

Eberly College of Arts and Sciences

The Eberly College of Arts and Sciences, West Virginia University's largest college, has approximately 460 faculty in academic departments and program areas in the following: literature and the humanities, social and behavioral sciences, and mathematics and natural sciences. These departments occupy twelve buildings on the Downtown campus and include programs that lead to master's degrees in twenty fields and doctoral degrees in twelve fields. Many of the faculty have earned distinguished national and international reputations and have been honored for excellence in teaching, research, and service. Their awards not only acknowledge extreme dedication but also accentuate the relationship between the faculty and students. Graduate students often collaborate with faculty on specialized research projects which lead to publications in national and international journals.

Degrees Offered

- Master of Science, Doctor of Philosophy in Biology
- Master of Science, Doctor of Philosophy in Chemistry
- Master of Arts, Doctor of Philosophy in Communication Studies
- Master of Arts in English, Professional Writing and Editing; Master of Fine Arts; Doctor of Philosophy in English
- Master of Arts in Linguistics, Teaching English to Speakers of Other Languages
- Master of Science, Doctor of Philosophy in Forensic Science
- Master of Arts, Doctor of Philosophy in Geography
- Master of Science, Doctor of Philosophy in Geology
- Master of Science in GIS and Spatial Analysis
- Master of Arts in History, Public History; Doctor of Philosophy in History
- Master of Legal Studies
- Master of Science, Doctor of Philosophy in Mathematics
- Master of Science, Doctor of Philosophy in Physics
- Master of Arts, Doctor of Philosophy in Political Science
- Master of Science in Psychology, Behavior Analysis; Doctor of Philosophy in Behavior Analysis, Behavioral Neuroscience, Clinical Psychology, Developmental Psychology
- Master of Public Administration
- Master of Social Work, Doctor of Philosophy in Social Work
- Master of Arts, Doctor of Philosophy in Sociology

The Eberly College of Arts and Sciences offers research or teaching concentrations as follows:

- Biology—ecology and evolutionary biology, forensic biology, genetics and genome biology, and neurobiology and endocrinology
- Chemistry—analytical, biological, inorganic, organic, and physical
- Communication studies—instructional, interpersonal, and organizational
- English—literature
- Geography—human geography, environmental geography, geographic information science
- Geology—energy geology, geophysics, hydrogeology, environmental geology
- History—United States (Appalachia), Europe, Africa, science, and technology
- Mathematics—selected areas of pure, applied, and discrete mathematics, and undergraduate mathematics education
- Physics—condensed matter, applied physics, plasma physics, astrophysics, electro-optics, elementary particle physics, and radio astronomy
- Political science—public policy analysis (domestic and international)
- Psychology—behavior analysis, behavioral neuroscience, clinical psychology, clinical child psychology, and developmental psychology
- Social Work—behavioral health, aging, child welfare, generalist practice and advanced integrated practice
- Sociology—crime, community, and culture

EBERLY COLLEGE GRADUATE NON-DEGREE SEEKING STUDENTS:

Applicants who wish to pursue graduate level work in the Eberly College unrelated to pursuing a degree may apply to be a graduate non-degree student (<http://catalog.wvu.edu/graduate/graduateeducationatwestvirginiauniversity/#applytext>). In addition to meeting the university requirements (http://catalog.wvu.edu/graduate/graduateeducationatwestvirginiauniversity/#Non-Degree_Graduate_Students) for a graduate non-degree student, applicants should submit brief a statement indicating why they would like to enroll in graduate coursework in the Eberly College. Applicants should also demonstrate that they have approval to enroll in specific courses.

ADMINISTRATION

DEAN

- R. Gregory Dunaway - Ph.D. (University of Cincinnati)

ASSOCIATE DEANS

- Lupe Davidson - Ph.D. (Duquesne University)
Associate Dean for Social Justice, Faculty Development and Innovation
- Valérie Lastinger - Ph.D. (University of Georgia)
Associate Dean for Academic Affairs
- Asuntina S. Levelle - J.D. (West Virginia University)
Associate Dean for Financial Planning and Management
- Duncan Lorimer - Ph.D. (University of Manchester)
Associate Dean for Research

ASSISTANT DEANS

- Andrea Bebell - Ph.D. (West Virginia University)
Assistant Dean of Undergraduate Student Services & Programs
- Jessica M. Deshler - Ph.D. (University of New Mexico)
Interim Assistant Dean for Graduate Studies
- John Navaratnam - Ph.D. Biology (West Virginia University)
Assistant Dean for Curriculum and Assessment

Accreditation

The Master of Science in Forensic & Investigative Science within the Eberly College of Arts and Sciences has specialized accreditation through the Forensic Science Education Programs Accreditation Commission of the American Academy of Forensic Science.

The Doctor of Philosophy in Clinical/Clinical Child Psychology within the Eberly College of Arts and Sciences has specialized accreditation from the American Psychological Association. The Doctor of Philosophy in Behavior Analysis Psychology within the Eberly College of Arts and Sciences has specialized accreditation from the Association for Behavior Analysis International.

The Master of Public Administration within the Eberly College of Arts and Sciences has specialized accreditation through the Commission on Peer Review & Accreditation, Network of Schools of Public Policy, Affairs, and Administration (NASPAA).

The Master of Social Work within the Eberly College of Arts and Sciences is accredited by the Council on Social Work Education.

Certificate Programs

- Applied Statistics (<http://catalog.wvu.edu/graduate/eberlycollegeofartsandsciences/statistics/>)
- Community Development Policy and Practice (<http://catalog.wvu.edu/graduate/eberlycollegeofartsandsciences/cdpp/>)
- Cultural Resource Management (<http://catalog.wvu.edu/graduate/eberlycollegeofartsandsciences/culturalresourcemanagement/>)
- Healthcare Administration (<http://catalog.wvu.edu/graduate/eberlycollegeofartsandsciences/healthcareadmindcertificate/>)
- Linguistics (<http://catalog.wvu.edu/graduate/eberlycollegeofartsandsciences/foreignlanguages/linguistics/>)
- Quantitative & Qualitative Social Science Research Methods (http://catalog.wvu.edu/graduate/eberlycollegeofartsandsciences/social_sci_research_meth/)
- Spanish (<http://catalog.wvu.edu/graduate/eberlycollegeofartsandsciences/spanish/>)
- Teaching English to Speakers of Other Languages (<http://catalog.wvu.edu/graduate/eberlycollegeofartsandsciences/foreignlanguages/tesol/tesolcertificate/>)
- Women's and Gender Studies (<http://catalog.wvu.edu/graduate/eberlycollegeofartsandsciences/womensstudies/>)

PHYSICS (PHYS)

PHYS 593. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

PHYS 611. Introduction to Mathematical Physics. 3 Hours.

PR: Calculus, differential equations, PHYS 111 and PHYS 112 or equivalent. Complex variables: series, contour integration and conformal mapping; ordinary differential equations; Fourier series, Laplace transforms; Fourier transforms; special functions; Bessel functions and Legendre, Hermite differential equations; Poisson's equation, wave equation, and Laguerre polynomials; introduction to partial differential equations.

PHYS 631. Advanced Classical Mechanics 1. 3 Hours.

PR:PHYS 331 and PHYS 332 and differential equations. Lagrange and Hamilton form of equations of motion, rigid bodies, small and nonlinear oscillations. Transformation theory, relativistic dynamics, and systems with an infinite number of degrees of freedom.

PHYS 633. Electromagnetism 1. 3 Hours.

PR:PHYS 333 and PHYS 334 and differential equations. Boundary value problems in electrostatics and magnetostatics. Greens functions. Multipole expansions. Dispersion and absorption of electromagnetic waves propagating in matter.

PHYS 634. Electromagnetism 2. 3 Hours.

PR:PHYS 333 and PHYS 334 and differential equations. Propagation of guided waves. Radiation from antennas, small sources, and relativistic particles. Fraunhofer and Fresnel diffraction. Special relativity and the covariant formulation of electromagnetism.

PHYS 651. Quantum Mechanics 1. 3 Hours.

PR:PHYS 451. The Schrodinger equations. One-dimensional problems. Operators and Hilbert space. Three-dimensional problems. Orbital and spin angular momentum. One-electron atoms.

PHYS 652. Quantum Mechanics 2. 3 Hours.

PR: PHYS 651. Time-independent perturbation theory. Angular momentum coupling and Clebsch-Gordan coefficients. Time-dependent perturbation theory. Emission and absorption of radiation by atoms. Scattering theory.

PHYS 671. Introduction to Solid State Physics. 3 Hours.

PR or CONC: PHYS 651. Emergence of solid crystalline structure; emergent quasiparticles and band structures; interaction of solids with electromagnetic fields; phases, such as metals, semiconductors, magnets and superconductors; applications.

PHYS 691. Advanced Topics. 1-6 Hours.

PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

PHYS 693. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

PHYS 697. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.).

PHYS 710. Nonlinear Dynamics. 3 Hours.

PR: PHYS 631. Flows, fixed-point analysis, and bifurcations in 1D, 2D, and 3D using analytical, numerical, and geometrical approaches. Limit cycles, chaos, fractals, strange attractors, iterated maps, and Hamiltonian systems.

PHYS 725. Advanced Atomic and Molecular Physics 1. 3 Hours.

PR:PHYS 651. Review of one-electron atoms leading to approximation schemes for many-electron atoms. Thomas-Fermi theory, Hartree-Fock theory, and central field approximation. LS, JJ, and intermediate coupling of angular momentum. Relativistic effects.

PHYS 761. Statistical Mechanics. 3 Hours.

PR:PHYS 461 and PHYS 651. Ensemble theory, applications to noninteracting systems, as well as perturbative and approximate treatment of interactions. Typical applications include equilibrium constants, polymers, white dwarfs, metals, superfluids, magnetic transitions.

PHYS 771. Advanced Solid State Physics. 3 Hours.

PR: PHYS 671. Universal paradigms revealed in solids state physics; hierarchy of effective theories to determine mechanical, electronic, magnetic and optical properties; non-interacting classical and quantum approaches; interacting quantum many-body approaches.

