

HUMAN-COMPUTER INTERACTION AND HUMAN FACTORS

Contact Information

Psychological Sciences
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The Rice University Department of Psychological Sciences offers the Master of Human-Computer Interaction and Human Factors degree, which examines the scientific consideration of people in the design of products, services, and systems.

Human Factors is responsible for ensuring that systems meet the needs and expectations of the user, and more importantly, conform to the capabilities and limitations of those users. Human Factors can increase the ability of users to use effectively complex systems and enhance the safety of those systems. Human Factors focuses much of its efforts to the study of complex human-machine interfaces such as automobile controls, aircraft cockpits, medical devices, and many others.

Human-Computer Interaction is the subarea within Human Factors particularly concerned with computer systems. Human-Computer Interaction and Human Factors is particularly concerned with issues of usability, that is, how the design of technological systems impacts how efficiently and effectively people can use those systems.

Human-Computer Interaction and Human Factors does not currently offer an academic program at the undergraduate level.

Master's Program

- [Master of Human-Computer Interaction and Human Factors \(MHCIHF\) Degree](https://ga.rice.edu/programs-study/departments-programs/social-sciences/human-computer-interaction-human-factors/human-computer-interaction-human-factors-mhchif/) (<https://ga.rice.edu/programs-study/departments-programs/social-sciences/human-computer-interaction-human-factors/human-computer-interaction-human-factors-mhchif/>)

Chair, Department of Psychological Sciences

Eduardo Salas

Professors

Michael D. Byrne
 Patricia DeLucia
 Eduardo Salas

Associate Professors

Philip T. Kortum
 David M. Lane

For Rice University degree-granting programs:

To view the list of official course offerings, please see [Rice's Course Catalog](https://courses.rice.edu/admweb!/SWKSCAT.cat?p_action=cata) (https://courses.rice.edu/admweb!/SWKSCAT.cat?p_action=cata)

To view the most recent semester's course schedule, please see [Rice's Course Schedule](https://courses.rice.edu/admweb!/SWKSCAT.cat) (<https://courses.rice.edu/admweb!/SWKSCAT.cat>)

Psychological Studies (PSYC)

PSYC 101 - INTRODUCTION TO PSYCHOLOGY

Short Title: INTRODUCTION TO PSYCHOLOGY

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Lecture

Distribution Group: Distribution Group II

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Lower-Level

Description: Survey of topics, problems, and approaches in contemporary psychology. Includes the biological basis of behavior, sensation, perception, attention, learning and memory, thinking, language, abnormal behavior and therapies, personality, and individual differences. Required for psychology majors.

PSYC 102 - QUANTITATIVE ANALYSIS FOR SOCIAL SCIENCES:

PSYCHOLOGY LAB

Short Title: PSYCHOLOGY STATISTICS LAB

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Laboratory

Credit Hours: 0

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Lower-Level

Description: This lab companion course to SOSC 302: Quantitative Analysis for the Social Sciences involves psychology-specific applications of statistical analysis. The lab focuses on the use of software to analyze data from research in psychological sciences. Students who enroll in this lab section must also enroll in SOSC 302 during the same semester.

PSYC 202 - INTRODUCTION TO SOCIAL PSYCHOLOGY

Short Title: INTRO TO SOCIAL PSYCHOLOGY

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Lecture

Distribution Group: Distribution Group II

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Lower-Level

Prerequisite(s): PSYC 101

Description: Overview of topics in social psychology. Includes conformity and social influence, attitude formation and change, aggression, altruism, relationships, liking and loving, and prejudice and stereotyping, as well as applications to other disciplines (e.g. law, marketing, the workplace, etc.). Required for psychology majors.

PSYC 203 - INTRODUCTION TO COGNITIVE PSYCHOLOGY

Short Title: INTRO TO COGNITIVE PSYCHOLOGY

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Lecture

Distribution Group: Distribution Group II

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Lower-Level

Description: An introduction to topics in cognitive psychology, including perception, attention, language, memory, and decision making. Required for psychology majors.

PSYC 231 - INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY

Short Title: INDUS & ORGANIZATIONAL PSYC

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Lecture

Distribution Group: Distribution Group II

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Lower-Level

Prerequisite(s): PSYC 101

Description: An overview of the principles, techniques, and theories of psychology applied in the industrial setting.

PSYC 238 - SPECIAL TOPICS

Short Title: SPECIAL TOPICS

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Internship/Practicum, Lecture, Seminar, Laboratory

Credit Hours: 1-4

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Lower-Level

Description: Topics and credit hours may vary each semester. Contact department for current semester's topic(s). Repeatable for Credit.

PSYC 260 - UNDERGRADUATE PROFESSIONAL ISSUES IN PSYCHOLOGY

Short Title: UNDERGRAD PROF ISSUES IN PSYC

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Seminar

Credit Hour: 1

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Lower-Level

Description: This seminar will provide students interested in psychology with an opportunity to explore psychology as a major and a career. Through guest lecturers, group discussions, and class projects, students will learn about diverse fields and potential career paths in psychology. Instructor Permission Required.

PSYC 308 - MEMORY

Short Title: MEMORY

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Lecture

Distribution Group: Distribution Group II

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Prerequisite(s): PSYC 203

Description: Critical review of traditional and contemporary approaches to the study of remembering and forgetting.

PSYC 309 - PSYCHOLOGY OF LANGUAGE

Short Title: PSYCHOLOGY OF LANGUAGE

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Lecture

Distribution Group: Distribution Group II

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Prerequisite(s): PSYC 203

Description: Study of human and other animal communication. Includes the structure of human language, word meaning and semantic memory, psychological studies of syntax, bilingualism, language and thought, and language errors and disorders. Cross-list: LING 309.

PSYC 310 - PSYCHOLOGY OF AGING

Short Title: PSYCHOLOGY OF AGING

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Lecture

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Prerequisite(s): PSYC 202 or PSYC 203

Description: This course focuses on the psychology of aging through a biological, cognitive, and socio-emotional framework. Topics to be covered include how mental capacities change over time, especially memory processing, differences between normal and pathological aging, neurobiological changes with age, dementias such as Alzheimer's disease, and individual differences in aging. There will be an emphasis on discussion of recent literature and developing research ideas in the field of psychology of aging.

PSYC 315 - INTRODUCTION TO SEMANTICS**Short Title:** INTRODUCTION TO SEMANTICS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Distribution Group:** Distribution Group II**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Introduction to basic approaches to the study of meaning in linguistics and related fields. Includes the cognitive representation of meaning, lexical categorization, conceptual structures, metaphor/metonymy, meaning change, pragmatic inference, and the relation of language and mind. Cross-list: LING 315. Recommended Prerequisite(s): LING 200 or ANTH 200.**PSYC 321 - DEVELOPMENTAL PSYCHOLOGY****Short Title:** DEVELOPMENTAL PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Distribution Group:** Distribution Group II**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 202 or PSYC 203**Description:** Study of behavioral changes with age in both human and nonhuman species. Recommended Prerequisite(s): PSYC 202 and PSYC 203.**PSYC 325 - LANGUAGE ACQUISITION****Short Title:** LANGUAGE ACQUISITION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 202 or PSYC 203**Description:** The aim of this course is to explore language development closely through a variety of theories and research findings. Students will become familiar with different theories concerning language development, and develop an understanding of relevant issues, theoretical positions and relevant methodologies in language development using critical thinking skills. Cross-list: LING 325.**PSYC 329 - PSYCHOLOGICAL TESTING****Short Title:** PSYCHOLOGICAL TESTING**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Distribution Group:** Distribution Group II**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 339 or SOSC 302**Description:** Offers a detailed examination of psychological test development and analysis. Topics include an exploration of different forms of psychological tests (e.g. intelligence, attitudes, personality, clinical), reliability and validity of tests, and practical issues in testing such as test bias (e.g. gender differences).**PSYC 330 - PERSONALITY THEORY AND RESEARCH****Short Title:** PERSONALITY THEORY & RESEARCH**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Distribution Group:** Distribution Group II**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 340**Description:** Examination of those aspects of personality emphasized by major theorists past and present.**PSYC 331 - PSYCHOLOGY OF GENDER****Short Title:** PSYCHOLOGY OF GENDER**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Distribution Group:** Distribution Group II**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Overview of research and theory on gender in psychology. Cross-list: SWGS 331.**PSYC 332 - ABNORMAL BEHAVIOR****Short Title:** ABNORMAL BEHAVIOR**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Distribution Group:** Distribution Group II**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 202 or PSYC 203**Description:** Study of the diagnosis and treatment of mental disorders.

