PHYSICS (773)

411-412 Introduction to Quantum Mechanics (3,3) Fundamental principles of quantum mechanics and methods of calculation. Solution of Schrödinger equation for simple systems. Application to atomic, molecular, nuclear, and condensed matter physics. Must be taken in sequence. Prereq: 240 or equivalent, Mathematics 435.

421 Modern Optics (4) Transmission of light in uniform, isotropic media; reflection and transmission at interfaces; mathematics of wave motion and interference effects. Rudiments of Fourier optics and holography. 3 hours and 3 labs. Prereq: 431 or 136 or 138 or 232, and consent of instructor.

431-432 Electricity and Magnetism (3,3) Electrostatics, magnetostatics, coupled electric and magnetic fields, Maxwell’s Equations, electromagnetic waves and radiation. Prereq: 136 or 138 or 232.

461-462 Modern Physics Laboratory (3,3) 461—Introduction to fundamental and modern techniques in experimental physics, and to theory and practice of measurement and data analysis. Selected experiments in nuclear, atomic, molecular and solid state physics, and modern optics. Prereq: 240 or 411. 462—Advanced experiments and experimental techniques in modern physics; experimental team work. Thorough quantum mechanical interpretation of results and preparation of scientific reports. 6 hours lab per week. Prereq: 461.

490 Senior Seminar (1-3) Topic of current interest. May be repeated with consent of department. Maximum 6 hours.

500 Thesis (1-15) P/NP only.

501 Graduate Research Participation (3) Advanced research techniques under supervision of staff research director whose research area coincides with interests of student. Open to all graduate students in good standing. Prereq: Consent of department and research director. May be repeated with consent of department. Maximum 18 hours. Satisfactory/No Credit grading only.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

503 Physics Colloquium (1) Lectures and discussion on current research topics. Continuous registration required for current graduate students. May be repeated. Maximum 6 hours. Satisfactory/No Credit grading only.

505 Physics of Fluids (3) Fluid physics, overview of fluid mechanics and associated computational techniques; general description of laminar and turbulent flows; subsonic, supersonic and hypersonic flows; continuum, transitional and free-molecular flows; pipe flow, nozzle flow and sonic orifice expansion flows; reacting and nonreacting flowfields; shock-tube physics; and introduction to method of characteristics and Monte Carlo computational techniques.

506 Experimental Methods (3) Introduction to experimental methods of spectroscopy through hands on operation of FTIR, Raman, NMR, photoelectron, laser and mass spectrometers. Principles and hazards of cw and pulsed lasers, radiation detectors, photomultiplier tubes, image intensifiers, image converters; high-vacuum systems including cryogenic-based devices, data acquisition techniques including lock-in amplifiers, box-car integrators, digital electronics methods and micro-computer data acquisition.

507 Contemporary Optics (3) Topics in geometrical, physical, Fourier, and nonlinear optics and introductory laser physics. Extensive use of computer calculations and design of practical and sophisticated optical systems.

508 Laser Physics (3) Mode analysis, stable and unstable resonators; rate equations and population inversion, saturation, relaxation oscillations, fluctuations and noise, laser stability; quantum theory of laser, photon coherence; mode-locking, Q-switching and frequency stabilization; specific laser types: semiconductor and solid-state, excimer, copper vapor and dye lasers.

511-512 Theoretical Physics (3,3) Concepts and applications in applied physics. Topics: one-body, two-body and rigid body dynamics, ideal fluid, small oscillations and waves, elements of special relativity, electrostatic and magneto-static problems, EM waves, duality and quantization, absorption and emission, statistical ensemble and thermal equilibrium, and other modern applications of current interest, in areas of quantum chemistry, biophysics, optics, spectroscopy, and astrophysics. Recommended background: Familiarity with computational methods.

513 Problems in Theoretical Physics I (3) Fundamentals of physics: classical mechanics (Newtonian mechanics, Lagrangian and Hamiltonian dynamics) and electrostatics and magnetostatics.

514 Problems in Theoretical Physics II (3) Fundamentals of physics: electrodynamics, relativity, and quantum mechanics.


531 Classical Mechanics (3) Variational formulation, Lagrange’s and Hamilton’s equations, constraints, canonical transformations, Hamilton-Jacobi theory and action-angle variables.

532 Advanced Classical Mechanics (3) Advanced topics in classical mechanics, KAM theorem and Hamiltonian chaos, dissipative chaos. Topics may vary according to interest of students and instructor. Prereq: 531.

541-542 Electromagnetic Theory (3,3) 541—Review of electrostatics, magnetostatics, and quasi-static problems; Maxwell’s field equations and their solutions in dielectric and conducting media; electrodynamics and relativity, retarded potentials and gauge transformations, radiation produced by accelerating charges. 542—Advanced treatment of Electrodynamics, collisions between charged particles, bremsstrahlung, multiple fields. Topics may vary according to interest of students and instructor. Prereq or coreq for 541: 541. Prereq for 542: 541.


561 The Theory of Relativity (3) Geometry of space-time, relativistic electrodynamics, particle mechanics and continuum mechanics, Einstein’s field equations, Schwarzschild solutions, the classical test of general relativity. Prereq/Coreq: 531 and 541.


591 Foreign Study (1-15) See College of Arts and Sciences.

592 Off-Campus Study (1-15) See College of Arts and Sciences.

593 Independent Study (1-15) See College of Arts and Sciences.

594 Special Problems (3) Especially assigned theoretical or experimental work on problems not covered in other courses. May be repeated. Maximum 9 hours.


600 Doctoral Research and Dissertation (3-15) P/NP only.

601-602 Atomic Physics (3,3) 601—Survey of research problems and methods. Topics of current interest. Intended for all graduate students. 602—Advanced problems for students specializing in field.

605 Laser Spectroscopy (3) Applications of lasers to spectroscopy of atomic and molecular systems; absorption, laser-induced fluorescencescence, and Raman spectroscopy; molecular and atomic coherence; quantum beats, resonance fluorescence, photon echoes, self-induced transparency; saturation and Doppler-free spectroscopy; laser cooling and trapping. Prereq: 521, 541.

606 Nonlinear Optics (3) Nonlinear optical susceptibilities, wave propagation in nonlinear media, sum-frequency and difference frequency generation, harmonic generation, parametric amplification and oscillation, stimulated Raman processes, two- and multi-photon processes, four-wave mixing and phase conjugation, transient coherent optical effects and free induction decay, optical breakdown and nonlinear effects in plasmas. Prereq: 522.

610 Quantum Optics (3) Quantum theory of emission and absorption of radiation; frequency-dependent susceptibility; coherence theory; field quantization and coherent photon states; interaction of radiation with atoms; photon optics, counting and higher-order coherence; atomic scattering phenomena. Prereq: 521.

611 Advanced Quantum Mechanics and Field Theory (3) Survey of problems and methods. Topics of current interest. Intended for all graduate students.

612 Advanced Topics in Quantum Field Theory (3) Renormalization, Lamb shift, anomalous magnetic moments, gauge theories, electroweak theory, quantum chromodynamics, grand unified theories, and advanced topics in laser physics and quantum optics. Topics vary according to interest of students, instructor and present state of physics. Prereq: 611 or consent of instructor.

615-616 Astrophysics and Cosmology (3,3) 615—Stellar evolution: hydrostatic equilibrium, energy production and transport, star birth, main sequence, red giants, variable stars, and stellar explosions. General relativity and gravitational, white dwarfs, neutron stars, pulsars, and black holes. 616—Galaxies and the interstellar medium. Active galaxies, quasars, and supermassive black holes. Large-scale structure, the expanding Universe, cosmologies, big bang, cosmic background radiation, inflation, dark matter, formation of structure, and fate of the Universe. The Planck scale and quantum gravity.

621-622 Nuclear Physics (3,3) 621—Survey of research problems and methods. Topics of current interest. Intended for all graduate students. 622—Advanced problems intended for students specializing in the field.

626-627 Elementary Particle Physics (3,3) 626—Survey of elementary particle physics: experimental methods, conservation laws, invariance principles, and models of interactions. Intended for all graduate students. 627—Advanced topics intended for students specializing in field: quark models, electroweak interactions and unification of elementary forces.

642 Advanced Topics in Modern Physics (3) Advanced theoretical or experimental topics not covered in other courses. May be repeated with consent of department. Maximum 9 hours.

643 Computational Physics (3) Developing computer algorithms for solving representative problems in various fields of physics, celestial dynamics in astrophysics, boundary value problems in electromagnetism, atomic and nuclear structures, band structure in solid state physics, transport problems in statistical mechanics, Monte Carlo simulation of liquids, fitting and interpolation of data, correlation analysis, or optimization strategy. Prereq: 521, 531, 571.

671-672 Advanced Solid State Physics (3,3) 671—Survey of research problems and methods. Topics of current interest. Intended for all graduate students. 672—Advanced problems intended for students specializing in field.

PLANT SCIENCES (791)

410 Nursery Management and Production (2) Modern management methods as applied to retail and wholesale nurseries and landscape contracting firms. Methods of producing liners, container and field-grown woody ornamental plants. 2 hours and 1 lab. Prereq: 220, 330, and Environmental and Soil Sciences 210, or consent of instructor.

427 Management and Administration of Public Horticulture Institutions (2) Management of resources in non-profit institutions, support organizations and communities. Theoretical framework and institutional mission; strategic planning and programming; financial accounting and budgeting; development and fund raising; personnel policies; volunteer development; marketing and publicity; legal issues; relationships between staff and governing boards; the use of information technology in management and governance systems; and conservation/preservation roles in community development. Prereq: 226.

429 Field Study of Public Horticulture Institutions (2) Extended 10-12 day field study of various public horticulture institutions: botanical gardens, arboreta, historical grounds, zoos, conservatories, cemeteries, and nature preserves. Travel journal and course portfolio required. Application and travel fee required. Prereq: 226.

432 Weed Management (3) Principles of weed interference, integrated management, herbicide selectivity and behavior, specific recommendations for various crop and non-crop situations. 2 hours and 1 lab. Prereq: Environmental and Soil Sciences 210. Students who have received credit for 334 may not receive credit for this course.

434 Fruit and Vegetable Crops (3) Botanical description, geographical distribution, general cultural practices of warm and cool season vegetables, small fruits, and deciduous tree fruits. A Saturday field trip is required. 2 hours lecture and one 2-hour lab. Prereq: 120, Biology 110-120.

435 Field and Forage Crops (2) Agronomic principles of crop production and management. Crop improvement, cropping systems, tillage, fertilization, pest management, harvest and utilization of major field and forage crops. 2 hours and 1 lab. Prereq: 335.

436 Plant and Garden Photography (2) Principles and techniques of photography related to plants and gardens. Equipment options and field shooting under various weather conditions and in different seasons. Prereq: Senior standing and consent of instructor.

437 Public Garden Operations and Management (2) Analysis of year-round operations and management of public gardens. Case studies: time and labor management, budget development and management, implementation of volunteer programs, information dissemination methods for public outreach, management of grounds and facilities using the University of Tennessee Institute of Agriculture Gardens as model. Prereq: 226.

441 Advanced Turfgrass Management (2) Principles and scientific basis of turfgrass culture; adaptation, ecology, physiology, climatic influences on grass culture; clipping and water management; design, 1-hour lecture and one 1-hour lab. Prereq: 240.
446 Horticultural Therapy (2) Application of horticulture as therapy for treatment, rehabilitation and/or training of individuals with disabilities. Prereq: 240.

448 Horticultural Internet Technology (3) Creation and management of information resources for the internet, with a focus on development of visual and oral communications skills through a series of individual and team exercises in writing, graphics and public speaking. Prereq: Communication Studies 210 or 240.

450 Specialty Landscape Construction (3) Methods of design, materials, and construction techniques for specialized components of landscape industry. Irrigation systems, outdoor lighting, garden ponds and water features.

451 Plant Tissue Culture (3) (See Entomology and Plant Pathology 451.)

454 Plant Biotechniques (3) Lectures will discuss recombinant DNA technology, molecular assisted breeding of economically important crops, gene cloning and transformation technologies. Examples will be given of food and ornamental crops, pharmaceuticals, and renewable energy sources produced using biotechnology as well as potential risks of this technology. Labs will include electrophoresis, tissue culture, plasmid preps, genomic DNA preps, PCR, plant transformation, genomic techniques. 1-hour lecture and one 3-hour lab. Prereq: 353 or Biology 240.

457 Weed Management (2) Principles of weed interference, integrated management, herbicide selectivity and behavior, specific recommendations for various crop and non-crop situations. Prereq: Environmental and Soil Sciences 210.

458 Turf Root-zone Construction (2) Application of horticulture and design principles and practices in supervised, professional setting, approved by department. Not for thesis candidates. May be repeated. Maximum 4 hours.

460 Seminar (1) Presentations and discussion of topics. May be repeated. Maximum 2 hours.

461 Seminar Preparation (1) Application of speaking, writing, and organizational skills in preparation and presentation of scientific material to both scientific and general audiences. Preparation of abstracts for scientific presentations. Required of all entering graduate students during their first year of graduate study.

462 Drought Physiology (1) Biophysical and biochemical aspects of plant water relations and drought physiology. 3 hours weekly for five weeks. Prereq: Introductory plant physiology or equivalent.

463 Ecology of Grazing Land Systems (3) Multi-university, field-oriented course. Components and functions of grazing lands and how these vary in different ecoregions; research needs, objectives and techniques in soil-plant-animal research; forage-livestock ecology and systems in grazing lands (cropland, pastureland, rangeland and forestland); role of forages in conservation practices, wildlife habitats, and sustainable agriculture; and industries involved with forages and livestock. Two-week field trip, inclusive report and examination. Prereq: Consent of instructor.

464 Plant Pathogenic Fungi (2) (See Entomology and Plant Pathology 513.)

465 Flowering Physiology (1) General phenomenology, photoperiodism, thermoperiodism, interactions of external factors, juvenility, and hormonal regulation. 3 hours weekly for 5 weeks. Prereq: Introductory plant physiology or equivalent.

466 Integrated Pest Management (3) (Same as Entomology and Plant Pathology 530.)

467 Environmental Crop Physiology and Ecology (3) General and specific relations among environmental factors, crop organisms, and agricultural systems. Interrelationships of atmospheric gases in photosynthesis, evapotranspiration and foliage injury. Relationships of temperature stress, vernalization and bud dormancy to crop production. Influences of maturation ripening and senescence on post-harvest quality of fruit, vegetable, grain and forage crops. 2 hours and 1 lab. Prereq: Plant physiology course.

468 Drought Physiology (1) Biophysical and biochemical aspects of plant water relations and drought physiology. 3 hours weekly for five weeks. Prereq: Introductory plant physiology or equivalent.

469 Plant Microtechnique (1) (See Entomology and Plant Pathology 545.)

471 Plant Biotechniques (3) Lectures will discuss recombinant DNA technology, molecular assisted breeding of economically important crops, gene cloning and transformation technologies. Examples will be given of food and ornamental crops, pharmaceuticals, and renewable energy sources produced using biotechnology as well as potential risks of this technology. Labs will include electrophoresis, tissue culture, plasmid preps, genomic DNA preps, PCR, plant transformation, genomic techniques. 1-hour lecture and one 3-hour lab. Prereq: 353 or Biology 240.

472 Flowering Physiology (1) General phenomenology, photoperiodism, thermoperiodism, interactions of external factors, juvenility, and hormonal regulation. 3 hours weekly for 5 weeks. Prereq: Introductory plant physiology or equivalent.

473 Integrated Pest Management (3) (Same as Entomology and Plant Pathology 530.)

474 Protein Gel Electrophoresis (1) (See Entomology and Plant Pathology 544.)

475 Plant Microtechnique (1) (See Entomology and Plant Pathology 545.)

476 Statistics for Biological Research (3) Application of statistics to interpretation of biological research. Notation, descriptive statistics, probability, distributions, confidence intervals, t- and chi-square tests, analysis of variance, mean separation procedures, linear regression and correlation. Prereq: Mathematics 125 or 152. Students may not receive credit for both 461 and 561.

477 Design and Analysis of Biological Research (3) (Same as Animal Science 571.)

478 Internship (1-2) Application of horticulture and design principles and practices in supervised, professional setting, approved by department. Satisfactory/No Credit or letter grade.

479 Problems in Plant Sciences (1-3) Independent study. Current topic related to technology, science or design. May be repeated. Maximum 6 hours.
600 Doctoral Research and Dissertation (3-15) P/NP only.

603 Special Topics in Crop Physiology and Ecology (1-3) Microclimatology of agroecosystems, crop dormancy and responses to stress, physiology of crop growth and reproduction. Interactions of physiology and germplasm in crop production, theory and application of quantitative methods in crop physiology and ecology research. May be repeated. Maximum 6 hours.

605 Special Topics in Plant Breeding and Genetics (1-3) Genotype by environment interactions, estimation of quantitative parameters, mutations, chromosome dynamics, polyploidy, genetic engineering, interspecific hybridization, linkage, screening methods, genome organization. May be repeated. Maximum 6 hours.

633 Plant Metabolism (3) Metabolism of chemical compounds of economic importance in crop production: plant growth regulators, naturally occurring plant metabolites, and herbicides. Prereq: Botany 521 or 522 and organic chemistry or biochemistry.

643 DNA Analysis (2) (See Entomology and Plant Pathology 643.)

653 Advanced Plant Breeding (3) Principles and methodologies targeting genetic gain for crop improvement. Concepts of qualitative and quantitative trait improvement. Parental germplasm, hybridization, population formation, inbreeding, genetic variance, heritability, selection methods, molecular genetic markers, genetically engineered crops. Prereq: Botany 571 and general genetics, or equivalent.

POLITICAL SCIENCE (801)

402 The City in the United States (3) Development and character of U.S. cities. Contemporary issues and selected case studies. (Same as Urban Studies 411.)

403 Survey of Planning (3) History of city development and of planning. U.S. experience in urban and other levels of planning. State of the art process, comprehensive plan, implementation devices. Planning issues in society. Not for credit for MSP degree. (Same as Urban Studies 412.)

425 Media and Politics (3) Examines the interrelationship between the political system and the media from a political science perspective.

430 United States Constitutional Law: Sources of Power and Restraint (3) Analysis of judicial review, constitutional powers of President and Congress, federalism, sources of regulatory authority, and constitutional protection of political and economic rights. (Same as Legal Studies 430.)

431 U.S. Constitutional Law: Civil Rights and Liberties (3) Analysis of current issues in civil rights and liberties including: first amendment freedoms, equal protection, privacy and rights of accused. (Same as Legal Studies 431.)

435 Criminal Law and Procedure (3) Substantive and procedural law in criminal justice field: constitutional questions and public policy issues. (Same as Legal Studies 435.)


442 Administrative Law (3) Legal dimensions of administrative power and procedures, and constitutional controls over administrators. (Same as Legal Studies 442.)

445 Administration of Justice (3) Administration and processes of justice system, including judicial administration and decision making in trial and appellate courts. (Same as Legal Studies 445.)