PHYS 772. Semiconductor Physics. 3 Hours.

PR:PHYS 771. Semiconductor band structure. Intrinsic and extrinsic semiconductors. Hall effect and magneto-transport effects. Fundamentals of nanostructures and quantum structures. Semiconductor device physics.

PHYS 773. Collective Phenomena in Solids. 3 Hours.

PR: PHYS 771. Paramagnetism. Magnetic phenomena in thin films and multilayers. Phase transitions: mean field theories and fluctuations. Superconductivity and BCS theory.

PHYS 774. Optical Properties of Solids. 3 Hours.

PR: PHYS 771. Absorption and dispersion in light propagation. Quantum wells and quantum dots. Solid state laser materials. Nonlinear optics and parametric amplification.

PHYS 781. Principles of Plasma Physics. 3 Hours.

Plasmas occur naturally in electrical discharges and in space and are produced artificially in laboratory devices. This course is a survey of plasma phenomena using fluid and kinetic models.

PHYS 782. Computer Simulation of Plasma. 3 Hours.

PR: (PHYS 481 or PHYS 781) and PHYS 633; programming proficiency in C, FORTRAN, or BASIC. Projects teach mathematical and physical foundations of computer simulation algorithms and develop and refine physical understanding and intuition of phenomena encountered in plasma research.

PHYS 783. Advanced Kinetic Theory of Plasmas. 3 Hours.

PR: PHYS 481 and PHYS 631 and PHYS 634. The Vlasov equation, quasilinear theory, nonlinear phenomena. Plasma waves and instabilities. Landau damping and finite-Larmor-radius effects.

PHYS 784. Advanced Magnetohydrodynamic Theory of Plasmas. 3 Hours.

PR: PHYS 481 and PHYS 631 and PHYS 634. The fluid approximation. Magnetohydrodynamic description of plasma equilibrium and stability. Confinement schemes and plasma waves. Emphasis on analytic theory.

PHYS 790. Teaching Practicum. 1-3 Hours.

PR: Consent. Supervised practice in college teaching of physics. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading will be P/F.).

PHYS 791. Advanced Topics. 1-6 Hours.

PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

PHYS 792. Directed Study. 1-6 Hours.

Directed study, reading, and/or research.

PHYS 793. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field. field.

PHYS 795. Independent Study. 1-9 Hours.

Faculty supervised study of topics not available through regular course offerings.

PHYS 796. Graduate Seminar. 1-3 Hours.

PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

PHYS 797. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.).

PHYS 799. Graduate Colloquium. 1-6 Hours.

PR: Consent. For graduate students not seeking coursework credit but who wish to meet residency requirements, use of the University's facilities, and participate in its academic and cultural programs. Note: Graduate students who are not actively involved in coursework or research are entitled, through enrollment in their department's 699/799 Graduate Colloquium to consult with graduate faculty, participate in both formal and informal academic activities sponsored by their program, and retain all of the rights and privileges of duly enrolled students. Grading is P/F; colloquium credit may not be counted against credit requirements for masters programs. Registration for one credit of 699/799 graduate colloquium satisfies the University requirement of registration in the semester in which graduation occurs.

PHYS 930. Professional Development. 1-6 Hours.

Professional development courses provide skill renewal or enhancement in a professional field or content area (e.g., education, community health, geology.) These tuition-waived continuing education courses are graded on a pass/fail grading scale and do not apply as graduate credit toward a degree program.

POLITICAL SCIENCE (POLS)

POLS 522. Racial & Ethnic Politics. 3 Hours.

This course examines contemporary research on the influence of race and ethnicity on U.S. politics. The focus is on African American politics, and, to a lesser extent, Latino or Hispanic politics; the politics of other racial and ethnic groups are also discussed.

POLS 530. Policy Analysis. 3 Hours.

Overview of the field of political science and the sub-field of public policy studies. Focuses on the issues and problems involved in studying policymaking, and an assessment of policy analysis as a mode of thinking and inquiry. (3 hr. seminar.).

POLS 536. Politics of Agenda Setting. 3 Hours.

Examines the social, economic, institutional and political influences on the development of public problems and their placement on the policy agenda. (3 hr. seminar.).

POLS 550. Comparative Politics. 3 Hours.

Survey of the subfield of Comparative Politics within Political Science. Course includes an introduction to the major methods and theoretical perspectives employed in the field including an overview of rational, structural and cultural perspectives.

POLS 551. Comparative Political Institutions. 3 Hours.

This course covers core debates in the study of comparative political institutions. Students discuss constitutional engineering, parliamentary versus presidential systems, electoral rules, party systems, representation, legislative rules of procedure, federalism, veto points, and other topics.

POLS 555. Comparative Public Policy. 3 Hours.

Comparison of public policy stages in several advanced industrial democracies with emphasis on various explanations of public policy in these countries in different policy areas. (3 hr. seminar.).

POLS 559. Contentious Politics. 3 Hours.

This is a course sub- field of political science, encompassing International Relations, Comparative and American Politics. This course presents a survey of the main concepts, theoretical debates, and methodological approaches in the field.

POLS 560. International Theory and Policy. 3 Hours.

Survey of theoretical approaches in the study of international relations, covering major works in the realist, neo-liberal, and foreign policy literature. Emphasis on the place of foreign policy explanations within the wider, systemic international relations literature. (3 hr. seminar.).

POLS 591. Advanced Topics. 1-6 Hours.

PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

POLS 593. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

POLS 596. Graduate Seminar. 1-3 Hours.

PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her choice.

POLS 600. Introduction to Political Research. 3 Hours.

Introduction to the research methods and techniques used in political and policy analysis. Topics include logic of inquiry, research design, measurement, and survey and unobtrusive research.

POLS 601. Quantitative Political Analysis. 3 Hours.

PR: POLS 600 and STAT 511, or equivalent. Application of a range of statistical techniques in political and public policy research. Includes use of selected computer software commonly used in political science and policy analysis.

POLS 602. Advanced Quantitative Methods. 3 Hours.

PR: POLS 601 or equivalent advanced topics in quantitative methods for political science and policy research. Methods surveyed include multiple linear regression, time-series analysis, causal modeling, and linear programming.

POLS 603. Advanced Quantitative Analysis. 3 Hours.

POLS 603. Advanced Quantitative Analysis. 3 hr. A survey of advanced statistical applications in political science, covering time series analysis, maximum likelihood estimation, and structural equation modeling.

POLS 630. Seminar: American Politics and Policy. 3 Hours.

A survey of classic and contemporary literature on U.S. politics and policy. Emphasis on how various institutions and linkage mechanisms affect the policy process. (3 hr. seminar.).

POLS 638. Seminar: Policy Implementation. 3 Hours.

Research seminar focusing on how the intentions of policy- makers are transformed into programs and policies which have both intended and unintended consequences. Topics include traditional implementation studies, rational choice approaches, neo-institutionalism, and principal-agent theory. (3 hr. seminar.).

POLS 660. International Political Economy. 3 Hours.

Advanced theoretical courses in IPE. Topics include capital financial and trade liberalization, economic development, regionalism, and the intricacies between domestic governments and international economic relations.

POLS 665. Comparative Foreign Policy. 3 Hours.

Application of the comparative method of theoretically assessing the mainly domestic sources of conflict and change in foreign policy beyond the U.S. case and in cross- national and historical perspective.

POLS 666. National Security Policy. 3 Hours.

Overview of security policy issues as both foreign and domestic policy. Traces the development of defense and security, arms transfers, spending tradeoffs, deterrence, game theoretic decision models, intelligence analysis, and terrorism.

POLS 667. Foreign Policy Decision Making. 3 Hours.

This course examines the roots of foreign policy decision making. It examines how ideational, cultural, institutional and political variables constrain decision makers, and how the core psychological characteristics of decision makers shape their behavior.

POLS 670. Professional Seminar in Political Theory. 3 Hours.**POLS 691. Advanced Topics. 1-6 Hours.**

PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

POLS 703. Internship. 6-9 Hours.

per semester; students may enroll more than once. PR: Consent.

POLS 710. Judicial Politics, Policy and Law. 3 Hours.

Judicial influence on American public policy with emphasis on the political theory of American law, the agenda of disputes, the formulation of public policy by courts, and the effects of judicial policy on politics. (3 hr. seminar.).

POLS 712. American Construction and Political Development. 3 Hours.

The development of American political institutions, with emphasis on theoretical underpinnings of American politics and the role of courts and the Constitution in defining the scope of political change in America.

POLS 715. The American Presidency. 1-6 Hours.

This course examines how the president interfaces with other power centers in the political system, and assesses the extent to which this institution is capable of meeting what we have come to expect of it.

POLS 728. Congress. 3 Hours.

Students engage research literature on the U.S. Congress, examining theories of member behavior, the role of political parties, the endogenous creation and reform of congressional institutions, and other areas of research on Congress.

POLS 790. Teaching Practicum. 1-3 Hours.

PR: Consent. Supervised practice in college teaching of political science Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading will be P/F.).

POLS 791. Advanced Topics. 1-6 Hours.

PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

POLS 792. Directed Study. 1-6 Hours.

Directed study, reading, and/or research.

POLS 793. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

POLS 794. Seminar. 1-6 Hours.

Special seminars arranged for advanced graduate students.

POLS 795. Independent Study. 1-9 Hours.

Faculty supervised study of topics not available through regular course offerings.

POLS 796. Graduate Seminar. 1-3 Hours.

PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

POLS 797. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.).

PSYCHOLOGY (PSYC)

PSYC 511. Research Design and Data Analysis 1. 3 Hours.

Principles of experimental research and data analysis, with the goal of building both applied skills (e.g., data analysis and interpretation; excel and SPSS) and conceptual knowledge (e.g., probability, normal distributions, null hypothesis testing, analysis of variance).

PSYC 512. Research Design and Data Analysis 2. 3 Hours.

PR: PSYC 511. Inferential statistics and quasi-experimental design strategies, including correlation and regression, and identification of moderation and indirect effects.

PSYC 531. Experimental Analysis of Behavior. 3 Hours.