PSYC 333 - MULTICULTURAL PSYCHOLOGY

Short Title: MULTICULTURAL PSYCHOLOGY

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Lecture

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Prerequisite(s): PSYC 101

Description: This seminar examines psychological research and theories that address important issues in the lives of diverse individuals. Readings, discussions, and films will be used to explore the acculturation process; stereotyping, prejudice, discrimination and racism; racial/ethnic identity development; and multicultural competence. Students are required to participate in a service learning project. Recommended Prerequisite(s): PSYC 202 and PSYC 321.

PSYC 339 - STATISTICAL METHODS-PSYCHOLOGY

Short Title: STATISTICAL METHODS-PSYCHOLOGY

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Lecture/Laboratory

Credit Hours: 4

Restrictions: Enrollment is limited to students with a major in Cognitive Sciences or Psychology. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Prerequisite(s): PSYC 101 or PSYC 203

Description: Introduction to quantitative and computer methods applicable to the analysis of experimental and correlational data. Required for psychology majors. Psychology and Cognitive Science Majors only or Permission of Instructor(s).

PSYC 340 - RESEARCH METHODS - PSYCHOLOGY

Short Title: RESEARCH METHODS - PSYCHOLOGY

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Lecture

Credit Hours: 4

Restrictions: Enrollment is limited to students with a major in Cognitive Sciences or Psychology. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Prerequisite(s): PSYC 101 and (PSYC 339 or SOSC 302)

Description: A continuation of PSYC 339/SOSC 302, with emphasis on individual student experiments and the writing of research reports. Required for psychology majors. Psychology and Cognitive Science Majors only or Permission of Instructor(s).

PSYC 342 - COMPUTER APPLICATIONS IN PSYCHOLOGY

Short Title: COMPUTER APPLICATIONS IN PSYC

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Seminar

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Prerequisite(s): PSYC 203

Description: The use of computers in psychological research and in usability engineering. The emphasis will be on dynamic HTML and JavaScript. Topics will include designing and running web-based psychology experiments and the use of web-based video. Graduate/Undergraduate Equivalency: PSYC 504. Mutually Exclusive: Cannot register for PSYC 342 if student has credit for PSYC 504.

PSYC 345 - HEALTH PSYCHOLOGY

Short Title: HEALTH PSYCHOLOGY

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Lecture

Distribution Group: Distribution Group II

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Prerequisite(s): PSYC 101 and PSYC 202 and PSYC 203

Description: Contemporary theory and research in health psychology, including topics such as health behaviors, stress and coping, pain and its management, heart disease, psychoneuroimmunology, chronic illness, and dying. Recommended Prerequisite(s): PSYC 332 and PSYC 340.

PSYC 346 - STRESS AND HEALTH ACROSS THE LIFESPAN

Short Title: STRESS/HEALTH ACROSS LIFESPAN

Department: Psychological Sciences

Grade Mode: Standard Letter

Course Type: Lecture

Credit Hours: 3

Restrictions: Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.

Course Level: Undergraduate Upper-Level

Description: This is an introductory course on psychobiological processes in animals and humans as they pertain to the development of stress responses and disease. In this course, we will review models of stress as well as the physiological processes implicated in bodily diseases. We will also review behavioral, psychological and pharmacological variables involved in stress processes. Recommended Prerequisite(s): PSYC 345

PSYC 351 - PSYCHOLOGY OF PERCEPTION**Short Title:** PERCEPTION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Distribution Group:** Distribution Group II**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 101 and PSYC 203**Description:** An introductory survey of sensation and perception, both human and animal. Covers all sensory systems but focuses on vision and audition. Includes the philosophy of perception; measurement and methods; neuroanatomy of visual and auditory systems; computational models of vision, motion, depth, and color; illusions and perceptual organization; and perceptual development. Graduate/Undergraduate Equivalency: PSYC 521.**PSYC 353 - PSYCHOLOGY OF EMOTION AND MOTIVATION****Short Title:** PSYC OF EMOTION & MOTIVATION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Distribution Group:** Distribution Group II**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 101 and PSYC 202**Description:** Study of motives and emotions as causes of human behavior; includes biological motives, aggression, emotions and emotional expression, and individual differences in motivation. Recommended Prerequisite(s): PSYC 203.**PSYC 354 - INTRODUCTION TO SOCIAL AND AFFECTIVE NEUROSCIENCE****Short Title:** INTRO TO SOC/AFFECTIVE NEURO**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 202**Description:** Overview of social and affective neuroscience research, including examination of the neurobiological mechanisms supporting social cognition; inter-personal processes; emotion and motivation; and emotion regulation. These topics will be examined in both healthy and affectively-disordered populations, with links made to the fields of health psychology and clinical neuroscience.**PSYC 362 - COGNITIVE NEUROSCIENCE: EXPLORING THE LIVING BRAIN****Short Title:** COGNITIVE NEUROSCIENCE**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Distribution Group:** Distribution Group II**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 203**Description:** Survey of theory and research on how mental processes are carried out by the human brain, with an emphasis on relating measures of brain activity to cognitive functioning, methods surveyed included electro physiological recording techniques, functional imaging techniques and methods that involve lessening or disrupting neural activity. Cross-list: NEUR 362.**PSYC 364 - COGNITIVE NEUROSCIENCE LAB****Short Title:** COGNITIVE NEUROSCIENCE LAB**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Laboratory**Credit Hour:** 1**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 362 (may be taken concurrently) or NEUR 362 (may be taken concurrently)**Description:** The objective is to equip the students of PSYC/NEUR 362 the tools on how to apply cognitive neuroscience techniques to health or clinical topics and to investigate sensorimotor and cognitive measures in a human model. The prereq may be taken the same semester as this class. Instructor Permission Required. Cross-list: NEUR 364. Graduate/Undergraduate Equivalency: PSYC 564. Mutually Exclusive: Cannot register for PSYC 364 if student has credit for PSYC 564.**PSYC 366 - METHODS IN SOCIAL COGNITIVE AND AFFECTIVE NEUROSCIENCE****Short Title:** METHODS IN SOC COG AFF NEURO**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture/Laboratory**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** (PSYC 202 or PSYC 203) and (PSYC 354 (may be taken concurrently) or PSYC 362 (may be taken concurrently))**Description:** This course will give students hands-on training in the research methods of social cognitive and affective neuroscience. Students will learn about the theoretical underpinnings of these allied fields; acquire, preprocess, and analyze human functional neuroimaging data (i.e. using fMRI); and interpret and write-up results. PSYC 354 or PSYC 362 may be taken concurrently.