446 Housing (3) Nature and demand for housing in the U.S. and abroad. U.S. experience. Private market processes and public influences. Problems of change in housing supply, impact of new technology, and governmental programs to increase supply and quality of housing. (Same as Urban Studies 446.)
530 American Government and Politics (3) Survey of literature, approaches to research and analysis, critical examination of major works, and overviews of research in various sub fields. May be repeated with consent of department. Maximum 9 hours.

531 Theory of Planning (3) Analysis of nature and objectives of planning process: role of planners and planning function in public decision-making.

532 Presidency (3) Systematic examination of the structure, functions and powers of the American presidency as they have evolved from the founding to the present.

533 Congress (3) Formal, empirical and theoretical approaches to and models of the institutional workings of Congress and the behavior of legislators.

535 Mass Political Behavior (3) Theoretical and empirical analyses of public opinion, political socialization, political attitudes and behavior, especially voting behavior.

537 Political Parties and Interest Groups (3) Theoretical and empirical examination of the structure, functions and operations of political parties and interest groups.

539 State and Local Government and Politics (3) Theoretical and empirical analysis of government, politics, policymaking and public administration at the state and local levels.

540 Public Law (3) Selective examination of published research and current approaches in sub fields of constitutional law, judicial process, and judicial behavior. May be repeated with consent of department. Maximum 9 hours.

544 Information Systems and Networks in Planning (3) Use and impact of computer-based information systems and global networks in planning and public management. Development of practical skills in design of planning-decision support systems, databases, Internet-based tools and geographic information systems (GIS).

545 Planning Research Methods (3) Overall structuring of social science research in planning practice: familiarity with structure of planning literature information sources, decision processes and tools, practice in posing research questions relevant to planning, evaluation methods.

547 Planning Technology (3) Relationships between information technology, society and planning. Overview of other advanced technologies, economic development, and associated social and planning issues.

548 Public Policy Process (3) Theoretical, formal and empirical analysis of the roles, functions and decision making processes of public policymakers, including legislative, executive and judicial actors.

549 Environmental Policy (3) Overview of contemporary environmental policy and its evolution. Examines the roles of values in the environmental arena. Provides a framework for policy analysis and analytical tools for selection and choosing among policy options.

550 Public Administration (3) Overview of public administration theory and function.

552 Organization Theory (3) Appraisal of major theories of organization and their applicability to public sector.

555 Planning and Transportation (3) (See Civil Engineering 558.)

556 Policy Analysis (3) Strategies and techniques for identification and analysis of public problems and policy solutions. May be repeated with consent of department. Maximum 9 hours.

558 The Politics of Administration (3) Examination of public administration in context of American political system, policy making and political roles of public administrators and agencies. May be repeated with consent of department. Maximum 9 hours.

560 Public Financial Administration (3) Principles and techniques of public finance at state and local levels: budget preparation, execution and audit, risk management, capital planning, major tax structures, economic forecasting, cash management, and debt administration.

562 Public Management (3) Interpersonal and leadership skills, techniques and methods for planning, decision making, and implementation of management strategies in public sector. May be repeated with consent of department. Maximum 9 hours.

566 Ethics, Values, and Morality in Public Administration (3) Moral-ethical-value dilemmas confronting administrators in American political system.

569 Internship in Public Administration (3-9) Open to students participating in approved internship programs. May be repeated with consent of department. Maximum 9 hours. Satisfactory/No Credit grading only.

572 The Politics of Development (3) Selected topics dealing with political problems of less developed countries. May be repeated with consent of department. Maximum 9 hours.

574 Area Seminar in Comparative Government and Politics (3) Selected topics in area studies: African, Asia, Latin America, Middle East, Soviet Union and Eastern Europe or Western Europe. May be repeated with consent of department. Maximum 9 hours.


579 Fundamentals of Planning (3) History of planning, structure and development of urban areas, operations of contemporary planning, trends and issues.

580 International Politics (3) Survey of literature and major aspects of international politics. May be repeated with consent of department. Maximum 9 hours.


584 Environmental Planning (3) Role of planners and planning in maintenance of balance between natural and built environment.

585 Planning Methods (4) Preparation of comprehensive plans for urban areas and regions. Development of baseline data and forecasts, formulation of alternative plans and strategies, and development of plan implementation programs.

586 Planning and Property Development (3) Process of urban physical growth and change: functioning of private sector real estate development and its relationship to planning. Partnership roles of public and private sectors in urban development and redevelopment.

587 Legal Aspects of Planning (3) Legal basis for planning and guiding community development. Legal tools of planning.

588 Sustainable Communities (3) Overview of sustainable communities. Project-based classroom in local community.

590 Practicum in Planning (3) Prereq: Consent of instructor.
591 Foreign Study (1-15) See College of Arts and Sciences.
592 Off-Campus Study (1-15) See College of Arts and Sciences.
593 Independent Study (1-15) See College of Arts and Sciences.
594 College Teaching in Political Science (1) Instructional effectiveness, techniques, organization, materials for teaching political science at college level. Prereq: Consent of instructor. Satisfactory/No Credit grading only.
595 Readings and Special Problems in Political Science (1-3) Prereq: Consent of instructor. May be repeated. Maximum 15 hours.
596 Workshops in Computer Applications (1) Training in software applications to support research and decision making tasks in public service. Successful completion certifies proficiency of MPA students in use of software applications for personal computer. Satisfactory/No Credit grading only.
597 Special Topics in Planning (1-3) Prereq: Consent of instructor. May be repeated. Maximum 6 hours.
598 Problems in Planning (1-3) Prereq: Consent of instructor. May be repeated. Maximum 6 hours.
600 Doctoral Research and Dissertation (3-15) P/NP only.
610 Special Topics in Empirical Theory and Methodology (3) Advanced methods and procedures of analysis in political science. May be repeated with consent of department. Maximum 9 hours.
628 Topics in Political Theory (3) Selected issues and problems in normative political theory. Specific content determined by instructor. May be repeated with consent of instructor. Maximum 9 hours.
639 Special Topics in American Government and Politics (3) Advanced study of selected topics. May be repeated with consent of instructor. Maximum 9 hours.
640 Special Topics in U.S. Constitutional Law (3) Systematic analysis of published research and judicial decision: development of constitutional law as major component of public policy. May be repeated with consent of department. Maximum 9 hours.
654 Contemporary Public Policies (3) Problems in one or more public policy areas from political and administrative perspectives. Topics selected by instructor. May be repeated with consent of department. Maximum 9 hours.
660 Contemporary Perspectives on Public Administration (3) Development of theory in public administration: contemporary critiques and alternatives. May be repeated with consent of instructor. Maximum 9 hours.
668 Special Topics in Public Administration (3) Analysis of selected issues and problems in public administration. May be repeated. Maximum 9 hours.
670 Special Topics in Comparative Government and Politics (3) Research into selected topics. May be repeated with consent of department. Maximum 9 hours.
682 Theory and Analysis of U.S. Foreign Policy Processes (3) Theoretical approaches to decision making in foreign policy area and analysis of policy-making process. May be repeated with consent of department. Maximum 9 hours.
684 International Law (3) Provides the analytical tools necessary to evaluate the legality of events under international law. Presents the law relevant to politics, such as the use of force, human rights, war crimes, international courts, principles of jurisdiction, and air, space and sea law.
688 Special Topics in International Politics (3) Selected issues and problems in international politics. Specific content determined by instructor. May be repeated with consent of instructor. Maximum 9 hours.

PORTUGUESE (811)
400 Portuguese for Speakers of Another Romance Language (3) Accelerated class for beginning students of Portuguese with strong background in another Romance language. Introduction to grammar, reading and culture of Portugal and Brazil. Prereq: 3 hours at the 300-level in another Romance language or equivalent.
431-432 Topics in the Literature and Language of Portuguese-speaking World (3,3) Outstanding works of literature and culture from Portuguese countries. Topics may vary. Prereq: At least one course at the 300-level or the equivalent. May be repeated. Maximum 12 hours.
591 Foreign Study (1-15) See College of Arts and Sciences.
592 Off-Campus Study (1-15) See College of Arts and Sciences.
593 Independent Study (1-15) See College of Arts and Sciences.

PSYCHOLOGY (830)
409 Group Facilitation (3) Study of theory and technique through supervised experience in small groups. Prereq: General Psychology or consent of instructor. May be repeated. Maximum 6 hours.
410 Sensory Processes and Perception (3) Survey of physiological and psychological theories of perception. Audition and vision. Prereq: 385 or Mathematics 115 or Statistics 201 or graduate standing.
415 Psychology of Religion (3) History of psychology of religion: various philosophical and empirical orientations. Psychological function of religion for individuals and society. Prereq: 110 or consent of instructor.
420 History and Systems of Psychology (3) History of psychological thought. Classical approaches and recent developments. Prereq: 110 or consent of instructor or graduate standing.
424 Psychology and the Law (3) Psychological aspects of legal systems. Prereq: 110 or consent of instructor.
430 Health Psychology (3) Survey of psychological factors related to health and illness: stress, personality, and environment. Applications of psychological treatments to physical illness. Prereq: 110 or consent of instructor.
434 Psychology of Gender (3) Biological, psychological, and social factors in gender. Importance of gender roles and stereotypes for behavior and experience. Prereq: 110 and junior standing (60 semester hours) or consent of instructor. (Same as Women's Studies 434.)
440 Organizational Psychology (3) Social-psychological analysis of organizations, role-theory and systems theory. Prereq: 110 and 360 or consent of instructor.
450 Comparative Animal Behavior (3) (See Ecology and Evolutionary Biology 450.)
459 Comparative Animal Behavior Laboratory (3) (See Ecology and Evolutionary Biology 459)

461 Physiological Psychology (3) Nervous system and physiological correlates of behavior. Biological basis of emotion, learning, memory and stress. Prereq: 110 or consent of instructor and one of the following sequences, Biology 101 and 102, Biology 130 and 140, Anthropology 110 and 210.

470 Theories of Personality (3) Survey of major theories of human personality and their development. Prereq: 110 or consent of instructor.

475 Adolescent Development (3) Theoretical perspectives and empirical research findings pertinent to adolescent development. Prereq: 110 or consent of instructor.

480 Theories of Learning (3) Classical and current approaches to learning and cognition. Prereq: 110 or consent of instructor.

482 Topics in Psychology (3) Intensive analysis of special topics: African-American psychology or evaluation of programs in community. Prereq: 110 or consent of instructor. May be repeated. Maximum 6 hours.

489 Supervised Research (1-9) Prereq: Consent of instructor. May be repeated. Maximum 12 hours in 399, 489, 491, 492, and 493 combined may apply toward undergraduate major.

500 Thesis (1-15) P/NP only.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

505 Research Design (3) Techniques for planning and conducting research in controlled and natural settings: experiments, quasi-experiments, observational studies, surveys, and program-evaluations. Development of questions and hypotheses for study. Design of studies to maximize validity. Prereq: Consent of instructor.

507 Foundations of Applied Psychology (3) Fundamental methods for application of psychology principles and techniques in community, organizational, and industrial settings, and related ethical and theoretical issues. Prereq: 505 and consent of instructor.

508 Readings and Special Issues in Psychology (1-3) Prereq: Consent of instructor. May be repeated. Maximum 9 hours.

509 Research Practicum (1-3) Required of first-year graduate students in psychology. May be repeated. Maximum 9 hours. Satisfactory/No Credit grading only.

510 Topics in Psychology (3) Intensive examination of selected issues in psychology. Prereq: Consent of instructor. May be repeated. Maximum 9 hours.

511 Developmental Psychology (3) Normal processes of human socialization; physical, cognitive, and emotional development from conception through infancy, childhood, and adolescence. Prereq: Consent of instructor. May be repeated. Maximum 6 hours.

512 Life-Span Development (3) Theories and research concerning normal human development throughout life, adulthood and old age. Prereq: Consent of instructor.

513 Foundations of Psychology: Biological Factors, Perception, Learning, Thinking, Motivation (3) Intensive survey. Prereq: Consent of instructor.

515 Colloquium in Experimental Psychology (1) Research and practical issues in experimental psychology. Prereq: Consent of instructor. May be repeated. Maximum 4 hours. Satisfactory/No Credit grading only.

517 Foundations of Counseling Psychology (3) History, theory, research and practice of counseling psychology. May be repeated. Maximum 6 hours.

521 Analysis of Variance for Social Sciences (3) Analysis of variance and statistical theory: application within social science framework. Contrasts among means, trend analysis, analysis of covariance, analysis of factorial designs, and multivariate approaches to analysis of within subjects data.

522 Multiple Regression for Social Sciences (3) Complexities of regression analyses and theory: application within social science framework. Bivariate correlation and regression, multiple regression, analysis of variable sets, interactions among continuous predictors, reducing co-linearity between main effects and application of multiple regression to testing procedures of mediation and moderation.

526 General Vertebrate Neuroanatomy (3) Lecture and laboratory. Structure and functioning of central and peripheral nervous system. Prereq: 461 or equivalent and consent of instructor.

527 Behavioral Neurology (3) Disorders of nervous system, organic brain dysfunctions. Diagnosis and treatment. Prereq: Consent of instructor.

528 College Teaching in Psychology (3) Concepts, techniques, and materials for teaching psychology at college and/or university level. Supervised practice. Prereq: Consent of instructor. Satisfactory/No Credit grading only.

534 Cognitive Science (3) Theories and research. Prereq: Consent of instructor. May be repeated. Maximum 6 hours.

545 Advanced Animal Behavior (3) (See Ecology and Evolutionary Biology 545)

546 Ethological Psychology (3) Basic ethology and comparative psychology. Implications for human behavior. Prereq: Consent of instructor. (Same as Ecology and Evolutionary Biology 546)

547 Conceptual Foundations of Evolution and Behavior (3) Critical evaluation of seminal writings on theory and methods in comparative analysis of behavior. (Same as Ecology and Evolutionary Biology 547)

550 Social Psychology (3) Survey of theory and research concerning interpersonal interaction and individual behavior in social context. Prereq: Consent of instructor.

554 Laboratory in Psychometrics (3) Further learning about psychometrics theories: item response theory (modern mental test theory), factor analysis, and applications of those methods using computer programs to simulated or empirical data. Prereq: 555. May be repeated. Maximum 6 hours.

555 Psychometrics (3) Basic concepts: factor analysis, scaling, test theories, probability models and their applications, computerized adaptive testing and other topics. Prereq: Statistics 537-538 or equivalent. May be repeated. Maximum 6 hours.

558 Interviewing and Observation (3) Sensitizing students to own feelings and beliefs and to feelings of interviewee, and analysis of language content, style, and body language. Exploration of various important aspects of interviewee’s life. Prereq: Admission to doctoral program in clinical psychology or consent of instructor. Coreq: 559.

559 Laboratory in Interviewing and Observation (1) Prereq: Admission to doctoral program in clinical psychology or consent of instructor. Coreq: 558.

560 Psychology of Learning (3) Review of current evidence from research involving human and/or non-human animals. Prereq: 400 and consent of instructor. May be repeated. Maximum 6 hours.

565 History and Systems of Psychology (3) History of philosophy concerning psychology. Major systems of psychology which emerged during 20th century. Prereq: Graduate standing.

567 Group Dynamics and Methods (3) (See Counselor Education 554)
568 Prepracticum in Career Development (3) Didactic instruction and practice in counseling and career exploration. Prereq: Admission to doctoral program in counseling psychology.

569 Practicum in Counseling (3) (See Counselor Education 555.)

570 Personality: Theory and Research I (3) Advanced survey of psychodynamic and neo-Freudian approaches to personality; related research. Prereq: Admission to clinical program or consent of instructor.

571 Personality: Theory and Research II (3) Advanced survey of behavioral and humanistic approaches to personality; related research. Prereq: Admission to clinical program or consent of instructor.

572 Individual Cognitive Assessment in Counseling (3) Basic concepts and applications in individual assessment of intelligence; proficiency in administrative scoring, interpretation for Wechsler, adults and children, Stanford-Binet. Prereq: 445, Counselor Education 525 or equivalent. Satisfactory/No Credit grading only.

573 Descriptive and Theoretical Psychopathology (3) Current psychiatric taxonomic system. Theories of etiology for various diagnostic categories. Examples from written case vignettes and recorded interviews. Prereq: Admission to doctoral program in clinical psychology or consent of instructor.

574 Cross-Cultural Counseling: Theory and Research (3) (See Counselor Education 570.)

576 Object Relations (3) European and American conceptions of normal and psychopathological development of object relations. Significance for psychotherapy, psychoanalysis, and psychoanalytic theory. Prereq: Admission to doctoral program in clinical psychology or consent of instructor.

580 Research Questions and Designs (3) Question-asking process in research and strategies or designs through which answers might be derived. Prereq: Admission to doctoral program in clinical psychology or consent of instructor.

593 Independent, Off-campus, or Foreign Study (1-15) Prereq: Consent of instructor. May be repeated. Maximum 9 hours. Satisfactory/No Credit grading only.

594 Psychological Assessment I (3) Basic concepts and techniques of adult assessment: intelligence tests and personality tests. Prereq: Admission to doctoral program in clinical psychology or consent of instructor.

595 Psychological Assessment II (3) Basic concepts and techniques of adult assessment, intelligence tests and personality tests. Prereq: Admission to doctoral program in clinical psychology and 594 or consent of instructor.

596 Laboratory in Psychological Assessment (1) Prereq: Admission to doctoral program in clinical psychology or consent of instructor. Coreq: 594 or 595. May be repeated. Maximum 4 hours. Satisfactory/No Credit grading only.

597 Developmental Psychopathology (3) Research and theory on pathways to psychological disorders and personal adjustment. Prereq: 571, or equivalent or consent of instructor.

598 Ethical Issues in Professional Psychology (3) Conceptual and practical applications in human services and research. Prereq: Consent of instructor.

599 Clinical Psychopathology (3) Formal use of descriptive categories used in the diagnosis of abnormal behavior. Prereq: 597, or equivalent or consent of instructor.

600 Doctoral Research and Dissertation (3-15) P/NP only.

601 Seminar in Psychology (3) Prereq: Consent of instructor. May be repeated. Maximum 12 hours.

607 Seminar in Applied Psychometrics (3) May be repeated. Maximum 9 hours. Prereq: 555, 557, and consent of instructor.

610 Seminar in Applied Psychology (3) Prereq: Consent of instructor. May be repeated. Maximum 12 hours.

613 Seminar in Existential-Phenomenological Psychology (3) Prereq: Consent of instructor. May be repeated. Maximum 12 hours.

617 Seminar in Cognitive Science (3) Prereq: 543 and consent of instructor. May be repeated. Maximum 12 hours.

623 Seminar in Methods of Naturalistic Research (3) Prereq: 546 or consent of instructor. May be repeated. Maximum 12 hours.

625 Advanced Study in Personality (3) Theory, research and conceptual analysis of studies with application to education and counseling. Prereq: 470 or equivalent. (Same as Counselor Education 625)

635 Ethical, Legal, and Professional Issues Psychology (3) Research, human services, teaching, and public policy. Prereq: Admission to doctoral program in psychology or consent of instructor. Satisfactory/No Credit grading only. (Same as Counselor Education 635; Educational Psychology 635.)

