition and teaching of French grammar, along with an exploration of challenging grammatical aspects of the language.

641. **French Seminar.** 3 hrs. May be taken for a total of 9 hours if topics vary.

692. **Special Problems in the Teaching of French.** 1-3 hrs. by prior arrangement only. May be repeated as content varies.

**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.** 1-9 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 9 hours if topics vary.

**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: Consent of instructor. May be taken for a total of 9 hours if topic varies.

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. Prerequisite: Consent of instructor. A contrastive study of the phonetic systems of English and Spanish with emphasis in production of speech sounds, correction of exercises in pronunciation, and problems in learning the sound system of a second language.

506. Advanced Composition and Grammar. 3 hrs. Prerequisite: Consent of instructor. Understanding of the grammatical concepts, forms and practice in descriptive, narrative, analytical, and research composition with attention to grammar and style, as well as methods of organization.

511. The Spanish Subjunctive. 3 hrs. Prerequisite: Consent of instructor. Understanding the mode of the subjunctive inner world. Discussion, comparison between the indicative and subjunctive moods and learning problems.

521. Advanced Conversation. 3 hrs. Prerequisite: SPA 421, equivalent, or consent of instructor. Development of oral skills and strategies through intensive practice in speaking and listening comprehension, using the ACTFL Oral Proficiency Guidelines, teaching as well as extensive research in oral language proficiency.

533. Hispanic Film. 3 hrs. Prerequisite: Consent of instructor. Overview of Spanish and Spanish-American cinema. Discussions will emphasize cultural, sociohistorical, and pedagogical issues.

535. Spanish Culture and Civilization. 3 hrs. Prerequisite: Consent of instructor. Examines sociopolitical, cultural history, and construction of social values in the Spanish society as well as forms of regional, national, and gender identity.

536. Latin American Culture and Civilization. 3 hrs. Prerequisite: Consent of instructor. 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 6 hours if topics vary.

545. Topics in Spanish Literature. 3 hrs. Prerequisite: Consent of instructor. May be taken for a total of 6 hours if topics vary.

546. Don Quixote. 3 hrs. Prerequisite: Consent of instructor. 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 6 hours if topics vary.

581. Advanced Credit for Study Abroad. 1-9 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. Prerequisite: Consent of instructor.

609. Spanish Lexical Problems. 3 hrs. Prerequisite: Consent of instructor. A study of correct vocabulary usage, with composition practice.

612. Spanish Pedagogical Grammar. 3 hrs. Prerequisite: Consent of instructor. Exploration and development of ways of teaching concepts and techniques with a view of grammar as a coherent system, its internal logic, and the strategies to use in the classroom.

641. Spanish Seminar. 3 hrs. Prerequisite: Consent of instructor. May be taken for a total of 9 hours if topics vary.

645. Teaching Reading in Spanish. 3 hrs. An introduction to current reading theory, reasearch and techniques relevant to the teaching of Spanish.

661. Spanish Reading. 3 hrs. Prerequisite: Consent of instructor. Development of reading skills and of suitable reading materials for the Spanish classroom.

685. Teaching Spanish for Special Purposes. 3 hrs. Prerequisite: Consent of instructor. Methods and materials for teaching such groups as law enforcement, health care, and business personnel. May be taken for a total of 6 hours if topics vary.

692. Special Problems in the Teaching of Spanish. 1-3 hrs. by prior arrangement only. May be repeated as content varies.
Teaching English to Speakers of Other Languages (TSL)

612. Options in the Teaching of Grammar in ESL/EFL. 3 hrs. An introduction to approaches to the acquisition and teaching of grammar in English as a second or foreign language.

641. TESOL Seminar. 3 hrs. May be repeated as content varies. Content varies in response to students’ interests and needs.

645. Reading in ESL/EFL Instruction. 3 hrs. An introduction to current reading theory, research, and techniques relevant to the teaching of English as a second or foreign language.

692. Special Problems in TESOL. 3 hrs. by prior arrangement only. May be repeated as content varies.

Film (FLM)

536. Western Film. 3 hrs. The course examines the interaction of stylistic and thematic elements associated with the Western film genre.

571. Advanced Cinematography. 3 hrs. Prerequisite: Consent of instructor. Advanced instruction and practical production experience in 16mm motion picture cinematography. Repeatable for up to 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. Film Noir. 3 hrs. The course examines the interaction of stylistic and thematic elements associated with the Film Noir period and their impact on contemporary cinema.

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 hours.

577. Advanced Film Production Workshop. 3 hrs. Prerequisite: Consent of the 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.

579. Film Theory and Criticism. 3 hrs. Study of major film theories through study of the literature of film theory and the screening and discussion of selected films.

585. Film Editing. 3 hrs. Prerequisite: FLM 571. Study of the theory and techniques of film editing. Repeatable for up to 6 hours.

Forensic Science (FSC)

530. Survey of Forensic Toxicology. 3 hrs. Toxicology as applied to forensic investigations.

540. Drug Identification. 3 hrs. Lectures, demonstrations, and discussions covering all aspects of drug identification, emphasizing those 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.

580. Seminar in Forensic Science. 3 hrs. May be repeated for credit. Designed to cover areas of significance in the field of forensic science. Topics may include medio-legal death investigation, vehicle fire investigation, and forensic photography.

591. Special Projects in Forensic Science. 1 hr. Individual studies in forensic science principles.

591L. Laboratory for Forensic Science 591L. 3 hrs. Hands-on experience with true forensic science situations.

597. Field Study in Forensic Science. 3 hrs. Prerequisite: Permission of 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 Center for International and Continuing Education.

691. Research. 1-16 hrs.

698. Thesis. 6 hrs.

General Studies (GS)

500. Orientation to Instructional Settings. 1 hr.
Geography (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.


510L. 21st-Century Cartography Laboratory. 2 hrs. Corequisite: GHY 510. Use of mapping software to design and construct effective maps and techniques for obtaining maps and geographic data from the Internet and other sources.

511. Remote Sensing and Image Interpretation. 3 hrs. Corequisite: GHY 511L. Acquisition, analysis, and interpretation of
aerial photographic products, digital remotely sensed imagery, and the analytic tools in current use by the public and
private sectors.

511L. Remote Sensing and Image Interpretation Laboratory. 1 hr. Corequisite: GHY 511. Application of remote sensing and
image interpretation principles using manual and automated analysis tools.

512. Environmental Remote Sensing. 3 hrs. Prerequisite: GHY 511 or permission of instructor. Corequisite: GHY 512L. Advanced image processing techniques using a variety of images and computer packages. Course focus is on environmental applications and integration with other spatial analysis tools.

512L Environmental Remote Sensing Laboratory. 1 hr. Prerequisite: GHY 511L or permission of instructor. Corequisite: GHY 512. Students are exposed to a variety of advanced image processing techniques using digital remote sensing imagery.


516L Computer Applications in Geography Laboratory. 1 hr. Corequisite: GHY 516. Operation of computerized geographic mapping, information, simulation, and analytic systems.


517L Geographic Information Systems Laboratory. 1 hr. Corequisite: GHY 517. Operation of computerized geographic information systems for decision-making.


518L Spatial Analysis Laboratory. 2 hrs. Corequisite: GHY 518. Design, construction, and use of a geographic information system database.

519. Managing Geographic Information Systems. 1 hr. Theory and practice of managing a geographic information system.

522. Biogeography. 3 hrs. Prerequisite: Consent of instructor. Study of plant and animal distributions, and human impacts on
distributions, from a geographic, geological, and biological perspective. May be taken as BSC 506.

525. Environmental Climatology. 3 hrs. Acquisition, analysis, and interpretation of meteorological and climatological data.
Particular emphasis is placed on understanding climatic anomalies at a variety of time scales, as well as on human-
environmental interactions.

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. Examines the nature and causes of change in the human
landscape of the United States.
540. Population and Human Resources. 3 hrs. A geographical analysis of the spatial variations in demographic and non-demographic aspects of human populations.

541. Contemporary Issues in Geography Seminar. 3 hrs. Prerequisite: 18 hours credit in geography. This discussion course focuses on analysis of the geographical background to topical issues.


551. Theories of Economic Location. 3 hrs. Principles of economic location analysis with emphasis on locational decision making and investment by different types of business. Relevance to economic development and planning is stressed.

589. Caribbean Studies. 1-6 hrs. Variable content. Lecture series, field exercises, and research offered abroad under the auspices of the Center for International and Continuing Education.

598. Study Abroad. 1-6 hrs. Students gain experience of foreign environments, both cultural and physical, through structured programs offered by the Center for International and Continuing Education.

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.

621. Seminar in Geographic Information Science. 3 hrs. May be repeated up to 6 hours with change in content to include cartographic, aerial photo interpretation, remote sensing, statistical, and geographic information systems.

624. Landscape Ecology. 3 hrs. Prerequisite: Consent of instructor. Principles of landscapecerology - the effects of patterns on processes - as a framework for landscape research, analysis, and management.

631. Seminar in Cultural-Historical Geography. 3 hrs. May be repeated up to 6 hours with change in content.

650. Seminar in Economic Geography. 3 hrs. May be repeated up to 6 hours with change in content.

680. Seminar in History and Development of Geographic Thought. 3 hrs.

691. Internship. 1-9 hrs. The internship gives the students credit for practical, supervised experience in the workplace. May be repeated to a maximum of 9 hours.

692. Special Problems. 1-6 hrs.

693. Internship in Geographic Information. 1-6 hrs. Prerequisite: Permission of instructor. Internship in GIS, remote sensing, and cartography. May be repeated for a total of 6 hours.

694. Prolaboratory in Geographic Information. 1-3 hrs. Prerequisite: Permission of instructor. Preparation and presentation of a professional GIS, cartographic, or remote sensing project. May be repeated with change of content for a total of 6 hours of credit.

697. Independent Study and Research. Hours arr. Not to be counted as credit toward a degree. Students actively working on a thesis, consulting with the major professor, 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, 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.

710. Seminar in Research Techniques and Presentation of Geographic Data. 1-3 hrs. Required of all geography graduate students.

712. Seminar in Geographic Information Science. 3 hrs. May be repeated up to 6 hours with change in content to include cartographic, aerial photo interpretation, remote sensing, statistical, and geographic information systems.

715. Quantitative Methods in Spatial Analysis. 3 hrs. An advanced course in statistical and other quantitative techniques applied to problems of spatial analysis.

717. Geography for Teachers. 3 hrs. Current theories, practices, and techniques used in teaching geography at the elementary and secondary levels.

721. Tropical Lands and Peoples. 3 hrs. An examination of peoples and places in tropical regions of the world. Attention is paid to natural environments, resource management, and cultural systems.

723. Seminar in Environmental Climatology. 3 hrs. May be repeated up to 6 hours with change in content.
724. Landscape Ecology. 3 hrs. Prerequisite: Consent of instructor. Principles of landscape ecology - the effects of patterns on processes - as a framework for landscape research, analysis, and management.

731. Seminar in Cultural-Historical Geography. 3 hrs. May be repeated up to 6 hours with change in content.


750. Seminar in Economic Geography. 3 hrs. May be repeated up to 6 hours with change in content.

755. Field Methods in Geography. 3 hrs. Basic methods of geographic analysis used in generating, classifying, analyzing, and reporting field-generated data.

780. Seminar in History and Development of Geographic Thought. 3 hrs.

892. Special Problems. 1-6 hrs.

894. Prolaboratory in GIScience. 1-3 hrs. Prerequisite: Permission of instructor and enrollment in doctoral program. Preparation and presentation of a professional GIS, cartographic, or remote sensing project. May be repeated with change of content for a total of 6 hours of credit.

897. Independent Study and Research. Hours arr. Not to be counted as credit toward a degree. Students actively working on a dissertation, consulting with the major professor, or using other resources for 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, or using other resources of the university must enroll in this course for at least 3 hours each quarter.


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, Hermann-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.


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.


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.

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530L. Principles of Geology for Science Teachers Laboratory. 1 hr. Must be taken concurrently with GLY 530.

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.


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.

604. Tectonics. 3 hrs. Investigation of large-scale crustal deformation.

607. Sedimentary Petrology. 3 hrs. Prerequisite: 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 United States.

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. Paleocology. 3 hrs. Prerequisite: 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 2 hours credit.

691. Research in Geology. 1-16 hrs. Prerequisite: Approval of major instructor.

692. Special Problems in Geology. 1-3 hrs. Prerequisite: Approval of chair. Investigation of a specific problem not related to thesis research.

697. Independent Study and Research. Hours arr. 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, 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.
Higher Education Administration (HE)

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 postsecondary institutions.

714. Higher Education Finance. 3 hrs. This course will explore the financing of higher education including the following: the theoretical bases for the use of taxation to support post-secondary education; students fees and tuition; public and private grants, gifts, and bequests; financing and planning for higher education needs; cost benefit and cost analysis; budgeting and accounting.

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.

716. Legal Issues in Higher Education. 3 hrs. Explore legal issues and their impact on post-secondary institutions. Covers such topics as academic freedom, faculty employment, student legal issues, and tort liability.

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.

718. Human Resources in Higher Education. 3 hrs. The course will introduce the students to the legal regulations and policies surrounding today’s workforce in areas of employee relations, recruitment and selection, training, benefits, compensation, diversity, documentation, information systems and other related topics for public universities.

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.

777. The Professoriate. 3 hrs. An examination of historical and contemporary roles of the professoriate and discussion of forces that are shaping future roles for the profession.

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.

History (HIS)

501. Themes in the Non-Western World. 3 hrs. An analysis of economic, political, social, and cultural issues that have shaped relations between the Western and non-Western worlds.

502. Imperialism, Nationalism, and Decolonization. 3 hrs. A survey of select topics in 19th-century European imperialism, its effects on colonial societies, the development of colonial nationalist movements, and the problems of third-world decolonization in the 20th century.

504. History and Cinema. 3 hrs. This course will provide a multidimensional examination of the relations between the discipline of history, or more precisely the production of historical narratives and interpretations, and cinema.

506. Modern China. Survey of the historical processes that have transformed China into a modern Marxist society.

509. United States Relations with Asia. An exploration of the dynamic interactions between the United States and Asia over the past 200 years.