Research and theory in the psychology of learning. Assessment of traditional and behavior-analytic approaches to the study of positive reinforcement, aversive control, and stimulus control. Includes laboratory work with animals.

PSYC 532. Human Behavior. 3 Hours.

PR: PSYC 531. Review of the role of basic human operant research in testing the generality of animal-based behavior principles, analyzing phenomena that are specific to humans, and extending behavior analysis to traditional psychological problems.

PSYC 533. Applied Behavior Analysis. 3 Hours.

PR: PSYC 531. Methodological, empirical, and conceptual issues in the application of basic research in behavior analysis to problems of social significance.

PSYC 541. Infant Development. 3 Hours.

Examination of psychological literature on prenatal and infant development. Topics include physical, cognitive, perceptual, language, and socioemotional development.

PSYC 542. Child Development. 3 Hours.

Examination of psychological literature on child development. Topics include perception, learning, language, problem solving, social cognition, peer and family relationships, gender, moral development, friendship, aggression, and altruism.

PSYC 543. Adolescent and Young Adult Development. 3 Hours.

Examination of the psychological literature in adolescence and young adulthood. Topics include learning, problem solving, social cognition, peer and family relationships, gender, moral development, friendship, aggression, and altruism.

PSYC 544. Adult Development and Aging. 3 Hours.

Examination of psychological literature on adulthood and aging. Topics include health, cognition, family relationships, personality, psychopathology, work, and retirement.

PSYC 545. Conceptual Issues in Developmental Psychology. 3 Hours.

History, philosophies, and theories of psychological development in the major age periods and the life span; conceptual issues such as nature-nurture, sex differences, cultural differences, life events, rigidity-plasticity, continuity-discontinuity, and competence-performance.

PSYC 546. Methodological Issues in Developmental Psychology. 3 Hours.

Methodological issues in psychological research on the major age periods and the life span. Topics include: validity; reliability; age, cohort, and time of measurement; cross-sectional, longitudinal, and mixed designs; data analytic methods; ethical issues.

PSYC 593. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

PSYC 601. Professional Issues in Behavior Analysis. 1-3 Hours.

(May be repeated for credit.) Survey of professional issues in behavior analysis.

PSYC 602. Professional Issues in Developmental Psychology. 1-3 Hours.

(May be repeated for credit.) Survey of professional issues in developmental psychology. (Grading may be S/U.).

PSYC 603. Professional Issues in Clinical Psychology. 1-3 Hours.

(May be repeated for credit.) Survey of professional issues in clinical psychology. (Grading may be S/U.).

PSYC 604. Ethical Issues in Psychology. 1-3 Hours.

(May be repeated for credit with consent.) The ethical standards for psychologists as applied to research and clinical problems.

PSYC 605. Legal Issues in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent.) Review of the major areas in which psychologists interact with the civil and criminal legal systems.

PSYC 606. Seminar on Teaching Psychology. 1-3 Hours.

(May be repeated for credit.) Review and discussion of methods and issues in college teaching of psychology.

PSYC 607. Ethical and Legal Issues in Psychology. 3 Hours.

Surveys the ethical guidelines and major legal issues confronted by psychologists.

PSYC 608. Professional Issues - Behavioral Neuroscience. 1 Hour.

Survey of professional issues in behavioral neuroscience.

PSYC 609. Ethics in Behavior Analysis. 3 Hours.

PSYC 609. Ethics in Behavior Analysis. 3-Hr. Surveys the ethical guidelines and standards for behavior analysts.

PSYC 611. Single-Subject Research Methods. 3 Hours.

PR: PSYC 511 and PSYC 531. Critical evaluation of single-subject designs in basic and applied research. Major topics include single-subject methodology's historical and conceptual bases, its relation to group-statistical methods, and its role in behavioral psychology.

PSYC 612. Multivariate Analysis. 3 Hours.

PR: PSYC 511. Data analysis techniques in psychology with application to typical research problems. Includes simple matrix algebra, discriminant analysis, multivariate analysis of variance, and an introduction to factor analysis.

PSYC 614. Program Evaluation and Intervention. 3 Hours.

Examines the nature, method, and process of evaluative research, especially as it applies to social and behavioral treatment and service delivery programs.

PSYC 615. Software Design in Psychology. 3 Hours.

PR: Consent. Practical introduction to software development for behavioral research applications including real-time experimental control and data collection, graphical user interfaces, and data analysis; general algorithmic methods; event-driven models. No programming background required.

PSYC 630. Behavior Analysis Practicum. 3 Hours.

PR: PSYC 533 and consent. Supervised applied behavior analysis experience integrated with a seminar emphasizing group solutions to problems that individuals encounter in students' applied projects. Progress and final project reports are presented and evaluated. (1 hr. sem., 2 hr. practicum.).

PSYC 650. Behavioral Neuroscience Methods. 3 Hours.

An overview of the most common research methods and techniques used in the behavioral neuroscience field.

PSYC 651. Behavior Pathology. 3 Hours.

Advanced study of diagnostic classification, functional analysis, and experimental research in psychopathology of child, adult, and geriatric adjustment problems.

PSYC 652. Clinical Interviewing. 3 Hours.

Clinical interviewing assessment, and interviewing skills acquisition.

PSYC 653. Behavioral and Psychological Assessment 1. 3 Hours.

Conceptual and methodological bases for behavioral assessment; comparison of trait-oriented versus behavioral assessment; design and evaluation of measurement systems, particularly self-report, ratings by others, and direct observation, within the basic framework of generalizability theory.

PSYC 654. Behavioral and Psychological Assessment 2. 4 Hours.

PR: PSYC 653. Evaluation of clinically relevant behavior and environments by means of testing and other methods. Includes test selection, administration, and report writing.

PSYC 655. Research Methods in Clinical Psychology. 3 Hours.

Fundamental knowledge of research methodology in the science of clinical psychology. Acquisition of skills in research design, evidence-based practice of psychology, scholarly review, and scientific writing.

PSYC 656. Grant Writing in Psychology. 3 Hours.

Essential writing skills for securing extramural funding for research programs in the behavioral sciences.

PSYC 660. Clinical Psychology Practicum. 1-15 Hours.

(May be repeated for credit.) PR: Consent. Supervised practice of psychological techniques in clinics or institutional settings; experience in psychological testing, interviewing, report writing, case presentation, interpretation of tests and supportive counseling.

PSYC 661. Behavior Therapy. 3 Hours.

Reviews the roots and development of behavioral interventions. Applied clinical intervention is stressed in concert with evaluation and research application.

PSYC 670. Clinical Child Psychology Practicum. 1-15 Hours.

(May be repeated for credit.) PR: Consent. Supervised field experience in various aspects of delivering psychological services directly or indirectly to children. Experience in assessment, treatment, program design, administration, and evaluation.

PSYC 671. Child Behavior Therapy. 3 Hours.

Assessment, intervention, and evaluation strategies appropriate for childhood disorders and based on behavior principles.

PSYC 693. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

PSYC 694. Seminar. 6 Hours.

Special seminars arranged for advanced graduate students.

PSYC 696. Graduate Seminar. 1-3 Hours.

PR: Consent. Series of meetings that may include research presentations by students, faculty, or visitors; discussions of professional issues or current literature; or other varying topics.

PSYC 698. Thesis or Dissertation. 1-6 Hours.

PR: Consent. This is an optional course for programs that wish to provide formal supervision during the writing of student reports (698), or dissertations (798). Grading is normal.

PSYC 701. Advanced Professional Issues in Psychology. 1-3 Hours.

(May be repeated for credit.) Discussion of professional issues in psychology relevant to advanced doctoral students. (Grading May be S/U.).

PSYC 711. Seminar in Methodology. 1-3 Hours.

(May be repeated for credit with consent.) Current problems and techniques in research design, data analysis, and research methods.

PSYC 712. Advanced Longitudinal Methods and Statistics. 3 Hours.

PR: PSYC 612. Analysis of longitudinal methods, with the goal of building both applied skills (e.g., data analysis and interpretation; Mplus) and conceptual knowledge (e.g., studying change/development, end-point versus mean-level change, person-centered).

PSYC 715. Archival Data Analysis. 3 Hours.

PR: PSYC 612. Using existing data sources to answer specific questions with a focus on finding high-quality-data, manipulation and management of data, and writing an empirical paper.

PSYC 721. History and Systems. 3 Hours.

Study of the history of psychology from its roots in physics, biology, and philosophy. The development of American psychology is emphasized.

PSYC 722. Biological Aspects of Behavior. 3 Hours.

PR: Consent. Overviews of the areas of psychological investigation that pertain to the relation between biology and psychology, including neuroscience, psychobiological theories of personality and development, neurological and neuropsychological assessment, psychophysiology, and biologically-based treatment strategies, including basic psychopharmacology.

PSYC 724. Advanced Neuroscience. 4 Hours.

PR: PSYC 722 with a minimum grade of B-. In-depth exploration of nervous system anatomy and physiological processes, including the biological mechanisms underlying emotion, motivation, memory, and disease.

PSYC 725. Social Psychology. 3 Hours.

Survey of current concepts, research, and findings in social psychology. Includes such topics as self and identity, attribution theory, interpersonal perception, social cognition, attitude change, social influence, interpersonal processes, prosocial behavior, aggression, and prejudice.

PSYC 726. Social Cognition. 3 Hours.

Advanced integrative course that uses both cognitive and social psychological theories and methodologies to understand human behavior. Reviews the major theories of social cognition and how these theories can be used to explain human behavior across many domains. Contemporary and classic research supportive of these theories is reviewed.

PSYC 728. Hormones and Behavior. 3 Hours.

PR: Graduate standing. Explores the complex interactions between the endocrine system, brain, and behavior in a broad range of animals, including people. Special emphasis is placed on reproductive hormones, as well as systems of homeostasis, aggression, and biological rhythms.

PSYC 729. Performance Management. 3 Hours.

PR: PSYC 533 with a minimum grade of B-. Best-practice techniques for performance management, including behavioral approaches to performance management in the context of clinical supervision, personnel management, and consultation.

PSYC 730. Advanced Behavior Analysis Practicum. 1-6 Hours.

