Cognitive, Linguistic, and Psychological Sciences

(Primarily for Undergraduates)

0010 Elementary Psychology: An Introduction to Mind and Behavior (formerly PSYC 0010)
A survey covering the roles of inherited and environmental determinants of human behavior. Topics include sensation, perception, learning, memory, motivation, emotion, neural processes, language, social development, personality assessment, obedience, interpersonal attraction, and the diagnosis, origins, and treatment of mental illness. Laboratory sections illustrate methodologies used to study these issues. Topic selection varies with instructor.

Spr CLPS0010 S01 25919 MWF 11:00-11:50(04) (M. Macinnis)

0100 Learning and Conditioning (formerly PSYC 0900)
Presents classical and contemporary approaches to the study of the prediction and control of behavior. Emphasizes theories and data derived from studies of Pavlovian conditioning and instrumental learning with nonhuman animals, but also considers implications for human behavior (e.g., drug-dependent behaviors, eating disorders, behavior modification and psychopathologies). No prerequisites.

Spr CLPS0100 S01 25486 MWF 1:00-1:50(06) (R. Colwill)

0110 Mechanisms of Animal Behavior (formerly PSYC 0500)
An examination of physiological and evolutionary mechanisms underlying species-specific behavior in both vertebrate and invertebrate animals. Topics include: evolution and mechanisms of sensory systems, modes of locomotion, orientation and navigation, communication, and cognitive capacities of animals.

Spr CLPS0110 S01 25487 MWF 11:00-11:50(04) (A. Simmons)

0200 Human Cognition (formerly COGS 0420)
Introduction to theoretical issues and empirical findings motivating controversies in human cognition. Basic issues in cognition - including attention, memory, categorization, reasoning, decision making and problem solving will be examined. Emphasis will be on experimental methods and formal theories. LILE

Spr CLPS0200 S01 25488 TTh 9:00-10:20(08) (S. Sloman)

0500 Perception and Mind (formerly COGS/PSYC 0440)
How do the mind and the brain take physical energy such as light or sound and convert it into our perception of the world? This course examines the behavioral and biological bases of human and animal perceptual systems, including vision, audition, smell, taste, and touch. Particular emphasis is placed on high-level perception and how it relates to other cognitive systems.

Spr CLPS0500 S01 25489 MWF 1:00-1:50(06) (L. Welch)

0701 Personality (formerly PSYC 0300)
A survey of the major perspectives (psychoanalytic, behavioral, humanistic, etc.) within theories of personality. Particular emphasis is placed on the integration of research and theory.

Spr CLPS0701 S01 25491 TTh 9:00-10:20(08) (B. Hayden)

0800 Language and the Mind (formerly COGS 0450)
Explores fundamental issues in psycholinguistics: what is the nature of language; what are its biological underpinnings; how does the mind process speech, recognize words, parse sentences, comprehend discourse; what do effects of brain injuries on language reveal about the organization of language in the mind? Syntheses of results from multiple modes of analysis – linguistic, psychological, computational, and neurophysiological – are emphasized. LILE

Spr CLPS0800 S01 25492 MWF 11:00-11:50(04) (J. Morgan)

0810 The Biology and Evolution of Language (formerly COGS 0320)
Human language is made possible by specialized anatomy and brains that can regulate speech production, complex syntax, and acquiring and using thousands of words. This course examines Darwin's theory of evolution and the archaeological and fossil records of human evolution; studies of chimpanzee communication, culture, and language
which provide insights on human evolution; the physiology of human speech; and recent studies of the brain bases of human language and thought.

Spr CLPS0810 S01 25493 MWF 1:00-1:50(06) (P. Lieberman)

0900 Quantitative Methods in Psychology (formerly COGS/PSYC 0090)
A survey of statistical methods used in the behavioral sciences. Topics include graphical data description, probability theory, confidence intervals, principles of hypothesis testing, analysis of variance, correlation, and regression, and techniques for categorical data. Emphasizes application of statistical methods to empirical data.