510. History of Mexico and the Caribbean. 3 hrs. An analysis of the cultural, economic, political, and social features of Mexican history during the 19th and 20th centuries.


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.

514. Social Revolutions and Violence in Modern Latin America. 3 hrs. An examination of the leaders, causes, participants, and course of Latin American revolutions, as well as their broad consequences in the political, social, and economic realms.

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.

522. The History of Medicine. 3 hrs. Provides students with an understanding of the ideas, practices, and institutions in the treatment of disease and the maintenance of health from ancient times to the present.

526. Renaissance Europe. 3 hrs. This course examines the social, political, and intellectual changes that emerged in Europe after the Black Death.

527. Reformation Europe. 3 hrs. This course examines 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 19th-century Europe, with emphasis on nationalism and the quest for reform.

532. Europe 1870-1914. 3 hrs. A survey of late 19th- and early 20th-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. A survey of European political, intellectual, cultural, and economic developments between the world wars.

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.

537. War in Premodern Europe. 3 hrs. Introduction to warfare in ancient and medieval Europe, exploring military technology, tactics, and the effects of war on society.

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. A survey of political, religious, intellectual, and economic developments in Tudor-Stuart Britain.

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.

548. Holocaust and the Jews. 3 hrs. Presents a detailed picture of the Holocaust, its antecedents and aftermath, its meanings and its interpretations.

549. History of Modern Spain. 3 hrs. Survey of the political, social, religious, and national history of Spain since the 18th century.

553. 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.

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.


559. History of Religion in America. 3 hrs. A survey of the variety of American religious experiences in their historical contexts.

560. Colonial America. 3 hrs. Examines the 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. Early American Republic. 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 Gilded Age and Progressive Era, 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. Prosperity, Depression, and War in America, 1919-1945. 3 hrs. A detailed examination of the social, intellectual, political, and economic history of the interwar years.

566. America Since 1945. 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. **Environmental History of the South.** 3 hrs. This course examines the interaction of humans and nature in the American South from pre-European arrival to today.

571. **The American Frontier.** 3 hrs. Examines the significance of the American frontier.

572. **American Environmental History.** 3 hrs. Examine the interaction of humans and nature in American history. The approach will be roughly chronological, with emphasis on selected issues, events, and persons.

573. **United States Foreign Relations.** 3 hrs. A history of United States foreign relations with particular emphasis on Manifest Destiny, the New Imperialism, the diplomacy of World War I, and the events leading to World War I, World War II, and the Cold War.

574. **History of American Indians.** 3 hrs. A survey of Native Americans from the period of European intrusion to the present.

575. **The Ethnohistory of Southeastern Indians: Pre-Contact through the 20th Century.** 3 hrs. This course focuses on the Native Southeast, a distinctive culture area characterized traditionally by horticulture, chiefdoms, matrilineal kinship, and temple mounds.

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 women's role in society in response to changing economic and social conditions.

578. **Topics in African-American History.** 3 hrs. Prerequisite: HIS 340 or permission of instructor. Intensive study (readings, discussion, research) of 20th-century African-American protest leadership and the freedom struggle.

579. **Topics in African History.** 3 hrs. May be repeated for a total of 9 hours. Examines various topics in African history. Content of course may vary.

580. **Topics in African History.** 3 hrs. An examination of various topics in African history. The course may be repeated for up to 6 credit hours.

581. **Topics in Pre-Modern European History.** 3 hrs. This course will examine various topics in ancient and medieval European history.

582. **Topics in Modern European History.** 3 hrs.

583. **Topics in Latin American History.** 3 hrs.

585. **Topics in the History of War and Society.** 3 hrs. Examines various topics in the history of war and society.

595. **Austrian Studies.** 3-6 hrs. Variable topics in central European history. Offered abroad under the auspices of International Programs. 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 the auspices of International Programs. No more than 3 hours to be counted as credit toward degree.

605. **Presenting Heritage I.** 3 hrs. The first of a two-part seminar (with 606) on public history, folklore, and anthropology. It emphasizes theory and method in public presentation to prepare students for public sector employment.

606. **Presenting Heritage II.** 3 hrs. The second of a two-part seminar (with 605) on public history, folklore, and anthropology, emphasizing the development and management of public humanities programming.


624. **Special Problems, I, II, III, IV.** 1-4 hrs.

695. **Internship in Public History.** 3 hrs. Supervised internship in a private, state, or federal facility dedicated to public history. May be repeated for 12 hours, only 6 of which may be applied to the degree.

696. **Internship in Applied Historical Research.** 3 hrs. A supervised internship in a private, state, or federal institution with an emphasis on historical administrative materials. May be repeated for 12 hours, only 6 of which may be applied to the degree.
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, 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, 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 9 hours.

712. Research Seminar in European History. 3 hrs. May be repeated for a total of 9 hours.

720. 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.

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.

731. Seminar in Medieval History. 3 hrs. May be repeated for a total of 9 hours.

732. Seminar in British History. 3 hrs. May be repeated for a total of 9 hours.

733. Seminar in Central European History. 3 hrs. May be repeated for a total of 9 hours.

734. Seminar in Western European History. 3 hrs. May be repeated for a total of 9 hours.

735. Seminar in Early Modern European History. 3 hrs. May be repeated for a total of 9 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 9 hours.

745. Seminar in Latin American History. 3 hrs. May be repeated for a total of 9 hours.

771. Seminar in United States History to 1877. 3 hrs. May be repeated for a total of 9 hours.

772. Seminar in United States History Since 1877. 3 hrs. May be repeated for a total of 9 hours.

773. Seminar in African-American History. 3-6 hrs. as topics vary. Examination of selected topics in African-American history.

774. Seminar in American Diplomatic History. 3 hrs. May be repeated for a total of 9 hours.

775. Seminar in Southern History. 3 hrs. Variable topics in Southern history. May be repeated for a total of 9 hours.

776. Seminar in Women’s History. 3 hrs. Variable topics in women’s history. May be repeated for a total of 9 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.


785. Oral History Seminar. 3 hrs. May be repeated for a total of 9 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 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, 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, 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 the auspices of the Center for International and Continuing Education. No more than 3 hours to be counted as credit toward degree.

898. Dissertation. 1-12 hrs. for a total of 12 hours.
College of Health (COH)

601. College Teaching. 3 hrs. Examines issues and research related to successful college teaching. Provides supervised experience in planning and developing course materials and evaluating teaching methodology.

Hospitality Management (HM)

540. Food Service Operations Management. 3 hrs. Corequisite: HM 540L. Advanced application of systems used to manage food service operations.

540L. Food Service Operations Management Laboratory. 2 hrs. Prerequisite: HM 350, 350L. Corequisite: HM 540. Practical application of the management of food service operations.

541. Purchasing in the Hospitality Industry. 3 hrs. Prerequisite: HM 100. Principles of purchasing foods, beverages, non-food items, and equipment are examined.

542. Layout and Design. 3 hrs. Prerequisite: HM 100. Planning, designing, and layout of hospitality facilities.

545. Hospitality Financial Management. 3 hrs. Prerequisite: HM 380. Financial management techniques applied to the hospitality industry, including capital expenditure analysis, and evaluation.

582. Hospitality Marketing. 3 hrs. Prerequisite: HM 100. Application of marketing theories to hospitality organizations. Emphasis on marketing systems, consumer behavior, market definition, and the marketing mix.

583. Dimensions of Tourism. 3 hrs. Prerequisite: HM 100. To explore tourism’s supply/demand components. Emphasis on relationship between the components and functional areas of planning and marketing that manage them.

590. International Studies in Hospitality Management. 3 hrs. Prerequisite: HM 100 and permission of adviser. Acquaints students with visited destination’s tourism supply/demand components through field trips/meetings with industry leaders.

594. Tourism Destination Development. 3 hrs. Prerequisite: HM 583. Emphasis placed on nature/scope of tourism planning, planning approaches, markets, attractions, services, regional potential planning, and levels of planning.

Human Performance and Recreation (HPR)


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.


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. Prerequisite: 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.

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, and team physicians.


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 in-depth 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.

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 Southern Miss Center for International and Continuing Education.

601. Exercise Physiology. 3 hrs. The study of the physiological basis of muscular activity, with special attention to general effects on body functions.

602. Graded Exercise Testing. 3 hrs. Study and application of graded exercise testing safely and reproducibly so as to obtain valid and reliable data.

604. Advanced Motor Development. 3 hrs. A study of the motor aspects of the human growth and development process.

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.

609. Sport Psychology. 3 hrs. Designed to acquaint the student with the concepts concerning the role of sport psychology in coaching. Emphasis placed on the identification and appropriate application of psychological techniques to achieving optimal performance.
612. **Financial Management in Sport.** 3 hrs. Advanced principles and applications of finance and economics in the sport industry.

616. **Threat and Risk Assessment of Sport Venues.** 3 hrs. Course provides an overview of the Homeland Security/OPD threat and risk assessment methodology as it applies to sports event venue. Students will learn how to identify vulnerabilities, analyze and mitigate risk, and harden sport facility physical protection systems. Weapons of Mass Destruction (Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) will also be discussed.

628. **Sport Event Emergency Response Planning.** 3 hrs. Course provides an overview of emergency response and security plans for major sporting event, including crowd management, perimeter and access control, vendor and contractor management, and consequence and crisis management. A virtual stadium software program will be utilized in this course.

630. **Socio-Ethical Issues in Sport.** 3 hrs. Advanced study of such social issues as gender, race and ethnicity, aggression, politics, religion, and class and social mobility within the context of the sport industry.

642. **Sport Venue and Event Management.** 3 hrs. This course will provide a practical background in all facets of managing a sports event and facility.

660. **Organizational Leadership and Management in Sport.** 3 hrs. Special emphasis on problems of the athletic administrator and coach in organizing and directing the athletic programs and sport businesses.

672. **Advanced Development of Strength and Conditioning Programs.** 3 hrs. The development and administration of strength, endurance, flexibility, speed, and agility programs.

675. **Sport Coaching Methodology and Technology.** 3 hrs. Competence in applying competitive tactics, strategies, and technology appropriate to the sport coaching environment.

676. **Athletic Seminar.** 3 hrs. An in-depth study and analysis of the athletic profession as it relates to trends and issues surrounding coaching and administrative decision making.

677. **Legal Aspects of Sport.** 3 hrs. Legal concepts and ethical issues impacting sport administration and coaching policy formation and practice.


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 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.

682. **Applied Research Methods and Statistics in Sport.** 3 hrs. Designed to develop correct application of research methods and statistical process control tools for data based decision making relative to continuous improvement in sport management.

684. **Sport Skill Analysis.** 3 hrs. Provides the mechanical concepts underlying sport techniques and examines models for qualitative and quantitative analysis of human movements.

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. 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, 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, 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. Corequisite: HPR 701. Use and care of exercise physiology laboratory equipment.

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.

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.

714. **Ethics in the Sport Industry.** 3 hrs. Advanced study of ethic history, theory, models, and application as they relate to the decision-making responsibilities of sport participants and management.

715. **Advanced Sport Administration Processes.** 3 hrs. Athletic promotion and fundraising, 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 sport 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.

731. **Administration of Interscolastic Ath Programs.** 3 hrs. Provide insights and strategies for the development and leadership of developmentally sound and educationally compatible interscholastic athletic programs.

733. **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.

734. **Advanced Biomechanics.** 3 hrs. Prerequisite: HPR 703. The study of the mechanical foundations and advanced analytical techniques of human motion.

734L. **Advanced Biomedical Laboratory.** 2 hrs. Concurrent enrollment in HPR 734 or permission of instructor. The application of high-speed motion capture/video system, force platform application, and accelerometers in the study of 2-D and 3-D kinematics and kinetics in human performance.

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 nonschool instructional settings.


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.
Course Descriptions

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, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester.


821. Advanced Administration of Human Performance Programs. 3 hrs. Prerequisite: HPR 720, HPR 670, or instructor permission. Analysis of leadership and supervision for effective management of collegiate human performance programs.

840. Professional Preparation in Human Performance. 3 hrs. Prerequisite: Permission of instructor. This course is designed to develop understandings and skills in a prospective faculty member and is deemed most critical for success within HPERD professional preparation fields.

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.


Hydrographic Science (HYD)

600. Classical Geodesy. 4 hrs. Prerequisite: Permission of instructor. Introduction to determination of curvature, shape, and dimensions of the earth, and to positions of ocean bottom features and topography.

601. Hydrographic Data Management. 3 hrs. Prerequisite: Permission of instructor. The methods of data acquisition and control, capture, processing, and analysis applied to construction of navigational charts.

602. Marine Geology for Hydrographers. 1 hr. Prerequisite: Permission of instructor. Fundamental information on marine geological processes oriented towards application by hydrographers.

603. Law and Policy for Hydrographic Science. 1 hr. Prerequisite: Permission of instructor. The course focuses on law and ocean policy issues, in seminars and classroom discussions, which are relevant to hydrographic science.

604. Kinematic Positioning. 3 hrs. Prerequisite: Permission of instructor. The use of satellites in geodesy, positioning, navigation, and altimetry demonstrated through classroom lectures and practical exercises.

605. Applied Bathymetry. 3 hrs. Prerequisite: MAR 581 or MAR 668 or equivalent. An application of ocean acoustic and transducer principles to the methods of measuring and recording the shape of the sea bed.

606. Nautical Cartography and GIS. 3 hrs. Prerequisite: Permission of instructor. Skill in use of geographical information systems (GIS) is developed for application to nautical cartography.

608. Practical Hydrographic Science. 2 hrs. Prerequisite: HYD 601, 605, 606, and permission of instructor. Practical aspects of planning, conducting, and evaluating results of hydrographic projects.

609. Nautical Science. 1 hr. Prerequisite: Permission of instructor. This course will provide the student with a basic understanding of the principles of nautical science as applied to hydrographic science.

610. Hydrographic Science Field Project. 3 hrs. Prerequisite: HYD 601, 605, 606, and permission of instructor. Practical experience designing, conducting, and analyzing results of hydrographic field projects.

611. Remote Sensing for Hydrographers. 3 hrs. Prerequisite: Permission of instructor. Remote sensing principles and photogrammetry for coastline delineation, ice mapping, bathymetry, and water column and surface properties.

