Psychology (PY)

PY 500 - INTRODUCTION TO CLINICAL & COUNSELING
Semester Hours: 3

PY 500 introduces clinical/counseling psychology and professional psychology. History of diagnosis and treatment, theoretical models in counseling, contemporary practice models, research basis of clinical/counseling psychology, empirically validated techniques, and doctoral program models are covered.

PY 502 - INDUSTRIAL & ORGANIZATIONAL PSYCHOLOGY
Semester Hours: 3

Application of basic principles of learning, motivation, and perception to typical industrial and organizational problems. Same as ISE 502.

PY 503 - HUMAN FACTORS PSYCHOLOGY
Semester Hours: 3


PY 504 - THEORIES OF COUNSELING
Semester Hours: 3

This course is designed to introduce theories of psychotherapy and the process of psychotherapy and counseling. This course is a survey of counseling/psychotherapy models and techniques with emphasis on Empirically Validated Therapies (EVT) and traditional models with substantial support in the research and clinical literature.

PY 505 - PSYCHOPHARMACOLOGY
Semester Hours: 3

Introduction to drug classification and action with emphasis on physiological and psychological interactions. Same as BYS 505.

PY 506 - PSYCHOLOGY OF WOMEN
Semester Hours: 3

Examines theory and research in the psychological functioning of women, both in the United States and other nations. Topics include achievement and education, mental and physical health issues, biological influences on women's behavior, and victimization of women.

PY 507 - CROSS-CULTURAL PSYCHOLOGY
Semester Hours: 3

Examines psychological similarities and differences between members of industrialized and non-industrialized cultures. Comparisons will include development, social interaction, personality, cognition, psychological health and treatment, work, and acculturation.

PY 508 - TEAMWORK & TEAM PROCESSES
Semester Hours: 3

This course provides a basic introduction to teams and teamwork processes. The foundation of the course is research-based; topics will be approached from the context of empirical research that has been conducted. The types of research designs that are typically used in team research are addressed.

PY 509 - PSYCHOLOGY OF AGING
Semester Hours: 3

PY 509 examines psychological processes in adulthood and aging. Emphasis is placed on contemporary theories, methodological issues and how psychological, biological, social and environmental factors interact to predict growth, maintenance or decline in abilities throughout adulthood and aging.

PY 510 - TASK ANALYSIS & PROTOTYPING
Semester Hours: 3

This course introduces students to methods for analyzing user actions as they interact with software and tools to complete tasks. Students apply a range of prototype techniques from fast, low-fidelity prototypes to interactive high-fidelity prototypes.

PY 514 - ADVANCED LEARNING
Semester Hours: 3

Analysis of learning principles from simple relationships with animals to the complexities of human language and problem solving.
PY 515 - ADVANCED DEVELOPMENTAL PSYCHOLOGY
Semester Hours: 3
Examination of cognitive, psychoanalytic, ethological, behavioral, and humanistic theories of development.

PY 520 - SPECIAL TOPICS
Semester Hours: 3
Pre-announced special areas in seminar discussion, laboratory work, or practicum. May be taken twice for credit.

PY 530 - PSYCHOMETRICS
Semester Hours: 3
History and development of psychological testing with special emphasis given to both theory and process of effective evaluation.

PY 533 - PSYCHOPATHOLOGY
Semester Hours: 3
Selected disorders such as depression, anxiety disorders, and personality disorders from different theoretical orientations with emphasis on cognitive behavioral theory.

PY 534 - PSYCHOLOGY AND LAW
Semester Hours: 3
This seminar is a survey of the major topics represented in the field of Psychology and Law. We will focus on how psychological research can contribute to a better understanding of issues related to law.

PY 537 - PSYCHOBIOLOGY OF STRESS AND ILLNESS
Semester Hours: 3
Overview of physiological stress responses and their influence on health behavior and illness. Same as BYS 537.

PY 580 - PROSEMINAR: COGNITIVE
Semester Hours: 3
Critical examination of the cognitive approach to areas of study within psychology. Students are responsible for library research, writings, and presentation of selected topics.

PY 607 - PROFESSIONAL DEVELOPMENT IN RESEARCH AND TEACHING
Semester Hour: 1
Focus on developing knowledge and skills relevant to future goals regarding teaching, either in academic or professional settings.

PY 608 - GRADUATE PRACTICE TEACHING AND CAREER EXPLORATION
Semester Hour: 1
Focus on developing knowledge and skills relevant to future goals, such as career exploration, internship opportunities, resume writing, and graduate program exploration. Required of first year students.

PY 610 - EXPERIMENTAL DESIGN
Semester Hours: 3
Design and use of the experiment as an inferential tool. Issues pertaining to reliability, validity, manipulation of independent variables, and sampling will be examined. Implementing statistical techniques for analysis of data generated by experimental designs.