Spr CLPS0900 S01 25494 TTh 10:30-11:50(09) (J. Wright)

(For Undergraduates and Graduates)

1110 Behavior Modification (formerly PSYC 1700)
Examines basic principles of learning theory as applied to the development and change of human behavior. Topics include: experimental design in clinical research, addictive behavior, fear and anxiety reduction, cognitive behavior modification, self management, child behavior modification, and clinical therapy. Prerequisites: CLPS 0701 (PSYC 0300) or CLPS 1700 (PSYC 1330). Enrollment limited to 50.

Spr CLPS1110 S01 25983 TTh 2:30-3:50(11) (J. Wincze)

1290 Laboratory in Cognitive Processes (formerly COGS 1530)
Presents the experimental way of thinking by pursuing several topics in an interactive computer-based laboratory. Students run experiments as a class and, by the end of the course, run their own experiment. Focus is on experimental design, procedure, analysis, and reporting. Topics include attention, visual imagery, memory, and reasoning. Prerequisite: CLPS 0900 (COGS/PSYC 0090), and either CLPS 0200 (COGS 0420) or CLPS 0500 (COGS 0440); or permission of the instructor.

Spr CLPS1290 S01 25497 M 3:00-5:20(13) (K. Spoehr)

1291 Computational Cognitive Science (formerly COGS 1280)
A detailed introduction to computational modeling of cognition, summarizing traditional approaches and providing experience with state-of-the-art methods. Covers pattern recognition approaches, shallow and hierarchical networks including Bayesian probabilistic models, and illustrates how they have been applied in several key areas in cognitive science, including visual perception and attention, object and face recognition, learning and memory as well as decision-making and reasoning. Focuses on modeling simple laboratory tasks from cognitive psychology. Connections to contemporary research in computer science will be emphasized highlighting how computational models may motivate the development of new hypothesis for experiment design in cognitive psychology.

Spr CLPS1291 S01 25498 TTh 1:00-2:20(10) (T. Serre)

1310 Introduction to Phonological Theory (formerly COGS 1210)
Examines some of the classic and current issues regarding sound structure in the world's languages and introduces the theoretical tools needed to solve them. After a brief introduction to articulatory phonetics and phonemic analysis, it focuses on phonological analysis of different languages, discussing segmental phonology, syllable structure, autosegmental representations, stress systems, and prosodic word structure. Implications for language learning and language change are discussed. Prerequisite: CLPS 0030 (COGS 0410).

Spr CLPS1310 S01 25499 'To Be Arranged'

1330 Introduction to Syntax (formerly COGS 1310)
An in-depth investigation of natural language syntax, an intricate yet highly organized human cognitive system. Focuses primarily on the syntax of English as a means of illustrating the structured nature of a grammatical system, but the broader question at issue is the nature of the rule system in natural language syntax. Prerequisite: CLPS 0030 (COGS 0410).

Spr CLPS1330 S01 25500 TTh 2:30-3:50(11) (P. Jacobson)

1342 Formal Semantics (formerly COGS 1130)
Model-theoretic approaches to the study of the semantics of natural languages. Develops the tools necessary for an understanding of "classical" formal semantics (the lambda calculus, intensional logic; Montague's treatment of quantification, etc.); then applies these tools to the analysis of natural language semantics; and finally turns to recent developments in formal semantic theory. Prerequisite: some familiarity with syntax or semantics or basic set theory and logic.

Spr CLPS1342 S01 25501 TTh 10:30-11:50(09) (P. Jacobson)

1389 Topics in Language Processing (formerly COGS 1840)
No description available.

Spr CLPS1389 S01 25502 'To Be Arranged'

1470 Mechanisms of Motivated Decision Making
How do we make decisions? This course considers the factors and mechanisms involved in motivated decision making, as informed by cognitive, neuroscientific, and computational modeling approaches. Readings will span a range of populations (e.g., healthy adults, adults with acquired brain damage, monkeys) and methods (e.g., behavioral, genetic, pharmacological and neuroimaging studies, electrophysiological recordings). Computational models will be prominently featured as a means for formalizing decision making theories across multiple levels of analysis, some focusing on high-level cognitive computations and others on neural mechanisms. Prerequisite: CLPS 0010, 0040, 1291, 1400, 1491, 1492, or NEUR 0010. Enrollment limited to 20. Not open to first year students.