661 Education Implications of Neuropsychology (3) Theory and assessment. Common syndromes and their behavioral and cognitive manifestations. Prereq: 461 or consent of instructor.

667 Personality and Vocational Assessment (3) Use and interpretation of personality and vocational measures in assessment of clients. Prereq: 445 or Counselor Education 525 or consent of instructor. (Same as Counselor Education 671.)

670 Psychotherapy I (3) Theories and principles. Prereq: Admission to doctoral program in clinical psychology or consent of instructor.

671 Psychotherapy II (3) Theories and principles. Prereq: Admission to doctoral program in clinical psychology and 670 or consent of instructor.

672 Psychological Dysfunction (3) Classification methods, dynamics and treatment of dysfunctional individuals in counseling. Prereq: 625 and a course in abnormal psychology, or consent of instructor.

673 Laboratory in Psychotherapy (2) Prereq: Admission to doctoral program in clinical psychology or consent of instructor. Coreq: 670 or 671. May be repeated. Maximum 6 hours. Satisfactory/No Credit grading only.

674 Practicum in Counseling Psychology (3) Supervised practice of individual counseling. Minimum 135 clock hrs required each semester. Prereq: Admission to doctoral program in counseling psychology, 445 or equivalent, 569 and consent of instructor. May be repeated. Maximum 6 hours.

675 Advanced Theory and Practice in Group Counseling (3) Theories and supervised practice. Prereq: 567 and consent of instructor.

676 Field Placement in Counseling Psychology (3) Prerequisite: 674 and admission to the doctoral program in counseling psychology. May be repeated. Maximum 12 hours. Satisfactory/No Credit grading only.

678 Theory and Practice of Counseling Supervision (3) Theory and practice of supervision in counseling. Prereq: 674 or consent of instructor. Satisfactory/No Credit grading only.

679 Internship in Counseling Psychology (1-6) Supervised employment in departmentally approved counseling psychology internship sites. Prereq: Admission to counseling psychology doctoral program and consent of instructor. May be repeated. Maximum 12 hours. Satisfactory/No Credit grading only.

683 Seminar in Behavioral Medicine (3) Current research and theory concerning relationships between behavior and health. Prereq: Consent of instructor. May be repeated. Maximum 12 hours.
695 Field Placement in Clinical Psychology (3)  Prereq: Admission to doctoral program in clinical psychology and consent of instructor. May be repeated. Maximum 24 hours. Satisfactory/No Credit grading only.

696 Advanced Psychology Clinic Placement (1-3) Prereq: Admission to doctoral program in clinical psychology or consent of instructor. May be repeated. Maximum 24 hours. Satisfactory/No Credit grading only.

697 Supervised Field Work in Applied Psychology (1-6) Guided practice in applying psychological principles and techniques in industrial, organizational, and community settings. Prereq: 505, 507, 555, 557, and consent of instructor. May be repeated. Maximum 12 hours. Satisfactory/No Credit grading only.

PUBLIC HEALTH (839)

400 Consumer Health (3) (See Health 400.)

410 Worksite Health Promotion (3) Foundations of health promotion programs delivered in worksite that revolve around issues relative to employees and management: theory, program design, implementation and evaluation from perspective of health promotion specialist. Prereq: 300.

493 Directed Independent Study (1-3) Individual in-depth study of selected issues. Prereq: Consent of instructor. May be repeated. Maximum 6 hours.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

509 Graduate Seminar in Public Health (1) In-depth discussion of timely topics reflecting scope of public health as discipline and its interrelation with many other academic and professional disciplines. Speakers both internal and external. May be repeated. Maximum 4 hours. Satisfactory/No Credit grading only. (Same as Exercise Science 309; Nursing 309; Nutrition 309; Social Work 309.)

510 Environmental and Occupational Health (2) Complexities of personal and ambient environment recognizing health as individual’s response to diverse and dynamic world. Principles of occupational safety and health. Survey of contemporary issues and their implications for healthful living today and in future. Prereq: Admission to MPH or public health nutrition (MS) programs or consent of instructor.

520 Public Health Policy and Administration (3) Administrative considerations of community-based health care programs and public health practice. Health policy formulation, political environment and governmental involvement in health, legal responsibilities, and managerial concepts/techniques/process.

521 Organization Theory and Health Care Delivery (3) Administrative and Organization theory related to health facilities; operation and management of community hospital. Case discussions and problem-solving exercises; managerial functions and skills.

523 Management in Extended Care Settings (3) Managerial concepts and theoretical foundations essential to supervision and administration of domiciliary health services programs. Management and operation of health services programs for patients and clients in settings which provide activities of daily living and special psychosocial environmental needs. Programs for home health services, comprehensive medical rehabilitation, nursing homes, congregate living centers and similar type health programs. Prereq: 521 or consent of instructor.

525 Financial Management of Health Programs (3) Financial management concepts and practices applied to health services programs. Fundamentals of budgeting, costing, financing, rate setting, financial reporting and control. Opportunities to apply techniques. Prereq: 520 or consent of instructor.

530 Biostatistics (3) Application of descriptive and inferential statistical methods to health-related problems and programs. Microcomputer applications, use and interpretation of vital statistics and introductory research methodology preparatory for first course in epidemiology. Prereq: Admission to MPH or public health nutrition (MS) programs or consent of instructor and introductory statistics.

540 Principles of Epidemiology (3) Distribution and determinants of health-related outcomes in specified populations, with application to control of health problems. Historical origins of discipline, hypothesis formulation, research design, data and error sources, measures of frequency and association, etiologic reasoning, disease screening, and injury control. Prereq or coreq: 530.


550 Principles and Practices of Community Health Education (3) Theoretical foundations for community health education; opportunities for skill development in variety of educational processes; and introduction to community health analysis.

552 Community Health Problem Solving (4) Dynamics of community organization, community needs assessment, educational interventions, and application of program planning and evaluation techniques. Opportunity to practice skills in realistic setting. Prereq: 550 or consent of instructor.


560 Theories and Techniques in Health Planning (4) Overview of health planning concepts and methodology. Systems-oriented planning process. Major elements of planning: formulation and conceptualization of problem, plan design, evaluation and implementation. Health problems of institutions, communities and selected population groups, appropriate diagnoses, and programs for addressing needs.

580 Special Topics (3) Prereq: Consent of instructor. May be repeated under different topic. Maximum 6 hours.

585 Seminar in Gerontology (1) (See Health 585.)

587-588-589 Internship (3,3,3) Internship (community health education, gerontology, or health planning/administration) in either approved organization or research setting under supervision of designated preceptor. Prereq: MPH major, one semester advance notice and consent of major advisor. 589: available only for approved extended placements. Satisfactory/No Credit grading only.

590 Research Methods in Health (3) (See Health 590.)

593 Directed Independent Study (1-3) Prereq: Consent of instructor. May be repeated. Maximum 6 hours.

635 Physical Activity and Positive Health (3) (See Exercise Science 635.)

650 Health Aspects of Gerontology (3) (See Health 650.)

655 Seminar in Nation’s Health (3) (See Health 655.)

660 International Health (3) (See Health 660.)
PUBLIC RELATIONS (841)

470 Public Relations Campaigns (3) Research, planning and communication, and evaluation of major public relations campaigns. Oral and written presentation of public relations project from inception to completion. Extensive out-of-class work. Prereq: 320, 370, or consent of instructor.

490 Special Topics (3) Topics vary. May be repeated. Maximum 6 hours.

500 Thesis (1-15) P/NP only.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when the student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

516 Seminar in Public Relations Issues (3) Topics vary. May be repeated. Maximum 6 hours.

525 Public Opinion (3) (See Journalism and Electronic Media 525.)

540 Public Relations Management (3) Theories of leadership and management and organizational structure and functions of public relations agencies and departments in public, private, and non-profit sectors. Analysis and management of problems in communication between organizations and their publics with emphasis on ethics and standards of the profession.

550 Public Relations Strategies (3) Strategic communication planning to achieve overall goals of organizations. Emphasis on decision-making, the budgeting process, including cost-benefit analysis of tactics, and managerial execution of public relations plans. Measurement and evaluation of effectiveness of communication programs.

561 Fund Raising and Proposal Writing (3) History, philosophy and practice of philanthropy in U.S. Sources of funds from foundations, corporations and public agencies. Research and preparation of fund-raising proposals.

590 Project (3) Capstone project under guidance of faculty. Application of principles from previous coursework. Satisfactory/No Credit grading only.

597 Independent Study (3) Prereq: Consent of instructor. May be repeated. Maximum 6 hours.

598 Internship (3) Professional work in public relations supervised by Communications manager with faculty approval. No retroactive credit for previous work experience. Prereq: Completion of core curriculum.

READING EDUCATION (847)

434 Topics in Reading Education (1-6) Prereq: Admission to teacher education and course in reading education. May be repeated. Maximum 6 hours.

461 Developing Reading Skills in Content Fields (3) Techniques for teaching reading and study skills in content areas of school program. Extensive assessment of textbooks. Middle school and high school.

530 Teaching Reading in Elementary and Middle Schools (3) Trends in methods, materials, basic approaches, skill development and assessment procedures for teaching reading at elementary school level. Prereq: Course in teaching of reading or consent of instructor.

533 Reading in Community College: Research and Theory (3) Analysis of components of effective community college reading programs. Attention to research bases. Prereq: Course in reading education or consent of instructor.

534 Seminar in Reading Education (1-6) May be repeated. Maximum 6 hours.

536 Psychology of Reading (3) Reading act, relationship between learning theory and reading, role or reading in child's overall intellectual development. Affective and cultural factors. Prereq: 500-level course in reading education or consent of instructor.

537 Diagnosis and Correction of Classroom Reading Problems (3) Procedures, methodologies and materials for diagnosing and correcting classroom reading problems. Prereq: Course in reading education, or equivalent teaching experience, or consent of instructor.

538 Practicum in Diagnosis of Reading Problems (3) Theoretical and practical applications of specific reading diagnostic instruments; testing of elementary and/or secondary school students, preparing case study reports, and conducting parent conferences. Prereq: Course in diagnosis and correction of classroom reading problems or consent of instructor.

539 Practicum in Remediation of Reading Problems (3) Application of learning and teaching methodology in working with elementary and/or secondary school students on one-to-one or small group basis. Prereq: Course in diagnosis and correction of reading problems or consent of instructor.

540 Teaching the Struggling Adolescent Reader (3) Methods of teaching middle and high school students who do not have sufficient reading skill to successfully engage in required reading. Prereq: Course in reading education, or equivalent teaching experience, or consent of instructor.

554 Developmental Reading Practicum (3) Diagnosing and teaching children having developmental and corrective reading needs in regular classroom. Prereq: Course in diagnosis and correction of reading problems or consent of instructor.

562 Seminar in Reading Education (1-6) May be repeated. Maximum 6 hours.

563 Advanced Studies and Theoretical Models of Reading (3) Research on reading processes. Current theoretical models related to how learners process print. Prereq: 500-level courses in reading education or consent of instructor.

565 Organizing and Administering Reading Programs (3) Diagnosing and teaching children having developmental and corrective reading needs in the regular classroom. Prereq: Course in diagnosis and correction of reading problems or consent of instructor.

RECREATION AND LEISURE STUDIES (853)

415 Development and Maintenance of Recreation and Athletic Facilities (3) Principles of designing, planning, equipping, operating and maintaining various facilities. Elements of risk management and safety in design process. Prereq: 310, Sport Management 350, or consent of instructor.

430 Organization and Administration of Leisure Services (3) Principles of administration applied to provision of leisure services offered by public, private and/or commercial enterprises. Organizational structures, personnel management, evaluation, legal authority, introduction to budgeting and fiscal procedures. Prereq: 310 or Sport Management 350.

440 Dimensions of Commercial Recreation and Leisure Enterprises (3) Prereq: 201, junior standing or consent of instructor.

450 Special Topics in Leisure Education (1-6) Development of special topics in recreation, therapeutic recreation and leisure. May be repeated. Maximum 6 hours.

470 Tourism and Leisure Industries (3) Symbiotic relationship between tourism and various sectors of leisure industry. Use of resources, both natural and developed, and economic impacts of ventures. Socio-cultural impacts on venue as well as venue impact on local population.

500 Thesis (1-15) P/NP only.
502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

510 Trends and Issues in Service Management (3) (See Hotel, Restaurant, and Tourism 510.)

515 Philosophical and Conceptual Foundations of Leisure (3) Philosophy of leisure and recreation; nature of philosophy, concepts of leisure, recreation, play, work, and other factors, history of field, and relationship of ideas to contemporary society and to professional practice.

520 Program Design and Evaluation in Therapeutic Recreation (3) History, philosophy, nature, purpose, special populations served, programming process, professional aspects of therapeutic recreation. Basic overview of aspects of leisure delivery systems. Prereq: Consent of instructor.

521 Facilitation Techniques in Therapeutic Recreation (3) Role of therapeutic recreation in clinical and non-clinical settings; application of life-style planning, self-awareness, values clarification and assertiveness training in therapeutic recreation, relationship of leisure education to therapeutic recreation. Prereq: 520 or consent of instructor.


540 Fiscal Policies for Recreation and Sports Related Organizations and Facilities (3) Application of fiscal policies and procedures to operation of recreation and sports related organizations and facilities. Finance, revenue generating strategies, cash and inventory control, commercial/public cooperative ventures and microcomputer applications. Prereq: 430 or consent of instructor.

541 Management and Operation of Recreation and Sport Related Facilities (3) Research for making program and management decisions, process of cost analysis, and basic design and maintenance of recreation and sport related facilities. Prereq: Consent of instructor.

590 Graduate Internship (3-6) Required of all graduate students. Application of previous theoretical and applied knowledge and skills in an appropriate recreation/leisure setting. The internship is intended to simulate a full-time professional level work experience during the entire semester. Therapeutic Recreation Internship must meet NCTRC national guidelines. Prereq: Completion of 24 graduate hours/3.0 GPA and/or permission of instructor.

591 Directed Study in Leisure and Recreation (1-6) Detailed study of theme, issue, or concern. Designed to meet needs of individual students. May be repeated. Maximum 6 hours.

592 Special Topics in Recreation and Leisure Studies (1-6) May be repeated. Maximum 6 hours.

REHABILITATION COUNSELOR EDUCATION (857)

530 Orientation to Rehabilitation (3) History, philosophy, legal and economic bases, current issues, and practices in public and private rehabilitation programs. Qualifications of service providers. Assessment, plan development, and provision of services to people who have disabilities and vocational handicaps. Identification, mobilization, and utilization of rehabilitation resources.

532 Caseload Management in Rehabilitation (3) Techniques and procedures involved in management of caseloads in Federal-State vocational rehabilitation agencies, private rehabilitation companies, and public or private rehabilitation facilities. Analysis of appropriate industrial management models related to rehabilitation programs.

533 Job Analysis, Development, and Placement (3) Determining employment-readiness of people with disabilities, identifying appropriate jobs for selected clients, and assisting clients in seeking, obtaining, and retaining employment. Job analysis, job modification and re-engineering, marketing, and employer-servicing techniques; legislation impacting job placement; supported work; and use of occupational information.

537 Vocational Evaluation: Clinical Methods (3) Process, principles, and techniques used to assist individuals in determining and understanding their own work behavior and vocational potential. Selection and use of occupational exploration programs and work samples; application of situational tasks, job tryouts, and simulated work experiences in vocational evaluation. Clinical interpretation of data through formal staff conference, vocational counseling, and report writing.

538 Disability Management (3) Return-to-work issues in disability management programs: early intervention, quality services, and cost containment; standards and procedures for rehabilitation counselors/case managers in private sector rehabilitation.

541 Psychosocial Aspects of Disability (3) Psychosocial impact of disability on person and family. Reaction to loss, coping with disability, and societal rehabilitation.

543 Medical Aspects of Disability (3) Etiology and clinical symptoms related to disabling conditions served by special education and rehabilitation personnel. Restrictive measures to eliminate or minimize resulting handicaps. Skills necessary to communicate with lay and professional persons.

545 The Rehabilitation Interview (3) Interview as used in assessment and planning with people who have disabilities and vocational handicaps.

547 Practicum in Rehabilitation (3) Supervised experience in area of rehabilitation; application of concepts, principles, and skills. Prereq: Consent of instructor.

549 Internship in Rehabilitation Counseling (12) Supervised practice in rehabilitation counseling. Full-time clinical experience for second-year students (600 clock hours required).

579 Special Topics (1-3) Prereq: Admission to graduate program. May be repeated. Maximum 9 hours. Satisfactory/No Credit or letter grade.

592 Assistive Technology in Rehabilitation (3) Technology as applied to needs of school age and post-secondary age students/clients. Delivery of assistive technology services; software programs and assistive devices; delivery systems, interdisciplinary evaluation/planning, and funding issues.

593 Independent Study (1-3) May be repeated. Satisfactory/No Credit or letter grade.

RELIGIOUS STUDIES (863)

401 Texts and the Study of Texts (3) Systematic introduction to the nature and function of (primarily, but not exclusively, oral and written) texts and textual traditions in the study of religion. How texts are made and used historically, how they are recovered and created by scholars, how they are interpreted by religious communities and scholars.

405 Modern Jewish Thought (3) History, culture, and geography of the now Israeli portion of Levant from 1850 to present. Founding of modern state of Israel in 1948 and political complexities of Middle East. Israeli culture and literature. Writing emphasis course. (Same as Judaic Studies 405.)

411 Modern Religious Philosophies (3) Religious implications of major Western thinkers and movements from Nicolas of Cusa to nineteenth-century German Idealists. (Same as Philosophy 411.)

425 Seminar in Western Religions (3) Selected figures, themes, movements, and problems. Content varies. Prereq: Consent of instructor. May be repeated. Maximum 6 hours.
430 Seminar in American Religion (3) Selected figures, themes, movements, and problems. Content varies. Prereq: Consent of instructor. May be repeated. Maximum 6 hours.

440 Seminar in Comparative Religion (3) Selected figures, themes, movements, and problems. Content varies. Prereq: Consent of instructor. May be repeated. Maximum 6 hours.

490 Readings and Research in Religious Studies (3) Prereq: Consent of instructor. May be repeated. Maximum 6 hours.

499 Proseminar in Religious Studies (3) For advanced students in religious studies; required for majors. Selected specific topics: nature and function of myth in religion, problem of evil, transcendence, theories of religion, hermeneutics, integrating various disciplines involved in study of religion. Prereq: Consent of instructor. May be repeated. Maximum 6 hours.


505 Religious Texts and Contexts (3) Critical study of texts and their interpretations: sacred texts, canons, commentaries, religious autobiographies, and religious themes in literature. May be repeated. Maximum 6 hours.

506 Historical Study of Religions (3) Description and analysis of religious traditions, phenomena, and themes. May be repeated. Maximum 6 hours.