612. Water Levels. 2 hrs. Prerequisite: MAR 561 or permission of instructor. Theory and measurements of tidal and non-tidal water levels for hydrographic applications.

620. Math Concepts for Hydrographers. 1 hr. Prerequisite: Permission of instructor. Application of mathematical and statistical concepts for hydrographic science.

680. Special Topics in Hydrographic Science. 1-9 hrs. Prerequisite: Permission of instructor. Study of selected area of hydrographic science. May be repeated.

691. Directed Research in Hydrographic Science. 1-16 hrs. Prerequisite: Permission of instructor. Independent research conducted under the direction of a faculty member. May be repeated.

696. Capstone Review. 3 hrs. Prerequisite: Permission of instructor. A literature-based research project dealing with a specific problem or issue relevant to the field of hydrographic science.
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. 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.


510L. Motion and Time Study Laboratory. 1 hr. Corequisite: IET 510.

520. Design for Rapid Prototyping. 3 hrs. Prerequisite: ENT 520. Survey of applications of rapid automated prototyping, stereo-lithography systems, parametric design, and reverse engineering.

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.


560L. Manufacturing Engineering Technology Laboratory. 1 hr. Corequisite: IET 560.

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.

Information Technology (ITC)

500. Intranetworking Project Planning. 3 hrs. A comprehensive examination of computer networking architectures and evolving technologies.

501. Microprocessor Architecture and Applications. 3 hrs. Instruction includes an introduction to the design and programming of microprocessor-based circuits and systems, the design programming tools necessary to create stand-alone microprocessor systems, and a comparison of different microprocessor architectures and applications.

522. Modeling and Animation I. 3 hrs. Prerequisite: ENT 510 or CADD experience. Computer modeling and animation developed with 3D Studio.

523. Advanced Modeling and Animation II. 3 hrs. Prerequisite: SET 522. Expand knowledge of modeling and animation using 3D Studio Max/Viz.


526. Virtual Reality II. 3 hrs. Prerequisite: SET 525. Study of advanced virtual reality programming techniques with VRML, JavaScript, and Java.

530. LAN Technologies. 3 hrs. Prerequisite: Permission of instructor. An analysis of routed local and wide area networking technologies emphasizing planning, design, installation, and management, including router configuration and management.

531. WAN Switching and Remote Access. 3 hrs. Prerequisites: SET 530 and permission of instructor. An examination of implementing routers and switches on internetworks to improve network QOS over packet-switched and circuit-switched connections.

532. Scalable Multilayer Networks. 3 hrs. Prerequisites: SET 531 and permission of instructor. Design, installation, and configuration of complex and scalable routed and switched networks using multilayer switching technologies over high-speed Ethernet.

533. Remote Access and Troubleshooting. 3 hrs. Prerequisites: SET 532 and permission of instructor. Building and troubleshooting remote access networks to interconnect central sites to branch office/telecommuters.

535. Communications Server Administration. 3 hrs. Prerequisite: SET 585. A comprehensive examination of administering enterprise messaging and scheduling services in a client-server environment using currently available applications.
555. E-Commerce Server Administration. 3 hrs. Prerequisite: SET 585. A comprehensive examination of developing, implementing, and administering Web-based services for electronic commerce.

563. Wireless and Personal Communication Systems. 3 hrs. Prerequisite: Permission of instructor. An examination of current and planned wireless communication systems, emphasizing system architecture and access methodology.

565. Satellite Communication Systems. 3 hrs. Prerequisite: Permission of instructor. An examination of communications satellite systems, subsystems, and technologies which support global communications.

571. Small Computer Systems. 3 hrs. A study of control units, arithmetic units, memories, and microprogramming concepts.

571L. Small Computer Systems Laboratory. 1 hr. Corequisite: ITC 571.

583. Windows Networking. 3 hrs. Prerequisites: Computer literacy and two year’s experience using Windows-based operating system. A comprehensive examination of the Windows 95 networking architecture and capabilities.

585. NOS Server Administration. 3 hrs. A comprehensive examination of the Windows NT 4.0 installation and administration, one of today’s most popular network operating systems (NOS).

586. Intranetworking. 3 hrs. Prerequisite: SET 585 or permission of instructor. A continuation of SET 585 that will emphasize directory architecture, binding of network protocols, creation and management of user and group.

588. TCP/IP Networking. 3 hrs. Prerequisite: SET 583 or permission of instructor. A comprehensive examination of the Internet’s standard protocol suite TCP/IP.

589. Internet Information Server. 3 hrs. Prerequisites: SET 585, 588, or permission of instructor. Installation and configuration of a popular NOS as an Internet information server.

592. Special Problems. 1-3 hrs. Prerequisites: Graduate standing and approval of faculty adviser. Supervised study in area not covered by available courses.

620. Advanced Computer Applications in Engineering Technology. 3 hrs. Prerequisite: ENT 520 or permission of instructor. CADD techniques for 3D wireframe and solid modeling.

650. Advanced Design Systems in Engineering Technology. 3 hrs. Prerequisite: Permission of instructor. Application of advanced design tools and processes in engineering technology.

692. Special Problems. 1-3 hrs. Prerequisites: Graduate standing and approval of faculty adviser. Supervised study in area not covered by available courses

Instructional Technology (IT)

567. Desktop Publishing. 3 hrs. Prerequisite: Basic computer literacy or permission of instructor. Use of desktop publishing software for document production, layout, and design.

569. Multimedia Design and Development. 3 hrs. Prerequisite: Basic computer literacy or permission of instructor. Introduction to multimedia concepts, design, and instructorial applications.

601. Foundations of Instructional Technology. 3 hrs. Prerequisite: Basic computer literacy. Survey of the historical aspects of instructional media. Application of research in the development of technology relating to libraries, classrooms, industry, and instruction.

610. Sociological Perspectives in Technology. 3 hrs. An examination of equitable and ethical implications of instructional technology in various learning environments.

625. Leadership and Professional Development in Technology, 3 hrs. Examine leadership skills required for implementing technology into an educational program and furthering professional development.

636. Instructional Systems Design. 3 hrs. Prerequisite: Basic computer literacy. Translation of instructional design principles into prototype systems.

640. Interactive Instructional Media. 3 hrs. Develop interactive instructional media and discuss design principles related to teaching and learning.

644. Advanced Hypermedia Development. 3 hrs. Prerequisite: Basic computer literacy. Advanced methods for the design and development of interactive multimedia applications.

645. Computers in Education. 3 hrs. Prerequisite: Basic computer literacy. Examines the use of current and emerging computer technologies in education.

648. Telecommunications in Education. 3 hrs. Prerequisite: Basic computer literacy. Examine issues, methods, and utilization of telecommunication technology as it applies to education.

650. Distance Learning Systems. 3 hrs. Prerequisite: IT 648. Survey of distance learning models, theoretical frameworks, historical development, and practical applications.

658. Web Accessibility Design and Development. 3 hrs. Examine Web accessibility issues faced by learners with disabilities and how Web resources can be designed to improve accessibility.
662. **Networks in Education.** 3 hrs. Prerequisite: Basic computer literacy. Examine hardware, software, implementation, and utilization of network technology as it applies to education.

692. **Special Problems in Instructional Technology.** 3 hrs. Prerequisite: REF 601 and IT 742. Advanced individualized project relevant to the student’s skill specialty. Scholarly paper and instructional on approved topic/problem.

697. **Independent Study and Research.** Hours arranged. Not to be counted as credit toward a degree. Students actively working on a thesis or capstone project, 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 or capstone project but who are actively working on a thesis or capstone project, consulting with the major professor and/or using other resources of the university, must enroll in this course for at least 1 hour each semester.

698. **Thesis.** 1-6 hrs. for a total of 6 hours. Prerequisites: REF 601 and IT 742. Credit deferred until thesis is completed.

699. **Capstone Project.** 3 hrs. Prerequisites: IT 636, IT 644 and IT 648. Credit deferred until capstone project is completed. Design, development, and presentation of practical instructional technology project.

709. **Administration of Instructional Technologies.** 3 hrs. Apply administrative practices and principles to implement effective instructional technology learning environments.

742. **Research in Instructional Systems Technology.** 3 hrs. Forum for sharing research perspectives, exploring processes involved in defining research problems, and analyzing research theories and methods in instructional technology.


780. **Seminar in Instructional Technology.** 3 hrs. Examine specific issues related to instructional technology that includes research development, emerging technologies, and other current trends in the field.

791. **Internship in Instructional Technology.** 3 hrs. Provide internship experience for students in the areas of instructional technology, design, development, and implementation.

**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. Prerequisite: Permission of department chair.

**International Development (IDV)**

692. **Special Problems.** 1-6 hrs. No prerequisites.

699. **Study Abroad.** 1-6 hrs. May be repeated up to 12 hours. Field experience abroad in the study of international development issues.

710. **International Development Theory.** 3 hrs. May be repeated up to a total of 12 hours. The intellectual heritage and the contemporary global framework of research and practice in international development, including foundations in various disciplines and fields of study.

711. **International Political Economy.** 3 hrs. Prerequisite: doctoral standing and economics. Examination of the intersection of politics and economics in international development which influence international development models, theories, practice and application.

712. **International Law and Organization.** 3 hrs. Prerequisite: Doctoral standing. Examination of the history and development of international law and the rise of international organizations.

713. **Globalization.** 3 hrs. Prerequisite: Doctoral standing. Examination of the current debates and theories associated with concept of globalization including proponents and critics of the process.

719. **Research Design I.** 3 hrs. Prerequisite: Doctoral standing. Examination of the basic components of research design in the social sciences. Compares various research methods and explains the steps needed to create a research design.

720. **Research Design II.** 3 hrs. May be repeated up to a total of 12 hours. Theory and techniques for scholarly research and practice in international development.

721. **Statistical Methods in International Development Research.** 3 hrs. Provides a basic foundation in statistical methods as applied in development-related research to assist students in their own research work and make them better critical consumers of development literature.


725. **Field Research in International Development.** 3 hrs. Prerequisite: IDV 720 or permission of instructor. May be repeated up to a total of 12 hours. Training in research methods conducted in a field setting, emphasizing international contexts.
726. Field Research II. 3 hrs. Pre or Corequisite: doctoral standing, IDV 720 Research Design I, and IDV 718 Qualitative Methods Exploration of primary qualitative data collection in a field environment. Students will actively engage in data collection in a field environment a meet with associated challenges.

727. Technologies and Techniques in International Development Research. 2-6 hrs. Provides a foundation in technologies for research in development, including remote sensing and geographic information systems, to assist students in their own research work and make them better critical consumers of development literature.

729. Qualitative Methods. 3 hrs. Prerequisite: doctoral standing. Introduction to qualitative methods as data collection in international development.


740. Grantsmanship for Development Research and Practice. 3 hrs. Provides students with the information resources and techniques for effective grant writing, to fund both research projects and development-related programs.

791. Internship. 1-6 hrs. May be repeated up to a total of 12 hours. Provides students with professional experience in private firms, government agencies, or nongovernmental organizations.

790. Practicum in Higher and Professional Education. 1-6 hrs. Provides students who have a career interest in teaching--either in higher education or in professional training--with pedagogical skills for their profession.

797. Independent Study and Research. 3-6 hrs. Hours arranged. Not to be counted as credit toward a degree. Students actively working on dissertation, consulting with the major professor, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester.

850. Seminar on Current Issues in International Development. 1-6 hrs. Prerequisite: IDV 710 or permission of instructor. May be repeated up to a total of 12 hours. Case studies in current international development practices and leading international development research issues.

851. Comparative International Political Development. 3 hrs. Prerequisite: doctoral standing. Examination of the contentious issues in contemporary global politics including debates over development and globalism.

852. Comparative International Cultural Development. 3 hrs. Prerequisite: doctoral standing. Examination of issues of culture which influence international development models, theories, practice and application. Issues include, but are not limited to, religion, language, food, gender and roles of family.


860. Colloquium in International Development. 1-6 hrs. May be repeated up to a total of 12 hours. Seminars involving scholars, practitioners, and student colleagues in international development.

898. Dissertation. 1-12 hrs. for a total of 12 hours.

Library and Information Science (LIS)

+501. Reference and Information Sources. 3 hrs. An introduction to reference materials, services, activities and functions as well as methods for locating information.


+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 nonprint materials.

+508. School Library Media Centers. 3 hrs. Study of the development and administration of the school library media center.

+511. Collection Development and Management. 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 nonprint collections.

+516. Media Utilization. 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 in grades 1-6.

+518. Literature and Related Media for Young Adults. 3 hrs. Study of adolescent literature and other related materials for use by and with young people in 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.


+540. **Information Ethics.** 3 hrs. Introduces ethical issues specifically related to information professions and information technology.

+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. **Computer 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 the Internet as the underpinning for both discussion and practical exploration.

+560. **System Analysis for Librarians.** 3 hrs. Introduces basic concepts and methods of system analysis for library system evaluation, strategic planning, and decision making.


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.


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.

+605. **Library Management.** 3 hrs. Analysis of administrative theory and principles of management in libraries.


+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. Prerequisite: LIS 517 or 518. Traces the development of children’s literature in England and the United States to the early 20th century.

+636. **Information: The Library and 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. **Contemporary 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.

+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.

48. **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. Prerequisite: LIS 501, LIS 505, LIS 511 with "B" or better, or permission of instructor. 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 and LIS 505 or permission of the instructor. Systems analysis, planning, and implementation of automation in various library and information settings.

+655. Online 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. Online Database Services and Resources. 3 hrs. Prerequisites: LIS 501 and LIS 557 or permission of instructor. Applications and issues related to the online resources currently available.

+654. Government Publications. 3 hrs. Prerequisite: LIS 501 and LIS 505. Study of the types of government publications and tools for their bibliographic organization.

+666. Social Science and Humanities Resources. 3 hrs. Prerequisite: LIS 501. Study, evaluation, and utilization of library and information resources in the social sciences.

+668. Research Methods in Library and Information Science. 3 hrs. Prerequisite: LIS 501, LIS 505, LIS 511 with "B" or better. Survey of scientific research methods and their application to the field of library and information science.

+670. Topics in Services to Library Clientele. 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: Topics in Organization of Materials. 3 hrs. Prerequisites: LIS 505 and LIS 506. Alternating topics, including indexing, abstracting, advanced database tools, and other related topics.