Spr CLPS1470 S01 25992 M 3:00-5:20(13) (M. Frank)

1490 Functional Magnetic Resonance Imaging: Theory and Practice (formerly PSYC 1840)
This course will train students in the practice and use of functional magnetic resonance imaging (fMRI) as a cognitive neuroscience methodology. Topics covered include MRI physics, the physiological basis of the BOLD signal, experimental design, data collection, statistical analysis, and inference. A practical component of the course includes the opportunity to collect and analyze fMRI data at the Brown MRF. Prerequisites: CLPS 0040 (COGS 0720), CLPS 0400 (PSYC 0470), or NEUR 0010; and CLPS 0900 (PSYC/COGS 0090), or instructor permission. Enrollment limited to 20.

Spr CLPS1490 S01 25503 TTh 2:30-3:50(11) (D. Badre)

1491 Neural Modeling Laboratory (formerly COGS 1020)
Numerical simulations of cognitively oriented nervous system models. Discussion of parallel, distributed, associative models: construction, simulation, implications, and use. Prerequisites: MATH 0090, 0100, or equivalent; knowledge of a computer language; some background in neuroscience or cognitive science is helpful.

Spr CLPS1491 S01 25504 MWF 10:00-10:50(03) (J. Anderson)

1600 History and Theories of Child Development (EDUC 1710)
Interested students must register for EDUC 1710 S01 (CRN 25967).

1610 Cognitive Development (formerly COGS 1180)
How do infant and preschoolers learn about the world? We will examine children's understanding of the physical world, psychological kinds, biological entities, number, objects, and space. Students are expected to read and comment on both empirical and theoretical primary source articles, to participate in weekly discussions, and complete a set of writing assignments. Prerequisites: CLPS 0600 (PSYC0810), CLPS 0610 (COGS0630), or EDUC0800.

Spr CLPS1610 S01 25505 Th 4:00-6:20(16) (D. Sobel)

1690 Laboratory in Developmental Psychology (formerly COGS 1610)
Conceptual and methodological foundations of research design and analysis in developmental psychology, with particular reference to techniques commonly used in studying cognitive development. We will cover general principles of experimental design, measurement and assessment, and strategies of data analysis. Practical and ethical issues involved in conceiving, designing, executing, interpreting, and presenting research will be considered. Recommended prerequisites: CLPS 0610 (COGS 0630), and CLPS 0900 (COGS/PSYC 0090) or equivalent. Enrollment limited to 15.

Spr CLPS1690 S01 25506 'To Be Arranged'
1791 Laboratory in Social Cognition (formerly PSYC 1540)
Examines principles of experimental design and analysis in the context of classic and contemporary research in social cognition. Students replicate and extend several studies on topics such as person perception, social stereotyping, or judgment and decision making. Students will participate in the design of these studies, gather their own data, analyze them, and report the findings in oral presentations and written reports. Prerequisites: CLPS 0010 (PSYC 0010), CLPS 0700 (PSYC 0210), and CLPS 0900 (PSYC/COGS 0090). Enrollment limited to 27.
Spr  CLPS1791  S01  25507  TTh 1:00-2:20(10)  (J. Krueger)

1800 Language Processing (formerly COGS 1410)
Explores the nature of language processing with the goal of understanding how we produce and comprehend language. Topics include speech production and speech perception, lexical processing, and syntactic processing. Experimental investigations are studied in an attempt to understand the processes and mechanisms employed in the everyday use of language. Prerequisite: one of CLPS 0020 (COGS 0010), CLPS 0030 (COGS 0410), or CLPS 0800 (COGS 0450).
Spr  CLPS1800  S01  26023  'To Be Arranged'  (L. Kertz)

1820 Language and the Brain (formerly COGS 1480)
This course will examine the neural systems underlying language processing. Major focus will be on effects of brain injury on speaking and understanding in left hemisphere-damaged patients who have aphasia, right hemisphere-damaged patients, and split-brain patients. Behavioral, electrophysiological and neuroimaging evidence will be investigated.
Spr  CLPS1820  S01  25508  MWF 10:00-10:50(03)  (S. Blumstein)