507 Religion, Power and Society (3) Studies of religions in relation to social structure and political institutions: issues of gender, race, class, ethnicity, caste, slavery, religion and the state, globalization and human rights. May be repeated. Maximum 6 hours.

510 Introduction to Pedagogy of Religious Studies (3) Conceptualization, methodology, and practice of teaching about religion and religions in the public university context. Prereq: 503 and consent of instructor.

513 Religion, the Arts, and the Media (3) Material and expressive culture, religion and journalism, mass communication technologies, popular culture, issues of representation, cultural studies methodologies. May be repeated. Maximum 6 hours.

514 Religion and Healing (3) Ecology of religion, nature, shamanism, healing of body and mind, spirituality, religious dimensions of medical ethics. May be repeated. Maximum 6 hours.


520 Readings in the Study of Religion (1-6) May be repeated. Maximum 12 hours.

532 Topics in the History of Religions (3) Prereq: Consent of instructor.

533 Topics in Religious Thought (3) Prereq: Consent of instructor.


551 Comparative Historical Explorations in Religious Studies (3) Critical examination of parallel or contrasting historical phenomena from two or more religious traditions. Required for students in the MA concentration in religious studies. Prereq: 503. May be repeated. Maximum 6 hours.

591 Foreign Study (1-15) See College of Arts and Sciences.

592 Off-Campus Study (1-15) See College of Arts and Sciences.

593 Independent Study (1-15) See College of Arts and Sciences.

RETAIL AND CONSUMER SCIENCES (865)

412 Direct Retail Methods (3) Use of direct selling methods to sell goods and services. Analysis of consumers and product/service types for integrated direct retail methods. Direct mail, catalogs, telemarketing, infomercials, and electronic commerce (internet). Prereq: 210, 341, Marketing 300.

415 Retail Promotion (3) In-store promotional activities; development of retail promotion strategies; evaluation of retail promotions; supplementary focus on advertising and other methods to communicate in-store promotions. Prereq: 210, Marketing 300.

500 Thesis (1-15) P/NP only.

501 Professional Project (3-6) Application-oriented, capstone project to show competence in major academic area. Enrollment limited to retail and consumer sciences students in non-thesis program. Prereq: Consent of instructor. May be repeated. Maximum 6 hours. Satisfactory/No Credit grading only.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

510 Retail Strategy and Decision Making (3) Strategy, strategic management and strategic process in retail sector. Analytical decision-making skills in retailing. Retail industry structure. International differences in retail systems. Prereq: Retail Management or equivalent.


538 Consumer Product and Service Development (3) Critical analysis of consumer product and service development process in services industry. Strategies for developing consumer products, services, programs, and service processes from conception to implementation and evaluation.

541 Consumer Analysis in Services Management (3) Analysis of consumer behavior in consumer products and services industry. Development of knowledge to positively impact services marketing organizations through marketing, environmental and product/services strategies based upon consumer behavior knowledge. Investigations of qualitative and quantitative methodologies to conduct elementary consumer research.

562 Research Methods (3) Fundamentals of science method, advancement of science, methodology and method of research. Issues and concepts of basic and applied research. Prereq: Statistics 531 or equivalent.

590 Research Seminar (1) Research topics in retail and consumer sciences. May be repeated. Satisfactory/No Credit grading only.

593 Directed Study (1-3) Individual problems in retailing and consumer sciences. Prereq: 9 hours retail and consumer sciences graduate coursework. May be repeated. Maximum 9 hours.

595 Special Topics in Retail and Consumer Sciences (1-3) Lecture, group discussion on specialized topics: retail industry structure, international trade, international retailing, consumer affairs, entrepreneurship, small business management, issues in retail management, issues in retail strategy, quality perception by consumers, product and service value, retailing to children, retailing and special populations, special research methods. Prereq: 9 hours graduate coursework. May be repeated. Maximum 9 hours.

600 Doctoral Research and Dissertation (3-15) P/NP only.
614 Theory in Retail Environment (3) Analysis and evaluation of theory in retail environment and its application to research in retailing. Prereq: 562 or equivalent.

615 Retail and Consumer Sciences Literature and Thought (3) Evaluation of retail and consumer sciences literature with emphasis upon research literature, development of scholarly thought, and identification of potential areas of further study. Prereq: 562 or equivalent.

616 Research Methods, Models and Measurement in Retail and Consumer Sciences (3) Quantitative and qualitative methods and analytical concepts in the research process. Formulation of models and measurement of consumer sciences constructs. Prereq: 562, Statistics 538 or equivalent

625 Strategic Managerial Retailing (3) Decision-making orientation that integrates strategic framework components with preparation and analysis of specific retail case situations. Prereq: 510 or equivalent.

641 Retail Consumer Behavior (3) Theories and concepts from social science in relation to ultimate consumer’s behavior. Prereq: 541 or equivalent.

695 Advanced Topics in Retail and Consumer Sciences (3) Lecture, group discussion, individual research on advanced topics and research areas of current significance to retail and consumer sciences. Prereq: 9 graduate hours in consumer sciences. May be repeated. Maximum 9 hours.

RUSSIAN (886)

401-402 Advanced Grammar, Conversation, and Composition (3,3) Prereq: 312 or equivalent.

425 Introduction to Descriptive Linguistics (3) (See French 425.)

426 Methods of Historical Linguistics (3) (See German 426.)

430 Selected Topics in Russian Literature (3) Content varies. When content varies, may be repeated. Maximum 9 hours.

451-452 Senior Seminar (3,3) For majors in Russian; minors admitted at discretion of instructor. Intensive study of language, literary style, and literary criticism based on selected major novels.

510 Russian Phonetics and Advanced Grammar (3) Phonetics, pronunciation, stylistics, and selected topics in Russian grammar. For teachers and prospective teachers. Prereq: Consent of instructor.

550 Studies in Russian Literature (3) Content varies. May be repeated. Maximum 9 hours.

591 Foreign Study (1-15) See College of Arts and Sciences.

592 Off-Campus Study (1-15) See College of Arts and Sciences.

593 Independent Study (1-15) See College of Arts and Sciences.

SAFETY (890)

443 Sports and Recreational Safety (3) Accident prevention and injury control in sports activities; philosophy of sports safety; human environmental factors and interrelationship in sports injury and control; risk-taking and decision solution strategies; and contributions of sports medicine to safety. 3 hours and 2 labs.

452 Safety Principles and Practices (3) General principles, practices, and procedures in occupational and community safety. Historic and present safety issues, problems and practices addressing safety of individuals and groups in work-site, school, community, transportation, and industrial settings. Prereq: Junior or Senior standing or consent of instructor.

460 Fire Risk Management (3) Development, implementation, and management of comprehensive fire safety program. Basic fire risk management concepts, interpretation of codes and exposure to basic fire analysis techniques. Prereq: Senior standing or consent of instructor.

500 Thesis (1-15) P/NP only.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

532 Behavioral Problems in Safety Education and Accident Prevention (3) Problems of behavior, causes of accidents, and application of principles of psychology in development of safe behavior in all segments of environment.

533 Problems and Research in Accident Prevention (3) Safety problems found in wide variety of accidents that occur in community; findings of current research in behavioral sciences as related to variation incidence of accidents.

534 Organization, Administration and Supervision of Safety Programs (3) National, state and local level programs; administrative, instructional, and supervisory aspects. Implementation of relevant programs.

535 Emergency Management (3) Civil and defense problems: tornadoes, floods, fires, mass civil disorders, and nuclear and personnel attack by alien countries.

536 Safety Instrumentation (3) Selection, calibration, maintenance, and use of sampling instruments available to safety practitioner for evaluating exposures of workers to physical stresses and airborne contaminants.

537 Advanced Emergency Management (3) Advanced study in emergency and hazard mitigation, planning, response and recovery. Theory and practice in identification of appropriate emergency warning systems, hazard assessment, facility inspection, plan development and implementation. Prereq: 535.

572 Graduate Workshop in Safety (3) Special safety education problems. For advanced graduate students, teachers, supervisors, and administrators. May be repeated. Maximum 12 hours.

590 Special Topics (1-3) Advanced study in selected disciplinary or professional area of safety education/management. May be repeated. Maximum 12 hours.

593 Directed Independent Study (1-3) Individual identification and study of problem/issue in safety. Extensive reading and critical analysis of safety literature. Specific proposal to instructor before registration. May be repeated. Maximum 12 hours.

601 Internship/Research in Safety and Health (3-6) Field experience. Significant problem identified, researched, and reported in acceptable form. May be repeated. Maximum 6 hours. (Same as Health 601.)

SCIENCE EDUCATION (899)

496 Teaching Science Grades 7-12 (3) Methods, materials, recent trends in science and environmental education programs for secondary schools. Prereq: Admission to teacher education.

509 Education for Sustainable Development: Making Connections (3) Holistic and interdisciplinary approach that encourages educators and learners to engage in dialogue in order to acquire through experiences and creativity skills and knowledge needed to maintain a balance between socio-economic, political and environmental goals.

510 Theoretical Foundations of Environmental Education (3) Study of history and philosophy of environmental education, pedagogical approaches, and current status, including model programs and standards for environmental education. Addresses implementation of environmental education in formal and non-formal educational settings. A technology-enhanced course with both online and fieldwork components.

531 Teaching Science to Young Children: K-4 (3) Recent trends in methods, materials and content in teaching science to students in grades K-4.

565 Instructional Trends and Issues in Science Education (3) Analysis of current trends in science instruction, instructional issues facing elementary, secondary, and community college science teachers, and application of learning theory to teaching biological, physical, and environmental sciences.

572 Nature of Mathematics and Science Education (3) Teaching and assessment of mathematics and science based upon student conceptions of nature of mathematics and science.


628 Advanced Studies in Science Education (3) Analysis of current research in science education and implications of research for classroom practice. May be repeated. Maximum 6 hours.

696 Research Trends in Science Education (3) Analysis of current research trends in science education and relationship of such trends within broader educational community.

SOCIAL SCIENCE EDUCATION (900)

454 Teaching Strategies and Issues in Social Studies Education (3) Goals, objectives, techniques, materials, and evaluation; direct observation in public schools, preparation of teaching plans and materials; simulated teaching experiences. Prereq: Admission to teacher education.

521 Teaching Social Studies in Elementary and Middle Schools (3) Planning and techniques. Trends in curriculum, development of concepts and generalizations, integration of social sciences. Prereq: Course in teaching of social studies or consent of instructor.

525 Strategies, Programs and Materials for Teaching Elementary Social Studies (3) Analysis of new and innovative social studies program materials and techniques. Exploration of current trends in social studies education. Prereq: Previous course in teaching of social studies or consent of instructor.


599 Seminar in Social Studies Education (3) Research, trends, and issues in secondary social studies.

621 Seminar in Social Studies Research and Theory (3) Status of research and theory. Needed research, related research from other fields, and application of research. Prereq: Recent course in teaching of social studies or consent of instructor.

SOCIAL WORK (905)

Graduate students majoring in fields other than social work are admitted to certain social work courses with the approval of the College of Social Work and the student’s major professor.

500 Thesis (1-15) P/NP only.

501 Foundations of Social Work Practice I (3) Survey of history, mission, and identity of profession. Basic theory, professional values and ethics, and methods generic to social work practice at various systems levels. Assessment, planning, communication, intervention, and evaluation skills.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

503 Foundations of Social Work Practice II (3) Generalist practice with family and small group systems. Ecological theory to frame understanding of such systems and their adaptation to environments. Various social work roles and intervention strategies pertaining to client systems.

504 Foundations of Social Work Practice III (3) Basic theory, methods, problems, and strategies in implementing planned change within and among larger social systems: task groups, human service organizations, and community systems. Various practice roles: planner, program developer, supervisor, administrator, advocate and task group leader.

506 Social Work Research (3) Research methodologies with respect to evolution and application to social work theory and practice. History and philosophies of science; problem formulation; research design; ethics; instrument use and construction; data collection; analysis and reporting; and evaluation and utilization of research.

508 Practicum in Social Work Research (3-6) Supervised practice in application of research methods to social work. May be repeated. Maximum 6 hours. Satisfactory/No Credit grading only.

509 Graduate Seminar in Public Health (1) (See Public Health 509.)

514-515 Human Behavior in the Social Environment I, II (3,3) Major social science theories that inform social work profession’s understanding of human behavior and social systems from ecological perspective. Interactions among biological, social, psychological, and cultural systems on development across life cycle. Effects of ethnic, racial, economic, gender, and sexual orientation variables. 514—Life cycle from infancy through adolescence. 515—From young adulthood through senescence.

516 Social Welfare Policy and Services (3) Development of contemporary social policy at local, state, national, and international levels. Contribution of social work professionals to formal policy-making process through which macrosocial change is effected and through which aggregate social welfare services are proposed, authorized, financed, and programmed. Theories of complex organizations applied to social welfare service delivery settings.

518 Social Work and Oppression (3) Sources, dynamics, and impact of oppression in U.S. society as manifested in both social/ecological/economic systems and personal experience. Connections among various forms of oppression: racism, sexism, classism, and heterosexism, and forces that perpetuate such conditions.

521 Clinical Social Work Practice with Individuals (3) Theories, knowledge, and skills for clinical practice with individuals from ecological perspective. Therapeutic process and intervention strategies, incorporating content from psychodynamic and cognitive practice models, and specific client problems.
523 Clinical Social Work Practice with Families (3) Concepts related to understanding and analyzing family dynamics and interactional patterns from perspective of major family therapy models. Techniques of intervention in terms of application to families with varied system and individual problems and to families from varied social and cultural backgrounds.

524 Psychopathology and Social Deviance (3) Assessment of psycho social functioning of individuals. Examination of mental disorders: clinical presentation problems, causes, and processes. Ecological perspective. Prereq: Foundation or consent of instructor.

525 Clinical Social Work Practice with Groups (3) Theoretical and historical approaches to social work with groups and clinical principles supporting specific types of group work used in clinical practice and associated leader interventions.

526 Evaluating Clinical Practice (3) History and philosophies, conceptual approaches, techniques and methods in the practice and use of practice research as applied to implementation and evaluation of direct services to clients.

530 Seminar in Clinical Social Work (2-3) Topics in theory and practice of clinical social work with individuals, couples, families and groups. May be repeated. Maximum 6 hours.

532 Short-Term Interventions (3) Theory and practice of planned short term, emergency, and crisis interventions.

534 Social Work Interventions with Children and Adolescents (3) Various practice modalities for assessing and intervening with children and adolescents.

535 School Social Work (3) Place of school as community institution and resource. Methods, processes, and techniques employed in school social work.

540 General Topics in Social Work (3) Current topics in advanced social work. May be repeated. Maximum 6 hours.

541 Leadership and Management in Human Services (3) Management practices and leadership skills required in development and management of human services delivery systems. Issues regarding human resources management, resource allocation, strategic planning, and organizational dynamics.

543 Financial Management and Resource Development (3) Administrative decision-making related to financial planning and resource allocation in human service organizations. Knowledge and skills in budgeting, allocating, expenditure control, fundraising, grant writing, marketing, and evaluation.

547 Evaluation Research (3) History and philosophies, conceptual approaches, techniques and methods, and issues in practice and utilization of evaluation research as applied to development and evaluation of social work programs and policies. Issues pertaining to strengths and limitation of various evaluation methods, microcomputer application of data, and measurement of program goals and objectives.

550 Seminar in Management and Community Practice (2-3) Topics in theory and practice of management and community practice. May be repeated. Maximum 6 hours.


552 Community Organization (3) Locality development, social planning and social action as practice models for development of resources to meet human needs.

564 Substance Abuse (3) Survey and analysis of social, cultural, medical and psychological factors underlying alcoholism and drug abuse and addiction; recent research and practice innovations.

566 Social Gerontology (3) Physical, psychological and social aspects of aging, and major social policies and programs.

580 Field Practice (3) Instruction and supervision in social work practice. Satisfactory/No Credit grading only.

581 Field Practice (3) Instruction and supervision in social work practice. Satisfactory/No Credit grading only.

582 Field Practice (6) Instruction and supervision in clinical social work practice or management and community practice. Satisfactory/No Credit grading only.

583 Field Practice (6) Instruction and supervision in clinical social work practice or management and community practice. May be repeated. Satisfactory/No Credit grading only.

584 Field Practice (2-6) Instruction and supervision in social work practice. May be repeated. Satisfactory/No Credit grading only.

585 Seminar in Gerontology (1) (See Health 585.)

593 Independent Study (1-6) Individualized study, student selects, designs, and completes examination of special issue or problem. May be repeated. Maximum 6 hours.

600 Doctoral Research and Dissertation (3-15) P/NP only.

601 Research for Social Work Practice I (3) Epistemological and methodological considerations for both quantitative and qualitative research for social work practice.

602 Research for Social Work Practice II (3) Epistemological and methodological considerations for both quantitative and qualitative research for social work practice.

604 Research in Social Service Settings (3) Advanced research, under faculty supervision, of practice issues in community agency. Prereq: First year required PhD courses or consent of instructor. May be repeated. Maximum 9 hours.

605-606 Analysis of Social Work Data I, II (3,3) Techniques for quantitative analysis of social work data; unique data analysis problems encountered in social work research.

608 Evaluative Research for Social Work Practice, Programs and Policy (3) Techniques and strategies for quantitative and qualitative analysis for social policy’s impact on individuals and groups and for evaluating processes and outcomes of social work practice.


640 History of American Social Work (3) Social, cultural, economic and political contexts for development of social work profession, development of education for profession, and modern welfare system.

650 Programs and Legislation for Children and Families (3) Background, purposes, and current issues surrounding major social welfare and health programs serving disadvantaged children and their families: Social Security Act (Title IV, Child Welfare and AFDC; Title V, the Maternal and Child Health Block Grant; Title XIX, Medicaid), Head Start, WIC and other nutrition programs, and Healthy Start. Current issues and controversy; legislative changes.

660 Issues in Social Work Knowledge Building (3) Advanced seminar in theory and model building in direct intervention, administration and planning. Prereq: First year required PhD courses or consent of instructor. May be repeated. Maximum 9 hours.

670 Critical Literature Reviews (3) Techniques and methods for conducting critical reviews of literature: conceptual and methodological critiques of existing research. Satisfactory/No Credit grading only.

693 Directed Study in Social Work Research (3) Advanced individual study, under faculty guidance, of social work practice issues. Prereq: First year required PhD courses or consent of instructor. May be repeated. Maximum 9 hours.
SOCIOLGY (915)

446 The Modern World System (3) Critical examination of capitalist world-system as social system, its coherence, boundaries, regions, member groups, cleavages, and patterns of conflict. Analysis of who gets what, why, and how in global political economy.


452 Minorities, Crime and Criminal Justice (3) Examines racial/ethnic disparities in criminal offending and victimization, as well as different experiences with law enforcement, judicial and correctional agencies. Emphasis on social justice.

453 Gender and Crime (3) Probes the gendered nature of offending, victimization and criminal justice. Examines the different experiences of males and females, and theories that attempt to explain these differences.

455 Society and Law (3) How laws and legal processes are affected by social change, social impact of legal sanctions, relations between law and social justice. (Same as Legal Studies 455.)