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. 3 hrs. Prerequisite: LIS 668 and completion of MLIS core courses with a minimum grade of "B". A written project dealing with a specific problem or issue in the field of library and information sciences 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, 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 or project but who are actively working on a thesis or project, consulting with the major professor, or using other resources of the university must enroll in this course for at least 1 hour each semester.

702. Bibliography for Music Research. 3 hrs. Prerequisite: LIS 501. An extensive examination of research materials, including music and nonmusic reference works.

794. LIS Specialist Field Problem. 3 hrs. Prerequisites: Permission of director and completion of all other coursework. Field problem: Major practical research component of specialist’s degree, includes oral defense of project document to a committee.

798. LIS Specialist Thesis. 3 hrs. Prerequisites: Permission of director and completion of all other coursework. Thesis: Major theoretical research component of specialist’s degree, includes oral defense of thesis document before a committee.

Management (MGT)

500. Organizational Behavior. 3 hrs. A study of individual and group behavior in organizations, including motivation, leadership, and communication. 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.

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. Seminar in Entrepreneurship and Technology Management. 3 hrs. Prerequisite: MBA 500 or the equivalent. A seminar class designed to explore the interface between technology and entrepreneurship. The focus of the course is on technology and new venture opportunity evaluation and creation.

640. Advanced Personnel Administration. 3 hrs. Prerequisite: MBA 500 or the equivalent. An in-depth study of United States 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 United States 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. Prerequisite: Permission of department chair.

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 Protostomes. May be taken as BSC 521 or COA 528.

503L. Marine Invertebrate Zoology Laboratory. 3 hrs. Corequisite: MAR 503. May be taken as BSC 521L or COA 528L.

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 or COA 553.

504L. Parasites of Marine Animals Laboratory. 3 hrs. Corequisite: MAR 504. May be taken as BSC 524L or COA 553L.

505. Marine Ecology. 3 hrs. The relationship of marine organisms to their environment. May be taken as BSC 539 or COA 546.

505L. Marine Ecology Laboratory. 2 hrs. Corequisite: MAR 505. May be taken as BSC 539L or COA 546L.

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 or COA 547.

506L. Fauna and Faunistic Ecology of Tidal Marshes Laboratory. 3 hrs. Corequisite: MAR 506. May be taken as BSC 548L or COA 547L.

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 or COA 524.

507L. Marine Aquaculture Laboratory. 3 hrs. Corequisite: MAR 507. May be taken as BSC 547L or COA 524L.

508. Marine Ichthyology. 3 hrs. Lecture and laboratory survey of marine chordates, including fishes, reptiles, mammals, and shore birds. May be taken as COA 521.

508L. Marine Ichthyology Laboratory. 3 hrs. Corequisite: MAR 508. May be taken as COA 521L.

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 or COA 571.

509L. Marine Microbiology Laboratory. 2 hrs. Corequisite: MAR 509. May be taken as BSC 590L or COA 571L.

510. Marine Fisheries Management. 2 hrs. Prerequisite: Statistics recommended. A statistical review of the world fisheries. May be taken as BSC 549 or COA 516.

510L. Marine Fisheries Management Laboratory. 2 hrs. Corequisite: MAR 510. May be taken as BSC 549L or COA 516L.

520. Marine Phyology. 2 hrs. Prerequisites: General botany and plant taxonomy. A survey of the principal groups of marine algae. May be taken as BSC 527 or COA 533.

520L. Marine Phyology Laboratory. 2 hrs. Corequisite: MAR 520. May be taken as BSC 527L or COA 533L.

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 or COA 534.

521L. Coastal Vegetation Laboratory. 1 hr. Corequisite: MAR 521. May be taken as BSC 537L or COA 534L.

522. Salt Marsh Plant Ecology. 2 hrs. The botanical aspects of marshes; includes plant identification, composition, and structure. May be taken as BSC 538 or COA 535.

522L. Salt Marsh Plant Ecology Laboratory. 2 hrs. Corequisite: MAR 522. May be taken as BSC 538L or COA 535L.

523. Marine Mammals. 3 hrs. Prerequisite: 16 hrs. of biological science 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. May be taken as COA 543.
523L. Marine Mammals Laboratory. 2 hr. Corequisite: MAR 523. A laboratory designed to accompany MAR 523. May be taken as COA 543L.

530. Comparative Histology of Marine Organisms. 3 hrs. Histology of marine organisms, including tissue processing techniques. May be taken as BSC 568 or COA 556.

530L. Comparative Histology of Marine Organisms Laboratory. 3 hrs. Corequisite: MAR 530. May be taken as BSC 568L or COA 556L.

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. May be taken as COA 506.

543L. Environmental Estuarine Chemistry Laboratory. 1 hr. Corequisite: MAR 543. A laboratory designed to accompany MAR 543. May be taken as COA 506L.

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 555 or COA 587.

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 or COA 588.

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 or COA 585.

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 or COA 586.

559L. Coastal Ecology for Teachers Laboratory. 1 hr. Prerequisite: Permission of instructor. Corequisite: MAR 559. May be taken as SME 559L or COA 586L.

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 or 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. Prerequisite: 12 credit hours in geology. A study of inshore and nearshore geological processes, sedimentation patterns, and landform development. May be taken as GLY 531 or COA 509.

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 instructor. The examination of marine science and marine policy, marine policy in Mississippi, the law of the sea, and integrated coastal and ocean management.

602. Remote Sensing of the Ocean. 3 hrs. Prerequisite: MAR 501 and 561 or permission of the instructor. An introduction to remote sensing of the ocean with emphasis on biological applications.

603. Fisheries Oceanography. 3 hrs. Prerequisite: Permission of instructor. This course will provide the student with an understanding of the complex issues of the multidisciplinary field of fisheries oceanography.


604L. Early Life History of Marine Fishes Laboratory. 2 hrs. Corequisite: 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 depositional 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.


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 ocean 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. Prerequisite: PHY 351, MAT 285 or permission of instructor. Intended to develop the first level understanding of the basic physical mechanisms controlling the ocean circulation.

664. Turbulence. 3 hrs. Prerequisite: PHY 351, MAT 285, or permission of the instructor. Mixing, boundary layers, energy and enstrophy, isotropic turbulence, statistical regime of small-scale components.

665. Oceanographic Data Analysis. 3 hrs. Prerequisite: MAR 561, MAR 562 or permission of instructor. Analysis techniques with applications to physical oceanographic time series data. Topics will include correlation, spectral, and principal component analysis.

667. Waves and Tides. 3 hrs. Prerequisite: MAR 561 and permission of instructor. Wind-generated surface gravity waves, tide-generating forces, observing water levels, and numerical simulation of ocean tides.

668. Applied Ocean Acoustics. 3 hrs. Prerequisite: Permission of instructor. Fundamentals of sound propagation in the sea as applied to bathymetric surveys for determining the shape of the ocean bottom.

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.

672. Advanced Ocean Dynamics. 3 hrs. Prerequisite: PHY 351, MAT 285, or permission of instructor. The physical mechanisms controlling ocean circulation, focusing on vertical ocean structure.

673. Fundamentals of Ocean Acoustics. 3 hrs. Prerequisite: Permission of instructor. This course is oriented toward physical scientist and engineers with advanced math skills. Although primarily applied, some theory related to wave equations, for acoustics in the sea and their solutions will be covered.

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, 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, 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.

761. Numerical Modeling of Ocean Currents. 4 hrs. Basic knowledge of calculus and FORTRAN is required. General aspects of ocean modeling and numerical algorithms are discussed based on the Princeton Ocean Model.

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, 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, 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. Nonbusiness 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. Prerequisite: Permission of department chair.

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)

607. Mass Communication Theory. 3 hrs. Examination of diverse theoretical approaches to the study of mass communication; theory building in mass communication.

608. Critical & Cultural Theory of Mass Communication. 3 hrs. Introduction to critical and cultural perspectives in media studies, including semiotics, structuralism, psychoanalysis, postmodernism, narrative and ideological analysis.

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, nonprofit 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.

624. **Public Relations Crisis Management.** 3 hrs. Exploration of theoretical foundations and practices of crisis and risk communication, issue and conflict management in corporate, governmental and nonprofit settings.

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.

626. **Public Relations Strategies and Tactics.** 3 hrs. Study of theoretical foundations and practices of public relations strategies and tactics relating to communication management in corporate, political, and nonprofit settings.

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, 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, 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 nonverbal 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 United States telecommunication policy and regulation as shaped by technology, industry, politics, government, and the public. Social and political implications of policy are evaluated.

745. **Mass Communication Law.** 3 hrs. Cases and issues in mass communication law and regulation, including libel, privacy, corporate and commercial speech, obscenity, access, and reporter-source relations.


750. **Readings in Mass Communication History.** 3 hrs. Readings in a variety of genres, periods, themes and topics in the literature of journalism and mass communication history.

755. **Media Ethics.** 3 hrs. Examination of major moral dilemmas, issues and practices of mass media through lectures and case studies, with emphasis on moral reasoning and decision-making.

760. **Seminar in Mass Communication History.** 3 hrs. Exploration of cultural, economic, intellectual, social and political trends in mass communication history, 1450 to present.

765. **Mass Communication Historical Research and Writing.** 3 hrs. Major issues in mass communication historiography, research methods, bibliographic techniques, data collection, analysis, interpretation, and historical writing.

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.
Problems in Newspaper Production.

Advanced Television Production.


Advertising Management and Sales.

Public Relations Writing and Publication Design.

Television Production Workshop.

Seminar in Radio-TV.

Telecommunication Media Research.

Telecommunication Media Management.

Public Relations.

Theories of Mass Communication.

Minorities, Women and Media.

Literary Journalism.

Research in Communication.

Independent Study and Research.

Special Problems.

Communication Seminar.

Dissertation.

Mass Communication and Journalism (MCJ)

Problems in Newspaper Production. 3 hrs. Practical training in the production of student newspapers and advising of staffs.

Theories of Mass Communication. 3 hrs. An analysis of processes and effects of mass communication.

Telecommunication Media Management. 3 hrs. Examination of management responsibilities in broadcast radio and TV, cable TV, and other electronic media and media delivery systems.

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.

Public Relations Writing and Publication Design. 3 hrs. Prerequisites: 202, 312, 421/521. Concentrates on designing total public relations packages for public, business, and nonprofit organizations. Requires production of a publicity campaign.

Public Opinion, Mass Communication, and Society. 3 hrs. Explores the impact of mass communication and public relations on public opinion and examines the role of public opinion in the forming of policy and resolution of social issues.

Telecommunication Media Research. 3 hrs. Prepares students to utilize and evaluate professional telecommunication research services and to conduct elementary studies of media audiences.

Public Relations Research. 3 hrs. Prerequisite: MCJ 421/521. Introduction to quantitative and qualitative methods of applied, basic, and evaluative research used in developing and managing public relations programs.


Internship in Public Relations. 3 hrs.

Advertising Management and Sales. 3 hrs. Prerequisite: MCJ 330. A continuation of MCJ 330, with emphasis upon case studies in advertising management and sales.

Advanced Television Production. 3 hrs. Prerequisite: MCJ 340 or permission of instructor. Advanced topics in video post-production theory and practice.

Television Production Workshop. 2 hrs. Prerequisites: MCJ 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, individual projects, or some combinations.

Seminar in Radio-TV. 3 hrs. Prerequisite: Permission of instructor. Examination of a telecommunication topic. May be repeated with a different topic.
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.

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.

The Internet: The Online Electronic Medium. 3 hrs. Prerequisite: Consent of instructor.

Press and Society. 3 hrs. Study of the relationship between the press and the culture and institutions of society.

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.

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.

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.

Seminar in Journalism. 3 hrs. Examination of theoretical concepts in journalism and the setting for their application.

International Broadcasting. 3 hrs. Prerequisite: Permission of instructor. An examination of the development, structure, functions, programming, and audiences of international broadcasting services.

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.

British Studies in Photography. 3-6 hrs. Lecture and research in British photography offered abroad under the auspices of the Center for International and Continuing Education.

British Studies in Journalism. 3-6 hrs. Lecture and research in British journalism offered abroad under the auspices of the Center for International and Continuing Education.

Master of Business Administration (MBA)

Organizational Behavior. 3 hrs. A study of individual and group behavior in organizations, including motivation, leadership, and communication. See also MGT 500.

Accounting for Decision Making. 3 hrs. Prerequisite: Computer literacy. A conceptual study of financial and managerial accounting principles designed to enable decision makers to properly use accounting information in making decisions.

Economic Analysis for Managers. 3 hrs. Prerequisites: Computer literacy, calculus. Microeconomic and macroeconomic analysis as applied to managerial decision making. See also ECO 520.

Operations Management. 3 hrs. An analysis of modern operations management in terms of efficiency, productivity, quality, and service to the customer.

Legal Environment of Management. 1.5 hrs. A survey of the major legal considerations affecting managerial decision making.

Marketing Foundations. 3 hrs. An analysis of marketing functions, concepts, and practices in managerial decision making. See also MKT 550.

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.

Management Information Systems. 3 hrs. Prerequisite: Computer literacy. An analysis of the impact of information systems and technology on organizations. See also MIS 580.

International Business Seminar Abroad. 3-6 hrs.

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.

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.

Analytical Decision Making. 3 hrs. Application of quantitative methods to decision making.

Managerial Accounting. 3 hrs. Prerequisite: MBA 511 or the equivalent. An analysis of the use of accounting information in managerial decision making.

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.

Problems in Corporate Finance. 3 hrs. Prerequisite: MBA 570. Applications of financial theory to complex financial problems.

Communication Skills for Managers 3 hrs. Prerequisite: Admission to MBA or MPA program. A course designed to develop communication skills as they relate to managerial effectiveness.
### Course Descriptions

650. **Technology in Modern Organizations.** 3 hrs. Examination of the impact of information technology on the productivity, quality, service, and enhanced communication abilities of organizations.

660. **Global Business Strategy.** 3 hrs. Prerequisite: Permission of the program director. An analysis of strategic business planning and implementation from the perspective of top management.


692. **Special Problems in Business Administration.** 1-6 hrs. Prerequisite: Permission of the program director.

### Mathematics (MAT)

500. **Mathematics Teaching Seminar.** 1 hr. In-depth 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.)