1900 Senior Seminar in Cognitive Science (formerly COGS 1950)
Examines general philosophical and theoretical issues that cut across cognitive science. Each student writes a substantial paper on a topic in cognitive science. Required of cognitive science concentrators. Enrollment limited to concentrators in the 7th semester or beyond, and, by permission, to others who have significant course background in cognitive science.
Spr  CLPS1900  S01  25509  W 3:00-5:20(14)  (J. Anderson)

1970 Independent Study (formerly COGS 1980)
Independent study or directed research in cognitive science. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.
Spr

1980 Directed Research in Psychology (formerly PSYC 1990)
Required of all ScB concentrators and Honors students in psychology. Instructor permission required. S/NC only. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.
Spr

(Primarily for Graduates)

2001 Graduate Proseminar II
Pending Approval. No description available. Open to graduate students only.
Spr  CLPS2001  S01  25753  'To Be Arranged'

2010 Neural Components of Reinforcement Learning and Decision Making
Pending Approval. No description available.
Spr  CLPS2010  S01  25510  M 3:00-5:20(13)  (M. Frank)

2092 Graduate First Year Project Research (formerly PSYC 2010)
Please check Banner for the correct section number and CRN to use when registering for this course.
Spr
2095 Practicum in Teaching (formerly COGS/PSYC 2050)
Each student will assist a designated faculty member in teaching a course in cognitive science or related discipline. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.
Spr

2096 Directed Graduate Research (formerly COGS 2980/2981, PSYC 2030)

2181 Advanced Topics in Animal and Human Learning (formerly PSYC 2320B)
Topics vary from year to year, examples include theories of associative learning, animal cognition, computational models of learning and performance, and neurobiological models of basic associative processes. Open to graduate students only.
Spr CLPS2181 S01 25511 Th 4:00-6:20(16) (R. Colwill)

2500 Core Topics in Perception (formerly COGS 2200C, PSYC 2400)
No description available. Open to graduate students only.
Spr CLPS2500 S01 25512 *To Be Arranged*

2908 Multivariate Statistical Techniques (formerly PSYC 2080)
This course covers the basic multivariate techniques currently used in psychology and related sciences: multiple regression, logistic regression, principal components and factor analysis, multivariate analysis of variance, discriminant function analysis, and log-linear analysis. Students will learn these techniques' conceptual foundations, their proper selection for a given data set, and the interpretation of computer output from statistical analysis packages (primarily SPSS). Enrollment limited to 20 graduate students.
Spr CLPS2908 S01 25513 MW 10:30-11:50(04) (B. Malle)

2970 Preliminary Examination Preparation (formerly COGS/PSYC 2970)
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination.
Spr CLPS2970 S01 25514 *To Be Arranged*

2990 Thesis Preparation (formerly COGS/PSYC 2990)
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.
Spr CLPS2990 S01 25515 *To Be Arranged*

Linguistics

(Primarily for Undergraduates)

0800 Language and the Mind (CLPS 0800)
Interested students must register for CLPS 0800 S01 (CRN 25492).

0810 The Biology and Evolution of Language (CLPS 0810)
Interested students must register for CLPS 0810 S01 (CRN 25493).

(For Undergraduates and Graduates)

1310 Introduction to Phonological Theory (CLPS 1310)
Interested students must register for CLPS 1310 S01 (CRN 25499).

1330 Introduction to Syntax (CLPS 1330)
Interested students must register for CLPS 1330 S01 (CRN 25500).
1342  **Formal Semantics (CLPS 1342)**  
Interested students must register for CLPS 1342 S01 (CRN 25501).

1389  **Topics in Language Processing (CLPS 1389)**  
Interested students must register for CLPS 1389 S01 (CRN 25502).

1800  **Language Processing (CLPS 1800)**  
Interested students must register for CLPS 1800 S01 (CRN 26023).

1820  **Language and the Brain (CLPS 1820)**  
Interested students must register for CLPS 1820 S01 (CRN 25508).