459 White-Collar Crime (3) Distinctive nature and dynamics of white-collar crime, victims and costs of white-collar crime, organizations as white-collar offenders, causal theories, and dynamics of responses to white-collar crime by private and public parties.

462 Population (3) Demographic factors and social structure; trends in fertility, mortality, population growth, migration, distribution, and composition; population policy.

464 Urban Ecology (3) Relation of humans to their urban environment: conservation and use of appropriate technology. (Same as Urban Studies 464.)

465 Social Values and the Environment (3) Human dimensions of ecosystem management and public policy. Applied focus on social values activated within specific biophysical and social settings. Prereq: 110 or 120 or consent of instructor.

500 Thesis (1-15) P/NP only.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

504 Sociological Foundations of Political Economy (3) Survey of contemporary sociological theories of political economy, sources of political and economic power and conflict.

505 Foundations of Criminology (3) Critical overview of contemporary developments in criminology, theories of crime causation and theories of responses to crime.

506 Social Justice and Public Policy (3) Examines the formulation and consequences of public policy, analyzing: the general public policy process model; the model's specific applications to criminal justice policy, environmental policy, and economic and political policies; and techniques of policy evaluation research.

507 Foundations of Social Psychology (3) Current and classical theoretical perspectives in social psychology.

510 Professional Preparation (1) A variety of one-credit seminars that offer training in specific aspects of professional socialization. May be repeated. Maximum 6 hours. Satisfactory/No Credit grading only.

521 Sociological Theory I (3) Assessment of what sociological theory is; its major figures and their approaches to understanding society.

531 Research Methods in Sociology (3) Research design, measurement, sampling, quantitative and qualitative data collection techniques, data, reduction, and analysis.

534 Advanced Sociological Analysis (3) Underlying assumptions and logical procedures used by sociologists in formulating explanations; foundations of sociological research strategies and techniques.

541 Collective Behavior, Social Movements, Social Change (3) Basic theory and research on conditions of social unrest in human collectivities and efforts of collectives to change existing society.

543 Sociology of Development (3) Sociological theories and studies of development: modernization, colonialism, dependency; comparative impact of various development paths upon selected aspects of social structure and change.

551 Juvenile Delinquency and the Social Structure (3) This course examines how juvenile delinquency policies are shaped by social structures and changes in social perceptions of childhood, crime, and punishment.

560 Environmental Sociology (3) Systematic treatment of current research in environmental sociology. Social impact analysis and conflicts over environmental issues.

562 Sociology of Environmental Policy (3) Examines the history of environmental use and environmental protection; the policy process; the institutional and cultural barriers to improved environmental policies; and potential policies for sustainability.

585 Seminar in Gerontology (1) (See Health 585.)

591 Foreign Study (1-15) See College of Arts and Sciences.

592 Off-Campus Study (1-15) See College of Arts and Sciences.

593 Independent Study (1-15) See College of Arts and Sciences.

599 Readings (3) Selected topics. May be repeated. Maximum 6 hours.

600 Doctoral Research and Dissertation (3-15) P/NP only.

622 Sociological Theory II (3) Distinct schools of sociological theory and contributions of their principal exponents. Prereq: 521 or consent of instructor.

629 Supplementary Readings in Sociological Theory (3) Individual guidance. Preparation for comprehensive examination. Prereq: Consent of instructor. Satisfactory/No Credit grading only.

633 Survey Design and Analysis (3) Systematic exploration of survey problems through student participation in design and analysis of survey. Prereq: 531 or consent of instructor. (Same as Child and Family Studies 633.)

636 Field Research (3) Research experience in selected field sites using techniques of interviewing, participant observation, and other methods of field research. Prereq: 531 or consent of instructor.

639 Supplementary Readings in Methodology (3) Individual guidance. Preparation for comprehensive examination. Prereq: Consent of department. Satisfactory/No Credit grading only.

644 Political Sociology (3) Critical examination of theories of state and political processes.

645 Advanced Studies in Political Economy (3) Topical seminar. Prereq: 504 or consent of instructor. May be repeated. Maximum 6 hours.

649 Supplementary Readings (3) Prereq: Consent of department. May be repeated. Maximum 6 hours. Satisfactory/No Credit grading only.

653 Sociology of Law (3) Intensive examination of selected topics in sociology of law. Prereq: 505 or consent of instructor.
655 Advanced Studies in Criminology (3) Intensive examination of selected topics in criminology. Recommended prereq: 505. May be repeated. Maximum 6 hours.

661 Environmental Theory (3) Historical and contemporary studies of interaction between humans and their environment. Prereq: Consent of instructor.

665 Advanced Studies in Environmental Sociology (3) Topical seminar covering particular lines of research and theory within area. Prereq: Consent of instructor. May be repeated. Maximum 6 hours.

675 Advanced Studies in Social Psychology (3) Selected contemporary research issues related to social psychological theories. Prereq: 541 or consent of instructor. May be repeated. Maximum 6 hours.

695 Advanced Special Topics (3) Topic of special interest or student-initiated courses that will not be regularly offered. Prereq: Consent of department. May be repeated. Maximum 6 hours.

699 Tutorials in Advanced Topics (3) Individual instruction. Prereq: Consent of department. May be repeated. Maximum 6 hours.

SPANISH (924)

421 Phonetics (3) Prereq: 323 or consent of instructor.


423 Advanced Composition and Conversation (3) Development of writing and speaking skills at advanced level, wide range of topics and situations. Variety of in-class and extra-class activities. Not available for credit for students whose level of proficiency in Spanish is superior as defined by the ACTFL Proficiency Guidelines or for graduate students in the Spanish MA or PhD programs. Prereq: 323 or consent of department.

425 Introduction to Descriptive Linguistics (3) (See French 425.)

426 Methods of Historical Linguistics (3) (See French 426.)

429 Romance Linguistics (3) (See French 429.)

430 Topics in Hispanic Linguistics (3) Spanish language through different areas of linguistics: phonology, morphology, syntax, semantics, sociolinguistics, dialectology and second language acquisition. Prereq: 323. May be repeated. Maximum 6 hours with consent of department. (Same as Linguistics 431.)

432 Advanced Composition and Conversation (3) Development of writing and speaking skills at advanced level, wide range of topics and situations. Variety of in-class and extra-class activities. Not available for credit for students whose level of proficiency in Spanish is superior as defined by the ACTFL Proficiency Guidelines or for graduate students in the Spanish MA or PhD programs. Prereq: 323 or consent of department.

433 Images of Woman in Hispanic Literature (3) Major Hispanic texts (and/or women authors) in light of relation of female individuality to particular social context, role of women in society, patriarchal tradition, woman as cultural and as aesthetic value (the feminine symbolic), and feminist theoretical issues. Prereq: 323, 330 and completion of 9 additional hours of upper-division Spanish.

434 Hispanic Culture through Film (3) Analysis of selected films on subjects concerning life, culture, and artistic traditions in the Hispanic world; exploration of ideological, philosophical, social, and political implications of films and comparison of them with treatments of related subjects in other types of artistic production. Prereq: 323, 330, and completion of 9 additional hours of upper-division Spanish. Taught in Spanish. May be repeated. Maximum 6 hours with consent of department. (Same as Cinema Studies 434.)

461 Special Topics (3) Aspects of Hispanic literature, culture, linguistics, or foreign language pedagogy. Topics vary. May be repeated with consent of department. Maximum 6 hours.

465 Latin American Film and Culture (3) Latin American and Latino/a films and videos from 1900s to present as works of art and in light of political, cultural, and social contexts. Taught in English. Graduate credit available only for Latin American Studies and Cinema Studies majors. 1 hour lecture, 2 hours screening, and 1 hour discussion. (Same as Latin American Studies 465; Cinema Studies 463.)

479 Disenched Texts in Hispanic Literature (3) Texts representing trends and periods of renewal in Spain and Latin American countries. Selected topics on traditions in crisis. Content varies. Prereq: 323, 330, and completion of 9 additional hours of upper-division Spanish. May be repeated. Maximum 6 hours with consent of department. (Same as Latin American Studies 479.)

480 Social Forces in Hispanic Literary Expression (3) Analysis of major Hispanic texts that address factors and events that influenced and/or continue to influence social and cultural evolution of Hispanic world, including literature itself. Prereq: 323, 330 and completion of 9 additional hours of upper-division Spanish. May be repeated. Maximum 6 hours with consent of department.

482 Trends in Hispanic Thought (3) Intellectual/philosophical currents represented in literary works, selected thinkers, or movements from historical periods of Spain and Latin American countries. Prereq: 323, 330, and completion of 9 additional hours of upper-division Spanish. May be repeated. Maximum 6 hours with consent of department.

483 Race, Ethnicity, and Nation in Hispanic Literature (3) Close reading and analysis of literary texts that deal with issues of race and ethnicity in Hispanic world, with regard to identity and concepts of nationhood. Topics: mestizaje; conceptual distinctions between race and ethnicity in Latin America; indigenismo; afrocentrism; issues of monarchy and empire; relationship between Jews, Christians, and Moors in Spain. Prereq: 323, 330, and completion of 9 additional hours of upper-division Spanish. May be repeated. Maximum 6 hours with consent of department.

486 Literary and Artistic Movements in the Hispanic World (3) Relationships (thematic, cultural, socio-political, aesthetic, philosophical, etc.) between specific trends in literature and other artistic media, in light of historical contexts in which those relationships emerged. Prereq: 323, 330, and completion of 9 additional hours of upper-division Spanish. May be repeated. Maximum 6 hours with consent of department.

489 Topics in Hispanic Civilization (3) Analysis of major trends, issues and/or movements in the civilizations of Spain and Spanish America. Political, literary, and cultural perspectives dealing with topics from Middle Ages to present day. Prereq: 323, 330, and completion of 9 additional hours of upper-division Spanish. May be repeated. Maximum 6 hours with consent of department.

500 Thesis (1-15) P/NP only.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

512 Teaching a Foreign Language (3) Practical application of methods for teaching and evaluating basic language skills and cultural aspects through seminars, demonstrations, peer teaching, and observation of foreign language classes. Required of all MA and PhD students holding Graduate Teaching Assistantships, except those whose previous training or experience warrants their being excused by department.

530 European Culture (3) Evolution of European language and culture through 15th century.

531 Old Spanish (3) Evolution of Spanish language from its origins through 15th century.

532 Medieval Spanish Literature (3) Literary works of 11th through 15th century. Application of literary theories to understanding of literature, nature and evolution of major literary genres during Spanish Middle Ages, and socio-historical contexts of medieval works. May be repeated. Maximum 6 hours with consent of department.
533 Golden Age Prose (3) Wide range of prose fiction in Spain during 16th and 17th centuries: Moorish, picaresque, sentimental, pastoral and exemplary novels, and dialogues.

534 Don Quijote (3) Cervantes' masterpiece in socio-cultural and literary context of its times: study of thematic, structural, and stylistic issues: crisis of aristocracy, Quixotic madness, discrepant cognitive and ethical perspectives, satiric irony, culture of sentiment, and Cervantes' legacy to subsequent literary periods. Content varies. May be repeated. Maximum 6 hours with consent of department.

535 Golden Age Poetry (3) Garcilaso, Fray Luis de León, San Juan de la Cruz, Lope de Vega, Quevedo, and Góngora.

537 Golden Age Drama (3) Major dramatists of period: Lope de Vega, Tirso de Molina, Ruiz de Alarcón, Guillén de Castro, Calderón de la Barca, Moreto, and Rojas Zorrilla.


541 19th-Century Spanish Prose (3) Costumbrismo, realism, and naturalism in the novel, short story, and essay as represented in major authors: Larra, Mesonero Romanos, Fernán Caballero, Alarcón, Valera, Palacio Valdés, Pereda, Galdós, Pardo Bazán. Content varies. May be repeated. Maximum 6 hours with consent of department.

542 20th-Century Spanish Literature: Generation of '98 through Civil War (3) Principal achievements and representative directions in literature of Spain through Civil War years.

543 20th-Century Spanish Literature: Post-Civil War through Present (3) Principal achievements and representative directions in literature of Spain from Post-Civil War period to present.

550 Techniques of Literary Analysis and Research Methods (3) Theoretical and critical essays on various techniques of literary analysis. Exploration of bibliographical and research materials.

551 Special Topics in Hispanic Literature or Linguistics (3) May be repeated. Maximum 6 hours.

552 Directed Readings (3)

561 Spanish American Colonial Literature (3) From pre-Columbian era through 18th century. Reading and analysis of selected works from Colonial Spanish American period and their Continental sources. Indigenous texts and authors. Content varies. May be repeated. Maximum 6 hours with consent of department.


571 Spanish American Narrative: Criollismo to 1950 (3) Critical study of major trends and movements that shaped Spanish American narrative during first half of 20th century. Content varies. May be repeated. Maximum 6 hours with consent of department.

572 Spanish American Narrative: Boom to Present (3) Critical study of major trends and movements that established Spanish American narrative as influential force in world literature during second half of 20th century. Content varies. May be repeated. Maximum 6 hours with consent of department.

573 Regional Approaches to Interpreting Spanish American Literature (3) Interpretation of Spanish-American literature taking into consideration regional differences attributable to such factors as race, geography, immigration, and economic development. Key regions include Mexico and Central America, Caribbean, Andean countries, and the Southern Cone. Course readings vary between specific regional perspective and transregional one. Content varies. May be repeated. Maximum 6 hours with consent of department.

575 Spanish American Modernismo and Vanguardismo (3) Critical study of principal writers and literary works associated with Spanish American modernismo and vanguardismo published between 1880 and 1950. Concepts and expressions of modernity as reflected in literature of period. Content varies. May be repeated. Maximum 6 hours with consent of department.

576 Contemporary Spanish American Poetry (3) Critical study of major poets in Spanish America from 1950 to present. Content varies. May be repeated. Maximum 6 hours with consent of department.

577 Contemporary Spanish American Theater (3) Reading and analysis of Spanish America's major dramatic works published and performed since 1950. Content varies. May be repeated. Maximum 6 hours with consent of department.


579 Spanish American Literary Criticism (3) Major works in which Spanish Americans have developed strategies to define, organize, and catalog literature published throughout continent. Critical approaches that surpass European and other non-Spanish American critical perspectives. Content varies. May be repeated. Maximum 6 hours with consent of department.

591 Foreign Study (1-15) See College of Arts and Sciences.

592 Off-Campus Study (1-15) See College of Arts and Sciences.

593 Independent Study (1-15) See College of Arts and Sciences. Letter or Satisfactory/No Credit grading.

600 Doctoral Research and Dissertation (3-15) P/NP only.

621 Seminar in Spanish Literature (3) Topics vary in field of Peninsular literature. May be repeated with consent of department. Maximum 9 hours.

631 Seminar in Spanish American Literature (3) Topics vary. May be repeated with consent of department. Maximum 9 hours.

SPECIAL EDUCATION (932)

419 Psychology and Education of Students with Mild Disabilities (6) Nature and characteristics of persons with mild handicaps and educational strategies appropriate for these persons. Prereq: 402 and admission to Teacher Education Program. Coreq: 420.

420 Field Experience in Special Education Programs (3) Practicum in teaching special education programs: planning, developing, implementing and evaluating instruction. Prereq: 402, admission to Teacher Education Program: Coreq: 419 and/or 471. Satisfactory/No Credit grading only.

431 Field Experience in Comprehensive Programs (3) Prereq: 402 and admission to Teacher Education Program. Coreq: 432. Satisfactory/No Credit grading only.

454 Education of the Gifted and Talented Children (3) Orientation to psychometric and behavioral studies of giftedness. Analysis of past and present school practices in reference to curriculum and program implementation. Prereq: Admission to Teacher Education Program.

456 Speech and Language Basis of Learning Disabilities in the Classroom (3) Normal communication development; understanding of speech and language impairments in school-age students; integration of oral/written communication skills into existing curriculum, especially for high incidence special education students.

470 Psychology of the Exceptional Child (3) Varieties of exceptional children; general characteristics and educational needs. Implications of developmental variations for functioning as adults. Opportunity to expand study upon particular exceptionality. Enrollment limited to non-special education majors.

471 Early Childhood Special Education (3) Assessment, curriculum planning and development and teaching approaches used in early childhood special education. Prereq: Admission to teacher education.

504 Clinical Experience in Teaching and Supervision of Exceptional Children (3-9) (See Education of the Deaf and Hard of Hearing 504.)

506 Internships in Teaching in Special Education and Rehabilitation (3-15) Placement in professional settings in public schools or agencies under supervision of master practitioners. Enrollment limited to those in fifth-year program. Satisfactory/No Credit grading only.

553 Assessment of Exceptional Students (3) Current issues related to assessment; advanced study of evaluation models for special education; dynamic and other innovative assessment approaches; advanced study of application to educational programming; basic statistics and application in assessment.

554 Assessment in Early Childhood Special Education (3) Development of knowledge and skills in appropriate formal and informal assessments of handicapped infants and young children: screening, identification, diagnosis, placement and programming assessment issues. Prereq: 553 or consent of instructor.

555 Characteristics of Affective/Motivational Functioning in Children with Disabilities (3) Definition, methods, identification and symptoms of children with affective/motivational development in disabled youngsters. Comparison to normal development and that of children labeled disturbed or behavior disordered.

556 Instructional Systems for Affective/Motivational Education for Children with Disabilities (3) Educational strategies and models of instruction; simulation, demonstration, and media. Teaching techniques, materials, and teacher/pupil/family interactions. Therapeutic forms of education through art, music, role play, puppetry, bibliotherapy, and group interactions. Prereq or coreq: 555 or consent of instructor.

557 Positive Preventive Discipline (3) Instructional, classroom and preventive/proactive strategies for use in classroom which positively effects efficiency of classroom. Research on how curriculum can encourage appropriate interactions of children and youth. Prereq: Admission to graduate program.

558 Neuromuscular and Health Disorders: Educational Implications (3) Neurological impairments, physical disabilities and special health conditions, autism. Investigation of instructional techniques and adaptations.

564 Psychosocial Development of Gifted and Talented Children (3) Phenomena of talent development in context of home, school, and society. Implications of maladjustment. Practices for promoting social and emotional development. Prereq: 451 and 452 or equivalent or consent of instructor.

565 Instructional Systems for the Gifted and Talented (3) Instructional methods and systems evaluated in terms of effectiveness in various educational environments. Prereq or coreq: 564 or consent of instructor.

568 Early Childhood Special Education: Theories and Interventions (3) Theoretical perspectives of early childhood special education; exploration of programmatic models, family-focused concepts and curriculum development.

575 Creative Problem-Solving Strategies for Special Educators (3) Techniques for solving problems encountered by special educators in any setting.

586 Seminar in Research Techniques in Special Education (3) Evaluation of appropriate research methodologies with handicapped populations.


590 Application of Microcomputer Technology in Special Education and Vocational Rehabilitation (3) Application of microcomputer technology with all categories of exceptionalities and across all chronological and functioning age ranges. Microcomputer adaptive software, special switch access, authoring systems, telecommunications, and strategies for cognitive development.

