

PSYCHOLOGY (PSYC)

PSYC 6000. Responsible Conduct of Research (RCR). 1 Credit Hour.

Topics include research misconduct, data management, use of animal and human subjects, conflicts of interest and commitment, authorship, publication, peer review, and collaboration and mentoring.

PSYC 6011. Cognitive Psychology. 3 Credit Hours.

Survey course on human cognition including pattern recognition, attention, memory, categorization, problem solving, consciousness, decision making, intention, and the relation between mind and brain.

PSYC 6012. Social Psychology. 3 Credit Hours.

Fundamental theory and research in social behavior including social perception/cognition, attitude formation and change, social influences, and group processes.

PSYC 6013. Biopsychology. 3 Credit Hours.

Neurophysiological, endocrinological, and biochemical bases of sensory and motor functioning, motivation, learning, memory, and behavior dysfunction.

PSYC 6014. Sensation and Perception. 3 Credit Hours.

This course examines how sensations and perceptions of the outside world are processed by humans, including physiological, psychophysical, ecological, and computational perspectives.

PSYC 6015. Developmental Psychology. 3 Credit Hours.

Overview of concepts, assumptions, methods, theories, and research in human development across the life span including cognitive, emotional, and social behavior.

PSYC 6016. Experimental Analysis of Behavior. 3 Credit Hours.

Conceptual, methodological, and theoretical issues in the experimental analysis of behavior with special emphasis on classical and operant conditioning as foundations for complex behavior.

PSYC 6017. Human Abilities. 3 Credit Hours.

Theory, methods, and applications of research on human abilities, including intelligence, aptitude, achievement, learning, aptitude treatment interactions, information processing correlates, and measurement issues.

PSYC 6018. Principles of Research Design. 3 Credit Hours.

Introduction to basic principles and practices of empirical research in psychology. Covers both experimental and correlational methods and designs.

PSYC 6019. Statistical Analysis of Psychological Data I. 5 Credit Hours.

Introductory treatment of descriptive and inferential statistics as applied to psychological research.

PSYC 6020. Statistical Analysis of Psychological Data II. 5 Credit Hours.

Introductory treatment of inferential statistics, especially the general linear model, as applied to psychological research.

PSYC 6021. Personality Theories. 3 Credit Hours.

Survey of personality theories, research, and methods of assessment.

PSYC 6022. Psychological Statistics for HCI. 4 Credit Hours.

Introduction to statistical methods as applied to psychological data within the HCI domain. Credit not allowed for both PSYC 6022 and PSYC 2020.

PSYC 6023. Psychological Research Methods for HCI. 4 Credit Hours.

Introduction to psychological research methods within the HCI domain. Credit not allowed for both PSYC 6023 and PSYC 2020.

PSYC 6031. Engineering Psychology: Analysis Techniques. 2 Credit Hours.

This course covers the basic analysis techniques used to investigate human-machine systems and human performance.

PSYC 6032. Engineering Psychology: Environmental Stressors and Performance. 1 Credit Hour.

This course covers environmental stressors and their influence on human performance. Emphasis will be placed on noise, lighting, micro-gravity and atmospheric conditions.

PSYC 6033. Engineering Psyc: Cognitive Ergonomics. 1 Credit Hour.

This course applies the research findings from cognitive psychology to the design of products and systems that involve people.

PSYC 6034. Engineering Psyc: Displays. 1 Credit Hour.

This course covers the basic human factors principles involved in display formatting.

PSYC 6035. Engineering Psyc: Controls and Workspace. 1 Credit Hour.

This course covers the basic human factors principles involved in controls and workspace layout.

PSYC 6040. Current Topics in Cognition and Brain Sciences. 1 Credit Hour.

This course presents current research topics in cognition and brain science.

PSYC 6041. Current Topics in Cognitive Aging. 1 Credit Hour.

This course presents current research topics in cognitive aging.

PSYC 6042. Neuroimaging: From Image to Inference. 3 Credit Hours.

This course details the potential and limits of fMRI and critically evaluates the inferences that can be drawn from fMRI studies.

PSYC 6043. Engineering Psychology Research Seminar. 1 Credit Hour.

This course presents current research topics in engineering psychology.

PSYC 6060. Psychology of Aging. 3 Credit Hours.

A survey covering psychological aspects of aging, mind, and behavior (perception, cognition, emotion, mental health) and topics relevant to adulthood (e.g. caregiving and retirement).

PSYC 6090. Cognitive Neuroscience. 3 Credit Hours.

Examines the foundations of Cognitive Neuroscience, including the biological mechanisms underlying cognition, the dominant theories, and the experimental techniques.

PSYC 6270. Psychological Testing. 3 Credit Hours.

Fundamentals of psychological testing. Topics include test construction and application issues.

PSYC 6690. Neuro AI Models of the Brain and Mind. 3 Credit Hours.

Explore advanced models of human brain and behavior, review the field's progress, and assess current approaches' strengths and limitations. Engage in hands-on group projects developing computational models.

PSYC 6745. Neuro AI Models of the Brain and Mind. 3 Credit Hours.