PSYC 370 - INTRODUCTION TO HUMAN FACTORS AND ERGONOMICS**Short Title:** INTRO TO HUMAN FACTORS & ERGO**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Distribution Group:** Distribution Group II**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 101 and PSYC 203**Description:** Application of principles of psychology and human performance to the design of modern systems.**PSYC 375 - NEUROPSYCHOLOGY OF LANGUAGE AND MEMORY****Short Title:** NEUROPSYC OF LANGUAGE/MEMORY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Distribution Group:** Distribution Group II**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 203 and (PSYC 309 or LING 309 or LING 200 or ANTH 200) and (PSYC 362 or NEUR 362 or NEUR 380 or BIOE 380 or PSYC 380 or BIOC 380)**Description:** An introduction to the neural basis of language and memory, covering patient-based and neuroimaging approaches. Topics include the neural basis of speech perception, language comprehension, language production, short-term memory, working memory, semantic and episodic memory, and domain-specific memory (e.g., verbal, spatial, and emotional memory).**PSYC 380 - FUNDAMENTAL NEUROSCIENCE SYSTEMS****Short Title:** NEUROSYSTEMS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** This course will provide a broad overview of the brain's neural systems that subservise perception, learning, and behavior. The course will be highly integrative with thematic content including functional organization of the nervous system, neural encoding and decoding, sensory systems, motor systems, and high-level concept processing. Cross-list: NEUR 380. Graduate/Undergraduate Equivalency: PSYC 584. Recommended Prerequisite(s): PSYC 101. Mutually Exclusive: Cannot register for PSYC 380 if student has credit for PSYC 584.**PSYC 409 - METHODS IN HUMAN-COMPUTER INTERACTION****Short Title:** METHODS HUMAN-COMP INTERACTION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 101 and PSYC 203**Description:** Introduction to methods for developing and testing user interfaces to computer systems. The focus is on web-based applications. Graduate/Undergraduate Equivalency: PSYC 609. Recommended Prerequisite(s): PSYC 370. Mutually Exclusive: Cannot register for PSYC 409 if student has credit for PSYC 609.**PSYC 411 - HISTORY OF PSYCHOLOGY****Short Title:** HISTORY OF PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 101 and PSYC 202 and PSYC 203**Description:** Survey of evolution of psychological theory from the Greeks to the present. Includes development of scientific approaches to the study of human thought and behavior. Graduate/Undergraduate Equivalency: PSYC 511. Mutually Exclusive: Cannot register for PSYC 411 if student has credit for PSYC 511.**PSYC 420 - ELECTION SYSTEMS, TECHNOLOGIES, AND ADMINISTRATION****Short Title:** ELECTION SYSTEMS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Distribution Group:** Distribution Group III**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** POLI 395**Description:** This multidisciplinary course will consider how elections are conducted to enhance participation, to accurately measure the will of the electorate, and to be sufficiently rigorous to convince all parties that the results are legitimate. This course will consider the design and evaluation of election technologies, ranging from voter registration through the polling booth and vote tabulation. This course will consider three questions: how do individual voters interact with the voting technology, how are voting technologies engineered to be accurate and secure, and how do the social aspects of voting fulfill democratic goals for elections? A central requirement for this course will be group research projects, many operating in our community, built around the November election. Cross-list: COMP 435, POLI 420.

PSYC 430 - COMPUTATIONAL MODELING OF COGNITIVE PROCESSES**Short Title:** COMP MODELING OF COG PROCESSES**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** A survey of computational approaches to modeling cognitive processes. The emphasis will be on recent production system models, but other approaches will also be covered. The course will involve evaluation of existing models and hands-on experience in modeling. Graduate/Undergraduate Equivalency: PSYC 543. Recommended Prerequisite(s): PSYC 203 and COMP 200 (or equivalent). Mutually Exclusive: Cannot register for PSYC 430 if student has credit for PSYC 543.**PSYC 431 - ADVANCED INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY SEMINAR****Short Title:** ADVANCED I/O PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 231**Description:** An emphasis on reading original published research. Topics covered include personnel selection, training, motivation, job attitudes, and groups. Instructor Permission Required. Mutually Exclusive: Cannot register for PSYC 431 if student has credit for PSYC 530.**PSYC 432 - BRAIN AND BEHAVIOR****Short Title:** BRAIN AND BEHAVIOR**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 101 and PSYC 203 and PSYC 362**Description:** An in-depth examination of the neural basis of higher mental functions in humans, including perception, attention, memory, motor skill, and language. Claims and controversies in cognitive neuroscience will be discussed. Recommended Prerequisite(s): PSYC 339 and PSYC 340.**PSYC 435 - POLLUTION AND PSYCHOLOGICAL DEVELOPMENT****Short Title:** POLLUTION & PSYCHOLOGICAL DEV**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** In this course, we will consider research on the effects of various pollutants and toxic substances on the cognitive, social, and emotional development of children. Expert guest speakers will contribute to the course as well. Recommended Prerequisite(s): PSYC 339 and PSYC 340.**PSYC 436 - ADVANCED ORGANIZATIONAL PSYCHOLOGY****Short Title:** ADVANCED ORGANIZATIONAL PSYC**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 231 and PSYC 431**Description:** Contemporary theory and research in organizational psychology, including topics such as motivation, leadership, job satisfaction, occupational stress, social cognition in work organizations, and group processes. Graduate/Undergraduate Equivalency: PSYC 636. Mutually Exclusive: Cannot register for PSYC 436 if student has credit for PSYC 636.**PSYC 438 - GROUP DYNAMICS****Short Title:** GROUP DYNAMICS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** This course examines current psychological theory and literature concerning intra- and inter-group phenomena within organizational contexts. This course will cover topics such as the unique methodological challenges of studying group-level phenomena; individual-, group-, and organizational-level inputs; group processes; and the assessment of group-level outcomes. Graduate/Undergraduate Equivalency: PSYC 551. Recommended Prerequisite(s): PSYC 339 and PSYC 340 and should be majoring in Psychology or Business. Mutually Exclusive: Cannot register for PSYC 438 if student has credit for PSYC 551.**PSYC 439 - ADVANCED STATISTICAL METHODS FOR PSYCHOLOGY UNDERGRADUATES****Short Title:** ADV STATISTICAL METHODS-PSYC**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 339 or SOSC 302**Description:** This course is intended as a second course in statistics for psychology and the social sciences. It builds on PSYC 339/SOSC 302. Advanced factorial ANOVA designs, mixed between- and within-subject designs, and multiple regression will be covered. This course is primarily for advanced psychology undergraduates contemplating enrollment in graduate school.