PY 611 - STATISTICS FOR EXPERIMENTAL METHODS
Semester Hours: 4
Statistical techniques for analysis of data generated by experimental designs.

PY 612 - MULTIVARIATE ANALYSIS
Semester Hours: 3
Covers how to conduct, interpret, and summarize multivariate analyses. Prerequisite: PY 611 (B- or better).

PY 615 - GRADUATE SEMINAR
Semester Hours: 3
Intensive analysis of selected theoretical or applied topics relating to psychological development. May be taken more than once for credit.
PY 624 - HUMAN FACTORS IN SYSTEM DESIGN
Semester Hours: 3

Introduces basic principles of methods analysis and ergonomics. Methods analysis topics include: work measurement tools, work sampling, job analysis, job evaluation, and development and use of flow and activity charts for methods improvement. Same as ISE 624.

PY 641 - CONCENTRATED READINGS/RESEARCH SPECIALIZED AREA
Semester Hours: 3

Independent readings and/or experiments in an area within the student's field of specialization. One requirement is a research proposal, which will be reviewed by the faculty advisor. May be taken more than once for credit. Prerequisite: Instructor approval.

PY 650 - SUPERVISED RESEARCH
Semester Hours: 1-6

Laboratory or applied research concerning a particular topic, approved and supervised by a PY faculty member. The student may work on an independent or group project. May be taken more than once for credit.

PY 675 - INTERNSHIP IN APPLIED PSYCHOLOGY
Semester Hours: 1-6

Students are placed in a field setting under the supervision of a faculty member and a site supervisor. Students receive site-specific training, experience, and individual supervision.

PY 699 - MASTER'S THESIS
Semester Hours: 6

Master's Thesis (0 - 6 semester hours) Required each semester a student is working and receiving faculty direction on a master's thesis. Prerequisite: PY 641.

PY 701 - HUMAN SYSTEM INTEGRATION
Semester Hours: 3

Discover how to address human-related issues in system development in an integrated manner. Explore principles of human factors engineering, personnel selection, training, safety, and other HSI technical domains. Learn how these activities should be integrated to reduce personnel costs and improve system performance.

PY 702 - COMPUTATIONAL CONCEPTS & INTRODUCTION TO SOFTWARE PROGRAMMING
Semester Hours: 3

Introduces basic-computational concepts and programming skills needed to work with interactive systems. Draws on topics such as log analysis, visualization, prototyping, and data mining. Students analyze data to inform user research and design.

PY 703 - COMPUTATIONAL CONCEPTS & INTRODUCTION TO SOFTWARE PROGRAMMING
Semester Hours: 3

Three broad categories of topics within human-computer interaction (HCI) are covered: (a) principles and characteristics of the interaction between humans and computers; (b) techniques for designing and evaluating user-centered systems; and (c) cutting-edge research and development in HCI.

PY 704 - HUMAN MACHINE SYSTEM DESIGN
Semester Hours: 3

Techniques for man-machine system designs in which cognitive and dynamic aspects are of major importance. Applications to computer-interface design, auto/semiautomated systems, military systems, etc. Topics include information processing, decision making, reaction times and signal detection theory.

PY 705 - USABILITY EVALUATION AND TESTING
Semester Hours: 3

This course covers all of the aspects of specifying, planning, executing, and reporting usability assessments on products, services and systems. Formative and summative assessments are covered, as are "discount" usability methods. This course is project based.

PY 706 - MANAGEMENT OF COMPLEX SYSTEMS
Semester Hours: 3

Focuses on how to design and improve complex work systems. Emphasis on agile development, including sprints using scrum teams to achieve rapid interaction design with system users, developers and owners. Investigates decision support systems, sense making and adaptation in ambiguous situations.
PY 707 - ERGONOMICS AND REGULATIONS IN USER CENTERED DESIGN
Semester Hours: 3
Covers international, military and occupational health and safety standard requirements, regulations and guidelines for ergonomics of human-centered design principles and activities throughout the life cycle of human interactive or work systems.

PY 708 - RAPID PROTOTYPING
Semester Hours: 3
Review fundamentals of designing and prototyping human-centered interactive systems and environments that include software and hardware components. Students build projects using electronic devices and fabrication tools. Provides hands on experience in a project-based, studio environment.

PY 709 - HUMAN ARTIFICIAL INTELLIGENCE INTERACTION
Semester Hours: 3
Addresses agency and initiative, AI and ethics, bias and transparency, confidence and errors, human augmentation and amplification, trust, mised-initiative systems, and programming by example. Students should be comfortable with programming; assignments with primarily use Javascript.