517. **Introduction to Partial Differential Equations.** 3 hrs. Prerequisite: MAT 285. Integrability conditions, quasilinear and linear equations, applications to physics, classification of second order equations and canonical forms, separation of variables.


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.


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.


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. 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.


* Students will use university computers and appropriate software as a part of course requirements.
572. Modern Geometry. 3 hrs. Prerequisite: MAT 280, 326, and 340. Heuristic and analytic treatment of a branch of modern
gometry, such as projective or differential geometry.


581. History of Mathematics. 3 hrs. Prerequisite: MAT 167. The history of mathematics from antiquity through the 17th
century. (Does not count as program credit for M.S. in mathematics.)

588. Mathematics for Inservice Secondary School Teachers I, 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 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: Permission of instructor. An introduction to the theory of plane curves,
space curves, and surfaces.

602. 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 285. Topics from the theory of ordinary differential
equations. Specific topics to be selected by the instructor.

606. Partial Differential Equations. 3 hrs. Prerequisite: MAT 285. Dirichlet, Neumann, and mixed boundary value problems;
classical techniques of solution of partial differential equations and applications.

610. Numerical Linear Algebra. 3 hrs. Prerequisites: 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. 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. 3 hrs. Prerequisite: MAT 280. Taylor and Laurent series, conformal mapping with applications, integral formulas of the Poisson type, analytic continuation.

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, 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 3-hour lecture course.
May be repeated for a maximum of 6 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, nonlinear regression, and linear algebra. May be
repeated for a maximum of 6 hours credit.

657. Dimensions of Learning in Mathematics I. 3 hrs. Prerequisite: Admission to the Master of Arts in Teaching degree
program. Broad introduction to the concepts, contexts, and practices of teaching, as well as specific instruction in
secondary mathematics methods. This course includes a clinical supervision component.


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 9 hours credit.

682. Topics in Analysis I, II, III. 3 hrs. Prerequisite: Permission of instructor. May be repeated for a maximum of 9 hours credit.

683. Topics in Topology and Geometry I, II, III. 3 hrs. Prerequisite: Permission of instructor. May be repeated for a
maximum of 9 hours credit.

684. Topics in Applied Mathematics I, II, III. 3 hrs. Prerequisite: Permission of instructor. May be repeated for a maximum
of 9 hours credit.

685. Topics in Computational Mathematics I, II, III. 3 hrs. Prerequisite: Permission of instructor. May be repeated for a
maximum of 9 hours credit.

689. Mathematics Seminar I, II. 3 hrs. Prerequisite: Permission of instructor.

691. Research in Mathematics. 1-16 hrs.
697. **Independent Study and Research.** Hours arranged. Not to be counted as credit towards a degree. Students may enroll in this course to meet the continuous enrollment requirement.

698. **Thesis.** 1-6 hrs. for a total of 6 hrs.

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: MAT 720 or permission of instructor. Techniques for numerical interpolation and differentiation; techniques for the solution of ODEs and PDEs, including Runge-Kutta, Adams/Bashforth, spectral, and shooting methods.

771. **Functional Analysis for Computational Science.** 3 hrs. Prerequisites: MAT 442 or 542, and MAT 641. An introduction to functional analysis.

772. **Numerical Analysis for Computational Science.** 3 hrs. Prerequisites: MAT 610 and MAT 771. A comprehensive introduction to computational mathematics.

773. **Signal Analysis for Computational Science.** 3 hrs. Prerequisite: MAT 771. The mathematical analysis of time series and signals.

**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 nonstandard mathematical problems.

None of the courses MAT 584 - 587 will count toward any degree in mathematics.

**Medical Technology (MTC)**

+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.


+502L. **Clinical Bacteriology I Laboratory.** 1 hr. Prerequisite: MTC 202, 203, 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: BSC 110, 110L, CHE 420, 420L, or permission of instructor. Co- or prerequisites: MTC 202 and/or 203. 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 202, 203. 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: BSC 110, 110L, MTC 202, 203, or permission of instructor. Corequisite: MTC 506L. An introduction to the study of blood and blood-forming organs—research component.

+506L. **Fundamentals of Hematology Laboratory.** 1 hr. Prerequisites: MTC 202, 203. Corequisite: MTC 506.

507. **Clinical Immunodiagnostics 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.
Clinical Immunology Laboratory, 1 hr. Prerequisite: Admission to practicum. Corequisite: MTC 507.

**Clinical Immunohematology**, 3 hrs. Prerequisite: Admission to practicum or permission of department. Corequisite: MTC 508. The theory and techniques of donor selection, processing blood for transfusion, and resolving incompatibilities—research component.

**Clinical Immunodiagnostics Laboratory**, 1 hr. Prerequisite: Admission to the practicum. Corequisite: MTC 508.

**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.

**Clinical Chemistry II Laboratory**, 1 hr. Prerequisite: Admission to the practicum. Corequisite: MTC 509.

**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 analytic measurement.

**Special Chemistry Laboratory**, 1 hr. Prerequisite: Admission to the practicum. Corequisite: MTC 510.

**Coagulation**, 1 hr. Prerequisite: Admission to the practicum or permission of the department. Corequisite: MTC 511.

**Coagulation Laboratory**, 1 hr. Prerequisite: Admission to practicum. Corequisite: MTC 511.

**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.

**Introduction to Clinical Immunology**, 3 hrs. Pre- or corequisites: MTC 202 and 203. Function of the immune system and its relationship to diagnostic methods.

**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.

**Clinical Bacteriology II Laboratory**, 1 hr. Prerequisite: Admission to practicum. Corequisite: MTC 522.

**Hematology I**, 3 hrs. Prerequisite: Admission to the practicum or permission of department. Corequisite: MTC 528L. The study of blood cells and their abnormalities with emphasis on procedures of laboratory examination—research component.

**Hematology I Laboratory**, 1 hr.Prerequisite: Admission to the practicum. Corequisite: MTC 526.

**Urinalysis**, 1 hr. Prerequisite: Successful completion of Phase I of practicum. Clinical education at one of the affiliated hospital laboratories—research component.

**Clinical Microbiology**, 4 hrs. Prerequisite: Successful completion of Phase I of practicum. Clinical education at one of the affiliated hospital laboratories—research component.

**Hematology II**, 3 hrs. Prerequisite: Successful completion of Phase I of practicum. Clinical education at one of the affiliated hospital laboratories—research component.

**Clinical Immunodiagnostics II**, 1 hr. Prerequisite: Successful completion of Phase I of practicum. Clinical education at one of the affiliated hospital laboratories—research component.

**Blood Bank**, 3 hrs. Prerequisite: Successful completion of Phase I of practicum. Clinical education at one of the affiliated hospital laboratories—research component.

**Clinical Chemistry III**, 4 hrs. Prerequisite: Successful completion of Phase I of practicum. Clinical education at one of the affiliated hospital laboratories—research component.

**Laboratory Science for Nursing**, 1 hr. Investigation of laboratory medicine topics relevant to nursing.

**Comparative Diagnosis of Microbial Pathogens**, 3 hrs. Prerequisites: BSC 380 and MTC 515 or BSC 586 or permission of instructor. Comparative diagnostic techniques including culture, microscopy, immunodiagnostic, and nucleic acid probes.

**Clinical Oncology**, 3 hrs. Prerequisite: Biochemistry, molecular biology, or permission of instructor. Introduction to the biological, clinical, and research aspects of cancer.

**Clinical Endocrinology**, 3 hrs. Prerequisite: Biochemistry, clinical chemistry or permission of instructor. Introduction to the biological, clinical, and pathological aspects of human endocrinology.

**Clinical Laboratory Program Development**, 3 hrs. Prerequisite: Clinical laboratory experience or permission of instructor. Concepts of program development unique to the clinical setting.

**Clinical Laboratory Management**, 3 hrs. Prerequisite: Clinical laboratory experience or permission of instructor. Concepts of management unique to the clinical laboratory setting.

**Medical Technology Seminar**, 1 hr. Presentation of current material related to clinical medicine.

**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, 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, 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.** 3 hrs. The practices governing 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 nonmusic 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 nonmusic majors with permission of instructor.

533. **20th Century Music.** 3 hrs. Examination of music trends since Debussy and Mahler. Open to nonmusic 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 nonmusic 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 nonmusic majors with permission of instructor.

536. **18th-Century Music.** 3 hrs. The development of classical styles and forms, with emphasis on style galant, empfindsam Stil, and the Viennese classicists. Open to nonmusic majors with permission of instructor.

537. **19th-Century Music.** 3 hrs. The development of musical romanticism, with emphasis on the expansion of classical forms, and the appearance of new stylistic concepts. Open to nonmusic majors with permission of instructor.

539. **Diction.** 3 hrs. Introduction to phonetics of various foreign languages for singing. May be repeated once. Second registration permitted only when languages emphasized are different.

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 nonmusic majors with permission of instructor.

551. **Chamber Music.** 3 hrs. A survey of music for small instrumental ensembles. Open to nonmusic 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 nonmusic 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.

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, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester. Grading is Pass/Fail.

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 nonmusic reference works.

711. Pedagogy of Theory. 3 hrs. A course in the teaching of music theory in the senior high school as well as at 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. Prerequisites: 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. Prerequisite: MUS 321 or permission of instructor. Contrapuntal writing up to eight parts.

725. Tonal Counterpoint. 2 hrs. Prerequisite: MUS 322 or permission of instructor. Contrapuntal writing culminating in the fugue.

727. Advanced Orchestration. 3 hrs. Prerequisites: MUS 401 or permission of instructor. May be taken three times.


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 Choruses. 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, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester. Grading is Pass/Fail.

821. Advanced Analytical Techniques. 3 hrs. Prerequisite: MUS 721 or permission of music theory faculty. An in-depth analysis of selected works prior to 1750.

822. Advanced Analytical Techniques. 3 hrs. Prerequisite: MUS 722 or permission of the music theory faculty. An in-depth analysis of selected works chosen from the Classical and Romantic periods.

823. Advanced Analytical Techniques. 3 hrs. Prerequisite: MUS 723 or permission of the music theory faculty. An in-depth analysis of selected works chosen from the 20th century.
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<td><strong>Doctoral Lecture Recital</strong></td>
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<td><strong>Second Doctoral Solo Recital</strong></td>
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<td><strong>Concerto Performance with Band or Orchestra</strong></td>
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**Music Education (MED)**

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<td><strong>Advanced Computer-Assisted Marching Band Drill Design</strong></td>
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<td><strong>Vocal Pedagogy</strong></td>
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<td><strong>Elementary Music Workshop</strong></td>
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<td><strong>Marching Band Workshop</strong></td>
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<td><strong>Instrumental Conductors Conference</strong></td>
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<td><strong>Choral Conductors Conference</strong></td>
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<td><strong>Special Problems</strong></td>
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<td><strong>Independent Study and Research</strong></td>
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<td><strong>Thesis</strong></td>
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Course Descriptions

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, and 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 6 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 6 hours of conducting may be used for a degree.

733. **Conducting Pedagogy.** 3 hrs. Techniques, practices, and materials used in teaching conducting. Includes study of various schools of conducting, identifying students’ physical, aural, and 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.


750. **Music in General Education.** 3 hrs. An examination of the role of music in the general education of students throughout the educational system.


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, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester. Grading is Pass/Fail.


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.
656, 657, +658. Percussion. 1-4 hrs.
661, 662, +663. Voice. 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 harmonie-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. Hattiesburg Choral Union. 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.
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.
Course Descriptions

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. **Harpischord.** 1-4 hrs.
811, 812. **Organ.** 1-4 hrs.
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)**

510. **Holistic Health: The Art and Science of Caring and Healing.** 3 hrs. Introduction to a holistic nursing theoretical perspective. Assorted complementary health practice and research; focus on self-awareness as a holistic practitioner.

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, and advocacy.

537. **Abusive Behavior.** 3 hrs. An interdisciplinary 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.


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 United States and Great Britain. Attitudes and perceptions of elderly by British health care providers.


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. Evolvement 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. Policy, Organization and Financing of Health Care. 3 hrs. Seminar in contemporary policy, organization and financing of nursing and health care at macro and micro levels.


602. Ethics, Role, and Diversity in Advanced Nursing. 3 hrs. Focus on three aspects of advanced practice nursing: ethical analysis and decision making, best practices in diversity issues, advanced roles in care delivery and education.

603. Nursing Research I. 3 hrs. Prerequisite: Introductory course in statistics. Pre- or corequisite: first course in emphasis area. Elements of the research process.

604. Nursing Research II. 3 hrs. Prerequisite: NSG 603. Continuation of NSG 603 with a focus on preparation of a research proposal.

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. Prerequisite: Permission of instructor. An examination of issues in health/social planning and public policy at local, state, and national levels.


621. Concepts and Theories for Community Health Nursing. 3 hrs. Prerequisite: 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. Corequisite: 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. Prerequisite: NSG 621. Corequisite NSG 622. Implementation and evaluation of community health nursing programs for specific populations.

623. United States and World Community Health Nursing Issues. 3 hrs. Prerequisite: NSG 622. Corequisite NSG 623L. Analysis of organizations and resources affecting health care and policy setting relevant to the practice of community health nursing.
623L. United States and World Community Health Nursing Practicum. 3 hrs. Corequisite: NSG 623. Synthesis and application of theories and research affecting health care, health planning, and policy setting.

630. Psychobiological Theories and Assessment in Advanced Psychiatric Nursing. 3 hrs. Examination of biological, psychological, and pharmacological theory and research concerned with diagnosing and treating individuals experiencing mental health problems.

631. Psychiatric-Mental Health Nursing with Individuals. 3 hrs. Prerequisite: permission of instructor. Analysis of theories and research relevant to mental health nursing.


634L. Pharmacotherapeutic Management of Psychiatric Clients. 3 hrs. Pre- or corequisite: NSG 630, 631, 646, 647, 648/648L. Experience in diagnosis and pharmacotherapeutic management of persons who have a psychiatric disorder.

640. Advanced Adult Nursing I. 3 hrs. Prerequisite: Permission of instructor. Corequisite: NSG 640L. Theories and research related to adult health nursing practice.