PSYC 440 - RESEARCH SEMINAR: INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY**Short Title:** RESEARCH IN I/O PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 231**Description:** An examination of selected topics in industrial/organizational psychology, focusing on published and ongoing research by contemporary scholars. Topics will vary. Instructor Permission Required.**PSYC 441 - HUMAN-COMPUTER INTERACTION****Short Title:** HUMAN-COMPUTER INTERACTION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 101 and PSYC 203**Description:** Study of the design and evaluation of interactive computing systems for human use and the major phenomena surrounding them. Mutually Exclusive: Cannot register for PSYC 441 if student has credit for PSYC 341/PSYC 541.**PSYC 445 - ADVANCED SEMINAR IN HEALTH PSYCHOLOGY****Short Title:** ADV SEM IN HEALTH PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment limited to students with a class of Junior or Senior. Enrollment is limited to students with a major in Psychology. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 202 and PSYC 332 and (PSYC 339 or SOSC 302) and PSYC 340**Description:** Consideration of research on psychological factors and health, with special consideration to the role of health beliefs in people's practice and nonpractice of health, illness, and sick-role behaviors. Topics will vary. Repeatable for credit with Permission of Department.**PSYC 452 - EMOTION REGULATION****Short Title:** EMOTION REGULATION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Review of contemporary psychology research on emotion regulation, including conceptual foundations, neurobiological bases, individual differences, involvement in psychopathology, and links to translational research approaches relevant to health psychology. Graduate/Undergraduate Equivalency: PSYC 552. Mutually Exclusive: Cannot register for PSYC 452 if student has credit for PSYC 552.**PSYC 455 - ADVANCED SEMINAR IN CLINICAL PSYCHOLOGY****Short Title:** ADV SEM IN CLINICAL PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 101 and (PSYC 202 or PSYC 203)**Description:** Topics will vary. Repeatable for credit with Permission of Department.**PSYC 461 - REASONING, DECISION MAKING, PROBLEM SOLVING****Short Title:** DECISION MAKING/PROB SOLVING**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 203 and (PSYC 339 or SOSC 302 or STAT 280 or STAT 300 or STAT 305 or STAT 310 or ECON 307)**Description:** Study of the higher mental processes. Includes problem solving, judgment, decision making, and reasoning. Graduate/Undergraduate Equivalency: PSYC 527. Mutually Exclusive: Cannot register for PSYC 461 if student has credit for PSYC 360/PSYC 527.**PSYC 462 - NON-TRADITIONAL INTERFACES****Short Title:** NON-TRADITIONAL INTERFACES**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Advanced coverage of human computer interfaces that are not necessarily graphical in nature. The course covers haptic, gesture, locomotion, auditory, voice olfactory, taste interfaces. Impoverished GUIs (small screen) are investigated, as are interactive voice response systems and complex interfaces that are multi-model. Graduate/Undergraduate Equivalency: PSYC 662. Recommended Prerequisite(s): PSYC 370. Mutually Exclusive: Cannot register for PSYC 462 if student has credit for PSYC 662.

PSYC 463 - MEDICAL HUMAN FACTORS**Short Title:** MEDICAL HUMAN FACTORS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Advanced coverage of the human factors that are specific to medical systems. Topics include medical decision making and diagnosis errors, surgical human factors, medical robots, surgical simulators, and general medical equipment design. Macro-ergonomics of hospital systems, electronic medical records and computerized physician order entry systems are also covered. Graduate/Undergraduate Equivalency: PSYC 663. Recommended Prerequisite(s): PSYC 370. Mutually Exclusive: Cannot register for PSYC 463 if student has credit for PSYC 663.**PSYC 464 - USABILITY ASSESSMENT****Short Title:** USABILITY ASSESSMENT**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** 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, with students performing usability assessments as part of an engineering team that is developing products for deployment. Graduate/Undergraduate Equivalency: PSYC 664. Recommended Prerequisite(s): PSYC 370. Mutually Exclusive: Cannot register for PSYC 464 if student has credit for PSYC 664.**PSYC 465 - OLFACTORY PERCEPTION****Short Title:** OLFACTORY PERCEPTION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 101**Description:** Overview of theories and research related to olfaction. Special topics include olfactory memory, the effect of emotion and cognition on olfaction, olfaction as a channel of communication, sensory integration, and ERP and fMRI studies on olfaction and its relationship with other sensory systems. Graduate/Undergraduate Equivalency: PSYC 565. Mutually Exclusive: Cannot register for PSYC 465 if student has credit for PSYC 565.**PSYC 470 - ENGINEERING PSYCHOLOGY****Short Title:** ENGINEERING PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 370**Description:** This is an advanced human factors course aimed at students who have taken a basic course in human factors or human-computer interaction and are looking for greater depth. Graduate/Undergraduate Equivalency: PSYC 540. Mutually Exclusive: Cannot register for PSYC 470 if student has credit for PSYC 540.**PSYC 475 - STEREOTYPING AND PREJUDICE****Short Title:** STEREOTYPING AND PREJUDICE**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 202**Description:** Consideration of modern research on stereotypes of, prejudice against, and discrimination toward racial, gender, and stigmatized groups. Recommended Prerequisite(s): PSYC 203 and 340.**PSYC 477 - SPECIAL TOPICS****Short Title:** SPECIAL TOPICS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Internship/Practicum, Laboratory, Lecture, Seminar, Lecture/Laboratory**Credit Hours:** 1-4**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Topics and credit hours may vary each semester. Contact department for current semester's topic(s). Repeatable for Credit.**PSYC 480 - ADVANCED TOPICS****Short Title:** ADVANCED TOPICS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** PSYC 101 and (PSYC 202 (may be taken concurrently) or PSYC 203)**Description:** Topics will vary. Please see individual instructor for prerequisite requirements. Repeatable for different topics. Repeatable for Credit.

PSYC 485 - UNDERGRADUATE SUPERVISED RESEARCH**Short Title:** UG SUPERVISED RESEARCH**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Research**Credit Hours:** 1-6**Restrictions:** Enrollment is limited to students with a major in Cognitive Sciences or Psychology. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Supervised empirical research. Research paper required. Sponsorship by faculty member required. Instructor Permission Required. Recommended Prerequisite(s): PSYC 339, PSYC 340. Repeatable for Credit.**PSYC 488 - SUPERVISED READING****Short Title:** SUPERVISED READING**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Independent Study**Credit Hours:** 1-6**Restrictions:** Enrollment is limited to students with a major in Cognitive Sciences or Psychology. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Supervised reading of books and empirical papers on a topic of mutual interest to students and faculty. Term paper required. Sponsorship by faculty member required. Instructor Permission Required. Recommended Prerequisite(s): PSYC 339 and PSYC 340. Repeatable for Credit.**PSYC 495 - SUMMER INTERNSHIP****Short Title:** SUMMER INTERNSHIP**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Internship/Practicum**Credit Hours:** 3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Description:** Provides enrollment for various department summer internships. Instructor Permission Required. Repeatable for Credit.**PSYC 499 - HONORS THESIS****Short Title:** HONORS THESIS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Independent Study**Credit Hours:** 1-6**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Undergraduate, Undergraduate Professional or Visiting Undergraduate level students.**Course Level:** Undergraduate Upper-Level**Prerequisite(s):** (PSYC 339 or SOSC 302) and PSYC 340**Description:** Sponsorship by faculty member required. Students must apply for the Honors Program. Instructor Permission Required. Repeatable for Credit.**PSYC 502 - ADVANCED PSYCHOLOGICAL STATISTICS I****Short Title:** ADVANCED PSYC STATISTICS I**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture/Laboratory**Credit Hours:** 4**Restrictions:** Enrollment is limited to students with a major in Human-Comp Inter & Humn Factrs or Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Introduction to inferential statistics, with emphasis on analysis of variance. Students who do not meet registration requirements as Graduate and Psychology or MHCIHF (Master in Human-Computer Interaction and Human Factors) Majors must receive instructor permission to register. Cross-list: STAT 509.**PSYC 503 - ADVANCED PSYCHOLOGICAL STATISTICS II****Short Title:** ADVANCED PSYC STATISTICS II**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Prerequisite(s):** PSYC 502 or STAT 509**Description:** A continuation of PSYC 502, focusing on multiple regression. Other multivariate techniques and distribution-free statistics are also covered. Cross-list: STAT 510.**PSYC 504 - COMPUTER APPLICATIONS IN PSYCHOLOGY****Short Title:** COMPUTER APPLICATIONS IN PSYC**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** The use of computers in psychological research and in usability engineering. The emphasis will be on dynamic HTML and JavaScript. Topics will include designing and running web-based psychology experiments and the use of web-based video. Graduate/Undergraduate Equivalency: PSYC 342. Mutually Exclusive: Cannot register for PSYC 504 if student has credit for PSYC 342.**PSYC 507 - RESEARCH METHODS****Short Title:** RESEARCH METHODS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Graduate-level treatment of a wide range of laboratory and field research methodologies.