PR: PSYC 533 or consent. Supervised applied behavior analysis experience in an approved setting.

PSYC 731. Research Issues in Behavior Analysis. 3 Hours.

(May be repeated for credit with consent.) PR: Consent. Examination of research issues in general psychology from a behavior analytic perspective. Topics vary from year to year.

PSYC 732. Behavior Theory and Philosophy. 3 Hours.

PR: PSYC 531 or equivalent. Critical consideration of contemporary concepts, theories, and methods of psychology.

PSYC 733. Stimulus Control and Memory. 3 Hours.

PR: PSYC 531 or consent. Critical review of basic research and theory in discrimination learning, stimulus generalization, and memory.

PSYC 734. Reinforcement and Punishment. 3 Hours.

PR: PSYC 531. Examination of theories of response acquisition, maintenance, and suppression in the context of recent experimental work with animals and humans.

PSYC 735. Assessment and Intervention for Severe Behavior. 3 Hours.

PR: PSYC 533. Research and clinical practice in functional behavior assessment, including indirect, descriptive assessment, and functional analysis, and behavior-analytic interventions for severe challenging behavior.

PSYC 736. Advanced Experimental Analysis of Behavior. 3 Hours.

(May be repeated for credit with consent.) PR: PSYC 531. Selected topics and research issues in the experimental analysis of behavior.

PSYC 737. Advanced Applied Behavior Analysis. 3 Hours.

(May be repeated for credit with consent.) PR: PSYC 533. Application of research and theory of behavior analysis to social problems; other selected topics.

PSYC 738. Behavior Analysis in Education. 3 Hours.

PR: PSYC 533 with a minimum grade of B-. Behavior-analytic strategies in educational contexts, including problems facing the educational system, curriculum-based measurement, individualized educational assessment, and instructional design.

PSYC 739. Verbal Behavior. 3 Hours.

PR: PSYC 531 or consent. Examination of current empirical and theoretical issues related to the functional analysis of verbal behavior.

PSYC 740. Practicum in Developmental Psychology. 1-6 Hours.

PR: Consent. Provides experience in a wide range of applied settings. Sites are chosen to accommodate exposure to the entire life-span from infancy through old age. Supervising responsibilities are determined by the instructor-in-charge in the agency.

PSYC 745. Seminar in Life-Span Development. 3 Hours.

(May be repeated for credit with consent.) Current issues in life-span development or selected periods of the life span.

PSYC 750. Clinical Internship. 1-15 Hours.

Intensive training in clinical assessment, diagnosis, consultation, and/or treatment skills that occur during an internship placement, typically at an off-campus training site.

PSYC 752. Family and Marital Therapy. 3 Hours.

Examines both theoretical and practical aspects of the assessment and treatment of family and marital difficulties.

PSYC 754. Clinical Psychopharmacology. 3 Hours.

Survey of the ways in which psychotropic drugs are used to treat behavioral and psychological disorders.

PSYC 755. Seminar in Clinical Supervision. 1 Hour.

(May be repeated for credit with consent.) Theoretical foundations and empirical research pertaining to clinical supervision, coupled with experiential training in conducting clinical supervision in applied settings.

PSYC 762. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent.) Research and problems in clinical psychology.

PSYC 762A. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762B. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent.) Research and problems in clinical psychology.

PSYC 762C. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762D. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent.) Research and problems in clinical psychology.

PSYC 762E. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent.) Research and problems in clinical psychology.

PSYC 762F. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent.) Research and problems in clinical psychology.

PSYC 762G. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent.) Research and problems in clinical psychology.

PSYC 762H. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent.) Research and problems in clinical psychology.

PSYC 762I. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762J. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762K. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762L. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762M. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762N. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762O. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762P. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762Q. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762R. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762S. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762T. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762U. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762V. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762W. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762X. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762Y. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 762Z. Seminar in Clinical Psychology. 1-3 Hours.

(May be repeated for credit with consent) Research and problems in clinical psychology.

PSYC 772. Seminar in Clinical Child Psychology. 1-3 Hours.

(May be repeated for credit with consent.) Current issues and research related to a particular area of clinical psychology involving children.

PSYC 780. Advanced Integrative Seminar. 3 Hours.

Examination of the integration of two of the following areas of knowledge in scientific psychology: affective, biological, cognitive, developmental, or social aspects of behavior. (May be repeated for credit with consent.).

PSYC 790. Teaching Practicum. 1-3 Hours.

PR: Consent. Supervised practice in college teaching of psychology. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading may be P/F.).

PSYC 792. Directed Study. 1-6 Hours.

Directed study, reading, and/or research.

PSYC 793. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

PSYC 795. Independent Study. 1-9 Hours.

Faculty supervised study of topics not available through regular course offerings.

PSYC 797. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading will be S/U.).

PUBLIC ADMINISTRATION (PUBA)**PUBA 595. Independent Study. 1-9 Hours.**

Faculty supervised study of topics not available through regular course offerings.

PUBA 600. Democratic Context of Public Administration. 3 Hours.

Orientation to the field of public administration and its role in democratic governance in the United States. Review of the historical, philosophical, Constitutional, and intellectual foundations of administrative theory and public service values, with application to current trends and issues.

PUBA 610. Public and Nonprofit Management. 3 Hours.

Introduction to public and nonprofit management, including assessing organizational contexts, structures, and systems. Explores diverse strategies for managing programs, projects, people, and resources in public service organizations.

PUBA 620. Public and Nonprofit Financial Management. 3 Hours.

Graduate level introduction to the principles, practices, participants, and policies involved in public and nonprofit financial management, including fiscal resource management, financial reporting, and performance analysis.

PUBA 630. Public Service Research. 3 Hours.

Foundations and processes of applied research to inform public and nonprofit organizations, with an emphasis on research design, data collection and analysis, and presentation of findings and recommendations.

PUBA 645. Public Policy and Administration. 3 Hours.

Examines the administrative role throughout the democratic public policy process, focusing on ethical implications and associated technical skills.

PUBA 646. Public Policy Advocacy. 3 Hours.

This course examines the roles that advocacy plays in shaping public policy. Readings, class discussions, and applied project with stakeholders will connect the theoretical underpinnings of public policy advocacy to the public and private practices that can be used to mobilize policy change and legislative action.

PUBA 650. Local Governance. 3 Hours.

Introduction to the institutions and processes of local governance. Institutions include: government structures (county, municipal, special districts), volunteer boards and commissions, and various types of community-based organizations.

PUBA 651. Social Equity in Public Service. 3 Hours.

Explores the meaning, contributing factors, and challenges associated with social equity in public service organizations, processes, and outcomes. Examines application to different socioeconomic contexts.

PUBA 655. Public Engagement. 3 Hours.

Explores theories of community engagement. Develops skills in techniques for engaging citizens and other stakeholders in collaborative local governance and community building efforts.

PUBA 670. Health Systems. 3 Hours.

Graduate-level introduction to the development, structure, and current issues in the healthcare in the United States including health promotion, disease prevention, epidemiology, delivery and utilization of health services, financing, policy, regulation, and ethical concerns.

PUBA 671. Healthcare Organization and Operation. 3 Hours.

PR: PUBA 670 or PR or CONC:CHPR 635. Examines the organization and management of health-care settings including system influences, leadership, communication, organization behavior, team development, organization design, evaluation, productivity, performance improvement.

PUBA 672. Healthcare Finance. 3 Hours.

PR or CONC: PUBA 670 or CHPR 635. Examines financing of health-care, financial management concepts, insurance mechanisms, reimbursement, cost accounting, budgeting, and staffing for healthcare organizations, including integrated networks and managed care. The course focuses on concepts needed by first line and mid-level managers.

PUBA 691. Advanced Topics. 1-6 Hours.

Investigation of advanced topics not covered in regularly scheduled courses.

PUBA 693. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

PUBA 697. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.).

PUBA 700. Capstone Seminar. 3 Hours.

PR: All PUBA 600 level and PUBA 751 or concurrent. Links MPA academic preparation to professional career through analysis of practice settings, professional literature, and internship/professional experience of student; integrates coursework, practice themes, competencies, and ethics.

PUBA 710. Public Service Leadership. 3 Hours.

Prepares students to exercise leadership in public and nonprofit organizations in response to changing social, economic, and environmental challenges. Examines various approaches to leadership and innovation, including strategic, communicative, and reflective practice.

PUBA 712. Administrative Ethics. 3 Hours.

Exploration of the foundations of ethical principles and practices in the public and nonprofit sectors. Application of principles through analysis of ethical dilemmas in serving the public.

PUBA 715. Organizational Development and Change Management. 3 Hours.

Examines organization development and change management applied to public agencies. Explores basic organization development skills, and techniques for effective change management.

PUBA 720. Public and Nonprofit Budgeting. 3 Hours.

PR: PUBA 620. Graduate level study of public budgeting principles and political processes in government and nonprofit organizations. Emphasis is placed on understanding revenue sources and tax structures, while developing the skills to craft, analyze, and revise budgets and performance measures.

PUBA 730. Advanced Public Service Research. 3 Hours.

PR: Consent. Methodological foundations, methods, and research design for public policy analysis and evaluation or program assessment and evaluation.

PUBA 741. Human Resources Systems. 3 Hours.

PR: Consent. Examines competing values, systems, processes, and methods for managing human resources in government and non-profit organizations; including merit, patronage, professional, collective bargaining, and entrepreneurial models.

PUBA 750. Public Planning. 3 Hours.

Examine the substantive range of public planning arenas. Principles and practices of organizational, program, project, or physical planning with consideration of the political and economic context.

PUBA 751. Public Service Internship. 1-6 Hours.

PR: Consent. A working internship in a government or public service related agency, designed to provide students with an opportunity to gain field experience, and to relate knowledge gained through course work situation. (Grading will be S/U.).

PUBA 755. Sustainable Community Development. 3 Hours.

PR: PUBA 750. Explores the theory, principles, and ethics of economic, environmental, and social sustainability as applied to community and economic development activities, with a focus on project and program implementation.

PUBA 780. Healthcare Administration Practicum. 3 Hours.

