Cognitive Science Course Descriptions

**CGS 2301 Cognitive Science** (3 semester hours) An introduction to the study of the brain and behavior from the point of view of cognitive science, including approaches from psychology, philosophy, neuropsychology, and computational modeling. Includes phenomena involving sensory systems, memory, decision making, language, and communication. Laboratory. Satisfies the Core Curriculum Social and Behavioral Science requirement. (3-3) Y

**CGS 3325 Historical Perspectives on Psychology: Mind and Machines since 1600** (3 semester hours) Basic frames of reference in 20th-century psychology and their historical development in Western thought since 1600 with an emphasis on issues involved with minds, brains, and machines. Includes behaviorism, learning theory, artificial intelligence, gestalt, structural and cognitive approaches. (Offered in the spring semester.) Prerequisite: PSY 2301 or CGS 2401. (Same as PSY 3360.) (3-0) Y

**CGS 3340 Empirical Methods in Cognitive Science** (3 semester hours) Laboratory experience in designing and conducting empirical investigations in cognitive science, with a major emphasis on writing research reports. (This course fulfills the advanced writing requirement for Cognitive Science majors and 3 hours of the Communication component of the Core Curriculum). Prerequisite: PSY 3490. (3-0) R

**CGS 3342 Quantitative Models in Cognition** (3 semester hours) Quantitative approaches to description and theory of phenomena in human cognition, including perception, memory, and thought. Prerequisite: CGS 2401. (3-0) T

**CGS 3361 Cognitive Psychology** (3 semester hours) Theory and research on perception, learning, thinking, psycholinguistics, and memory. (Offered in the spring semester.) Prerequisite: PSY 2301 or CGS 2401. (Same as PSY 3361.) (3-0) Y

**CGS 4310 Computational Models of Information Processing Systems** (3 semester hours) Computer and engineering science perspectives on the simulation of intelligent systems. Applications in natural language, sensory systems, and robotics. Prerequisite: CGS 2401 or MATH 2418. (3-0) T

**CGS 4352 Human Computer Interactions** (3 semester hours) This course considers the type of mental models that users construct and exploit in the course of their interactions with computers. Problems concerned with the design and evaluation of efficient human user-interfaces to computers are considered from a cognitive science perspective. (Same as PSY 4358.)

**CGS 4375 Senior Honors Seminar** (3 semester hours) A course for students proposing to conduct undergraduate thesis research in the School of Human Development. The seminar will focus on different approaches to conducting research, current research topics in the school, and development of the student's thesis proposal. Credit/No Credit unless program head approves for letter grade. Permission of College Master required. (Same as PSY 4375, NSC 4375, and SPAU 4375.) (3-0) Y

**CGS 4394 Internship** (3 semester hours) Students earn course credit for field experience in an applied setting. Requires working at least 8 hours per week at an approved community agency or business of the student's choice. Students keep daily job diaries, attend one class meeting per month, and write brief papers relevant to their experiences. Open to all students who have reached junior or senior standing (more than 53 hours). Apply for placements in the College Master's office. Must be taken on Credit/No Credit basis. (Same as PSY 4394, NSC 4394 and SPAU 4393.) (3-0) S

Special Topics

Topics under the following course number vary from semester to semester. The class schedule for the current semester will list the special topic that will be offered.

**CGS 4V90 Special Topics in Cognitive Science** (1-6 semester hours) May be repeated for credit (9 hours maximum). (3-0) R

Independent Study

The following independent study courses are advanced individualized projects to be arranged with a supervising professor. Open only to qualified students by consent of instructor. Students must contact professor and design a contract for study prior to enrollment. Permission forms are available in the College Master's office.
CGS 4397 Honors Thesis (3 semester hours) An independent study course in which the student writes an honors thesis under faculty supervision. (3-0) S

CGS 4V98 Research in Cognitive Science (1-6 semester hours) Student assists faculty with research projects or conducts a research project under weekly faculty supervision. Taken on a Credit/No Credit basis unless Program head approves for letter grade. May be repeated for credit. ([1-6]-0) S

CGS 4V99 Independent Study in Cognitive Science (1-6 semester hours) Student studies advanced topics under weekly faculty direction and writes a paper. Taken for letter grade unless Program Head approves for a Credit/No Credit basis. May be repeated for credit. ([1-6]-0) S