PSYC 511 - HISTORY AND SYSTEMS OF PSYCHOLOGY**Short Title:** HISTORY & SYSTEMS OF PSYC**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Survey of the evolution of psychological theory from the Greeks to the present. Includes development of scientific approaches to the study of human thought and behavior. Graduate/Undergraduate Equivalency: PSYC 411. Mutually Exclusive: Cannot register for PSYC 511 if student has credit for PSYC 411.**PSYC 520 - FOUNDATIONS OF COGNITIVE PSYCHOLOGY****Short Title:** FOUNDATIONS OF COGNITIVE PSYC**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** An introduction to the basic topics in cognitive psychology, including perception, memory, psycholinguistics, concept formation, problem solving, and decision making.**PSYC 521 - PSYCHOLOGY OF PERCEPTION****Short Title:** PERCEPTION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** An introductory survey of sensation and perception, both human and animal. Covers all sensory systems but focuses on vision and audition. Includes the philosophy of perception; measurement and methods; neuroanatomy of visual and auditory systems; computational models of vision, motion, depth, and color; illusions and perceptual organization; and perceptual development. Graduate/Undergraduate Equivalency: PSYC 351.**PSYC 522 - INFORMATION PROCESSING AND ATTENTION****Short Title:** INFO PROCESSING & ATTENTION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** An exploration of topics in attention, including information overload, selective attention, response conflict, and automatic/unconscious and controlled/conscious processes. The neural mechanisms underlying these processes will also be discussed.**PSYC 524 - MEMORY****Short Title:** MEMORY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Overview of issues and research in remembering and forgetting.**PSYC 525 - PSYCHOLINGUISTICS****Short Title:** PSYCHOLINGUISTICS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Study of the psychology of language. Includes the study of speech production, reading, syntax, meaning, bilingualism, language and thought, and language errors and disorders.**PSYC 527 - REASONING, DECISION MAKING, PROBLEM SOLVING****Short Title:** DECISION MAKING/PROB SOLVING**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** The study of higher mental processes. Includes problem solving, judgment, decision making, and reasoning. Graduate/Undergraduate Equivalency: PSYC 461. Mutually Exclusive: Cannot register for PSYC 527 if student has credit for PSYC 461.**PSYC 529 - COGNITIVE RESEARCH SEMINAR****Short Title:** COGNITIVE RESEARCH SEMINAR**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Seminar**Credit Hours:** 1-3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** A weekly student-staff seminar on current and recent research about mental phenomena. Repeatable for Credit.**PSYC 530 - FOUNDATIONS OF I-O PSYCHOLOGY****Short Title:** FOUNDATIONS OF I-O PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Graduate-level introduction to the study of human behavior in the work setting. Instructor Permission Required. Mutually Exclusive: Cannot register for PSYC 530 if student has credit for PSYC 431.

PSYC 531 - HF/HCI RESEARCH SEMINAR**Short Title:** HF/HCI RESEARCH SEMINAR**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Seminar**Credit Hours:** 1-3**Restrictions:** Enrollment is limited to students with a major in Human-Comp Inter & Humn Factrs or Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** A weekly student-staff seminar on various human factors and human-computer interaction topics. Repeatable for Credit.**PSYC 532 - HEALTH RESEARCH SEMINAR****Short Title:** HEALTH RESEARCH SEMINAR**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Seminar**Credit Hours:** 1-3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** A weekly student-staff seminar on current and recent health and emotion-related research. Repeatable for Credit.**PSYC 533 - I-O PSYCHOLOGY RESEARCH SEMINAR****Short Title:** I-O PSYCHOLOGY RESEARCH SEM**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Seminar**Credit Hours:** 1-3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** A weekly student-staff seminar on various industrial-organizational psychology topics. Repeatable for Credit.**PSYC 535 - HUMAN FACTORS/ERGONOMICS****Short Title:** HUMAN FACTORS/ERGONOMICS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Broad overview of the science and profession of human factors/ergonomics. Emphasis is on discussion of literature and presentations of recommendations to applied problems.**PSYC 540 - FOUNDATIONS OF ENGINEERING PSYCHOLOGY****Short Title:** ENGINEERING PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to students with a major in Human-Comp Inter & Humn Factrs or Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** This is an advanced human factors course aimed at students who have taken a basic course in human factors or human-computer interaction and are looking for greater depth. Graduate/Undergraduate Equivalency: PSYC 470. Mutually Exclusive: Cannot register for PSYC 540 if student has credit for PSYC 470.**PSYC 541 - HUMAN-COMPUTER INTERACTION****Short Title:** HUMAN-COMPUTER INTERACTION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Study of the design and evaluation of interactive computing systems for human use and the major phenomena surrounding them. Mutually Exclusive: Cannot register for PSYC 541 if student has credit for PSYC 341/PSYC 441.**PSYC 543 - COMPUTATIONAL MODELING OF COGNITIVE PROCESSES****Short Title:** COMP MODELING OF COG PROCESSES**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** A survey of computational approaches to modeling cognitive processes. The emphasis will be on recent production system models, but other approaches will also be covered. The course will involve evaluation of existing models and hands-on experience in modeling. Graduate/Undergraduate Equivalency: PSYC 430. Mutually Exclusive: Cannot register for PSYC 543 if student has credit for PSYC 430.**PSYC 546 - PSYCHONEUROIMMUNOLOGY****Short Title:** PSYCHONEUROIMMUNOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Psychoneuroimmunology research**PSYC 547 - FOUNDATIONS OF HEALTH PSYCHOLOGY****Short Title:** FOUNDATIONS-HEALTH PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Foundations of Health Psychology research

PSYC 548 - INTERVENTIONS**Short Title:** INTERVENTIONS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: This course will prepare students to conduct high-impact research across the translational continuum in the social, psychobiological, and behavioral sciences. In this course, students will gain a thorough grounding in the conduct of Randomized Controlled Trials (RCTs) and develop competence in the planning, design, and execution of clinical trials involving behavioral interventions. After taking this course, students will be able to plan and conduct longitudinal observational studies and clinical trials that have the potential to change practice guidelines, health care policies, and third-party coverage for health-related outcomes. The first two weeks of the course will cover causal inference in experimental and observational studies and address various implications of counterfactual thinking. The remainder of the course will provide training in planning, designing, and conducting translational research with a focus on randomized controlled trials of health-related behavioral interventions. Each student will develop and write a research grant proposal that will serve as the course "Final." Recommended Prerequisite(s): This course has no specific course prerequisites. It is designed to be most useful to students with knowledge of basic (i.e., undergraduate level statistics and research methods) that are pertinent to the social, behavioral, and biomedical sciences.

Course URL: canvas.rice.edu/courses/33575 (<http://canvas.rice.edu/courses/33575/>)

PSYC 549 - PSYCHOPATHOLOGY, DEVELOPMENT, & AGING**Short Title:** PSYCHOPATHOLOGY,DVLPMENT& AGING**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: This course will take a developmental approach to understand psychopathology and aging. We will seek to evaluate the the factors contributing to psychopathology that emerge across the lifespan. We will adopt a biopsychosocial model to address the roots of normal and abnormal adult development, & aging. This course will begin with an overview of the field; we will then work toward a sophisticated understanding anxiety disorders, aging & cognitive disorders, mood disorders, factitious and dissociative disorders, and personality disorders. Although we will cover nosological models of psychopathology, we will primarily focus on etiology.