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 multisystem trauma/illness and stressors. Analyze pathophysiological 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 648L. 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. Prerequisites: MTC 601, NSG 648, NSG 648L. Pre- 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. Prerequisites: MTC 601, NSG 647, MSG 646, NSG 648, NSG 648L. Corequisite: NSG 661L. 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. Prerequisites: 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 Practicum. 3 hrs. Prerequisites: 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. Prerequisites: 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 Practicum. 4 hrs. Prerequisites: 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. Prerequisites: NSG 663, NSG 663L. Student family nurse practitioner will exemplify the role of the nurse practitioner.

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. Pre- or corequisite: NSG 611. Application of theories in classroom/clinical teaching, evaluation process, and faculty role in schools of nursing.

679L. Nurse Executive Practicum. 3 hrs. Prerequisites: NSG 618, 619. Required for majors. Practice applications relative to the role of the nurse executive in multidisciplinary 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. Prerequisites: NSG 603, NSG 604. 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, 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, 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. Prerequisites: NSG 603, NSG 604, and either 612, 621, 631, 640, or 648. Credit deferred until thesis is completed.

701. Philosophy of Science and Nursing Science. 3 hrs. Study of epistemology, the nature of science and method; Positivism, phenomenology, pragmatism, classical and intuitive thought, and the development of nursing science.

702. Theory Development in Nursing, 3 hrs. Pre- or corequisite: NSG 701. Study of theory development process, knowledge generation and evaluation criteria for middle-range theories in nursing and health care.

703. Advanced Nursing Theory, 3 hrs. Prerequisite: NSG 702. Examines current grand and mid-range nursing theories within the context of the totality and simultaneity paradigms.

710. Quantitative Research Design. 3 hrs. Focus on multivariate research designs appropriate for nursing and health care research including evaluation, instrument development, and theory development.

711. Qualitative Research Design. 3 hrs. Exploration of qualitative research designs and methods in relation to the development of substantive knowledge in nursing and health care.

712. Research Instrument Development. 3 hrs. Prerequisite: NSG 710. Development of measurement instruments including establishing validity and reliability in relation to nursing and health care theory and practice.


721. The Ethics of Professional Relationships, 3 hrs. Examination of the ethics of professional relationship issues; effects of unequal power balance such as researcher-subject, teacher-student, provider-client.


723. Virtues, Values, and Ethics in Professional Nursing, 3 hrs. Origins and changes in values, virtues, and ethics espoused by nurses. Comparison and analysis of codes of professional ethics. Ethical development in professional nurses.

724L. Ethics Practicum. 3-6 hrs. Individually developed experiences in the health care or health education community. May include involvement in ethics committees, teaching/consultation, assessment/intervention.

740. Issues in Nursing and Health Care Leadership, 3 hrs. Focus on leadership issues in health care and higher education. Exploration of historical and governmental influences and review of research and ethics in leadership.

741. Organizational Dynamics in Health Care, 3 hrs. Focus on the complexity of organizations. Exploration of influences by structure, constituencies, communication patterns, and technology on health care and educational agencies.

742. Models for Organizational Leadership in Health Care, 3 hrs. Focus on leadership models and related administrative skills for health care agencies/educational units.

743. Strategic Planning for Service and Education, 3 hrs. Prerequisite: NSG 741. Focus on principles related to the development, implementation, and evaluation of strategic plans at various organizational levels.

744L. Leadership Practicum. 3 hrs. Prerequisites: NSG 740, 741, 742 (may be concurrent). Application of leadership theory in a community/agency experience jointly designed by the instructor and student.

745. Critical Thinking in Nursing, 3 hrs. Prerequisites: NSG 701, 702, 703, 710, 711. Critical thinking as goal and process in nursing education and nursing practice. Analysis of research literature and application.

760. Introduction to Nursing and Health Care Policy, History of the role of nurses in development and implementation of health care policy. Exploration of the impact of recent economic and organizational changes on health care delivery.
Economics of Health Care Delivery. 3 hrs. Prerequisite: NSG 760. Analysis of health care systems using economic and organizational theories. Includes managed care, capitation, and evolving prospective reimbursement.

Nursing and Public Policy Development. 3 hrs. Prerequisite: NSG 761. Study of American health care policy doctrines, formation, evaluation, and implementation. Addresses the role of research as a basis for policy development.

Health Care Policy Internship. 1-3 hrs. Prerequisite: NSG 761. Experiences in health policy agencies at state, rational, or international level. Students contract with faculty based on individual learning needs.

Seminar in Policy Analysis. 3 hrs. Prerequisite: NSG 762. Advanced study in policy analysis in the student’s special area of interest. Includes historical analysis and political action planning.

Special Problems. 1-3 hrs. Prerequisite: Permission of the instructor. The student selects an area of interest in nursing for independent study.

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, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester. Grading is pass/fail.

Special Topics Seminar. 1-6 hrs. A seminar designed to integrate course content from nonnursing disciplines with the nursing emphasis area.

Dissertation. 1-12 hrs. The design and implementation of a research study or other scholarly work appropriate to the student’s emphasis area, which will generate new nursing knowledge.

Nutrition and Food Systems (NFS)

Macronutrient Nutrition. 3 hrs. Prerequisites: NFS 362 and CHE 420. The study of specific nutrient effects on human metabolism. Roles of specific nutrients in metabolic pathways.

Micronutrient Metabolism. 3 hrs. Prerequisite: CHE 420. The study of specific effects of vitamins, minerals, and water on human metabolism, including current research on micronutrient metabolism.

Life Cycle Nutrition. 3 hrs. Prerequisites: BSC 250, 251, NFS 362. Study of the role of nutrition in health, growth, and development at each stage of the life cycle.

Experimental Foods. 3 hrs. Prerequisites: NFS 320, 320L, 362, and CHE 251, 251L. Study of selected nutritional, chemical, physical, and sensory properties of foods in relation to preparation procedures.

Experimental Foods Lab. 1 hr. Corequisite: NFS 530. Developing the skills to test the chemical, physical, and sensory nature of foods.

Financial Management in Nutrition and Food Systems. 3 hrs. This course is designed to teach financial management skills required in multiple nutrition and food service system settings.

Maternal and Child Nutrition. 3 hrs. Prerequisites: NFS 362 and BSC 250, 251. An examination of the role of nutrition in health, growth, and development during pregnancy, lactation, and childhood.

Applied Community Nutrition. 3 or 5 hrs. Prerequisite: NFS 420. Study of nutrition assessment methodology and resources available within the community.

Practicum in Dietetics. 1-9 hrs. Prerequisite: Permission of the instructor. Application of dietetics in selected health care settings.

Environmental Nutrition. 2 hrs. Prerequisite: NFS 362. Food safety principles, the Hazard Analysis Critical Control Point System, microbiology of food safety, and infection control.

The School Lunch. 3 hrs. An in-depth study of the history, legislation, regulations, philosophy, and need for child nutrition programs.

Marketing for the Dietetics Professional. 1 hr. Prerequisite: NFS 362. The application of marketing theories to food and nutrition services.

Food Production Management. 3 hrs. This course is designed to provide the foundation, knowledge, and skills required in the operation of noncommercial food service establishments.

Food Production Management II. 3 hrs. Prerequisite: Permission of instructor. Study of the theoretical framework of food systems management in the institutional setting.

Administrative Dietetics. 3 or 6 hrs. Prerequisite: NFS 475. Study and application of management theory and techniques in the supervision of food service personnel.

Medical Nutrition Therapy II. 2 hrs. Prerequisites: NFS 320, 362, 385, 420. Corequisite: NFS 585L. Biochemical and physiological bases for dietary treatment of obesity and diseases of the gastrointestinal tract and liver.

Medical Nutrition Therapy II Lab. 1 hr. Corequisite: NFS 585. An application of MNT II through field trips to hospitals, mock charts, case studies, role playing, and videotaping.

+586L. **Medical Nutrition Therapy III Lab.** 1 hr. Corequisite: NFS 586. Application of MNT III through case studies, role playing, and hospital visits.

625. **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.

630. **Food Systems Management.** 4 hrs. Prerequisite: Permission of instructor. Organization and management of food service operations, cost control techniques, food production and delivery systems.

+640. **Advanced Medical Nutrition Therapy.** 4 hrs. Prerequisites: NFS 485 and 486, and permission of instructor. Pathophysiology of disease and application of medical nutrition therapy to treatment.


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.

664. **Seminar in Food and Nutrition.** 1-3 hrs. May be repeated for a total of 6 hours.

673. **Child Nutrition Program Management.** 3 hrs. Management and supervision of multiunits in child nutrition programs.

675. **Advanced Operational Management of Food 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.

690. **Current Topics in Child Nutrition Programs.** 3 hrs. This course will acquaint students with current issues and topics related to the management of USDA child nutrition programs.

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, 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, 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. maximum. Credit deferred until thesis is completed.

703. **Research Techniques for Nutrition and Food Systems.** 3 hrs. Prerequisites: 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.

711. **Macronutrients.** 3 hrs. Prerequisites: biochemistry, physiology, and advanced nutrition. Metabolism of macronutrients with emphasis on requirements, deficiencies, and clinical implications.

712. **Micronutrients.** 3 hrs. Prerequisites: biochemistry, physiology, and advanced nutrition. Advanced study of vitamins and minerals to include requirements, absorption, transport, and metabolism.

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.

717. **Obesity and Nutrition.** 3 hrs. Study of the prevalence, etiology, consequences, prevention, and treatment of obesity in adults and children.

720. **Nutrition and Aging.** 3 hrs. Prerequisites: BSC 250, 251, and NFS 362. Nutritional issues in the aging population including nutrient requirements, food habits, and nutrition services.

730. **Digestion, Absorption, and Excretion of Nutrients.** 3 hrs. Prerequisites: NFS 410, Biochemistry, Physiology. An advanced study of the digestion, absorption, and excretion of nutrients with emphasis on macronutrients.

740. **Issues in Food Safety.** 3 hrs. A broad study of food safety issues including occurrence and prevention of food-borne illnesses using HACCP principles and the role of diet and dietary anticarcinogens in the development of cancer.

774. **Management of Nutritional Services: A Behavioral Approach.** 3 hrs. Study of individual and group behavior in the management of nutrition services.
Course Descriptions

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.

780. Advanced Practice in Nutrition and Food Systems. 3 hrs. This course emphasizes integration of nutritional science concepts with foodservice systems in delivery of food and nutrition to clients in a variety of settings.

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, 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, 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 United States public policy in food and nutrition, with emphasis on the role of the nutrition professional in influencing the public policy process.

811. Doctoral Seminar. 1-3 hrs. Repeatable up to three (3) total hours.


817. Advances in Nutrition and Foodservice Management Education. 3 hrs. Analysis of the impact of societal and professional issues on nutrition and foodservice management education.

820. Theories in Nutrition and Food Systems Research. 3 hrs. Theoretical and conceptual frameworks and models as a foundation for scholarly research in food service systems and applied nutrition.

898. Dissertation. 1-12 hrs. 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.


536. Aesthetics. 3 hrs. Philosophical analysis of theories of art and beauty.


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. Contemporary Philosophical Issues. 3 hrs. An examination of the central themes in contemporary philosophy.

592. Special Problems. 3 hrs. A study of a philosophical issue to be approved by the department chair. May be taken for a total of 9 hours.

599. British Studies: Comparative Business Ethics. 3-6 hrs.

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 problems 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 in-depth study of the scientific method, the nature of science, hypothesis development, and theory choice.

658. **Philosophy of Biology.** 3 hrs. An in-depth study concerning the fundamental issues and recent developments in philosophy of biology.

681. **Departmental Seminar.** 1 hr. Repeatable up to a total of 3 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.

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, 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, 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.

735. **Research Ethics and Skills.** 3 hrs. This course is an examination of the ethics and skills of academic research and professional practice, covering both general issues and concerns specific to particular disciplines.

**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.

604. **Physics for High School Teachers.** 3 hrs. Prerequisite: Permission of instructor. Principles of physics designed to update the teacher’s effectiveness in teaching physics.

605. **Special Topics in Theoretical or Experimental Physics.** 3 hrs. Prerequisite: Permission of instructor. Subjects depend upon current interest of students and staff.

640. **Electron Optics and Its Applications.** 3 hrs. Prerequisite: Permission of instructor. Electrostatic and magnetic lenses, electron microscopes.

650. **Quantum Mechanics I.** 3 hrs. Prerequisite: Permission of instructor. The Schroedinger equation, operators and eigenfunctions, spherically symmetric systems.

651. **Quantum Mechanics II.** 3 hrs. Prerequisite: Permission of instructor. Scattering theory, matrix mechanics, angular momentum, perturbation theory.
689. Seminar I. 1 hr. Prerequisite: Permission of instructor. Study of current literature in physics supplemented by laboratory research.

689. Seminar II. 1 hr. Prerequisite: Permission of instructor. Study of current literature in physics supplemented by laboratory research.

689. Seminar III. 1 hr. Prerequisite: Permission of instructor. Study of current literature in physics supplemented by laboratory research.

689. Seminar IV. 1 hr. Prerequisite: Permission of instructor. 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, 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, 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.

710. Computational Methods for Physical Systems I. 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.

711. Computational Methods for Physical Systems II. 3 hrs. Simulating physical systems such as orbiting bodies, chaotic systems, propagating waves, and fluids using numerical techniques for solving differential equations.

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 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 9 hrs.

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 hrs.

**Political Science (PS)**

503. **Politics and Environment.** 3 hrs. Course examines major political theories applied in environmental approaches. Second, the impact of these political theories on environmental 92 policies is considered.

504. **The Legislative Process.** 3 hrs. An examination of American legislative institutions, with major emphasis on Congress.

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. An examination of the role of political parties in the American political system.

507. **Mississippi Government.** 3 hrs. An examination of political institutions and processes in Mississippi.


511. **Research in Political Science.** 3 hrs. An introduction to the theory and practice of political research.

512. **Political Analysis.** 3 hrs. An introduction to the theory and practice of political analysis.

520. **Political Theory Plato to Machiavelli.** 3 hrs. Examines major thinkers from 500 B.C. to 1500 A.D. Includes—in addition to Plato and Machiavelli—Aristotle, Augustine, and Aquinas, and topics such as Feudal political thought.