620 Internship in Research in Special Education and Rehabilitation (3-9) Placement with professional engaged in theoretically-based research: public school, institutions, agencies or universities. Prereq: 9 hours in statistical and research methods. May be repeated. Maximum 9 hours. Satisfactory/No Credit grading only.

630 Internship in Institutional Leadership in Special Education and Rehabilitation (3-9) Advanced level field experiences under supervision of practitioner. Prereq: Consent of instructor. May be repeated. Maximum 9 hours. Satisfactory/No Credit grading only.

SPORT MANAGEMENT (957)

440 Sport Marketing (3) Application of fundamental marketing concepts to sport industry. Marketing research, promotions, fund raising, advertising, and assessment of marketing programs specific to sport. Historical development of sport marketing. Prereq: Marketing 300 and progression to Sport Management.

460 Development and Revenue Generation in Sport (3) Designed to provide overview of theories, strategies, and techniques used in the production of revenue for sport organizations and through sporting events. Emphasis on developing balanced, multifaceted programs that target a variety of constituencies in the sport industry.

500 Thesis (1-15) P/NP only.

501 Special Project (3) Culminating experience for non-thesis major. Research study suitable for publication, or practicum requiring special written work. Prereq: 532.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

503 Problems in Lieu of Thesis (2-3) May be repeated. Maximum 9 hours. Satisfactory/No Credit grading only.

511 Administration/Supervision In Sport (3) Development of knowledge and analytic skills desirable for managers/administrators in sport business/organization: organizational, administrative, and supervisory strategies related to sport in profit and non-profit settings.

512 Application of Legal Concepts to Sport Settings (3) Application of contract law, breach of contract, and monetary damages within sport settings: risk assessment and development of effective risk management strategies; development of contracts in sports; and analysis of cases involving discrimination based upon gender, race, and age as well as protection of rights at amateur and professional levels of sport.
530 Sport and Media Issues (3) Gender and race issues within context of media and sport. Development of sport media and media influence on sport.

532 Research Techniques in Sport (3) Evaluate, compare, and contrast research techniques in sport with consideration for and experiences in appropriate review, design, analysis procedures, and proposal development.

535 Ethics in Sport Management (3) Development of analytical skills and knowledge desirable of middle and upper level managers in sport business/organizations. Social issues and ethics in sport administration.

540 Sport Economics and Finance (3) Principles of economics and finance as applied to sport organizations. Market structures of sport finance and political economics that form those structures.

544 Theories of Leadership and Leader Behavior in Sport (3) Integration of various theoretical approaches to leadership styles in sport administration within cultural contexts, research, and field experiences.

553 Case Studies in Sport Management (3) Current issues and problems in sport administration at all levels of amateur and professional sport. May be repeated under different topic. Maximum 9 hours.

554 Readings in Sport Management (3) Survey of pertinent literature in refereed and applied journals and texts.

555 Evaluation Techniques for Sport Managers (3) Review and application of techniques of evaluation appropriate for sport programs, facilities, and personnel.

570 Event Management (3) Review of current research related to theory and practice in event management and involvement in management capacity with one or more special events.

575 Seminar in Sport Management (1) Selected topics in sport management. May be repeated with consent of instructor. Maximum 3 hours. Satisfactory/No Credit grading only.

580 Special Topics (1-3) Advanced study in selected disciplinary or professional areas of physical education and/or sport. May be repeated.

590 Practicum (3) Practical experience in areas of major interest. May be repeated. Maximum 6 hours. Satisfactory/No Credit grading only.

593 Independent Study (1-3) May be repeated. Letter grade only.

595 Internship (3) Full-time application of previous theoretical and applied knowledge and skills in appropriate sport setting. Satisfactory/No Credit grading only.

**SPORT STUDIES (595)**

500 Thesis (1-15) P/NP only.

501 Special Project (3) Research study suitable for publication, or practicum requiring special written work.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

505 History of Olympics: Ancient and Modern (3) Examination of various aspects of ancient and modern Games. Ancient Olympics 776 BC to 393 AD: Panhellenic Games. Modern Olympics, 1896 to date: political, social class, gender, and economic issues that influence Games.


514 Advanced Philosophy of Sport (3) Major philosophical theories of sport. Various conceptual, moral, aesthetic, and social-political issues.

515 Social Theories of Sport (3) Liberal, democratic and Marxist social theories of sport.

533 Psychology of Sport (3) Social psychological factors influencing human behavior in a sport context; discussion of contemporary theory, research, and methodology. Prereq: General psychology course or consent of instructor.

534 Motor Behavior and Skill Acquisition (3) Topical explanation and application of principles of human movement behavior to acquisition and performance of skills; discussion of current research and methodology.

535 Health and Exercise Psychology (3) Study and cultural critique of various aspects of health and exercise psychology.

536 Expert Performance in Sports (3) Examines expertise in athletic performance with a primary focus on the development and maintenance of expertise. Special emphasis is placed on theoretical and practical perspectives on the study of sport expertise as they intersect with issues regarding sport psychology, race, aging, gender, or other socio-cultural factors.

538 Professional Practice Issues in Sport Studies (3) Study and cultural critique of various aspects of professional practice in sport studies.

539 Research Development in Sport Psychology: Idea Formation to Manuscript Submission (3) First of a two-semester sequence designed to familiarize students with research process in applied sport psychology. Includes idea formation, critical review of related literature, development of a research question and methodology, and data collection.

540 Research Development in Sport Psychology: Data Analysis to Manuscript Submission (3) Second of a two-semester sequence designed to familiarize students with research process in applied sport psychology. Includes data analysis, manuscript preparation and manuscript submission.

542 Sociological Aspects of Sport (3) Social and cultural factors influencing sport and physical education. Pertinent issues and research applications. Prereq: Consent of instructor.

543 Women, Sport, and Culture (3) Critical examination of experiences of girls/women in American sports from a socio-cultural perspective with particular emphasis on the constructs of gender, race, class, and sexuality. Explores theories from sport, feminist, race, and cultural studies. (Same as Women’s Studies 543.)

593 Independent Study (1-3) May be repeated. Satisfactory/No Credit or letter grade.

594 Supervised Readings (1-3) May be repeated. Satisfactory/No Credit or letter grade.

595 Special Topics (1-3) Advanced study in selected aspects of sport studies. May be repeated. Maximum 9 hours. Satisfactory/No Credit or letter grade.

600 Doctoral Research and Dissertation (3-15) P/NP only.

601 Research Seminar (1) (See Exercise Science 601.)

633 Advanced Sport Psychology (3) Analysis, synthesis, and discussion of contemporary theory and topics; research development and production in sport psychology. May be repeated. Maximum 9 hours.
619 Practicum (1-3) Intern experience in areas of major interest. May be repeated.

693 Independent Study (1-3) May be repeated. Satisfactory/No Credit or letter grade.

694 Supervised Reading (1-3) May be repeated. Satisfactory/No Credit or letter grade.

695 Special Topics (1-3) Study for doctoral students in selected aspects of sport studies. May be repeated. Maximum 9 hours. Satisfactory/No Credit or letter grade.

STATISTICS (962)


500 Thesis (1-15) P/NP only.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

531 Survey of Statistical Methods I (3) Univariate and bivariate data collection and organization, statistical estimation and hypothesis testing; analysis of relationships for categorical and numerical data, including Chi-square tests and simple linear and quadratic regression. Use of computing facilities required. Credit not given for both 531 and 537. Prereq: 1 year college mathematics.

532 Survey of Statistical Methods II (3) Multiple linear regression, including use of dummy variables; single and multiple factor analysis of variance and covariance; issues in experimental design and analysis. Use of computing facilities required. Prereq: 531.

537 Statistics for Research I (3) Principles and application of statistical methodology, integrated with considerable use of major statistical computing system. Probability and probability distributions, forming and testing hypotheses using parametric and nonparametric inference methods. Matrix-based simple linear regression and correlation. Credit not given for both 531 and 537. Prereq: 1 year of undergraduate mathematics and 1 undergraduate statistics course.

538 Statistics for Research II (3) General linear model as applied to multiple regression and analysis of variance. Diagnostic and influence techniques. One-way, factorial, blocking, and nested designs, preplanned versus post-hoc contrasts. Random factors and repeated measures. Prereq: 537 or 532.

561 Introduction to Computing for Data Management and Analysis (1) The University of Tennessee, Knoxville, computing environment for beginning statistics graduate students. Use of operating system commands, system editor, utility programs and SAS statistical package for data entry and editing, file management and statistical analysis. Use of UTCC computing facilities required. Coreq: 531, 537 or 571, or consent of instructor.


564 Theory of Statistical Inference (3) Introductory theory underlying common statistical procedures of hypothesis testing and estimation. Prereq: 563.

566 Statistical Techniques in Industrial Processes (3) Applications of control charts and other statistical techniques in industrial setting. Attributes and variables control charts, process capability analysis, aspects of sampling, statistical tolerancing, estimation of variance components, problems of measurement, special industrial applications. Prereq: 571 or equivalent.


571 Statistical Methods (3) Data collection strategies. Descriptive statistics. Probability distributions, simulation of random variables, sampling distributions. Estimation and hypothesis testing, regression, Chi-Square test for categorical data, simple design of experiments, nonparametric methods. Use of statistical software. Prereq: one year of calculus and a statistics course.


573 Design of Experiments (3) One-way ANOVA, multiple range tests, equal and unequal variances, transformations; factorial experiments, completely randomized designs, analysis of covariance, split-plot and nested designs, fractional factorials, sequential designs. Prereq: 571.

574 Data Mining Methods and Applications (3) Understanding and application of data mining methods. Data preparation; exploratory data analysis and visualization; cluster analysis; logistic regression; decision trees; neural networks; association rules; model assessment; and other topics. Applications to real world data. Use of standard computer packages. Prereq: 532 or 538 or 571, or consent of instructor.

575 Applied Time Series (3) Fundamental concepts of time series analysis: Box-Jenkins approach, stationary and nonstationary models, forecasting model identification, seasonal models, transfer function models, and spectral theory. Prereq: 538 or 572 or consent of instructor.

578 Categorical Data Analysis (3) Log-linear analysis of multidimensional contingency tables. Logistic regression. Theory, applications, and use of statistical software. Prereq: 1 year of graduate-level statistics, regression analysis and analysis of variance, or consent of instructor.


583 Special Topics in Applied Statistics (1-3) May be repeated. Maximum 9 hours.

585 Principles of Statistical Process Management (1-3) Statistical and other techniques applied to management of organizational processes. Prereq: Consent of department head.

587 Graduate Seminar (1) Directed readings and active participation in colloquium program of Department of Statistics and of student’s minor program. Prereq: Consent of statistics department director of graduate studies. May be repeated. Maximum 2 hours. Satisfactory/No Credit grading only.
592 Internship (1-6) Supervised off-campus experience in applica-
tion of statistical principles and methods in business, industry, or
government. Written and oral report. Prereq: 4 courses in graduate-
level statistics or consent of statistics department director of gradu-
ate studies. May be repeated. Maximum 6 hours. Satisfactory/No
Credit grading only.

593 Independent Study (2-6) Faculty directed readings and inves-
tigation of specified topic in probability or statistics. Written report
and oral presentation. Prereq: 2 courses in statistics and consent of
the statistics department director of graduate studies. May be repeat-
ed. Maximum 6 hours. Satisfactory/No Credit or letter grade.

595 Statistical Consulting Practicum (1-6) Supervised experience
helping on-campus researchers plan, manage data, and develop and per-
form analyses specific to designs and hypotheses. Discussion of activi-
ties in regular seminar meetings. Final written reports and/or detailed
diaries. Prereq: 572 or 538. May be repeated. Maximum 6 hours.

600 Doctoral Research and Dissertation (3-15) P/NP only.

662 Computational Methods in Statistics (3) Up-to-date computa-
tional methods in statistics: open architecture interactive computa-
tional languages supplemented by other statistical packages with graphical
capabilities. Statistical computing, numerical methods for linear mod-
el models and generalized linear models, nonlinear statistical methods, matrix
computations and special matrices, essentials of Monte Carlo simula-
tion, and resampling techniques. Prereq: Knowledge of programming
language and 572 or consent of instructor.

663 Advanced Statistics Theory I (3) Univariate models and theo-
ery of distributions, general theory of estimation and method of max-
imum likelihood, sufficient statistics, small and large sample effi-
ciency of estimators, and confidence and tolerance intervals.
Context of series of significant problems in applied statistics.
Prereq: 564 and Mathematics 445.

664 Advanced Statistics Theory II (3) Testing statistical hypothe-
ses, Bayesian methods and estimation, linear model theory and
model selection. Prereq: 663.

666 Advanced Statistical Process Control (3) Development of
advanced SPC concepts: theory governing properties of Shewhart-type
control charts. Comparisons with competing methodologies. Readings and
discussion based on current literature. Prereq: 564 and 566.

673 Advanced Topics in Design of Experiments and Linear
Models (3) Experimentation for product and process improvement: re-
sponse surface methodology and robust design methods; mixture
experiments; optimal design topics; distribution theory and inher-
ence for linear models. Prereq: 573 or consent of instructor.

674 Advanced Data Mining (3) Interacting roles of statistical
learning and data mining. Statistical data structures, measurement,
visualization and exploration. Multidimensional scaling, classification
methods, decision trees, neural networks, association rules and market
basket analysis. Cluster analysis, Bayesian clustering, evaluation and
selection of models and information criterion. Boosting and bagging.
Support vector machines, optimization, search methods, and algorithms.
Prereq: 564, 579 or equivalent, and knowledge of programming language, or consent of instructor.

677 Statistical Modeling (3) Modern techniques of statistical mod-
eling: predictive, likelihood, Bayesian, and information-based model
selection and evaluation paradigms. Application of tech-
niques in various types of models for both continuous and discrete
data modeling problems. Interactive computational tools. Prereq:
564 and 572 or 538, or consent of instructor.

679 Multivariate Statistical Modeling (3) Modern information
based techniques and model selection in multivariate analysis,
informational tests of significance with multivariate data, multivari-
ate analysis of variance, multivariate regression and variable selec-
tion, multisample cluster analysis, common principal component
model, factor analysis model, covariance structural models with
latent variables, mixture-model cluster analysis. Prereq: Matrix
algebra and 564, or matrix-based linear models with experience in
interactive computing, or consent of instructor.

683 Special Topics in Statistics (1-3) Presentation of specialized
topics in statistics. May be repeated. Maximum 6 hours.

691 Graduate Seminar in Applied Statistics (3) Reading of liter-
ature and discussion of open problems of importance to industry:
design of experiments, modeling, process control, regression, and
reliability. Prereq: Consent of instructor. Satisfactory/No Credit or
letter grade.

693 Independent Study (1-6) Directed research on subject of mutu-
al interest to student and faculty member. May be repeated.
Maximum 6 hours.

THEATRE (976)

420 Special Studies in Acting (3) Content varies. Exercises in
selected concentrated areas such as styles, techniques, approaches,
e.g., Shakespeare, movement, humor. Prereq: 320 and consent of
instructor. May be repeated. Maximum 9 hours.

425 Selected Musical Theatre Techniques (3) Study and practice
of musical theatre material: dance and vocal work. May be repeat-
ed. Maximum 6 hours.

430-431 Principles of Play Directing (3,3) Problems in composi-
tion, picturization, rhythm, movement. Prereq: 220. Must be taken
in sequence.

446 Costume Patterning (3) Draping patterns for period costumes.
Corsetry and study of historic patterns 1500-1900. Prereq: 345 or
consent of instructor.

450 Special Studies in Entertainment Technology (1-3) Content
varies. May be repeated. Maximum 9 hours. Prereq: consent of
instructor.

452 Entertainment Technology II (3) Automation systems in live
entertainment, including advanced rigging and flying for stage and
film. Prereq: 352 or consent of instructor.

454 Scenery Painting (2) Introduction to materials, techniques, and
principles of craft. Gaining skill and understanding through studio
experience. Prereq: Consent of instructor.

456 Scenic Design II (3) Advanced studies in set design. Prereq:
355 or consent of instructor.

462 Lighting Design II (3) Advanced lighting design theory and prac-
tice. Lab and project intensive. Prereq: 362 or consent of instructor.

464 Computer Aided Drafting for the Theatre (3) Introduction to
entertainment drafting. Emphasis on 2D graphical standards, drafting
techniques, drawing layout and presentation.

470 Playwriting (3) Advanced instruction in writing of plays.
Prereq: Consent of instructor.

491 Foreign Study (1-15) See College of Arts and Sciences.

492 Off-Campus Study (1-15) See College of Arts and Sciences.

493 Independent Study (1-15) See College of Arts and Sciences.

501 Introduction to Graduate Research in Theatre (3) Research
tools and methods for theatre artist and scholar.
502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

503 Elements of Design for the Theatre (3) Analysis of the principles of design through visual, structural, and emotional relationships.

510 Studies in Theatre History (3) Intensive study of selected topics in theatre history. May be repeated. Maximum 9 hours.

512 Dramatic Literature Analysis (3) Dramaturgical strategies of major playwrights, using variety of analytical approaches from Aristotelian to deconstruction.

520 Master Class in Performance: Acting (3) Master class in acting techniques. Theatre MFA students only. May be repeated. Maximum 18 hours.

523 Master Class in Performance: Movement (3) Master class in movement techniques. Theatre MFA students only. May be repeated. Maximum 18 hours.

525 Master Class in Performance: Voice (3) Master class in voice and speech techniques. Theatre MFA students only. May be repeated. Maximum 18 hours.

536 Projects in Play Directing (3) Practical work in play direction involving various lengths and kinds of scripts. May be repeated. Maximum 9 hours.

542 The Social History of Costume (3) Study and analysis of costume as related to society’s manners and mores, architecture and furniture.


545 Millinery for the Stage (2) Pattern making and construction techniques for hats from antiquity to present. Prereq: Consent of instructor.

546 Advanced Costume Patterning (3) Advanced studies in patterning period costume. Development of historic patterns through flat pattern method. Prereq: 446.

547 Painting and Dyeing for the Theatre (3) Fibers, dyes and dye processes; color matching and distressing.

549 Projects in Costume Technology (1-3) Individualized studies in costume technology in theatre production. Prereq: Consent of instructor. May be repeated. Maximum 6 hours.

550 Special Studies in Entertainment Technology (1-3) Content varies. Prereq: consent of instructor. May be repeated. Maximum 9 hours.

551-552 Structural Design for Stage (3,3) Application of advanced theatre technology and analysis of common building materials to design of safe stage scenery. Must be taken in sequence.

553 Projects in Scenic Design (1-3) Conception and completion of major projects, both hypothetical and actual, in scene design. May be repeated. Maximum 9 hours.

555 Model Building (3) Techniques of model building for scenic designer. Theatre MFA students only. Prereq: 401 and one semester of 580.

556 Drafting (3) Drafting techniques for scenic designer. Theatre MFA students only.

560 Lab Analysis of Realized Lighting Design (3) Realized lighting design projects from concept meeting through opening night. Prereq: Consent of instructor. May be repeated. Maximum 18 hours.