PSYC 550 - FOUNDATIONS OF SOCIAL PSYCHOLOGY**Short Title:** FOUNDATIONS OF SOCIAL PSYC**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: Review of theories of social psychology with an emphasis on current empirical research. Instructor Permission Required.

PSYC 551 - GROUP DYNAMICS**Short Title:** GROUP DYNAMICS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Prerequisite(s):** PSYC 530

Description: This course examines current psychological theory and literature concerning intra- and inter-group phenomena within organizational contexts. This course will cover topics such as the unique methodological challenges of studying group-level phenomena; individual-, group-, and organizational-level inputs; group processes; and the assessment of group-level outcomes. Graduate/Undergraduate Equivalency: PSYC 438. Mutually Exclusive: Cannot register for PSYC 551 if student has credit for PSYC 438.

PSYC 552 - EMOTION REGULATION**Short Title:** EMOTION REGULATION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: Review of contemporary psychology research on emotion regulation, including conceptual foundations, neurobiological bases, individual differences, involvement in psychopathology, and links to translational research approaches relevant to health psychology. Graduate/Undergraduate Equivalency: PSYC 452. Mutually Exclusive: Cannot register for PSYC 552 if student has credit for PSYC 452.

PSYC 560 - PSYCHOLOGY PRESENTATIONS**Short Title:** PSYCHOLOGY PRESENTATIONS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Internship/Practicum**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Practicum on oral psychology presentation.**PSYC 561 - TEACHING IN PSYCHOLOGY****Short Title:** TEACHING IN PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Internship/Practicum**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: Assistance in the teaching of undergraduate and occasionally graduate courses in psychology. Repeatable for Credit.

PSYC 563 - COGNITIVE PSYCHOLOGY INTERNSHIP**Short Title:** COGNITIVE PSYC INTERNSHIP**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Internship/Practicum**Credit Hours:** 1-9**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Supervised internship in cognitive psychology. Instructor Permission Required. Repeatable for Credit.**PSYC 564 - COGNITIVE NEUROSCIENCE LAB****Short Title:** COGNITIVE NEUROSCIENCE LAB**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Laboratory**Credit Hour:** 1**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** The objective is to equip the students of PSYC/NEUR 362 the tools on how to apply cognitive neuroscience techniques to health or clinical topics and to investigate sensorimotor and cognitive measures in a human model. Instructor Permission Required. Cross-list: NEUR 564. Graduate/Undergraduate Equivalency: PSYC 364. Mutually Exclusive: Cannot register for PSYC 564 if student has credit for PSYC 364.**PSYC 565 - HUMAN OLFACTION****Short Title:** HUMAN OLFACTION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Overview of theories and research related to olfaction. Special topics include olfactory memory, the effect of emotion and cognition on olfaction, olfaction as a channel of communication, sensory integration, and ERP and fMRI studies on olfaction and its relationship with other sensory systems. Graduate/Undergraduate Equivalency: PSYC 465. Mutually Exclusive: Cannot register for PSYC 565 if student has credit for PSYC 465.**PSYC 571 - FIRST-YEAR PROJECT****Short Title:** FIRST-YEAR PROJECT**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Research**Credit Hours:** 3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Individual research project undertaken in the first year of the graduate program. Repeatable for Credit.**PSYC 572 - SECOND-YEAR PROJECT****Short Title:** SECOND-YEAR PROJECT**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Research**Credit Hours:** 3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Individual research project undertaken during the second year of the graduate program. Repeatable for Credit.**PSYC 573 - NON-THESIS GRADUATE RESEARCH****Short Title:** NON-THESIS GRADUATE RESEARCH**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Research**Credit Hours:** 1-15**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Individual research prior to achieving candidacy. Repeatable for Credit.**PSYC 574 - INTRODUCTION TO COGNITIVE NEUROSCIENCE****Short Title:** INTRO COGNITIVE NEUROSCIENCE**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** An introductory graduate-level overview of cognitive neuroscience. The course will cover basics in history, neuroanatomy, methods of cognitive neuroscience, sensation and perception, control of action, learning and memory, emotion, language, attention, drugs and cognition, impulsivity, cognitive control, social cognition, and neurobiology of disease. This course is usually taught at the Texas Medical Center. Instructor Permission Required. Cross-list: NEUR 508.**PSYC 575 - ADVANCED COGNITIVE NEUROSCIENCE: ATTENTION AND PERCEPTION****Short Title:** ATTENTION AND PERCEPTION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Overview of neuropsychological and cognitive neuroscience approaches to higher mental functions including sensation and perception, attention, motor control, and neuroplasticity. Other topics include basic neuroanatomy, experimental and clinical investigative methods, and the historical and philosophical context of contemporary neuroscience. Instructor Permission Required. Cross-list: NEUR 501.**Course URL:** www.ruf.rice.edu/~neurosci (<http://www.ruf.rice.edu/~neurosci/>)

PSYC 576 - ADVANCED COGNITIVE NEUROSCIENCE: HIGHER MENTAL FUNCTIONS**Short Title:** HIGHER MENTAL FUNCTIONS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Overview of neuropsychological and neuroimaging approaches to higher mental functions, including language, memory, executive functions, reasoning, and numerical processing. Instructor Permission Required. Cross-list: NEUR 502.**Course URL:** www.ruf.rice.edu/~neurosci/ (<http://www.ruf.rice.edu/~neurosci/>)**PSYC 577 - INTRODUCTION TO FUNCTIONAL NEUROANATOMY****Short Title:** FUNCTIONAL NEUROANATOMY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture/Laboratory**Credit Hours:** 2-3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Anatomy and function of components of the nervous system with an emphasis on the central nervous system. Usually taught at the Texas Medical Center. Instructor Permission Required.**PSYC 578 - COGNITIVE NEUROPSYCHOLOGY: THEORIES AND METHODS****Short Title:** COGNEURO: THEORIES AND METHODS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** This course explores different approaches in the field of Cognitive Neuropsychology. Topics include single-case studies, case series, voxel-lesion symptom mapping and computational neuropsychology. We will discuss how to do research with each of these techniques, how to draw inferences from neuropsychological data and critiques of the methodology.**PSYC 580 - DEVELOPMENTAL COGNITIVE NEUROSCIENCE****Short Title:** DEVELOPMENTAL COG NEUROSCIENCE**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Seminar focusing on the neural/biological bases of both normal and abnormal human development through a survey of recent research in developmental cognitive neuroscience. Topics include perceptual, motive, cognitive, and language development as well as experimental research methods for studying the developing brain.**PSYC 581 - VISION SCIENCE****Short Title:** VISION SCIENCE**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Advanced graduate seminar in the psychology of vision, covering the neural, psychophysical, and phenomenological approaches to visual perception.**PSYC 582 - EARLY SENSORY, PERCEPTUAL AND ATTENTIONAL DEVELOPMENT****Short Title:** EARLY SENSORY PERCEPTION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** This is a survey course for graduate students interested in the development of sensory systems, perception, and attention. There will be original empirical and theoretical readings from the literature on the development of these functions primarily during infancy. Neurobiological underpinnings for these functions will be debated and discussed.**PSYC 583 - THEORY, CONTENT, AND EXECUTION IN COGNITIVE NEUROSCIENCE****Short Title:** COGNEURO THEORY/CONTENT/EXECUT**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 2**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** The particular combination of issues in cognitive neuroscience in any one course will vary depending on the background and needs of the students registered for that course and the nature of the important articles in journals covering these areas. Instructor Permission Required. Repeatable for Credit.**PSYC 584 - FUNDAMENTAL NEUROSCIENCE SYSTEMS****Short Title:** NEUROSYSTEMS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** This course will provide a broad overview of the brain's neural systems that subserve perception, learning, and behavior. This course will be highly integrative with thematic content including functional organization of the nervous system, neural encoding and decoding, sensory systems, motor systems, and high-level concept processing. Graduate/Undergraduate Equivalency: PSYC 380. Mutually Exclusive: Cannot register for PSYC 584 if student has credit for PSYC 380.