Students will develop and execute a field experience or scholarly research project that applies and integrates knowledge gained during healthcare administration course work into a functional capstone experience.

PUBA 790. Teaching Practicum. 1-3 Hours.

PR: Consent. Supervised practice in college teaching of public administration. NOTE: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It also provides a mechanism for student not on assistantships to gain teaching experience.

PUBA 791. Advanced Topics. 1-6 Hours.

PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

PUBA 792. Directed Study. 1-6 Hours.

Directed study, reading and/or research.

PUBA 793. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

PUBA 795. Independent Study. 1-9 Hours.

Faculty supervised study of topics not available through regular course offerings.

PUBA 796. Graduate Seminar. 1-3 Hours.

PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

PUBA 797. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.).

RELIGIOUS STUDIES (RELG)**RELG 590. Teaching Practicum. 1-3 Hours.**

PR: Consent. Supervised practice in college teaching of religion. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading will be S/U.).

RELG 591. Advanced Topics. 1-6 Hours.

PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

RELG 592. Directed Study. 1-6 Hours.

Directed study, reading, and/or research.

RELG 593. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

RELG 594. Seminar. 1-6 Hours.

Special seminars arranged for advanced graduate students.

RELG 595. Independent Study. 1-9 Hours.

Faculty supervised study of topics not available through regular course offerings.

RELG 697. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.).

RELG 698. Thesis or Dissertation. 1-6 Hours.

PR: Consent. This is an optional course for programs that wish to provide formal supervision during the writing of student reports (698), or dissertations (798). Grading is normal.

RELG 699. Graduate Colloquium. 1-6 Hours.

PR: Consent. For graduate students not seeking coursework credit but wish to meet residency requirements, use of the University's facilities, and participate in its academic and cultural programs. Note: Graduate students who are not actively involved in coursework or research are entitled, through enrollment in their department's 699/799 Graduate Colloquium to consult with graduate faculty, participate in both formal and informal academic activities sponsored by their program, and retain all of the rights and privileges of duly enrolled students. Grading is S/U; colloquium credit may not be counted against credit requirements for masters programs. Registration for one credit of 699/799 graduate colloquium satisfies the University requirement of registration in the semester in which graduation occurs.

SOCIAL WORK (SOWK)**SOWK 513. Research Methods. 3 Hours.**

PR: Graduate standing in SOWK. Introduction to social work research methods, with the unifying theme of the importance of evidence-based practice. Content prepares students to develop, use, and communicate empirically based knowledge effectively. Research knowledge is used to provide high-quality services; initiate change to improve practice, policy and social service delivery; and evaluate practice at all levels.

SOWK 520. Human Behavior in the Social Environment. 3 Hours.

PR: Graduate standing in SOWK. Theories underlying human behavior within the social environment, including human development as well as behavior within families, groups, organizations, and communities. Special attention is given to issues of human diversity and the challenges and opportunities offered by rural environments.

SOWK 530. Professional Identity and Social Justice. 3 Hours.

PR: Graduate standing in SOWK. Provides the basic framework for generalist social work practice, theory, and professional values. Examines social work practice from an empowerment, human rights and social justice perspective. Addresses contemporary issues in social work reflecting the unique needs of diverse populations, settings and social conditions.

SOWK 531. Social Welfare Policy and Programs. 3 Hours.

PR: Graduate standing in SOWK. Development of foundational understanding and appraisal of social welfare policies and programs in the United States, and of the historical and contemporary forces that shaped their development. Introduces conceptual approaches to policy analysis and assesses selected social policies, programs regarding income maintenance, health care and social services with emphasis on impact in rural areas.

SOWK 540. Generalist Practice 1: Individuals, Families, and Groups. 3 Hours.

PR: Graduate standing in SOWK. Development of a generalist framework for social work practice at the micro and mezzo levels. Reinforcement of engagement, assessment, and intervention skills with attention to strengths-based perspective and multi-culturally competent social work practice. Focus on developing theoretical knowledge as well as practicing and applying specific techniques necessary for generalist social work practice.

SOWK 541. Generalist Practice 2: Rural Community Macro Practice. 3 Hours.

PR: Graduate standing in SOWK. Students learn to identify and understand social problems in rural communities. Development of knowledge and skills in community and organizational practice to assist rural communities effectively, to enhance their empowerment through acquisition and mobilization of resources.

SOWK 581. Generalist Field Experience. 3-6 Hours.

PR or CONC: SOWK 530 and SOWK 540 and graduate standing in Social Work. Community-based generalist field placement and an integrative seminar. Students learn to apply generalist engagement, assessment, intervention, and evaluation skills. Students also acquire an understanding of responding to social and human problems within the context of social work values and ethics, social justice, and affirmation of the human rights of diverse groups of people.

SOWK 593. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

SOWK 616. Evaluation Research in Social Work. 3 Hours.

PR or CONC: SOWK 682 and graduate standing in Social Work. Prepares students to evaluate social work practice and health and human services programs. Students learn to design an evaluation study, collecting qualitative and quantitative data, and to report and interpret results while adhering to ethical research standards.

SOWK 626. Child Mental Health: Promotion, Prevention, and Treatment. 3 Hours.

PR: Graduate standing in SOWK. Examines the structure of the United States' public mental health system for children and related policy issues. Analysis of mental-health construct across a prevention-treatment continuum. Students learn to distinguish universal, selected, and indicated prevention from treatment. Risk and protective factors, evidence-based prevention and treatment interventions are evaluated throughout the course.

SOWK 627. Clinical Practice in Integrated Healthcare. 3 Hours.

PR: Graduate standing in SOWK. Prepares students to address challenges of integrating services for persons with health, mental health and substance use problems. Addresses language and culture of health, theories and models for integrated health care. Examines role of behavioral health providers in primary care settings. Examines multidisciplinary team practice and best practices for assessment and intervention.

SOWK 633. Social Policy Analysis, Advocacy, and Deliberation. 3 Hours.

PR: Graduate standing in SOWK and students must have completed SOWK 531 or have Advanced Standing status. Focus is on contribution of social work and social welfare to the human condition and communities. Analyzes ideologies and values, and their impact on policy and social work practice. Students analyze social problems and issues, and reach conclusions about strategies to empower clients.

SOWK 643. Assessment and Diagnosis. 3 Hours.

PR: Graduate standing in SOWK and students must have completed all 500-level courses in the MSW degree plan or have Advanced Standing status. Analyzes mental illness assessment and diagnosis from a social work perspective. Examines the impact of major mental illnesses on diverse client populations across the life cycle and multi-level systems. Assessment, diagnostic, and intervention strategies are provided for advancing social work methods of assessment and diagnosis within integrated practice settings.

SOWK 649. Practice with Individuals. 3 Hours.

PR: Graduate standing in SOWK and students must have completed all 500-level courses in the MSW degree plan or have Advanced Standing status. Focus on social work theories and methods consistent with integrated practice with individuals. Emphasis on evidence-based theories and methods relevant to integrated practice in contemporary settings. Advanced integrated practice addressed within a context of professional social work values and ethics, social justice, and affirmation of the human rights of diverse groups of people.

SOWK 650. Practice with Families and Groups. 3 Hours.

PR: Graduate standing in SOWK and students must have completed all 500-level courses in the MSW degree plan or have Advanced Standing status. Exploration of advanced integrated social work practice with families and groups. Emphasis on group work and family intervention relevant to integrated practice in contemporary settings, the context of professional social work values and ethics, social justice, and affirmation of the human rights of diverse groups of people.

SOWK 654. Organizational Administration and Leadership. 3 Hours.

PR: Graduate standing in SOWK and students must have completed all 500-level courses in the MSW degree plan or have Advanced Standing status. Examination of concepts, principles, and skills of social agency and program administration from an integrated practice perspective. Includes programming, budgeting, staffing, organization, and management of social agencies and programs. Addresses relationships with constituents and other human service organizations and systems within a context of professional social work values and ethics, social justice, and human rights.

SOWK 656. Financial Management and Grant Writing. 3 Hours.

PR: Graduate standing in SOWK. Focus is on financial management and grant development in social service settings from an integrated practice perspective. Topics include accountability, budgeting, cost measurement, grant writing, and nonprofit management within the context of professional social work values and ethics, social justice, and affirmation of the human rights of diverse groups of people.

SOWK 675. Addiction and Social Work Practice. 3 Hours.

PR: Graduate standing in SOWK. Examination of theoretical and neuro-biological perspectives on addiction from an integrated practice perspective. Study of evidence-based intervention strategies used for engagement, assessment, and treatment of individuals who have substance use disorders. Discussion of impact of substance-use disorders and addiction on families and society. Review of substance use-related social policies.

SOWK 680. Child Welfare Continuum. 3 Hours.

PR: Graduate standing in SOWK. Theories and methods of integrated practice related to child welfare, including child welfare policy and services, family preservation/home-based services, adoption, foster, and residential care. Also includes community-based practices and intervention in the context of professional social work values and ethics, social justice and affirmation of human rights.

SOWK 682. Advanced Field Experience. 3-5 Hours.

PR: Graduate standing in SOWK and students must have successfully completed SOWK 582 or have Advanced Standing status and students are expected to take all sections of SOWK 682 in sequence as denoted on their degree plans. Community-based advanced field placement and integrative seminar. Students learn to apply advanced integrated practice skills. They engage with interdisciplinary teams to address social and human problems within a context of social work values and ethics, social justice, and affirmation of the human rights of diverse groups of people.

SOWK 690. Teaching Practicum. 1-3 Hours.

PR: Consent. Supervised practice in college teaching.

SOWK 692. Directed Study. 1-6 Hours.

Directed study, reading, and/or research.

SOWK 693. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

SOWK 694. Seminar. 1-6 Hours.

Special seminars arranged for advanced graduate students.

SOWK 695. Independent Study. 1-9 Hours.

Faculty supervised study of topics not available through regular course offerings.

SOWK 696. Graduate Seminar. 1-3 Hours.

PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

SOWK 697. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.).

SOWK 698. Thesis or Dissertation. 1-6 Hours.

PR: Consent. This is an optional course for programs that wish to provide formal supervision during the writing of student reports (698), or dissertations (798). Grading is normal.