521. **Political Theory Hobbes to Nietzsche.** 3 hrs. A study of modern political theory, focusing on selected theorists (e.g. Hobbes, Rousseau, Marx, and Nietzsche) and topics such as anarchism and socialism.

526. **20th-Century Political Theory.** 3 hrs. Thinkers from V.I. Lenin to Hannah Arendt, Michel Foucault, and Vaclav Havel will be analyzed. The course includes schools of contemporary thought such as feminism and postmodernism.

531. **International Law and Organization.** 3 hrs. The study of the functions of intergovernmental organizations in the modern world system.

535. **Comparative Foreign Policy.** 3 hrs. An examination of the foreign policies of other nations.

550. **Comparative Studies in European Politics.** 3 hrs. An examination of contemporary West European political systems, including the European Union.

552. **The Political Systems of Great Britain and the Commonwealth.** 3 hrs. An analysis of the politics of Great Britain, Canada, Australia, and New Zealand, stressing the dynamics of parliamentary government.

554. **Government and Politics in Africa.** 3 hrs. A survey of the political systems of Africa, including both north Africa and sub-Saharan Africa.

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.

559. **Human Rights.** 3 hrs. Examination of governmental abuses of human rights and efforts to protect human rights.

570. **Science, Technology and Politics.** 3 hrs. The role of politics in science and technology is examined specifically in terms of the impact of elites, the public, and technocrats.

572. **Organization and Management.** 3 hrs. The “models” or “theories” of organization. Administrative management and alternative models are evaluated as to their potential for authentic public organization.

574. **The Politics of Taxing and Spending.** 3 hrs. This course is divided into two areas, budgeting models and their politics; issues such as taxing, fiscal policies, etc., are considered.

580. **United States Constitutional Law.** 3 hrs. An examination of the powers of the national government and the relationship between the national and state government using Supreme Court decisions.

584. **Administrative Law.** 3 hrs. An analysis of the procedures and powers of federal agencies.

585. **International Law.** 3 hrs. The development of the modern law of nations with emphasis on conventions and cases.

589. **United States Supreme Court and Civil Liberties.** 3 hrs. An analysis of the role of the United States Supreme Court in protecting individual rights. Primary focus is on litigation involving provisions of the Bill of Rights.

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.** Hours arranged. 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, 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, 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 United States Government.** 3 hrs. Prerequisite: Course in American national, state, and local government or consent of instructor. May be taken twice for credit.

721. **Seminar in Political Theory.** 3 hrs. May be taken twice for credit.

730. **Seminar in United States Foreign Relations.** 3 hrs. Prerequisite: Another course in United States foreign policy or history of United States foreign policy or permission of instructor. A survey of current United States foreign policies and problems. May be taken twice for credit.

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. Prerequisite: One or more courses in comparative government or permission of the instructor. A research-type course in which each student will perform an intensive study of the political institutions of one country, or of a group of countries having similar governments. May be taken twice for credit.

770. **Seminar in Public Administration.** 3 hrs. Course focuses on the modern liberal administrative state. This state is analyzed for its political-philosophical origins. May be taken twice for credit.

781. **Seminar in Public Law.** 3 hrs. 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. May be taken twice for credit.

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 Center for International and Continuing Education.

**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, nonpolluting 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, 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, 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.


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.


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, 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, 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 730 and 740, or permission of instructor. Use of transport phenomena to quantitatively describe mass, energy, and momentum changes involved in polymer processes such as mixing, extrusion, and molding.


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.

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)**

527L. **Laboratory Techniques in Behavioral Neuroscience.** 3 hrs. Prerequisite: Permission of instructor. Experimental techniques in neurophysiology, neuropharmacology, and behavioral research. (May be taken as BSC 556L.)

552. **Sleep and Behavior.** 3 hrs. Prerequisite: Permission of instructor. A study of sleep and behavior from the perspective of the major disciplines within psychology.

554. **Cetacean Behavior and Cognition.** 3 hrs. A comprehensive review of the literature on the behavior, communication, and cognitive abilities of whales and dolphins.

560. **Advanced Data Analysis.** 3 hrs. Prerequisite: PSY 360. The conceptual foundations of statistical procedures commonly used in behavioral research will be extensively reviewed. Use of statistical packages will be a major focus.
Psychoeducational Assessment I. 3 hrs. Each. Prerequisite: Permission of instructor. Theory and practice of psychoeducational assessment, including individual intelligence testing; multicultural issues.

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.

Microskills Laboratory. 3 hrs. Seeks to develop the microskills which are foundational to helping relationships.

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.

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.

Research Design. 3 hrs. An overview of research design and methodology, with an emphasis on problems in applied settings.

Advanced Data Analysis. 3 hrs. Critical evaluation of a variety of analytic techniques.

Research Evaluation in the Behavioral Sciences. 3 hrs. Seeks to develop skills in evaluating the methodological soundness and usefulness of behavioral science research.

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.

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.

Advanced Educational Psychology. 3 hrs. Theory and databases relating to the contributions of psychology to the schooling process.

Seminar in School Psychology. 3 hrs. Prerequisite: Admission to the school psychology training program or permission of instructor. Professional issues and standards; pre-practicum training and experience. May be repeated to limit of 6 hrs.

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.

Advanced Child Psychology. 3 hrs. Mental, motor, social, and emotional development of children of elementary school age.

Advanced Adolescent Psychology. 3 hrs. Advanced study of the adolescent and his or her needs in the home, school, and community.
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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.


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 or permission of instructor. Introduction to scientific inquiry in school psychology.

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, 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, 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 counseling skills/competencies.

712. Assessment and Diagnosis. 3 hrs. Prerequisites: PSY 614 and permission of instructor. 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 that 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.

717. Theory and Practice of Developmental Counseling. 3 hrs. An overview of major developmental theories with emphasis upon school-based strategies for assisting children in meeting their developmental needs.

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 Families and 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.


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 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.
727. **Counseling Supervision.** 3 hrs. 30 contact hours of instruction in the clinical supervision of counseling; some instruction in mental health administration.

728. **Advanced Experimental Psychology I, II, III.** 3-9 hrs. For graduate students who wish to conduct publishable research not as a part of a graduate thesis. Limit of 9 semester hours.

729. **Psychophysiology.** 3 hrs. Prerequisites: 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.

731. **Research Project.** 1-3 hrs. To be taken after completion of data collection in an approved investigation.

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. **Child Behavior Therapy.** 3 hrs. Prerequisites: Permission of instructor. Study of the principles of behavioral change and the evaluation of clinical research for a range of clinical problems in childhood and adolescence.

735. **Clinical Psychology Externship.** 3 hrs. Prerequisites: PSY 736, 782, and permission of the director of clinical training. Supervised clinical experience in community, residential, and hospital mental health settings.

736. **Introduction to Clinical Skills.** 3 hrs. Prerequisites: Doctoral track in clinical psychology and permission of instructor. Procedures for the operation of the psychology clinic and clinical interviewing skills.

737. **Administration and Supervision in Clinical Psychology.** 3 hrs. Prerequisites: 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.

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: Graduate studies in Psychology and permission of the instructor. The use and interpretation of the Rorschach Thematic Apperception Test, and other projective personality instruments.

742. **Empirically Supported Therapy for Adults.** 3 hrs. Prerequisites: Doctoral track and permission of instructor. An overview of brief, empirically supported therapies for adult disorders.


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, including current issues, problems, and research.

752. **Management Training and Development.** 3 hrs. Prerequisite: PSY 655 or permission of instructor. Study of the principles and techniques, current issues, problems, and research in training and development.

753. **Leadership.** 3 hrs. Prerequisite: PSY 451 or 655. Examination of historical and contemporary leadership theories, concepts, applications and other issues.

754. **Psychology of Organizational Development.** 3 hrs. Prerequisite: PSY 655 or permission of instructor. 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. **Multivariate Data Analysis.** 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. Prerequisites: 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.

763. **Group Counseling Practicum.** 3 hrs. Prerequisites: PSY 652 (or equivalent), 710 (or equivalent) and permission of instructor. A practicum in which students facilitate 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 in the Workplace.** 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: Permission of instructor. Examination of psychometric theory and its application in measurement of psychological variables.


771. **Practicum in School Psychology.** 3 hrs. Prerequisite: Admission to the school psychology training program or permission of instructor. Supervised application of school psychological procedures. May be repeated to limit of 24 hours.

772. **Applied Behavior Analysis in School Psychology.** 3 hrs. Prerequisite: Admission to the school psychology program or permission of instructor. Fundamentals of applied behavior analysis and functional assessment.

773. **Advanced Behavioral Interventions in School Psychology.** 3 hrs. Prerequisite: PSY 772 or permission of instructor. The application of behavioral principles in the school setting to address needs of at-risk children.

774. **Behavioral Consultation in School Psychology.** 3 hrs. Prerequisite: Psy 772 or permission of instructor. A multisystemic approach to behavioral consultation. Individual and organizational variables are given consideration.

775. **Interventions with Special Populations in School Psychology.** 3 hrs. Prerequisite: PSY 772 or permission of instructor. Interventions addressing pediatric conditions and associated behavioral concerns.

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. Current empirical work in adult psychopathology, including classification and diagnostic systems.

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.** 1-3 hrs. Prerequisites: Doctoral track and permission of the director of clinical training. Supervised clinical training in the psychology clinic.

784. **Systems of Psychotherapy.** 3 hrs. Prerequisites: 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.

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. Prerequisite: Admission to the school psychology training program or permission of instructor. Current research in school psychology. May be repeated up to limit of 8 hrs.

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 and specialist’s students to receive supervised practice experiences in 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, 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, 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. 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. Limit of 9 semester hours.

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 evaluate various psychotherapeutic approaches at philosophical, conceptual, and practical levels and 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 counseling psychology.

840. Externship. 3-6 hrs. Prerequisite: Permission of instructor. Supervised experience in an 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 concurrently with the assignment of clinic supervision responsibilities.

880. Internship in School Psychology. 1-3 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. 1-3 hrs. Prerequisites: 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. 1-3 hrs. Prerequisites: Approval by program faculty and permission of training director. Students receive 1,900-2,000 hours of supervised training in an off-campus APA-approved internship program in professional psychology. To be repeated for 9 semester hours total.


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. Nonbusiness 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)

524. Religion and Healing. 3 hrs. This course studies several examples of religious healing practices found in ethnographic literature, creating a dialogue between indigenous and academic theories of healing.

530. Buddhism. 3 hrs. Prerequisite: REL 131. This course surveys Buddhist religions and cultures. Topics include Indian origins, philosophical schools, ritual practice, and historical development.

532. Mysticism. 3 hrs. This course explores mystical practices as found in ethnographic texts. Students pursue an interdisciplinary approach drawing on several models of mysticism.


545. Islam and Politics. 3 hrs. An examination of Islamic political movements and their development. Attention will be paid to law, government, relations with non-Muslims, and the ethics of violent conflict.

546. Women in Islam. 3 hrs. This course will address Muslim views of women by focusing on scripture, law, early Islamic history, and the works of reformers and Islamists in the Middle East and South Asia.
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 and Continuing Education.

692. Special Problems. 3 hrs. A study of a religious issue to be approved by the department chair. May be taken for a total of 9 hours.

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.
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.
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.


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. Prerequisites: Approval of major professor and Educational Research Staff.

792. **Special Problems in Educational Research I, II, III.** 1-3 hrs. each. Prerequisites: 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.

811. **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.


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.

889. **The Dissertation Process.** 3 hrs. An examination of the process of committee selection, topic selection, research, and writing of the dissertation, including study of APA format and format of the pre-proposal, proposal, and final dissertation.

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 Center for International and Continuing Education. (May be taken as BSC 522 or HIS 522.)

+532. **Science for Elementary Teachers.** 3 hrs. Prerequisite: 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.

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.)


561. Computers and Telecommunications in Science/Mathematics Teaching. 3 hrs. A course to develop competency in evaluation of discipline-specific software, utilization of hardware interfaces, and use of networks and the World Wide Web as teaching resources. (May be taken at the undergraduate level as SME 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.

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 and Continuing 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.

609. Dimensions of Learning in Science Education I. 3 hrs. Provides a broad introduction to the concepts, contexts, and practices of teaching secondary science. Restricted to MAT students only. Includes a clinical supervision component.

610. Dimensions of Learning in Science Education II. 3 hrs. Prerequisite: SME 609. Provides a broad introduction to the concepts, contexts, and practices of teaching secondary science. Restricted to MAT student only. Includes a clinical supervision component.

691. Research Practicum in Science/Mathematics Education. 3 hrs. Prerequisites: REF 602 and permission of instructor. A practicum experience in the design, execution, and reporting of a group research project.

695. 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.

695L. 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.

700. Science Curriculum in the Public Schools. 3 hrs. 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 kindergarten 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. Physics 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. Chemistry 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.


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, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester.

798. Research Problem. 3 hrs.


Social Work (SWK)

Foundation

601. Human Behavior and Social Environment I. 3 hrs. Introduction to physiological, cognitive, intellectual, and emotional development of individuals; analysis of theoretical explanations of personality.

602. Human Behavior and Social Environment II. 3 hrs. Prerequisite: SWK 601. Introduction to general and ecological systems theory as applied to the analysis of individuals, families, small groups, organizations, and communities.

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, communities, and groups; integrative framework for knowledge, values and skills.


610. Theoretical Bases for Social Work Practice. 3 hrs. Examination of major theories contributing to current social work practice.

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 the scientific method. 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.

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, mezzo, and macro experiences. Includes integrative seminar.

642. Field Education II. 3 hrs. Prerequisite: SWK 641. The second practicum is designed to build on the integration and enhancement of values, knowledge, and skills developed in SWK 641, completing the foundation level of micro, mezzo, and macro experiences. Includes integrative seminar.

Advanced Practice


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 provides students with the opportunity to work with micro, mezzo, and macro systems.
674. Social Work Practice with Families. 3 hrs. Theories, intervention skills, and policy issues related to families and the social service delivery system.

696. Social Work Practice with Groups. 3 hrs. Design of preventive, developmental and remedial group services for at-risk populations.

Electives

Students must complete all courses in the foundation before enrolling in elective courses.

578. Specialized Studies in Developmental Disabilities. 1-6 hrs. The study and skill acquisition in the area of developmental disabilities. Topics vary.