562 Special Problems in Lighting Design (3) Advanced problems in lighting design and theory, problems in Broadway production and touring. Prereq: 462 or consent of instructor.

564 Advanced Computer Aided Drafting for the Theatre (3) Advanced drafting techniques. Emphasis on 3D solid modeling, rendering, and publication. Prereq: 464 or consent of instructor.

580 Design Seminar (1-6) Analysis, research, interpretation, and design of plays in a cross-disciplinary environment. May be repeated. Maximum 18 hours.

584 Photography for the Theatre (3) Photographic techniques for shooting live performance events under challenging lighting environments. Prereq: Consent of instructor.

585 Production Workshops (1-6) Directed experience in production collaborations. Prereq: Consent of instructor. May be repeated. Maximum 12 hours.

587 Computer Aided Rendering for the Theatre (3) Computer rendering programs and their use by theatrical designers. Prereq: Consent of instructor.

593 Independent Study (1-3) Individual or group projects. Available to Theatre MFA students only. Prereq: Consent of advisor. May be repeated. Maximum 15 hours.

599 Project in Lieu of Thesis (1-6) Available to theatre MFA students only. Prereq: Minimum of 30 hrs toward MFA degree and consent of advisor. May be repeated. Maximum 9 hours.

THEORY AND PRACTICE IN TEACHER EDUCATION (978)

500 Thesis (1-15) P/NP only.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

503 Problems in Lieu of Thesis (2-3) May be repeated. Maximum 9 hours. Satisfactory/No Credit grading only.

517 Trends and Issues in Education (3) Examination of contemporary trends and issues in education.

518 Educational Specialist Research and Thesis (3) May be repeated. P/NP only.

526 Drama and Story Telling in Teaching (3) Use of techniques of drama and storytelling to improve impact of teaching and to teach more effectively. Prereq: Classroom experience or admission to teacher education program.

535 Inquiry Teaching and Learning (3) Use of children’s and adolescent literature. Exploration of ways to create setting that invite learners to engage in inquiry learning and teaching.

540 Topics in Improvement of Instruction (1-3) Special conferences, workshops, and inservice programs. May be repeated. Maximum 6 hours. Satisfactory/No Credit or letter grade.

550 Action Research and Practical Inquiry in Education (3) Principles of action research and practical inquiry for practitioners in early childhood and school settings and methods for conducting such inquiries in professional role. Prereq: Admission to graduate program.

593 Independent Study (1-3) May be repeated. Satisfactory/No Credit or letter grade.

594 Supervised Readings (1-3) May be repeated. Satisfactory/No Credit or letter grade.

595 Special Topics (1-3) May be repeated. Satisfactory/No Credit or letter grade.

596 Clinical Experience in Assessment and Instruction (3) Academic remediation applied in lab/field setting; tasks related to teaching: assessment, preparation of lessons, and delivery of instruction. Coreq: 553. Satisfactory/No Credit or letter grade.
600 Doctoral Research and Dissertation (3-15) Prereq: Admission to Candidacy. P/NP only.

604 Trans-Departmental Seminar I (1) Introduction to doctoral programs in education: research requirements, academic integrity, the meaning of scholarship in academe and issues/problems in education. Prereq: Admission to a doctoral program or consent of doctoral program coordinator. May not be used to meet 600-level requirement. Satisfactory/No Credit grading only.

605 Trans-Departmental Seminar II (1) Seminar to prepare doctoral students for the final steps in completing a terminal degree including preparing for and completing qualifying exams, preparing a prospectus, and completing a dissertation. Prereq: 604. May not be used to meet 600-level requirement.

610 Internship in College Teaching and Supervision (3-9) Supervised practice in college teaching and supervision. Prereq: Admission to doctoral program or consent of instructor. May be repeated. Maximum 9 hours. Satisfactory/No Credit grading only.

617 Trends and Issues in Teacher Education—An Interdisciplinary Perspective (3) Current trends and issues in field of teacher education: elementary education, mathematics education, science education and social science education. Prereq: Admission to doctoral program or consent of instructor.

620 Research in Literacy, Language, and ESL Education (3) Recent trends and historical traditions in language and literacy research: analysis of nature of research methods used, questions asked and topics studied. Prereq: Admission to doctoral program or consent of instructor.


689 Internship (1-3) Experiences in application of principles and practices of curriculum development and instructional improvement. Prereq: Program prerequisites and consent of instructor. May be repeated. Maximum 9 hours. Satisfactory/No Credit grading only.

693 Independent Study (1-3) May be repeated. Satisfactory/No Credit or letter grade.

694 Supervised Reading (1-3) May be repeated. Satisfactory/No Credit or letter grade.

695 Special Topics (1-3) May be repeated. Satisfactory/No Credit or letter grade.

URBAN STUDIES (985)

411 The City in the United States (3) (See Political Science 402.)
412 Survey of Planning (3) (See Political Science 403.)
441 Urban Geography of the United States (3) (See Geography 441.)
442 Urban Social Geography (3) (See Geography 442.)
446 Housing (3) (See Political Science 446.)
464 Urban Ecology (3) (See Sociology 464.)

VETERINARY MEDICINE (987)

801-802 Application Based Learning Exercise (ABLE) I, II (1,2) Small group, student-centered learning sessions with faculty facilitator for self discovery of new information. Week-long sessions based on specific clinical case or problem, and integration of basic science and clinical material. Satisfactory/No Credit grading only.

804-805-806 Application Based Learning Exercise (ABLE) and Clinical Exposure I, II, III (2,2,2) Week-long small group, student-centered learning sessions with faculty facilitator for self discovery of new information; based on specific clinical case or problem; integration of basic science and clinical material. One week of clinical experience through participation in specific clinical rotations in Veterinary Teaching Hospital. Satisfactory/No Credit grading only.

811 Infection and Immunity II—Bacteriology and Mycology (3) Fundamental aspects of microbiology and cell biology relative to pathogenesis of bacterial and fungal diseases of animals: antimicrobial actions and mechanisms of bacterial resistance. General approaches to diagnosis, treatment and prevention.

813 Infection and Immunity I—Immunology (2) Basic biology and practical aspects of immunology: cells of immune system, immune function and dysfunction, immunoprophylaxis, diagnostic testing and specific diseases involving immune system.

814-816 Clinical Correlations and Ethics I, II (1,2) Correlations between basic science material from concurrent courses and practice of veterinary medicine. Thoughts on wide spectrum of current veterinary ethical issues. 816—Student-led discussions follow faculty presentations.


821-822 Veterinary Anatomy I, II (4,4) Lectures, laboratories, and demonstrations are used in an integrated approach to the study of macroscopic (gross) clinically relevant anatomy, including neuroanatomy, and embryology of common domestic animals. Dissections of embalmed specimens, prostatections, plastinated specimens, and radiographs of common domestic species are examined for comparative purposes.

823-824 Physiology I,II (4,4) Introduction to concepts and problems in physiology which form basis for clinical applications and for formal training in pharmacology, medicine, pathology, and surgery. Cellular, neural, cardiovascular, renal, respiratory, digestive, endocrine, and reproductive physiology.

825-826 Veterinary Microscopic Anatomy I, II (2,2) Lectures, laboratories, and demonstrations are used in the study of the cell, embryology, and microscopic anatomy of organ systems in common domestic animals to relate structure with function.

827 Special Problems in Animal Science (1-8) Extramural and specially designed study for students interested in select topics in anatomy, histology, and physiology.

831 Physical Diagnosis (1) Basic care, feeding, restraint, and handling domestic animals. Introduction to physical examination and diagnostic techniques used by veterinarian.

832 Anesthesiology (2) Principles of anesthesiology: pharmacology of anesthetic agents, and introduction to anesthetic techniques in veterinary medicine.

833 Epidemiology and Evidence Based Medicine (2) Study of distribution and determination of disease in animal populations. Use of knowledge (evidence) gained from management of clinical patients in past to improve future clinical decision making processes.

834 Hematopoietic System (2) Pathophysiology and diagnosis of disorders involving bone marrow and blood cells, platelets, and blood coagulation in domestic animals; interpretation of laboratory test results using illustrative clinical cases.

836 Toxicology (2) Principles of toxicology, molecular mechanisms, pathologic processes and clinical features of animal diseases caused by common toxic agents.

837 Food Hygiene and Zoonoses (2) Host-agent relationships, public health aspects of veterinary medicine and role of veterinarians in ecology and food hygiene.

840 Integumentary System (3) Pathophysiology, special pathology, medicine and surgery of diseases of integumentary system. Laboratory examination, pathology, diagnosis and treatment.

841 Reproductive System (3) Pathophysiology, special pathology, medicine and surgery of diseases of male and female reproductive systems and mammary glands.

842 Alimentary System (4) Pathophysiology, special pathology, medicine and surgery of diseases of alimentary systems.

843 Musculoskeletal System I (3) Pathophysiology, clinical description and basic treatment modalities of common diseases and conditions of skeletal system of small animals: development of basic diagnostic and treatment skills.

844 Musculoskeletal System II (3) Pathophysiology, special pathology, medicine and surgery of diseases of muscular and skeletal systems. Advanced principles, radiographic interpretation and surgical procedures.

845 Veterinary Nutrition (2) Principles of nutrition, and nutrition of animals in health and disease. Applied nutrition relating to individual small or large animal patient or to herd situations.

846 Multispecies Medicine (3) Anatomy, pathophysiology, medicine, and surgery of avian species, laboratory and zoo animals and reptiles. Species and diseases seen by practicing veterinarian. Current topics on foreign animal diseases.

851 Urinary System (3) Pathophysiology, special pathology, medicine and surgery of diseases of urinary system. Urinary system in health and disease.

852 Cardiovascular System (2) Pathophysiology, special pathology, medicine and surgery of diseases of cardiovascular system. Anatomic, physiologic and pharmacologic principles which provide basis for treatment.


854 Respiratory System (3) Pathophysiology, special pathology, medicine and surgery of diseases of respiratory system. Upper and lower respiratory systems: infectious and noninfectious diseases.

855 Radiology (3) Basic, advanced and special techniques in radiology with interpretation and use of radiologic and related techniques in diagnosis and treatment of animal diseases.

856 Special Senses (2) Pathophysiology, special pathology, medicine and surgery of diseases of visual and auditory systems.

857 Nervous System (3) Pathophysiology, special pathology, medicine and surgery of diseases of nervous system: clinical neurology and neuropathology.

858 Neurology/Ophthalmology (4) Clinical training in specialty services: ophthalmology and neurology. Direct responsibility for diagnosis, patient care, and treatment of patients in both Large Animal and Small Animal Clinical Sciences.

861 Pharmacology I (2) Principles of pharmacokinetics and pharmacodynamic properties of veterinary drugs; mode of action and pharmacologic effects including important metabolic aspects, chemical and physical properties, side effects (toxicities) and clinical application.

862 Pharmacology II (2) Continuation of 861: modes of action, pharmacologic effects, and clinical application of drugs to control specific disease conditions.

863 Infectious Diseases (2) Pathogenesis and clinical findings of major viral, bacterial, and fungal infectious diseases of domestic animals: cattle, horses, swine, sheep, goats, dogs and cats; relevant case-based presentations.

865 Clinical Rotation in Comparative Medicine (2) Clinical training in avian medicine, laboratory animal and zoo animal medicine, epidemiology, public health, and other related disciplines.

867 Special Problems in Comparative Medicine (1-8) Extramural and specially designed study for students interested in select topics in avian medicine, laboratory animal medicine, zoo animal medicine, epidemiology, public health, pharmacology or toxicology.

868 Introduction to Animal Behavior (2) Basic principles of normal and abnormal animal behavior in domestic animals; clinical case discussions to illustrate common behavioral problems and current approaches to therapy.

870 Anesthesiology (4) Clinical training in sedation and anesthesia of companion animals, food animals and horses. Direct responsibility for diagnosis, care and treatment of clinical patients.

871 General Pathology (3) Principles of pathobiology: causes of disease, disturbances of cell growth and inflammation.

873 Infection and Immunity IV—Parasitology (3) Principles of parasitology: protozoology, helminthology, and entomology and relationship to diseases in animals.

874 Oncology (2) Fundamental aspects of cell biology and pathology relative to etiology and natural behavior of various neoplasms of animals; general approaches to diagnosis, treatment and prevention of neoplasia.

877 Special Problems in Pathology (1-8) Extramural and specially designed study for students interested in select topics in morphologic pathology, clinical pathology, clinical microbiology and parasitology.

878-879 Elective Clinical Rotation I, II (2,2) Special rotations in applied clinical education in Small Animal Clinical Sciences, Large Animal Clinical Sciences, Comparative Medicine and Pathology. Novel experience not associated with required clinical rotations may be arranged.

881 Clinical Rotations in Small Animal Clinical Sciences I (4) Clinical training in medicine, surgery and specialty disciplines for companion animals. Direct responsibility for diagnosis, care, and treatment of clinical patients.

882 Clinical Rotations in Small Animal Clinical Sciences II (4) Clinical training in medicine, surgery and specialty disciplines for companion animals. Direct responsibility for diagnosis, care, and treatment of clinical patients.

883 Clinical Rotations in Small Animal Clinical Sciences III (4) Clinical training in medicine, surgery and specialty disciplines for companion animals. Direct responsibility for diagnosis, care, and treatment of clinical patients.

886-889 Clinical Rotation in Radiology and Pathology I, II (4,4) Two weeks in each discipline. Clinical training in radiographic techniques and interpretation, including ultrasonography. Post-mortem examination and laboratory diagnostics: clinical pathology and introductory histopathology of biopsy specimens.

887 Special Problems in Small Animal Clinical Sciences (1-8) Extramural and specially designed study for students interested in select topics in medicine, surgery, anesthesiology, radiology and medical specialties of small (companion) animals.
890 Transition and Accreditation Seminars (2) Discussion of USDA, state, and local animal laws and regulations; preparation of animal movement forms, veterinary ethics, jurisprudence, basic practice management, and other topics involved in practice of veterinary medicine.

891 Clinical Rotations in Large Animal Clinical Sciences I (4) Clinical training in medicine, surgery, specialty disciplines and herd health of food animals and horses. Direct responsibility for diagnosis, care and treatment of clinical patients.

892 Clinical Rotations in Large Animal Clinical Sciences II (4) Clinical training in medicine, surgery, specialty disciplines and herd health of food animals and horses. Direct responsibility for diagnosis, care and treatment of clinical patients.

893 Clinical Rotations in Large Animal Clinical Sciences III (4) Clinical training in medicine, surgery, specialty disciplines and herd health of food animals and horses. Direct responsibility for diagnosis, care and treatment of clinical patients.

894 Special Problems in Large Animal Clinical Sciences (1-8) Extramural and specially designed study for students interested in select topics in medicine, surgery, herd health, reproduction, radiology and medical specialties of large animals.

898-899 Externship I, II (2.2) Educational experiences in private practice, research facility, zoological preserve, aquarium, or other veterinary-related facility outside Veterinary Teaching Hospital; to provide experiences not frequently available in large referral veterinary teaching hospitals.

WILDLIFE AND FISHERIES SCIENCE (993)

440 Wildlife Techniques (3) Methods of wildlife damage control, forest, farmland, wetland wildlife habitat management, identification of wildlife field sign, wildlife capturing techniques and management plan preparation. Weekend field trips. 1 hour and 1 lab or field. Prereq: Forestry, Wildlife and Fisheries 317 or consent of instructor.

442 Fisheries Techniques (3) Active and passive sampling techniques for fish and aquatic organisms; population estimation methods; fish handling and transport; food habits analysis; marking and tagging techniques; age determination and incremental growth analysis; stream assessment; equipment and instrumentation usage and maintenance; safety in sampling methods. Weekend field trip. 1 hour and 1 lab or field. Prereq: Forestry, Wildlife and Fisheries 317 or consent of instructor.

443 Fisheries Science (3) Quantification and management of freshwater fisheries: population estimation, age and growth, biological assessment, and stocking. 2 hours and 1 lab. Prereq: Forestry, Wildlife and Fisheries 317 or consent of instructor.

444 Ecology and Management of Wild Mammals (3) Biological and ecological characteristics of game mammals and endangered mammals. Current principles and practices of wild mammal management. 2 hours and 1 lab. One weekend field trip required. Prereq: Forestry, Wildlife and Fisheries 317 or consent of instructor.

445 Ecology and Management of Wild Birds (3) Biological and ecological characteristics of game birds, endangered birds, and bird pests. Current principles and practices of wild bird management. 2 hours and 1 lab. Prereq: Forestry, Wildlife and Fisheries 317 or consent of instructor.

500 Thesis (1-15) P/NP only.

502 Registration for Use of Facilities (1-15) Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. Satisfactory/No Credit grading only.

512 Seminar in Wildlife and Fisheries Science (1) Current developments in wildlife and fisheries science. Required of all graduate students in residence in fall. May be repeated. Maximum 2 hours. Satisfactory/No Credit grading only.

515 Seminar in Avian Ecology and Management (1-2) Readings and discussion based on current literature on contemporary topics in avian ecology and management. Additional credit awarded for writing review paper on contemporary topic of interest to student. Prereq: Consent of instructor.

525 Endangered Species Management and Conservation of Biodiversity (2) Status, ecology and management of endangered wildlife and plant species. Historic aspects, policy implications and philosophical issues surrounding recovery efforts. Approaches to monitor and manage for biodiversity. Prereq: Graduate standing or consent of instructor.

530 Wildlife Diseases (2) Necropsy of birds and mammals. Recognition of various diseases and methods of preparing pathological materials in field and lab. Investigative procedures concerning wildlife diseases. Prereq: 1 yr biology, 444 or 445, or consent of instructor. (Same as Comparative and Experimental Medicine–Veterinary Medicine 530.)

531 Wildlife Physiology and Nutrition (2) Introduction and overview of endocrine and physiological mechanisms regulating wild animal populations (primarily wild birds and mammals); the importance of wildlife physiology and nutrition in monitoring and managing wildlife. Prereq: Senior or graduate standing in life sciences.

535 Floodplain Ecosystems (3) Ecology, restoration and management of floodplain ecosystems: biotic and abiotic processes, social considerations, and wildlife and forest management; Lower Mississippi River Alluvial Valley. Prereq: Consent of instructor.

540 Predator Ecology (2) Dynamics of terrestrial vertebrate predator populations in human-altered and relatively unaltered environments. Prereq: 444 or 445 or consent of instructor.

545 Advanced Population Analysis (2) Detail characteristics, assumptions, goals, methods, and current technologies for fish and wildlife population analysis. Use of computers. Prereq: Animal Science 571 or Statistics 538 or consent of instructor.

546 Advanced Habitat Analysis (2) Habitat analysis as tool to evaluate habitat use and predict occurrences of animal and plant species: principles and goals of modeling, habitat analysis theory, GIS and statistical techniques. Use of computer programs. Prereq: Forestry, Wildlife and Fisheries 410 or Geography 411 or consent of instructor.