SOWK 699. Graduate Colloquium. 1-6 Hours.

PR: Consent. For graduate students not seeking coursework credit but who wish to meet residency requirements, use of the University's facilities, and participate in its academic and cultural programs. Note: Graduate students who are not actively involved in coursework or research are entitled, through enrollment in their department's 699/799 Graduate Colloquium to consult with graduate faculty, participate in both formal and informal academic activities sponsored by their program, and retain all of the rights and privileges of duly enrolled students. Grading is P/F; colloquium credit may not be counted against credit requirements for masters programs. Registration for one credit of 699/799 graduate colloquium satisfies the University requirement of registration in the semester in which graduation occurs.

SOWK 731. Philosophy and Theories of Social Sciences. 3 Hours.

PR: PhD student in Social Work or instructor permission. This course provides an overview of the history and evolution of social science philosophy and theories. This overview serves as a contextual base to examine the history and development of the social work profession and underlying foundation of contemporary social work practice.

SOWK 732. Advanced Social Work Practice Theories. 3 Hours.

PR: PhD student in Social Work or instructor permission. This course expands on content covered in Philosophy and Theories of Social Sciences by focusing on classic and contemporary social work practice theories. Students will examine key theories in their area of research interest and begin the development of a theoretical foundation for their own work.

SOWK 735. Advanced Social Work Research Methods. 3 Hours.

PR: PhD student in Social Work or instructor permission. This course provides essential skills for independent research. Students learn advanced skills related to hypothesis formulation, operationalization of variables and measurement, issues of validity and reliability, data collection methods, sampling, and quantitative research designs. Students apply research concepts to their own substantive interest area. Examination of research methods is grounded in the context of social work values and ethics.

SOWK 736. Community Focused Research. 3 Hours.

PR: PhD student in Social Work or instructor permission. This course expands on topics taught in Advanced Social Work Research Methods and examines qualitative, mixed methods, and program evaluation research designs commonly utilized in community focused research. The challenges and strategies of data collection and analysis across designs are addressed, with particular focus on ethics and community engagement strategies.

SOWK 741. Statistics & Data Analysis 1. 3 Hours.

PR: PhD student in Social Work or instructor permission. This course begins a two-semester sequence in statistics. This first course provides an introduction to the fundamentals of quantitative reasoning, probabilistic analysis, and statistical inference as applied in social science research. Students will develop a conceptual framework for approaching quantitative problems and build a strong foundation for understanding increasingly complex methods and applications in the second semester.

SOWK 742. Statistics & Data Analysis 2. 3 Hours.

PR: PhD student in Social Work or instructor permission and preceded by Statistics & Data Analysis 1 or instructor permission. This course is the second in the statistics and data analysis sequence. The course focuses on regression topics and other methods based on the linear model. There will be a special emphasis on issues that arise in data analysis, model building, and interpretation of empirical results. Advanced techniques on specific topical areas will be discussed.

SOWK 750. Advanced Social Policy and Programs. 3 Hours.

PR: PhD student in Social Work or instructor permission. This course assists students in developing an advanced understanding of social policy and programs and provides opportunity to analyze policies at all levels as related to their research area of focus. Special emphasis is placed on issues related to organizational leadership and implementation science in health and human service organizations.

SOWK 761. Research Practicum 1. 3 Hours.

PR: PhD student in Social Work or instructor permission. This course prepares students for the initial stages of independent research with a focus on problem definition, hypothesis formulation, literature review, and application of theoretical perspectives appropriate to the research question. Content related to external funding and grant pathways related to students' areas of research are also addressed.

SOWK 762. Research Practicum 2. 3 Hours.

PR: PhD student in Social Work or instructor permission and preceded by Research Practicum 1 or instructor permission. This course prepares students for independent research with a focus on design and measurement. Students develop an advanced conceptual understanding of skills used in research design and measurement, with emphasis on community focused research. The Institutional Review Board (IRB) review process as it applies to students' substantive areas is also addressed.

SOWK 770. Issues in Social Work Education. 3 Hours.

PR: PhD student in Social Work or instructor permission. This course examines the history and current philosophy of social work education within the context of higher education. Topics include higher education as a setting for social work education programs, career advancement in the academy, significant developments in the evolution of social work education, accreditation and curricula design, and current issues in social work education.

SOWK 780. Integrative Research Seminar. 3 Hours.

PR: PhD student in Social Work or instructor permission and preceded by all other PhD coursework in Social Work or instructor permission. This seminar provides students with faculty and peer feedback in the development of their comprehensive exam in the form of a dissertation proposal. Emphasis is placed on conceptual and methodological congruency of the proposed research. A plan for manuscript writing based on the 3-article dissertation format is developed. Professional development as an academic researcher and/or organizational leader is also addressed.

SOCIOLOGY (SOC)

SOC 522. Contemporary Sociological Theory. 3 Hours.

Review of recent trends and orientations in sociology. Theory construction, topologies, models, and the relationship between theory and research. Review of current literature.

SOC 600. Becoming a Sociologist. 1 Hour.

The purpose of this seminar is to socialize students into the discipline and profession of sociology. Training to become a professional sociologist includes learning information on (a) policies and procedures, (b) the importance and means of presentation of self, and (c) information on research, teaching and service. Students are required to take this course during their first semester.

SOC 601. Professional Research/Writing. 1 Hour.

PR: SOC 600. Focused on the successful completion of independent research. Topics include understanding how to write a scholarly journal article, providing critical feedback on others' scholarly work, time management skills for successful completion of a research project, and identifying appropriate journals for submission of manuscripts.

SOC 610. Advanced General Sociology. 3 Hours.

Introduces students to five main areas of Sociology—principles of sociology, individuals and groups, inequality, institutions, and change, while also introducing them to the three areas of emphasis in the Sociology program—crime, community, and culture. Students will be able to determine their area of research focus and be further exposed to faculty research within a particular content area.

SOC 615. Sociological Data Analysis and Interpretation 1. 3 Hours.

Univariate, bivariate, and multivariate analyses of social science data. Topics include descriptive statistics, elementary statistical inference, and linear regression. The use of statistical software to conduct data analysis is also explored.

SOC 616. Sociological Data Analysis and Interpretation 2. 3 Hours.

PR: SOC 615. Advanced regression-based analysis of social science data. Topics include nonlinear regression, mediation and path analysis, methods for analyzing panel data, and techniques for examining categorical dependent variables. The use of statistical software is also explored.

SOC 620. Sociological Research Methods. 3 Hours.

Focuses on the logic of framing and designing social research: Philosophical foundations, connections between theory and methods, narrowing research questions, and making design and data collection decisions. Emphasis on reading and critiquing published studies.

SOC 630. Classical Social Thought. 3 Hours.

This course introduces students to the general concepts, principles, and perspectives used in the study of social reality, with an emphasis on the highly influential works that were important in founding the field of sociology.

SOC 632. Introduction to Qualitative Data Analysis Software. 3 Hours.

This course examines the basic functions of computer assisted qualitative data analysis software and shows how it can be used to analyze a variety of types of qualitative data. Topics covered include how to open, import, and manage qualitative data, how to code/recode the data, summarize and report it, and perform a wide variety of procedures.

SOC 640. Quantitative Analysis Using Stata. 3 Hours.

Interpretation and application of social scientific quantitative data analysis concepts and techniques using Stata. Examination of the basic functions of Stata and shows how it can be used to analyze quantitative datasets. Topics covered include descriptive and inferential statistics, how to manage datasets in Stata, and how to perform a wide variety of statistical procedures using Stata.

SOC 689. Field Work. 1-6 Hours.

PR: Departmental consent. Supervised field work.

SOC 693. Special Topics. 1-6 Hours.

PR: Consent. Study of advanced topics that are not covered in regularly scheduled courses.

SOC 695. Independent Study. 1-9 Hours.

Faculty supervised study of topics not available through regular course offerings.

SOC 697. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper, scholarly project, or a dissertation. Grading is S/U.

SOC 698. Thesis. 1-6 Hours.

PR: Consent. This is an optional course for programs that wish to provide formal supervision during the writing of student reports (698), or dissertations (798). Grading is normal.

SOC 700. Navigating the Job Market. 1 Hour.

This course is designed to help students successfully navigate the job market. There are four main topic areas covered in this course. These include 1) getting started, 2) the interview process, 3) getting the job, and 4) surviving the first year as a faculty member. Students will take this class in the same semester they defend their dissertation proposal.

SOC 710. Teaching Sociology. 3 Hours.

Students will engage in the literature on teaching and learning, exploring the major issues involved in teaching sociology at the university level. Each student will work with an instructor in the activities that constitute the teaching enterprise in an "apprenticeship" role for the semester. Students are expected to develop a course plan by the end of the semester.

SOC 711. Writing in Quantitative Methods. 3 Hours.

PR: SOC 615 and SOC 616. This course provides students with the resources to write a polished quantitative paper that is suitable for submission to a peer-reviewed journal. The students will revise the paper they have completed as part of the requirements for SOCA 615/616, a research paper from a substantive course, or a paper that is part of a research or grant project.

SOC 715. Advanced Statistical Methods for Sociology. 3 Hours.

PR: SOC 615 and SOC 616. Course covers statistical methods beyond basic descriptive and inferential analysis. Topics may include categorical analysis, structural equation modeling and/or hierarchical linear models. The use of statistical software is also discussed.

SOC 720. Sociological Survey Methods. 3 Hours.

Provides students with tools to evaluate and design survey research projects critically in sociology. Key topics include relationships among sampling, questionnaire construction, and mode choice. Course designed around types of error in surveys and ways to minimize.

SOC 721. Qualitative Methods. 3 Hours.

Provides students with tools to evaluate and design qualitative research projects critically. Focuses on philosophical foundations and researcher/subject roles, considerations associated with data collection, and data analysis methods.

SOC 722. Mixed Methodology for the Social Sciences. 3 Hours.

Focus is on designing and conducting a mixed methods research study including how to identify appropriate research questions and answering them by combining quantitative and qualitative methods approaches.

SOC 724. Structural Equation Modeling for the Social Sciences. 3 Hours.