PSYC 585 - FUNCTIONAL MAGNETIC RESONANCE IMAGING LABORATORY**Short Title:** FMRI LABORATORY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Laboratory**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Laboratory course that provides comprehensive introduction to the practical aspects of planning conducting and analyzing Blood Oxygen Dependent Functional Magnetic Resonance Imaging (BOLD fMRI) data. BOLD fMRI is a methodology that allows non-invasive measurements of the neural processing underlying human perception/cognition. Course taught at Baylor College of Medicine for Advanced fMRI.**PSYC 586 - SOCIAL AND AFFECTIVE NEUROSCIENCE****Short Title:** SOCIAL AND AFFECTIVE NEURO**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Review of the field of social and affective neuroscience, including conceptual foundations and methodology. Review and discussion of contemporary research on the neurobiological supporting social cognition and emotion in both healthy and affectively-disordered populations.**PSYC 590 - ADVANCED TOPICS IN NEUROSCIENCE****Short Title:** ADVANCED TOPICS - NEUROSCIENCE**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Topics will vary. Repeatable for Credit.**PSYC 595 - HUMAN-COMPUTER INTERACTION AND HUMAN FACTORS PROFESSIONAL MASTER'S INTERNSHIP****Short Title:** HCI&HF PROF MASTERS INTERNSHIP**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Internship/Practicum**Credit Hour:** 1**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Prerequisite(s):** PSYC 503**Description:** Supervised internship in Human-Computer Interaction and Human Factors Professional Master's Program. Instructor Permission Required.**PSYC 600 - HCI & HF PROFESSIONAL MASTER'S CAPSTONE PROJECT****Short Title:** HCI&HF PROF MASTER'S CAPSTONE**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Research**Credit Hours:** 6**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Prerequisite(s):** PSYC 503**Description:** This course allows students to integrate all of the knowledge they have gained in their HCI/HF professional master's coursework in the form of a capstone project in the area of human-computer interaction and human factors. The capstone may be either research focused or application focused. Department Permission Required.**PSYC 601 - MULTIVARIATE STATISTICS****Short Title:** MULTIVARIATE STATISTICS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** This course provides an overview of a wide range of concepts and skills for conducting data analysis on multivariate data sets encountered in psychology. Issues involve preparing the data set, selecting and conducting the appropriate analysis, interpreting the output from statistical programs, and presenting complex analyses and results in a clear manner.**PSYC 602 - PSYCHOMETRICS****Short Title:** PSYCHOMETRICS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Test theory, including reliability, validity, item response theory, and generalizability theory. In addition, the course offers hands-on experience with analysis software and discussion of practical issues such as test bias, item writing, and scale construction.**PSYC 609 - METHODS IN HUMAN-COMPUTER INTERACTION****Short Title:** METHODS HUMAN-COMP INTERACTION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Introduction to methods for developing and testing user interfaces to computer systems. The focus is on web-based applications. Graduate/Undergraduate Equivalency: PSYC 409. Mutually Exclusive: Cannot register for PSYC 609 if student has credit for PSYC 409.

PSYC 620 - ADVANCED TOPICS IN COGNITIVE PSYCHOLOGY**Short Title:** ADV TOPICS - COGNITIVE PSYC**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Topics will vary. Repeatable for Credit.**PSYC 621 - TOPICS IN MEMORY****Short Title:** TOPICS IN MEMORY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Topics will vary. Repeatable for Credit.**PSYC 622 - TOPICS IN PSYCHOLINGUISTICS****Short Title:** TOPICS IN PSYCHOLINGUISTICS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** In-depth, consideration of specialized topics in the psychology of language. Topics vary from year to year. Repeatable for Credit.**PSYC 624 - SOCIAL/ORGANIZATIONAL PSYCHOLOGY RESEARCH SEMINAR****Short Title:** SOCIAL/ORG PSYC RESEARCH SEM**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Seminar**Credit Hours:** 1-3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Weekly seminar to discuss recent research in social/organizational psychology. Instructor Permission Required. Repeatable for Credit.**PSYC 625 - COGNITIVE NEUROSCIENCE RESEARCH SEMINAR****Short Title:** COGNEURO RESEARCH SEMINAR**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 1-3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Weekly seminar to discuss recent research in cognitive neuroscience. Instructor Permission Required. Repeatable for Credit.**PSYC 626 - HUMAN FACTORS/HUMAN-COMPUTER INTERACTION RESEARCH SEMINAR****Short Title:** HF/HCI RESEARCH SEMINAR**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 1-3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Weekly seminar to discuss recent research in human factors/human-computer interaction. Instructor Permission Required. Repeatable for Credit.**PSYC 627 - INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY RESEARCH SEMINAR****Short Title:** I/O PSYC RESEARCH SEMINAR**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 1-3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Weekly seminar to discuss recent research in industrial/organizational psychology. Instructor Permission Required. Repeatable for Credit.**PSYC 628 - MEMORY RESEARCH SEMINAR****Short Title:** MEMORY RESEARCH SEMINAR**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Seminar**Credit Hour:** 1**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Weekly seminar to discuss recent research in human memory. Repeatable for Credit.**PSYC 629 - PSYCHOLINGUISTICS RESEARCH SEMINAR****Short Title:** PSYCHOLINGUISTICS SEMINAR**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Seminar**Credit Hour:** 1**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Weekly seminar to discuss recent research in psycholinguistics. Repeatable for Credit.**PSYC 630 - ADVANCED TOPICS IN I/O****Short Title:** ADVANCED TOPICS IN I/O**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Prerequisite(s):** PSYC 530**Description:** Topics will vary. Repeatable for different topics. Repeatable for Credit.

PSYC 631 - FOUNDATIONS OF INDIVIDUAL DIFFERENCES**Short Title:** INDIVIDUAL DIFFERENCES**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: Applied psychologists attempt to build theoretical and empirical models that effectively explain how variation in individual differences (e.g., cognitive ability, personality, motivation, interests) relates to variation in practically relevant outcomes (e.g., training effectiveness, job performance, response to clinical treatment). This course covers major theoretical and methodological approaches to this end.

PSYC 632 - LEADERSHIP**Short Title:** LEADERSHIP**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: Examination of the major psychological approaches to the study of leadership. Emphasis is on theory and practice in formal organizations.

PSYC 634 - PERSONNEL PSYCHOLOGY**Short Title:** PERSONNEL PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Prerequisite(s):** PSYC 530

Description: Examination of the theory, research, and applications in personnel selection, including job analysis, job performance, evaluation of performance, validation of selection methods, and training.

PSYC 635 - MULTILEVEL MODELING IN PSYCHOLOGICAL RESEARCH**Short Title:** MULTILEVEL MODELING**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: Psychological data often have a nested structure (e.g., students within classrooms, time points within individuals). Multilevel modeling of such data yields results that are more appropriate and interpretable than traditional statistical methods. Students will gain both practical and conceptual knowledge of this popular methodology.