PY 710 - MACHINE LEARNING FOR SOCIAL/BEHAVIORAL RESEARCH
Semester Hours: 3
Covers a wide range of learning algorithms that can be applied to a variety of problems such as decision trees, rule-based classification, support vector machines, Bayesian networks, and clustering. This course does not assume any prior exposure to machine learning theory or practice.

PY 711 - COMPUTATIONAL PSYCHOLOGY
Semester Hours: 3
The application of computational principles to understanding human behavior. Hands on experience with modeling tools to analyze large data sets.

PY 712 - SOCIAL COGNITIVE NEUROSCIENCE
Semester Hours: 3
Addresses interactions between social-level phenomena, cognitive-level processes, and neural mechanisms that underlie these events. This course will cover basic neurophysiology and cognitive processing theory with the goal of understanding how these foster social perception, cognition and actions.

PY 713 - QUANTITATIVE STATISTICAL METHODS
Semester Hours: 3
Covers methods developed for rigorous quantitative inquiry in Psychology. Students will become familiar with various research design, measurement, and advanced analytic strategies broadly applicable to theory-driven and data-informed quantitative research, the strengths and limitations of each.

PY 714 - MULTIVARIATE STATISTICS
Semester Hours: 3
Course covers advanced-level multivariate statistical methods (e.g., GLM, MANOVA, MANCOVA), discriminant function analysis, canonical correlation analysis, cluster analysis, and principal components analysis. The focus of this course will be on conceptual understanding and computer applications.

PY 715 - R FOR DATA SCIENCE
Semester Hours: 3
This class will learn how to manipulate larger data sets with current best practices and advancements in data science. This will all be taught using R, a programming environment that is well suited for data science.

PY 718 - ADVANCED STRUCTURAL EDUCATION MODELING
Semester Hours: 3
Provides the basic theoretical background necessary for the application of Structural Equation Modeling (SEM) to research problems including model specification, identification, path analysis, estimation, testing fit, respecification, confirmatory factor analysis the interpretation of SEM results. Prerequisite: PY 611.

PY 719 - HISTORY & SYSTEMS
Semester Hours: 3
Survey of psychological systems (theory, research, perspectives) regarding human behavior and mental processes from ancient times to the present.

PY 725 - EYEWITNESS PSYCHOLOGY
Semester Hours: 3
The course covers research and application of psychology knowledge or concepts to the legal system, emphasizing eyewitness memory and topics as, description accuracy, weapon focus, line-up construction, line up administration, showup identification, confidence, and post identification feedback.
PY 730 - FORENSIC/INVESTIGATIVE INTERVIEWS  
Semester Hours: 3  
Covers the science of forensic interviewing and detecting deception from an applied cognitive and social perspective. The topics will include: false confessions, The Reid method of interrogation, detecting deception, and implications of research for justice system practices and policies.

PY 735 - CHILD WITNESSES  
Semester Hours: 3  
Children and adolescents all too frequently become involved in the legal system as victims, witnesses, or perpetrators of crime. This course will apply relevant development research and theory to legal issues of children and adolescents.

PY 740 - INTERROGATION & DECEPTION  
Semester Hours: 3  
In this course students will learn about the science of interrogations and confessions and how to detect deception.

PY 745 - WRONGFUL CONVICTION  
Semester Hours: 3  
This class will examine the contributing factors of wrongful convictions as outlined in the Innocence Project and the National Registry of Exonerations, including eyewitness identification; false confessions, jailhouse informants, police and prosecutorial misconduct and junk science.

PY 750 - ASSESSMENT OF COMPETENCY TO STAND TRIAL  
Semester Hours: 3  
This course will address the various factors that courts evaluate when determining whether a defendant is competent to stand trial.

PY 762 - PERFORM MEASUR/PRODU IMPROVEMENT  
Semester Hours: 3  
Productivity and performance defined and used to analyze current competitive position of important sectors of US industry with respect to national and international competition.

PY 775 - PROSEMINAR IN SOCIAL PSYCHOLOGY  
Semester Hours: 3  
Social psychological theories (e.g., attitudes, social cognition, social influence and persuasion) will be examined to understand and address several areas in legal system, including interrogations, conducting line-ups, interviewing child and adult witnesses; jury decision making, race and gender.

PY 780 - APPLIED COGNITIVE PSYCHOLOGY  
Semester Hours: 3  
This course introduces the basic processes involved in human information processing, including perception, attention, memory, knowledge representations, language, problem-solving, reasoning, and decision-making.

PY 799 - DISSERTATION  
Semester Hours: 6  
Dissertation (0-6 semester hours) Required each semester a student is working and receiving faculty direction on a dissertation.