PR: SOC 640. Focus on how to specify, estimate, and test structural equation models. Topics include path analysis, confirmatory factor analysis and linear models with latent variables. Emphasizes applications to substantive problems in the social sciences.

SOC 725. Introduction to Evaluation Research Methods. 3 Hours.

PR: SOC 620. This course serves as an introduction to evaluation methodology and to the evaluation tools commonly used to assess effectiveness of a wide variety of programs and policies.

SOC 726. Ethnographic Investigation. 3 Hours.

Training in theories and practical application of ethnographic methods. Focus is on understanding the types of questions best answered by ethnographic investigations, why such methods are appropriate, and hands-on training in various styles of ethnography. Students will perform original ethnographic research using the concepts and tools gained.

SOC 727. Demographic Research Methods. 3 Hours.

PR: SOC 620. This course will comprise an overview of demographic data and methods commonly used by professionals in public health practice and research. The course is a graduate level seminar.

SOC 728. Content Analysis. 3 Hours.

Advanced introduction to the analysis of textual content for social insight; surveys classic approaches and recent advances in quantitative and qualitative content analysis; students design and execute projects that analyze textual data for social inference.

SOC 729. Experimental Design and Analysis for Sociology. 3 Hours.

PR: SOC 615 and SOC 616. How to design, carry out, and analyze experiments. Various designs are discussed and their respective differences, advantages, and disadvantages are noted. The use of statistical software to conduct analysis is also explored.

SOC 730. Sociological Explanation. 3 Hours.

Addresses the development and application of sociological theory to empirical research questions. Includes the logic of theory, strategies and steps in constructing theories, and strengths and limitations of theories.

SOC 740. Theories of Crime and Deviance. 3 Hours.

PR: SOC 610. Graduate-level foundation of theory and new empirical research in sociological criminology. Focus is definitive statements from important theoretical traditions and critical empirical tests of these theories. Critiques of the theories or the research generated by them and attempts to translate theories into policy and action.

SOC 750. Systemic Inequalities. 3 Hours.

Examines inequalities that are built into societies' legal, social, and economic structures, with an emphasis on intersecting processes and experiences of inequality. Focuses on analysis of classical and contemporary theories and research and applications to contemporary debates about inequality. These center on a variety of social spheres such as education, housing, labor markets, and the criminal justice system.

SOC 760. Space, Place, and Community. 3 Hours.

PR: SOC 610. Sociological based ideas about space, place and community, discussing the theoretical contributions in these areas, assessing the methodological contributions to the discipline and linking them all to sub-areas within community, including urban, rural, medical and environmental sociology.

SOC 770. Sociology of Religion. 3 Hours.

This course examines factors that lead to conversion, apostasy, and religious commitment and explores what makes certain religious traditions more effective at gaining and retaining members. Focuses on analysis of classical and contemporary sociological theories of religion that provide a framework for understanding past, present, and future religious phenomena, including the role of religion in society.

SOC 780. Individual and Society. 3 Hours.

PR: SOC 610. Examines micro and macro-linkages and uncovers relationships between society and the perceptions, beliefs, and behaviors of individuals.

SOC 790. Teaching Practicum. 1-3 Hours.

PR: Consent. Supervised practice in college teaching of sociology.

SOC 793. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

SOC 795. Independent Study. 1-9 Hours.

Faculty supervised study of topics not available through regular course offerings.

SOC 797. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading will be S/U.).

SOC 798. Dissertation. 1-6 Hours.

PR: Consent. This is an optional course for programs that wish to provide formal supervision during the writing of student reports (698), or dissertations (798). Grading is normal.

SPANISH (SPAN)

SPAN 521. Dialectology and Sociolinguistics. 3 Hours.

This course covers the variation of the Spanish language from geographical and social perspectives. Students will learn about variation at multiple levels of the grammar including its phonology, morphology, lexicon and syntax. The first part of the course will concentrate on the diatopic variation while the second part will look at the role of external forces and socially induced changes.

SPAN 590. Teaching Practicum. 1-3 Hours.

PR: Consent. Supervised practice in college teaching of Spanish. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading will be P/F.).

SPAN 591. Advanced Topics. 1-6 Hours.

PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

SPAN 592. Directed Study. 1-6 Hours.

Directed study, reading, and/or research.

SPAN 593. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

SPAN 594. Seminar. 1-6 Hours.

Special seminars arranged for advanced graduate students.

SPAN 595. Independent Study. 1-9 Hours.

Faculty supervised study of topics not available through regular course offerings.

SPAN 610. Methods of Research. 3 Hours.

Fundamentals of literary and cultural research, writing and publishing, both in form and content. Topics include: selection and definition of a corpus of study; formulation and articulation of a research hypothesis; research and evaluation of secondary sources; formats for literary/cultural research projects; online research engines; alternative secondary sources; professional conference presentations; and academic article submissions.

SPAN 611. Literary Criticism. 3 Hours.

Introduction to the main tendencies of contemporary literary theory as applied to Spanish literature; literary theory and practice. Review and evaluation of the main critical approaches from a practical standpoint.

SPAN 630. Latin American Culture. 3 Hours.

A study of history, culture, politics, economics, and development of the Latin American continent.

SPAN 631. Latin American Short Story. 3 Hours.**SPAN 633. Latin American Novel Since 1960. 3 Hours.****SPAN 637. Early Spanish-American Literature. 3 Hours.**

In depth readings in Spanish-American literature of the colonial period in their historical context.

SPAN 638. Mexican Literature. 3 Hours.

In-depth readings of literary works from Mexico.

SPAN 639. Gaucho Culture and Literature. 3 Hours.

In-depth study of the culture and literature of the Gaucho in the historical and political context of Argentina and Uruguay. Taught in Spanish.

SPAN 640. 19th Century Latin American Literature. 3 Hours.

In-depth study of the main literary works and movements in Latin America from Neoclassicism to Modernism. Taught in Spanish.

SPAN 641. 20th- and 21st-Century Latin American Literature. 3 Hours.

In-depth study of the main literary works and movements in Latin America from early 20th century to the present. Taught in Spanish.

SPAN 643. Contemporary Spanish Literature. 3 Hours.

Introduction to the major tendencies, authors, and works of Spanish Peninsular Literature from the late 19th Century to nowadays; presentation and analysis of the main literary movements of the period.

SPAN 651. Medieval and Golden Age. 3 Hours.

In-depth reading in Spanish literature of the Middle Ages Renaissance, and Baroque periods, in narrative, drama, and poetry, within its historical context. Non-canonical works will also be included and studied.

SPAN 652. Cervantes. 3 Hours.

PR: 24 hours of Spanish or consent.

SPAN 653. Eighteenth and Nineteenth Century Literature. 3 Hours.

Introduction to the major tendencies, authors, and works of the 18th and 19th Centuries Spanish Peninsular Literature; presentation and analysis of the main literary movements of the period, from the Enlightenment to Naturalism.

SPAN 654. Spanish Literature 1898-1936. 3 Hours.

Survey of the major trends and representative authors and works of the Modernist period in Spain.

SPAN 655. Spanish Literature 1936-1975. 3 Hours.

In-depth study of Spanish literature published between 1936, the outbreak of the Spanish Civil War, and 1975, the end of the Franco dictatorship. Focus on all genres and their historical context.

SPAN 656. Spanish Literature after 1975. 3 Hours.

Survey of the major trends and representative authors and works of Spanish literature since the end of the Franco dictatorship.

SPAN 672. Spanish Women Writers. 3 Hours.**SPAN 673. Hispanic Literature and Film. 3 Hours.****SPAN 674. Afrohispanic Literature. 3 Hours.**

The reading, discussion, and analysis of literature written by Hispanic authors of African descent.

SPAN 690. Teaching Practicum. 1-3 Hours.

PR: Consent. Supervised practice in college teaching of Spanish. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It also provides a mechanism for students not on assistantships to gain teaching experience. (Grading will be P/F.).

SPAN 691. Advanced Topics. 1-6 Hours.

PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

SPAN 692. Directed Study. 1-6 Hours.

Directed study, reading, and/or research.

SPAN 693. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

SPAN 694. Seminar. 1-6 Hours.

Special seminars arranged for advanced graduate students.

SPAN 695. Independent Study. 1-9 Hours.

Faculty supervised study of topics not available through regular course offerings.

SPAN 696. Graduate Seminar. 1-3 Hours.

PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

SPAN 697. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper, or equivalent scholarly project, or a dissertation. (Grading may be S/U.).

SPAN 698. Thesis or Dissertation. 1-6 Hours.

PR: Consent. This is an optional course for programs that wish to provide formal supervision during the writing of student reports (698), or dissertations (798). Grading is normal.

SPAN 699. Graduate Colloquium. 1-6 Hours.

PR: Consent. For graduate students not seeking coursework credit but who wish to meet residency requirements, use of the University's facilities, and participate in its academic and cultural programs. Note: Graduate students who are not actively involved in coursework or research are entitled, through enrollment in their department's 699/799 Graduate colloquium to consult with graduate faculty, participate in both formal and informal academic activities sponsored by their program, and retain all of the rights and privileges of duly enrolled students. Grading is P/F; colloquium credit may not be counted against credit requirements for masters programs. Registration for one credit of 699/799 graduate colloquium satisfies the University requirement of registration in the semester in which graduation occurs.

SPAN 791. Advanced Topics. 1-6 Hours.

PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

SPAN 930. Professional Development. 1-6 Hours.

Professional development courses provide skill renewal or enhancement in a professional field or content area (e.g. education, community health, geology). These tuition waived continuing education courses are graded on a pass/fail grading scale and do not apply as graduate credit toward a degree program.

STATISTICS (STAT)

STAT 511. Statistical Methods 1. 3 Hours.

PR: MATH 126. Statistical models, distributions, probability, random variables, tests of hypotheses, confidence intervals, regression, correlation, transformations, F and Chi-square distributions, analysis of variance and multiple comparisons. (Equivalent to EDP 613 and PSYC 511.).

STAT 512. Statistical Methods 2. 3 Hours.