600. 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.

637. Social Work Research II. 3 hrs. Prerequisite: SWK 617. Application of social work research methodologies to ongoing research projects. Attention to single-subject design and program evaluation.

651. Time-Limited Intervention. 3 hrs. Techniques of task-centered intervention and crisis intervention in social work practice.


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.


675. Social Work Practice with Persons in Middle and Late Life. 3 hrs. Psychosocial variables at critical life transition points and intervention skills with individuals, families, groups, communities, and organizations.

676. Social Work Practice in Health Systems. 3 hrs. Assessment and modification of conditions which affect an individual’s physical and mental health through intervention skills with individuals, families, groups, communities, and organizations.

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, 637. Emphasis on the acquisition of more in-depth levels of knowledge and skills regarding evaluative research regarding practice effectiveness.

692. Special Problems. 1-6 hrs. Study of a problem in order to develop knowledge in an area of student interest. Approved study plan, paper and/or project required.

695. Social Development and Social Welfare in Jamaica. 4 hrs. Social development and social welfare efforts to address social problems in Jamaica along with agency visits and service learning opportunities.

698. Families of the Developmentally Disabled. 3 hrs. Interdisciplinary approach to the study of families of the developmentally disabled.

Sociology (SOC)

515. Sociology of Gender. 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.


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, and 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.

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, the 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 International Programs. May be repeated up to 6 hours in different topical offerings.

593. **Irish Studies.** 4 hrs. Variable content lecture series and study in Ireland under the auspices of International Programs.

599. **British Studies.** 3-6 hrs. Variable content. Lecture series and research offered abroad under the auspices of International Programs.

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.

605. **The Process of National Board Teacher Certification.** 3-6 hrs. Provides opportunities to analyze and apply National Board for Professional Teaching standards in the student’s content area using the reflective process. Three hours may be taken at the pre-candidate level or 3 hours may be taken at the candidate level.

628. **Assessment Procedures for Young Children with Disabilities.** 3 hrs. To familiarize students with current issues, theories, and practices regarding the assessment of young children who are at risk for or have manifest disabilities.

629. **Advanced Intervention Procedures for Young Children with Disabilities.** 3 hrs. To familiarize students with current issues, theories, intervention methods, and procedures for young children who are at risk for or have manifest disabilities.

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. Prerequisite to SPE 654. Advanced studies in methods, materials, and individualized programming for elementary 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. Prerequisite to SPE 654. 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 for individuals with extreme learning problems.

650. **The Psychology and Education of Individuals with Emotional and Behavioral Disorders.** 3 hrs. Prerequisite to SPE 654; Corequisites: SPE 652 and SPE 655. Explores the characteristics and causation of emotional and behavioral disorders.


652. **Instruction and Programming for Individuals with Emotional and Behavioral Disorders.** 3 hrs. Corequisite: SPE 650 and 655. 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. Prerequisites: SPE 631, 632, 641, 650, 651, 652, 709. Corequisites: REF 601, 607, and SPE 770. This is a capstone course to be taken at the end of the student’s program.

655. **Children and Youth with Autism Spectrum Disorders.** 3 hrs. Prerequisite: SPE 654. Corequisites: SPE 650 and 652. To develop skills and knowledge needed by teachers to be safe, effective practitioners when providing educational programming to children and youth with autism spectrum 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.

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, 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. **Master’s Thesis.** 6 hrs. A scholarly project conducted in the student’s area of specialization.

709. **Assessment of Exceptional Individuals.** 3 hrs. Prerequisite to SPE 654. 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’s 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’s 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, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester.

800. **Critical Review of Professional Literature.** 3 hrs. Doctoral seminar focusing on the review of current literature in special education. Prerequisite to SPE 804.
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. In-service 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 of 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.


Speech and Hearing Sciences (SHS)


513. Voice Disorders. 3 hrs. Prerequisites: SHS 211, 303. Anatomical and physiological bases of voice production and the disorders.

516. Adult Aphasia and Related Problems. 3 hrs. Prerequisites: SHS 211, 303, 306 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, 303 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 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.

526. 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.
Course Descriptions

599. **British Studies: Comparative Problems in Speech and Hearing Sciences.** 3-6 hrs. Offered abroad under the auspices of the Center for International and Continuing Education.

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.

622. **Hearing Aids II.** 3 hrs. This class provides advanced knowledge and skills in the fitting, maintenance, and repair of hearing aids and assistive listening devices.

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 Language Issues.** 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.


687. **Practicum in Speech-Language Pathology.** 1-9 hrs. Prerequisites: 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. Prerequisites: 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. Prerequisites: Regular graduate admission and permission. Students participate in habilitative and learning activities with deaf children and adults.

690. **Clinical Experience in Speech and Hearing.** 1-6 hrs. Prerequisite: SHS 532. This course is designed to provide clinical experience for non-degree students or those enrolled in a non-speech and hearing sciences degree program.

692. **Special Problems.** 1-6 hrs. Prerequisite: Permission. Students completing Plan B paper should register for 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, 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, 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. **Auditory Pathologies.** 3 hrs. This course considers pathologies of the auditory system.

706. **Bioacoustics.** 3 hrs. Provides an in-depth examination of the auditory mechanism, including an examination of the form and function of structures in both the peripheral and central auditory system.
708. Evaluation of Vestibular Function I. 3 hrs. Provides knowledge and skills related to balance evaluation using video and electronystagmography.

709. Evaluation of Vestibular Function II. 3 hrs. Provides knowledge and skills related to balance evaluation using posturography and rotational chair procedures.

710. Rehabilitation for Hearing Impaired Adults. 3 hrs. This course provides knowledge and skills in aural rehabilitation for adults, including amplification, speech, reading, tinnitus management and counseling.

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.


718. Seminar in Psychology of the Deaf and Speech Handicapped. 3 hrs. Effects of disordered communication on lifestyles are studied.

719. Seminar in Problems and Procedures in Evaluating Children. 3 hrs. The weaknesses and strengths of standardized tests are discussed.

720. Educational Audiology. 3 hrs. This course provides knowledge and skills in rehabilitation for children including amplification systems, communication development, and intervention strategies.

722. Seminar in Pediatric Audiology. 3 hrs. Emphasizes behavioral and objective audiological evaluation of infants and young children.

723. Seminar in Electroacoustic Measurements in Hearing. 3 hrs. Administration and interpretation of electrophysiological auditory measurements.


726. Auditory Perceptual Disorders. 3 hrs. Theories and tests are studied.


730. Language Intervention with Infants. 3 hrs. Current research in infant language development and intervention are explored.

732. Current Management Consideration in Audiology. 3 hrs. Administration and handling of audiology clinics and private practices covered.

733. Cochlear Implants. 3 hrs. This course covers cochlear implant technology and use including candidacy, assessment, devices, and intervention methods.

743. Electroacoustic Measurements of Hearing II. 3 hrs. This course covers advanced evoked potentials evaluation and interpretation.

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.

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, 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, or using other resources of the university must enroll in this course for at least 3 hours each semester.

Speech Communication (SCM)

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 the auspices of the Center for International and Continuing Education.

600. Speech Communication Theory and 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.

603. Political Communication. Examines the use of rhetoric to create and maintain political relationships and power.

605. Interpersonal Communication. 3 hrs. A comparative approach to the study of interpersonal communication theories and methods.

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.

625. Communication, Conflict, and Negotiation. Surveys theory and research on the role of communication in the management of conflict in personal and professional relationships.

674. Dimensions of Learning in Speech Communication Education I. 3 hrs. Provides a broad introduction to concepts, contexts, and practices of teaching speech communication and theatre at the secondary level. This course includes a clinical supervision component.

675. Dimensions of Learning in Speech Communication Education II. 3 hrs. Provides a broad introduction to concepts, contexts, and practices of teaching speech communication and theatre at the secondary level. This course includes a clinical supervision component.

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, 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, 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.

700. Intercultural Communication. Explores the forms and functions of interpersonal communication in different cultures. Emphasizes issues related to communication across cultural boundaries.

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.)

725. Seminar in Organizational Communication. 3 hrs. Topics under the heading of organizational communication are explored, including such issues as organizational cultures, communication climate, and conflict management.

726. Seminar in Interpersonal Communication. 3 hrs. Readings in narrative approaches to investigating human communication, including theoretical issues, methods, and case studies.

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 20th century.

740. Rhetorical Criticism. 3 hrs. This course examines the variety of contexts and situations to which can be applied principles of rhetorical criticism. Emphasis will be placed on public discourse and media.
745. **Communication and Humor.** Examines the use of humor in public speeches, workplace, and personal relationships. Assesses current theory and research on the topic.

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.

755. **Contemporary Theory and Research in Persuasion.** 3 hrs. This course is designed to familiarize students with current issues and research in persuasive communication.

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, 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, 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.

**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.

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 Instructional Program.** 3 hrs. Occupational analysis based design and sequencing of instructional components and the development of appropriate support materials.

544. **Development of Occupational Instructional 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.


547. **Industrial Human Relations.** 3 hrs. A study of human behavior and interpersonal dynamics within the industrial organization and environment. Primarily for industrial educators.

552. **History and Philosophy of Vocational Education.** 3 hrs. Objectives, principles, aims, and organization of programs in schools and colleges.

553. **Techniques of Coordination.** 3 hrs. A study of the techniques, procedures, problems, etc., in the operation of cooperative education programs.

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.

605. **History of Technology and Occupational Education.** 3 hrs. A study of leaders, movements, and agencies in the development of technical and occupational 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, 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, or using other resources of the university must enroll in this course for at least 1 hour each semester.
698. Thesis. 1-6 hrs. for a total of 6 hrs. Credit deferred until thesis is completed.

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.

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. Advanced vocal production technique with focus on period language.

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 focusing on freeing the creative impulse while reducing internal censorship.


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.


550. Audition Process. 3 hrs. Prerequisite: Permission of instructor, audition, or advanced scene study. Methods and techniques needed for professional auditions and interviews.

551. Rehearsal Process. 3 hrs.

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. Theatre Exchange Studies Abroad. 9-15 hrs. Opportunity to study theater for one semester in an approved exchange program abroad. Offered under the auspices of the Center for International and Continuing Education.

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 and stage combat.


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 Architecture. 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.

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 dance lighting. Lighting considered as part of a total production concept.
Course Descriptions

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.


670L. Graduate Voice and Movement. 1 hr. Repeatable for a total of 6 hours. Exploratory work through both classical and contemporary methods for the development of the actor’s voice and body.

675. Graduate Directing Studio. 2 hrs. Repeatable for a total of 12 hours. Advanced directing techniques.

679L. Practicum in Box Office and Publicity. 1-3 hrs. May be taken for a total of 9 hours.

680. Graduate Design Studio. 2 hrs. Repeatable for a total of 12 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 9 hours.

682L. Practicum in Costume and Makeup Technology. 1-3 hrs. May be taken for a total of 9 hours.

683L. Practicum in Technical Theatre. 1-3 hrs. May be taken for a total of 9 hours.

684L. Practicum in Lighting and Sound Engineering. 1-3 hrs. May be taken for a total of 9 hours.

685L. Practicum in Properties. 1-3 hrs. May be taken for a total of 9 hours.

686L. Practicum in Design. 1-3 hrs. May be taken for a total of 9 hours.

687L. Practicum in Dance and Movement. 1-3 hrs. May be taken for a total of 9 hours.

690. Graduate Acting Studio. 2 hrs. Repeatable for a total of 12 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. May be taken three times for a total of 9 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, 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, 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.

521. Clinical Experience. 1-4 hrs. arr. A supervised internship in various habilitation, rehabilitation, or neuropsychiatric clinics. May be repeated.


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 five.

688. Medical Aspects of Developmental Disabilities. 3 hrs. Medical conditions, diagnostic tests, and other health care issues relevant to individuals with developmental disabilities.
Women’s Studies (WS)

503. **British Women Writers.** 3 hrs. Literature written by British women writers. Variable content.

510. **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 women’s role in society in response to changing economic or social conditions.

520. **Women and Politics.** 3 hrs. Examines feminist political theory, the role and status of women in United States politics, and public policy issues related to women.

525. **Sociology of Gender.** 3 hrs. A study of the relationship between gender and broader cultural patterns in various societies.

527. **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.

528. **Family Violence, Investigation, and Deterrence.** 3 hrs. A study of child and spouse abuse within the family emphasizing detection, investigation, and deterrence.

601. **Theories and Methods in Women's Studies.** 3 hrs. An advanced survey of feminist theory and methodology; preparatory to graduate coursework in Women's Studies.

602. **Topics in Writing by Women.** 3 hrs. A critical examination of a genre, topic, or theme in women’s literature.

692. **Special Problems in Women’s Studies.** 3 hrs. Prerequisite: Consent of instructor. Directed individual study toward the completion of a significant research project.

Workforce Training Development (WTD)

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. Prerequisite: WTD 560 or permission of instructor. Investigation of innovative techniques to deliver training and performance interventions.

575. **Workforce Analysis.** 3 hrs. Applied research methods and tools for the training professional to analyze and evaluate the worker, work processes, and the organization.

590. **Multimedia Author.** 3 hrs. Prerequisite: ENT 120 or permission of instructor. Design and development of dynamic, interactive multimedia products for workplace training and electronic support systems.

595. **Emerging Digital Technologies.** 3 hrs. Prerequisite: WTD 590 or permission of instructor. Overviews Web-based systems that provide on-demand, just-in-time, performance-improvement applications to business and industrial settings using the Internet.

665. **Advanced Performance Technology.** 3 hrs. Prerequisite: WTD 560. Advanced application of performance technology interventions that impact today’s workforce.

675. **Research in Workforce Training and Development.** 3 hrs. Analysis and evaluation of current research in the field of workforce training and development.

680. **Workforce Training and Development Seminar.** 1-6 hrs. Presentation of workforce training 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 workforce training and development; development of writing skills, a thesis/prospectus must be orally defended. A maximum of 3 hrs. can be applied toward a degree in workforce training and development.

692. **Topics in Workforce Training and Development.** 1-6 hrs. Investigation of specific topics related to workforce training and development. 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, 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.

699. **Project.** 1-3 hrs. For a total of 3 hours. Credit deferred until project is complete.