The course delves into perception, memory, and learning through physical principles. Students study cognition's physical basis, modern neural recording, and data interpretation.

PSYC 6750. Human-Computer Interface. 3 Credit Hours.

Describes the characteristics of interaction between humans and computers and demonstrates techniques for the evaluation of user-centered systems. Crosslisted with CS 6750.

PSYC 6753. Human-Computer Interaction-Professional Preparation and Practice. 1 Credit Hour.

Preparation for a professional career in HCI. Hands-on workshops in resume and portfolio building, interviewing, public speaking, team work. HCI career choices and trajectories.

PSYC 6755. Human-Computer Interaction Foundations. 3 Credit Hours.

Describes the theory and practice of designing effective and efficient interactions between people and technology.

PSYC 6795. Introduction to Cognitive Science. 3 Credit Hours.

Multidisciplinary perspectives on cognitive science. Interdisciplinary approaches to issues in cognition, including memory, language, problem solving, learning, perception, and action. Crosslisted with CS and ISYE 6795.

PSYC 6998. HCI Master's Project. 1-9 Credit Hours.

Final project for students completing a Human-Computer Interaction master's degree. Repeatable for multi-semester projects.

PSYC 6XXX. Psychology Elective. 1-21 Credit Hours.**PSYC 7000. Master's Thesis. 1-21 Credit Hours.****PSYC 7020. Survey of Cognitive Aging. 3 Credit Hours.**

Introduction to theory and research on adult cognitive development, including intelligence, attention, memory, and problem solving.

PSYC 7101. Engineering Psychology I: Methods. 3 Credit Hours.

Basic methods used to study human-machine systems including both system analysis and human performance evaluation techniques. These methods will be applied to specific systems.

PSYC 7102. Engineering Psychology II: Displays, Controls, and Workspace. 3 Credit Hours.

Basic principles of human factors for the design, evaluation, and use of displays, controls, and workspace layouts including new technologies and associated human factors problems.

PSYC 7103. Engineering Psychology III: Environmental Stressors and Human Performance. 3 Credit Hours.

Environmental stressors and their influences on human performance, physiological function, and emotional responses including work/rest cycles, jetlag, noise, vibration, glare, weightlessness, etc.

PSYC 7104. Psychomotor and Cognitive Skill Learning and Performance. 3 Credit Hours.

Human capabilities and limitations for learning and performing psychomotor and cognitive skills are studied.

PSYC 7105. First-year Research Project I. 3 Credit Hours.

First year graduate students will initiate a research project.

PSYC 7106. First-year Research Project II. 3 Credit Hours.

First year graduate students will complete a research project.

PSYC 7201. Industrial/Organizational Psychology. 3 Credit Hours.

This course introduces an overview of issues relevant to behavior in the workplace and psychology applied in industrial and organizational settings.

PSYC 7202. Employee Selection. 3 Credit Hours.

The course provides a conceptual framework for personnel selection guided by scientific principles, research, and theory as well as by professional, legal, and technical guidelines.

PSYC 7203. Motivation and Job Attitudes. 3 Credit Hours.

Examines theory and pragmatics in description, prediction, and measurement of work-related behavior and associated evaluations. Includes theoretical and methodological problems in field and laboratory contexts.

PSYC 7204. Training and Development. 3 Credit Hours.

This course will focus on theory, principles, techniques, and practices relevant to training and developing human resources. Research and professional literature will be examined.

PSYC 7301. Introduction to Multivariate Statistics. 3 Credit Hours.

Foundations for multivariate analysis including properties of linear composite variables, multiple regression, multiple and partial correlation, MANOVA, factor analysis, multiple discriminant analysis, canonical correlation, etc.

PSYC 7302. Structural Equation Modeling. 3 Credit Hours.

Methods of causal modeling to study causal relations including issues of causality, establishing causality, fundamentals of linear structural equation modeling with latent variables, fitting models.

PSYC 7303. Psychometric Theory. 3 Credit Hours.

Preparation of students in statistical theory and techniques relevant to becoming professionally involved in construction, analysis, and evaluation of psychology and personnel tests.

PSYC 7304. Multilevel Modeling. 3 Credit Hours.

Foundations of multilevel modeling are taught by extending knowledge of regression analysis to designs involving a nested data structure that violates the independence assumption.

PSYC 7700. Professional Problems. 2 Credit Hours.

Discussion of issues faced by professional psychologists in the areas of teaching, research, and professional practice. Ethical issues in all of these areas are emphasized.

PSYC 7701. Teaching Practicum. 2 Credit Hours.

Supervised college teaching including techniques, course and curriculum design, evaluation. Students will prepare and present lectures with direct observations and video taping for discussion.

PSYC 7790. Cognitive Modeling. 4 Credit Hours.

A hands-on course covering a range of cognitive modeling methodologies. It explores the analysis, development, construction, and evaluation of models of cognitive processing. Crosslisted with CS and ISYE 7790.

PSYC 7999. Preparation for Doctoral Qualifying Exam. 1-21 Credit Hours.**PSYC 8000. Seminar in Experimental Psychology. 3 Credit Hours.**

Critical examination of current problems in a selected area of general experimental psychology. Areas to be discussed may vary each time course is offered.