PSYC 636 - ORGANIZATIONAL PSYCHOLOGY**Short Title:** ORGANIZATIONAL PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Prerequisite(s):** PSYC 530

Description: Contemporary theory and research in organizational psychology, including topics such as motivation, leadership, job satisfaction, occupational stress, social cognition in work organizations, and group processes. Graduate/Undergraduate Equivalency: PSYC 436. Mutually Exclusive: Cannot register for PSYC 636 if student has credit for PSYC 436.

PSYC 637 - META-ANALYSIS IN PSYCHOLOGICAL RESEARCH**Short Title:** META-ANALYSIS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: Meta-analysis is a popular tool for statistically aggregating effects across related psychological studies. Course topics traverse a wide range of issues, including developing and using a coding sheet, fixed- vs. random-effects models, analysis moderator effects, correcting for statistical artifacts, dealing with dependent outcomes and outliers, and detecting publication bias.

PSYC 638 - STRUCTURAL EQUATION MODELING**Short Title:** STRUCTURAL EQUATION MODELING**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: Structural equation modeling attempts to provide improved estimates of construct-level relationships. It also allows for complex hypothesis testing (e.g., mediation between groups, longitudinal) to find an appropriate balance between model parsimony and model fit. This course introduces students to basic concepts and applications of this popular research method.

PSYC 639 - INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY INTERNSHIP**Short Title:** I/O PSYCHOLOGY INTERNSHIP**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Internship/Practicum**Credit Hours:** 1-9**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate

Description: Supervised internship in organizational and/or personnel psychology. Instructor Permission Required. Repeatable for Credit.

PSYC 640 - TOPICS IN HUMAN-COMPUTER INTERACTION**Short Title:** TOPICS IN HCI**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Topics will vary. Repeatable for Credit.**PSYC 641 - SPECIAL TOPICS IN HUMAN-COMPUTER INTERACTION****Short Title:** SPECIAL TOPICS IN HCI**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 1-6**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Topics will vary. Repeatable for Credit.**PSYC 649 - HUMAN FACTORS/HUMAN-COMPUTER INTERACTION INTERNSHIP****Short Title:** HF/HCI PSYC INTERNSHIP**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Internship/Practicum**Credit Hours:** 1-9**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Supervised internship in engineering psychology. Instructor Permission Required. Repeatable for Credit.**PSYC 651 - TOPICS IN SOCIAL PSYCHOLOGY****Short Title:** TOPICS IN SOCIAL PSYCHOLOGY**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Topics will vary. Repeatable for Credit.**PSYC 660 - PROFESSIONAL ISSUES****Short Title:** PROFESSIONAL ISSUES**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Discussion of selected topics on professional matters. Includes grant writing, licensing, and ethics in psychology.**PSYC 662 - NON-TRADITIONAL INTERFACES****Short Title:** NON-TRADITIONAL INTERFACES**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Advanced coverage of human computer interfaces that are not necessarily graphical in nature. The course covers haptic, gesture, locomotion, auditory, voice olfactory, taste interfaces. Impoverished GUIs (small screen) are investigated, as are interactive voice response systems and complex interfaces that are multi-model. Graduate/Undergraduate Equivalency: PSYC 462. Recommended Prerequisite(s): PSYC 370. Mutually Exclusive: Cannot register for PSYC 662 if student has credit for PSYC 462.**PSYC 663 - MEDICAL HUMAN FACTORS****Short Title:** MEDICAL HUMAN FACTORS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Advanced coverage of the human factors that are specific to medical systems. Topics include medical decision making and diagnosis errors, surgical human factors, medical robots, surgical simulators, and general medical equipment design. Macro-ergonomics of hospital systems, electronic medical records and computerized physician order entry systems are also covered. Graduate/Undergraduate Equivalency: PSYC 463. Recommended Prerequisite(s): PSYC 370. Mutually Exclusive: Cannot register for PSYC 663 if student has credit for PSYC 463.**PSYC 664 - USABILITY ASSESSMENT****Short Title:** USABILITY ASSESSMENT**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Lecture**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** 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, with students performing usability assessments as part of an engineering team that is developing products for deployment. Graduate/Undergraduate Equivalency: PSYC 464. Recommended Prerequisite(s): PSYC 370. Mutually Exclusive: Cannot register for PSYC 664 if student has credit for PSYC 464.

PSYC 665 - SEMINAR IN GENES AND COGNITION**Short Title:** SEMINAR IN GENES AND COGNITION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** This seminar will consist of reading and discussing papers on molecular genetic studies of various cognitive functions broadly construed. This will include studies of genes and attention, genes and working memory, and genes and executive function. Will also include readings on genes and disordered cognition (e.g., ADHD, Alzheimer's).**PSYC 671 - METHODS IN COGNITIVE NEUROSCIENCE****Short Title:** METHODS COGNITIVE NEUROSCIENCE**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Explores issues in functional neuroimaging and provides hands-on experience with experimental design, data acquisition, and analysis. Examines hemodynamic (PET, fMRI), electrophysiologic (EEG, MEG), and other (e.g. neural stimulation, event-related optical) methods of measuring functional activation in the human brain related to cognitive operations. This course is usually offered at the University of Texas Medical School.**PSYC 677 - SPECIAL TOPICS****Short Title:** SPECIAL TOPICS**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Internship/Practicum, Lecture, Seminar, Laboratory**Credit Hours:** 1-4**Restrictions:** Enrollment is limited to Graduate or Visiting Graduate level students.**Course Level:** Graduate**Description:** Topics and credit hours vary each semester. Contact department for current semester's topic(s). Repeatable for Credit.**PSYC 681 - PERCEPTUAL ORGANIZATION****Short Title:** PERCEPTUAL ORGANIZATION**Department:** Psychological Sciences**Grade Mode:** Standard Letter**Course Type:** Seminar**Credit Hours:** 3**Restrictions:** Enrollment is limited to Graduate level students.**Course Level:** Graduate**Prerequisite(s):** PSYC 581**Description:** Advanced graduate course. Perceptual organization, primarily in human vision but in other senses too. We examine theoretical issues underlying perceptual organization; principal phenomena; methods used to reveal perception of structure; neural basis of perception organization; theories of perceptual organization; and remaining problems in the field.**PSYC 700 - THESIS RESEARCH****Short Title:** THESIS RESEARCH**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Research**Credit Hours:** 1-15**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Research for the master's thesis. Repeatable for Credit.**PSYC 800 - DISSERTATION RESEARCH****Short Title:** DISSERTATION RESEARCH**Department:** Psychological Sciences**Grade Mode:** Satisfactory/Unsatisfactory**Course Type:** Research**Credit Hours:** 1-15**Restrictions:** Enrollment is limited to students with a major in Psychology. Enrollment is limited to Graduate level students.**Course Level:** Graduate**Description:** Research for the doctoral dissertation. Repeatable for Credit.

Description and Code Legend

Note: Internally, the university uses the following descriptions, codes, and abbreviations for this academic program. The following is a quick reference:

Course Catalog/Schedule

- Course offerings/subject code: PSYC

Program Description and Code

- Human-Computer Interaction and Human Factors: HCIF

Graduate Degree Description and Code

- Master of Human-Computer Interaction and Human Factors: MHCIFH

Graduate Degree Program Description and Code

- Degree Program in Human-Computer Interaction and Human Factors: HCIF

CIP Code and Description ¹

- HCIF Major/Program: CIP Code/Title: 30.3101 - Human Computer Interaction

¹ Classification of Instructional Programs (CIP) 2020 Codes and Descriptions from the National Center for Education Statistics: <https://nces.ed.gov/ipeds/cipcode/>