PR: STAT 511 or equivalent. Completely random, randomized complete block, Latin square, and split-plot experimental designs. Unplanned and planned multiple and orthogonal comparisons for qualitative and quantitative treatments and factorial arrangements. Multiple linear regression and covariance analysis. (Equivalent to EDP 614 and PSYC 512.).

STAT 513. Design of Experiments. 3 Hours.

PR: STAT 512 or equivalent. Expected mean squares, power of tests and relative efficiency for various experimental designs. Fixed, random, and mixed models. Use of sub-sampling, covariance, and confounding to increase power and efficiency.

STAT 516. Forensic Statistics. 3 Hours.

PR: STAT 215 or equivalent. Probabilistic and statistical evaluation of evidence in forensic science: concepts of uncertainty variation, discriminating power, coincidence/significance probabilities, historical overview, transfer evidence, DNA profiling, fingerprint identification, biometric identification, and case studies.

STAT 521. Statistical Analysis System Programming. 3 Hours.

PR: STAT 511 or equivalent. Topics in Statistical Analysis System (SAS). Students perform statistical data analyses, data modifications and manipulations, file operations, and statistical report writing. Prepares students for the SAS Base Programming certification exam.

STAT 522. Advanced Statistical Analysis System Programming. 3 Hours.

PR: STAT 521 or consent. Advanced topics in Statistical Analysis System (SAS); SAS SQL to generate reports, join tables, construct queries; SAS Macrolanguage basics; write/implement SAS macro programs. Prepares students for SAS Advanced Programmer Certification Exam.

STAT 523. Statistical Computing. 3 Hours.

PR: STAT 512. Monte Carlo methods; randomization, partitioning, and the bootstrap; identifying data structures, estimating functions, including density functions; statistical models of dependencies. R programming.

STAT 531. Sampling Theory and Methods. 3 Hours.

PR: STAT 511 or consent. Survey components, methods of sampling for finite and infinite populations, single and multi-stage procedures, confidence limits for estimating population parameters, sample size determination, area sampling sources of survey error, and basic inference derived from survey design.

STAT 541. Applied Multivariate Analysis. 3 Hours.

PR: STAT 511 or equivalent. Introduction to Euclidean geometry and matrix algebra; multiple and multivariate regression including multiple and canonical correlation; the k-sample problem including discriminant and canonical analysis; and structuring data by factor analysis, cluster analysis, and multi-dimensional scaling.

STAT 543. Bioinformatics Data Analysis. 3 Hours.

PR: STAT 512 or equivalent. Statistical analyses of high-throughput experiments using data visualization, clustering, multiple testing, classification and other unsupervised and supervised learning methods. Data processing, including background adjustment and normalization. Case studies.

STAT 545. Applied Regression Analysis. 3 Hours.

PR: STAT 512 or equivalent. Matrix approach to linear and multiple regression, selecting the best regression equation, model building, and the linear models approach to analysis of variance and analysis of covariance.

STAT 547. Survival Analysis. 3 Hours.

PR: STAT 512. Survival model methodology, including model selection for incomplete data with censored, truncated, and interval censored observations. Applications to many real life problems using R.

STAT 551. Nonparametric Statistics. 3 Hours.

PR: STAT 511 or equivalent. Distribution-free procedures of statistical inference. Location and scale tests for homogeneity with two or more samples (related or independent); tests against general alternatives.

STAT 555. Categorical Data Analysis. 3 Hours.

PR: STAT 512 or equivalent. Bivariate association for ordinal and nominal variables, models for categorical or continuous responses as a special case of generalized linear models, methods for repeated measurement data, exact small-sample procedures.

STAT 561. Theory of Statistics 1. 3 Hours.

PR: MATH 251. Probability and random variables, univariate and multivariate distributions, expectations, generating functions, marginal and conditional distributions, independence, correlation, functions of random variables, including order statistics, limiting distributions, and stochastic convergence.

STAT 562. Theory of Statistics 2. 3 Hours.

PR: STAT 561. Techniques of point and interval estimation; properties of estimates including bias, consistency, efficiency, and sufficiency; hypothesis testing including likelihood ratio tests and Neyman-Pearson Lemma; Bayesian procedures; analysis of variance and nonparametrics.

STAT 582. Statistical Consulting. 1 Hour.

PR: STAT 513 or Consent. Statistical consulting principles and procedures. The entire consulting experience, including design, models, communication skills, ethics, tracking, and documentation, is presented in a series of case studies, including student presentations and reports on assigned cases.

STAT 590. Teaching Practicum. 1-3 Hours.

PR: Consent. Supervised practice in college teaching of statistics. Note: This courses is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading may be S/U.).

STAT 591. Advanced Topics. 1-6 Hours.

PR: Consent. Investigation in advanced topics not covered in regularly scheduled courses.

STAT 593. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

STAT 595. Independent Study. 1-9 Hours.

STAT 595. Independent Study. 1-6 HR. Faculty supervised study of topics not available through regular course offerings.

STAT 623. Data Technologies. 3 Hours.

PR: STAT 512 or consent. R data manipulation and processing. Topics include: R operators, functions, data structures, and objects; R data input and output, package development, and text processing; R interfaces to XML and SQL databases.

STAT 624. High Performance Analytics. 3 Hours.

PR: STAT 623. High performance and data-stream computing using R. Topics include: parallel R packages; Hadoop clusters; MapReduce R scripting; shared R network spaces; beyond-memory data analysis; data-stream modeling and visualization.

STAT 645. Linear Models. 3 Hours.

PR: STAT 545 and (STAT 462 or STAT 562) or consent. Multivariate normal distribution, distribution of quadratic forms, linear models, general linear hypotheses, experimental design models, components of variance for random effects models.

STAT 682. Statistics Practicum. 1 Hour.

PR: STAT 582. Statistical consulting on university-related research projects under the direction of a statistics faculty member.

STAT 689. Professional Field Experience. 1-6 Hours.

PR: Consent. (May be repeated up to a maximum of 18 hours). Prearranged experiential learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.

STAT 690. Teaching Practicum. 1-3 Hours.

PR: Consent. Supervised practice in college teaching of statistics. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It also provides a mechanism for students not on assistantships to gain teaching experience. (Grading may be S/U.).

STAT 691. Advanced Topics. 6 Hours.

PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

STAT 692. Directed Study. 1-6 Hours.

Directed study, reading, and/or research.

STAT 693. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

STAT 694. Seminar. 1-6 Hours.

Special seminars arranged for advanced graduate students.

STAT 695. Independent Study. 1-9 Hours.

Faculty supervised study of topics not available through regular course offerings.

STAT 696. Graduate Seminar. 1-3 Hours.

PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

STAT 697. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.).

STAT 698. Thesis or Dissertation. 1-6 Hours.

PR: Consent. This is an optional course for programs that wish to provide formal supervision during the writing of student reports (698), or dissertations (798). Grading is normal.

STAT 699. Graduate Colloquium. 1-6 Hours.

PR: Consent. For graduate students not seeking coursework credit but who wish to meet residency requirements, use of the University's facilities, and participate in its academic and cultural programs. Note: Graduate students who are not actively involved in coursework or research are entitled, through enrollment in their department's 699/799 Graduate Colloquium to consult with graduate faculty, participate in both formal and informal academic activities sponsored by their program, and retain all of the rights and privileges of duly enrolled students. Grading is P/F; colloquium credit may not be counted against credit requirements for masters programs. Registration for one credit of 699/799 graduate colloquium satisfies the University requirement in the semester in which graduation occurs.

STAT 745. Data Mining. 3 Hours.

PR: STAT 545 or equivalent. Development of predictive models for large datasets, including logistic and linear models, regression and classification trees, and neural networks. Data preparation, including imputation and filtering.

STAT 761. Theoretical Statistics 1. 3 Hours.

PR: STAT 562 or consent. Advanced statistical theory including: consistent estimators; limiting distributions; asymptotic properties; goodness-of-fit tests; maximum likelihood estimation, moment generating functions; properties of statistical tests and procedures for finite-dimensional and infinite-dimensional spaces.

STAT 762. Theoretical Statistics 2. 3 Hours.

PR: STAT 761. Continuation of STAT 761 including: asymptotic optimality, contiguity of probability measures, local asymptotic normality of likelihood ratio test, Bayesian estimation, general linear models estimation and testing, and kernel smoothing methods in density and regression estimation.

STAT 763. Stochastic Processes. 3 Hours.

PR: STAT 561. Modeling of random phenomenon occurring over time, space, or time and space simultaneously. Modern techniques, such as the martingale decomposition, are applied to different statistical models.

STAT 791. Advanced Topics. 1-6 Hours.

PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

STAT 797. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading will be S/U).

WOMEN AND GENDER STUDIES (WGST)**WGST 530. Feminist Theory. 3 Hours.**

Explores feminist theory through works of diverse scholars, focusing on questions of essentialism, difference, sexuality, bodies, language, power, economic and ecological justice; intersections of race, class, and gender, as well as global social justice struggles.

WGST 592. Directed Study. 1-6 Hours.

Directed study, reading, and/or research.

WGST 593. Special Topics. 1-6 Hours.

PR: Consent. A study of contemporary topics selected from recent developments in the field.

WGST 595. Independent Study. 1-9 Hours.

Faculty supervised study of topics not available through regular course offerings.

WGST 693. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

WGST 696. Graduate Seminar. 1-3 Hours.

PR: Consent. Series of meetings that may include research presentations by students, faculty, or visitors; discussions of professional issues or current literature; or other varying topics.

WGST 790. Teaching Practicum. 1-3 Hours.

PR: Consent. Supervised practice in college teaching of women's studies. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading will be S/U.).

WGST 791. Advanced Topics. 1-6 Hours.

PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

WGST 792. Directed Study. 1-6 Hours.

Directed study, reading, and/or research.

WGST 793. Special Topics. 1-6 Hours.

A study of contemporary topics selected from recent developments in the field.

WGST 795. Independent Study. 1-9 Hours.

Faculty supervised study of topics not available through regular course offerings.

WGST 796. Graduate Seminar. 1-3 Hours.

PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

WGST 797. Research. 1-9 Hours.

PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.).