PSYC 8010. Seminar in Cognitive Psychology. 3 Credit Hours.

Critical examination of current problems in a selected area of cognitive psychology. Areas to be discussed may vary each time course is offered.

PSYC 8020. Seminar in Cognitive Aging. 3 Credit Hours.

Critical examination of current problems in a selected area of cognitive aging. Areas to be discussed may vary each time course is offered.

PSYC 8030. Seminar in Comparative Psychology. 3 Credit Hours.

Critical examination of current problems in a selected area of comparative psychology. Areas to be discussed may vary each time course is offered.

PSYC 8040. Seminar in Engineering Psychology. 3 Credit Hours.

Critical examination of current problems in a selected area of engineering psychology. Areas to be discussed may vary each time course is offered.

PSYC 8050. Seminar in Industrial/Organizational Psychology. 3 Credit Hours.

Critical examination of current problems in a selected area of industrial/organizational psychology. Areas to be discussed may vary each time course is offered.

PSYC 8060. Seminar in Quantitative Psychology. 3 Credit Hours.

Presentation and discussion of quantitative approaches to psychology. Topics will vary, but might include neural networks, measurement theory, behavioral ecology, modeling, system dynamics, etc.

PSYC 8070. Seminar in Cognitive Neuroscience. 3 Credit Hours.

Critical examination of current problems in selected areas of cognitive neuroscience. Areas to be discussed vary each time.

PSYC 8080. Seminar in Cognition and Brain Science. 3 Credit Hours.

Critical examination of current problems in selected areas of cognition and brain sciences. Areas to be discussed may vary each time.

PSYC 8795. Colloquium in Cognitive Science. 1 Credit Hour.

Reading of research papers by leading cognitive scientists, attendance at their colloquia, and meeting with them to discuss research. Crosslisted with CS and ISYE 8795.

PSYC 8802. Topics in CogNeuro. 2 Credit Hours.

Covers current issues and recent advances in cognitive neuroscience.

PSYC 8803. Special Topics in Applied Statistics. 3 Credit Hours.

Covers current issues and recent advances in the application of statistical methods to research in psychology. Instructors select the specific focus for a given term.

PSYC 8804. Special Topics in Cognitive Aging. 3 Credit Hours.

Covers current issues and recent advances in cognitive aging.

PSYC 8805. Special Topics in Cognitive Neuroscience. 3 Credit Hours.

Covers current issues and recent advances in cognitive neuroscience.

PSYC 8806. Special Topics in Cognitive Psychology. 3 Credit Hours.

Covers current issues and recent advances in cognitive psychology.

PSYC 8807. Special Topics in Engineering Psychology. 3 Credit Hours.

Covers current issues and recent advances in Engineering Psychology.

PSYC 8808. Special Topics. 3 Credit Hours.

Special Topics in Psychology.

PSYC 8811. Special Topics. 1 Credit Hour.

Special topics that cover current issues and recent advances in Psychology.

PSYC 8812. Special Topics. 2 Credit Hours.

Special topics that cover current issues and recent advances in Psychology.

PSYC 8890. Special Topics in Cognitive Science. 3 Credit Hours.**PSYC 8900. Special Problems in Experimental Psychology. 1-21 Credit Hours.**

Students conduct research under direction of a faculty member on problems in the general area of experimental psychology.

PSYC 8901. Special Problems in Engineering Psychology. 1-21 Credit Hours.

Students conduct research under the direction of a faculty member on problems in the general area of engineering psychology.

PSYC 8902. Special Problems in Industrial/Organizational Psychology. 1-21 Credit Hours.

Students conduct research under the direction of a faculty member on problems investigating some psychological aspect of industrial/organizational problems.

PSYC 8903. Special Problems in Human-Computer Interaction. 1-21 Credit Hours.

Students conduct research under the direction of a faculty member on problems in the general area of human-computer interaction.

PSYC 8904. Special Problems in Cognitive Aging. 1-21 Credit Hours.

Students conduct research under the direction of a faculty member on problems in cognitive aging.

PSYC 8905. Special Problems in Cognitive Neuroscience. 1-21 Credit Hours.

Students conduct research under the direction of a faculty member on problems in cognitive neuroscience.

PSYC 8906. Special Problems in Cognitive Psychology. 1-21 Credit Hours.

Students conduct research under the direction of a faculty member on problems in cognitive psychology.

PSYC 8907. Special Problems in Cognition & Brain Science. 1-21 Credit Hours.

Students conduct research under the direction of a faculty member on problems in cognition and brain sciences.

PSYC 8908. Special Problems in Quantitative Psychology. 1-21 Credit Hours.

Students conduct research under the direction of a faculty member on problems in quantitative psychology.

PSYC 8997. Teaching Assistantship. 1-9 Credit Hours.

For graduate students holding a teaching assistantship.

PSYC 8998. Research Assistantship. 1-9 Credit Hours.

For graduate students holding a research assistantship.

PSYC 9000. Doctoral Thesis. 1-21 Credit Hours.