550 Fish Physiology (3) Mechanisms of gas transfer, circulation, excretion, osmoregulation, locomotion, and neural/hormonal control of these systems in fishes. Comparisons and contrasts with physiology of terrestrial animals. Practical applications of fish physiology to aquaculture, pollution assessment, and fisheries management. Prereq: Senior or graduate standing in life sciences.

555 Fish Culture (3) Principles, concepts and techniques of culturing economically important fish and shellfish species. 2 hours and 1 lab. Prereq: 443 or consent of instructor.

556 Recirculating Aquaculture (3) Growing fish in intensive, indoor systems with reconditioned water. Techniques of solids removal, nitrification, and gas balance. Practical experience with operating system. Prereq: 443 or consent of instructor.

560 Advanced Topics in Wildlife and Fisheries Science (1-3) Recent advances and concepts, research techniques and analysis of current problems. Prereq: 443, 444, 445, or consent of instructor. May be repeated. Maximum 6 hours.

593 Independent Study in Wildlife and Fisheries Science (1-4) May be repeated. Maximum 6 hours.
WOMEN’S STUDIES (994)

400 Topics in Women’s Studies (3) Content varies. May be repeated.

410 Sex Role Development: Implications for Education and Counseling (3) (See Counselor Education 410.)

422 Women Writers in Britain (3) (See as English 422.)

425 Women’s Health (3) (See Health 425.)

434 Psychology of Gender (3) (See Psychology 434.)

469 Sexuality and Cinema (4) Explores issues surrounding sexuality, gender and cinema from points of view of feminist film criticism. Writing-emphasis course. (Same as Cinema Studies 469.)

483 African-American Women in American Society (3) (See African and African-American Studies 483.)

510 Special Topics (3) May be repeated. Maximum 6 hours.

543 Women, Sport, and Culture (3) (See Sport Studies 543.)

593 Independent Study (1-6) Prereq: Consent of Chair of Women’s Studies
Index

A
Accounting and Information Management, Department of 106
Academic Common Market 37
Academic Probation 28
Advertising and Publication, School of 119
Agricultural Experiment Center 197
Alcohol Abuse Health Risks 39
American Studies Courses 209
Animal Science Courses 209
Animal Science Major 50
Animal Science, Department of 49
Anthropology Courses 210
Anthropology Major 65
Anthropology, Department of 64
Appeals Procedure 29
Application Fee 34
Application Procedures 22
Applied Educational Psychology Program 131
Applied Epidemiology (Graduate Certificate) 141
Applied Statistical Strategies (Graduate Certificate) 115
Architecture and Design, College of 61
Architecture Courses 212
Architecture Major 62
Architecture, School of 62
Art Ceramics Courses 213
Art Courses 213
Art Design/Graphic Courses 214
Art Drawing Courses 214
Art Education Courses 214
Art History Courses 214
Art History Minor 67
Art Major 67
Art Media Arts Courses 215
Art Painting Courses 216
Art, School of 66
Arts and Sciences, College of 63
Asian Languages Courses 216
Asian Studies Courses 216
Assistantships 37, 39
Astronomy Courses 216
Audiology and Speech Pathology Courses 217
Audiology and Speech Pathology, Department of 67
Audiology Major 68
Auditors and Audited Courses 25
Aviation Systems (UT Space Institute) 189
Aviation Systems Courses 219
Aviation Systems Major 189

B
Biochemistry and Cellular and Molecular Biology Courses 220
Biochemistry and Cellular and Molecular Biology Major 70
Biochemistry and Cellular and Molecular Biology, Department of 69
Biomedical Engineering Courses 221
Biomedical Engineering Major 167, 168
Biosystems Engineering and Environmental Science, Department of 50
Biosystems Engineering Courses 222
Biosystems Engineering Major 51, 54
Biosystems Engineering Technology Courses 223
Biosystems Engineering Technology Major 51
Black Cultural Center 42
Bureau of Evaluation, Research, and Service 193
Business Administration Courses 224
Business Administration Major 100, 104, 107, 109, 111, 112, 115
Business Administration, College of 99
Business Law Courses 225
C
Career Services 42
Center for Business and Economic Research 193
Center for Environmental Biotechnology 200
Center for Executive Education 193
Center for Genomics and Bioinformatics 200
Center for Information Studies 194
Center for Information Technology Research (CITR) 200
Center for International Education 3, 43
Center for Laser Applications 195
Center for Literacy Studies 194
Center for Physical Activity and Health 194
Center for Transportation Research 194
Center of Excellence for Computer Applications (CECA) 195
Center of Excellence for Diseases of Connective Tissue 200
Center of Excellence for Livestock Diseases and Human Health 195
Center of Excellence for Materials Processing 194, 196
Center of Excellence for Neuroscience 196
Center of Excellence for Pediatric Pharmacokinetics and Therapeutics 196
Center of Excellence for Science and Mathematics Education 196
Center of Excellence for Structural Biology 201
Center of Excellence for the Neurobiology of Brain Disease 200
Centers and Chairs of Excellence 195
Change of Registration 27
Chemical Engineering Courses 225
Chemical Engineering Major 157
Chemical Engineering, Department of 156
Chemistry Courses 226
Chemistry Major 71
Chemistry, Department of 70
Child and Family Studies Courses 227
Child and Family Studies Major 127
Child and Family Studies, Department of 126
Child Development Laboratory 196
Cinema Studies Courses 229
Civil and Environmental Engineering, Department of 158
Civil Engineering Courses 229
Civil Engineering Major 159
Classics Courses 230
Classics, Department of 71
Classified Research 30
College Student Personnel Major 135
Communication and Information Course 231
Communication and Information Major 118
Communication and Information, College of 117
Communication Major 118
Communication Studies Courses 231
Communication Studies, School of 119
Comparative and Experimental Medicine 190
Comparative and Experimental Medicine—Graduate School of Medicine Courses 232
Comparative and Experimental Medicine Major 190, 191
Comparative and Experimental Medicine—Veterinary Medicine Courses 232
Comparative Literature Courses 233
Competency in English 41
Comprehensive Examination 33
Computational Fluid Dynamics (Graduate Certificate) 169
Computer Engineering Major 160, 161
Computer Science Courses 233
Computer Science Major 72
Computer Science Minor 72
Computer Science, Department of 72
Conditional Registration 27
Consumer Services Management Major 129
Consumer Services Management, Department of 128
Counseling Major 133, 134
Counseling Programs 133
Counselor Education Courses 233
Course Loads 27
Course Requirements 30, 31
Courses in Non-Standard Format 25
Courses of Instruction 205
Cultural Studies in Education Courses 235
Curriculum, Educational Research, and Evaluation Courses 235
D
Dance Courses 236
Defense of Dissertation Examination 33
Deferred Payment Fee 36
Definition of Graduate Terms 18
Degree Admissions 22
Degree Program Requirements 29
Department of Conferences 202
Department of Distance Education and Independent Study 203
Department of Professional and Personal Development 203
Departmental Liaison 26
Diagnostic Examination 33
Dining Services 43
Disability Services 3, 43
Dismissal 28
Dissemination of Final Copies 30
Dissertation 34
Doctoral Committee 32
Doctoral Degree 29, 32
Doctoral Examinations 33
Drug Use Health Risks 39
Drug-Free Campus and Workplace 38
Dual JD-MBA Program 103, 174
Dual JD-MPA 92
Dual MS-MBA 155, 161, 163, 165, 167, 170, 171
Dual MS–MBA Program 103
Dual MS–MPH Program 142, 146
E
Earth and Planetary Sciences, Department of 73
Ecology and Evolutionary Biology Courses 236
Ecology and Evolutionary Biology Major 74
Ecology and Evolutionary Biology, Department of 74
Economics Courses 238
Economics Major 108
Economics, Department of 107
Education Administration and Policy Studies, Department of
Education Courses 239
Education Major 125, 131, 132, 134, 135, 136, 138, 140, 144, 152
Education of the Deaf and Hard of Hearing Courses 239
Education, Health, and Human Sciences, College of 123
Educational Administration Courses 240
Educational Administration Major 148, 151
Educational Interpreting Courses 241
Educational Psychology 130
Educational Psychology and Counseling, Department of 130
Educational Psychology Courses 241
Educational Psychology Major 130, 131
EEO/Title IX/Section 504 Statement 38
Electrical and Computer Engineering Courses 243
Electrical and Computer Engineering, Department of 159
Electrical Engineering Major 160
Elementary Education Courses 246
Employment 37
Energy, Environment, and Resources Center 196
Engineering Management (Graduate Certificate) 163
Engineering Science Courses 247
Engineering Science Major 167, 168
Engineering, College of 155
English Certification 24
English Courses 249
English Education Courses 251
English Language Institute 203
English Major 76
English Proficiency 26
English, Department of 75
Entomology and Plant Pathology Major 54
Entomology and Plant Pathology, Department of 54
Environmental and Soil Sciences Courses 253
Environmental and Soil Sciences Major 52
Environmental Engineering Courses 254
Environmental Engineering Major 158
Environmental Policy Minor 75, 78, 93, 97, 108, 111, 159
Evaluation/Supervision of Graduate Assistants 41
Executive MBA Programs 101
Exercise Science 137
Exercise Science Courses 255
Exercise Science Major 138
Exercise, Sport, and Leisure Studies, Department of 137
Facilities Fee 35
Facilities for Research and Service 63, 117, 155, 177, 193
Family Educational Rights and Privacy Act 38
Family Nurse Practitioner (Graduate Certificate) 182
Fees and Financial Assistance 34
Fees for Courses Not Taken for Credit 35
Fees for Sponsored International Students 37
Fellowships 37
Final Examination 32
Final Examination for Non-Thesis Students 31
Final Examination for Thesis and Problems in Lieu of Thesis 31
Final Registration Late Fee 35
Finance Courses 256
Finance, Department of 109
Financial Aid Withdrawals 36
Financial Assistance 3, 37
Food Safety Center 200
Food Science and Technology Courses 256
Food Science and Technology Major 56
Food Science and Technology, Department of 55
Foreign Language 30
Foreign Language/ESL Education Courses 257
Foreign Study Courses 64
Forestry Courses 257
Forestry Major 57
Forestry, Wildlife and Fisheries Courses 258
Forestry, Wildlife, and Fisheries, Department of 56
French Courses 259
French Major 86
Full-Time MBA 100
Graduate Degrees, Majors, and Certificate Programs Listed by College and Department 8
Graduate Research Assistant 40
Graduate Student Association 3
Graduate Student Employee Insurance 36
Graduate Student Senate 44
Graduate Student Services 3
Graduate Student Travel Award 37
Graduate Studies 3, 21
Graduate Teaching Assistant 39
Graduate Teaching Associate 39
Graduation 30
Graduation Fee 35
Health and Safety Programs 140
Health Courses 264
Hearing and Speech Services 44
Higher Education Administration Courses 265
History Courses 266
History Major 78, 79
History, Department of 78
Hotel, Restaurant, and Tourism Courses 267
Housing 44
Human Ecology Courses 267
Human Ecology Major 126, 127, 129, 141,147
Human Resource Development Courses 267
Human Resource Development Major 110
Implementation of the SACS 18-Hour Requirement 40
Independent Study 64
Industrial and Information Engineering, Department of 162
Industrial and Organizational Psychology (Interdepartmental) 109
Industrial and Organizational Psychology Courses 268
Industrial And Organizational Psychology Major 109
Industrial Engineering Courses 269
Industrial Engineering Major 162, 163
Information Management Courses 271
Information Sciences Courses 271
Information Sciences Major 120
Information Sciences, School of 120
Institute of Agriculture 197
Instructional Technology and Educational Studies Courses 274
Instructional Technology and Educational Studies Major 143, 144
Instructional Technology and Educational Studies, Department of 142
Instructional Technology Courses 273
Intercollegiate 189
Intercollegiate Graduate Statistics Program 114
Interdisciplinary Programs 80
Italian Courses 274
Japanese Courses 274
Journalism and Electronic Media Courses 274
Journalism and Electronic Media, School of 122
Judaic Studies Courses 276
Language Requirements 33
Latin American Studies Courses 276
Law Courses 25, 276
Law, College of 173
Legal Studies Courses 280
Life Sciences (Interdepartmental) 81
Life Sciences Courses 280
Linguistics 80
Linguistics (Graduate Certificate) 80
Linguistics Courses 280
Loans 37
Logistics Courses 281

M
Maintenance and Reliability Center 198
Maintenance and Reliability Engineering (Graduate Certificate) 157, 163, 169, 171
Management and Community Practice (Graduate Certificate) 186
Management Courses 281
Management Science Courses 281
Management Science Major 112, 113
Management, Department of 110
Marketing and Logistics, Department of 111
Marketing Courses 282
Master’s Committee 30
Master’s Degree 29
Master’s Degree 30
Materials Science and Engineering Courses 282
Materials Science and Engineering Major 164, 165
Materials Science and Engineering, Department of 164
Mathematics Courses 284
Mathematics Education Courses 287
Mathematics Major 83
Mathematics, Department of 82
Measurement and Control Engineering Center 198
Mechanical Engineering Courses 288
Mechanical Engineering Major 167, 168
Mechanical, Aerospace, and Biomedical Engineering, Department of 165
Medieval Studies 80
Medieval Studies (Graduate Certificate) 80
Medieval Studies Courses 290
Mental Health Nursing (Graduate Certificate) 182
Microbiology Courses 291
Microbiology Major 85
Microbiology, Department of 84
Minority Student Affairs 42
Minors 29
Modern Foreign Languages and Literatures, Department of 85
Modern Foreign Languages Major 86
Molecular Resource Center of Excellence 196
Music Education Courses 291
Music Ensemble Courses 292
Music General Courses 292
Music Instrumental Courses 292
Music Jazz Courses 292
Music Keyboard Courses 292
Music Major 88
Music Performance Courses 293
Music Technology Courses 294
Music Theory Courses 295
Music Voice Courses 295
Music, School of 88
Musicology Courses 295

N
Natural Resources Major 49, 57
Non-Degree Admissions 22
Nuclear Engineering Courses 295
Nuclear Engineering Major 170, 171
Nuclear Engineering, Department of 169
Nurse Anesthesia (Graduate Certificate) 182
Nursing Administration (Graduate Certificate) 182
Nursing Courses 297
Nursing Education (Graduate Certificate) 182
Nursing Education Minor 182
Nursing Major 177, 181
Nursing of Women and Children (Graduate Certificate) 182
Nursing, College of 177
Nutrition Courses 299
Nutrition Institute 199
Nutrition Major 146
Nutrition Minor 147
Nutrition, Department of 145

O
Off-Campus Study 64
Office of Information Technology 199
Operations and Management Science Courses 300
Orientation/Training of Graduate Assistants and Graduate Research Assistants 42
Orientation/Training of Graduate Teaching Assistants and Graduate Teaching Associates 42

P
Parking Services 44
Philosophy Courses 300
Philosophy Major 89
Philosophy, Department of 89
Physician Executive MBA Program 102
Physics and Astronomy, Department of 89
Physics Courses 301
Physics Major 90
Plagiarism 28
Planning Major 93
Plant Sciences Courses 302
Plant Sciences Major 59
Plant Sciences, Department of 58
Plants, Soils, and Insects Major 53, 54, 59
Policy for the Administration of Graduate Assistantships 39
Political Science Courses 304
Political Science Major 91, 93
Political Science, Department of 91
Polymer Engineering Major 164, 165
Portuguese Courses 306
Post Doctoral Admission 23
Prerequisites 26
Professional MBA Program 102
Proficiency Examinations 26
Program of Study 32
Psychological Clinic 200
Psychology Courses 306
Psychology Major 94
Psychology, Department of 94
Public Administration Major 92
Public Health 141
Public Health Courses 309
Public Health Major 141
Public Relations Courses 310

Q
Qualifications of Graduate Assistants 40
Qualifying Examination 33

R
Reading Education Courses 310
Recreation and Leisure Studies Courses 310
Recreation and Leisure Studies Major 138
Refund/Change of Fees for Withdrawal 36
Refund/Change of Fees for Dropped Courses 36
Refunds 36
| S | SACS Requirement 40  
Safety Courses 313  
Safety Major 142  
School Counseling Major 134  
School Psychology 136  
School Psychology Major 136  
Science Alliance 196  
Science Education Courses 313  
Second Master’s Degree 30  
Security Information 38  
Senior Executive MBA Program 102  
Senior or Disabled Citizens 25  
Services Management (Graduate Certificate) 129  
Social Science Education Courses 314  
Social Security Number Use 38  
Social Work Courses 314  
Social Work Major 184, 186  
Social Work, College of 183  
Sociology Courses 316  
Sociology Major 97  
Sociology, Department of 96  
Space Institute 202  
Spanish Courses 317  
Spanish Major 86  
Special Course Fees 35  
Special Education Courses 318  
Special Federal and State Laws and University Policies 38  
Specialist in Education Committee 32  
Specialist in Education Degree 29, 31  
Speech and Hearing Science Major 69  
Speech Pathology Major 68  
Sport Management Courses 319  
Sport Studies Courses 320  
Sport Studies Major 139  
Statistics Courses 321  
Statistics Major 114  
Statistics, Operations and Management Science, Department of 112  
Student Counseling Services Center 44  
Student Health Insurance 36  
Student Health Service 44  
Student Services 42 |
|---|
| T | Teacher Education Major 149, 152  
Technology Fee 35  
Tennessee Advanced Materials Laboratory (TAML) 201  
Textiles and Nonwovens Development Center 201  
Theatre Courses 322  
Theatre Major 98  
Theatre, Department of 97  
Theory and Practice in Teacher Education Courses 323  
Theory and Practice in Teacher Education, Department of 147  
Theses and Dissertations 29  
Thesis 31  
Thesis Registration 31  
Time Limit 31, 32, 34  
Tourism Development (Graduate Certificate) 129  
Tourism Institute 202  
Transfer Credits 29  
Transient Admission 23  
Transportation Fee 35 |
| U | University Administration 4  
University Conference Center 203  
University Fees 34  
University Housing 3  
University Libraries 197  
University of Tennessee Extension 197  
University of Tennessee Law Students 25  
University of Tennessee Seniors 24  
University of Tennessee Space Institute 202  
University of Tennessee Veterinary Medicine Students 25  
University Outreach and Continuing Education 202  
University Program and Services Fee 35  
Urban Education (Graduate Certificate) 153  
Urban Studies Courses 324 |
| V | Vascular Biology Center of Excellence 200  
Veteran’s Benefits 38  
Veteran’s Education Benefits 45  
Veterinary Medicine Courses 324  
Veterinary Medicine, College of 187  
VolCard 37  
VOLXpress 35 |
| W | Waiver of Fees 36  
Waste Management Research and Education Institute 196  
Water Resources Research Center 204  
Wildlife and Fisheries Science Courses 326  
Wildlife and Fisheries Science Major 57  
Women’s Center 45  
Women’s Studies 81  
Women’s Studies Courses 327  
Women’s Studies (Graduate Certificate) 81  
Work Assignments and Related Factors 40 |