

# COGNITIVE SCIENCE (CGS)

## College of Letters & Science

### CGS 001 – Introduction to Cognitive Science (4 units)

*Course Description:* Introduction to the interdisciplinary cognitive scientific approach to the study of mind, drawing concepts and methods from psychology, philosophy, linguistics, artificial intelligence, and other disciplines.

*Learning Activities:* Lecture/Discussion 4 hour(s).

*Enrollment Restriction(s):* Pass One open to Cognitive Science majors only.

*Cross Listing:* PHI 010.

*Grade Mode:* Letter.

*General Education:* Science & Engineering (SE); Scientific Literacy (SL).

### CGS 098 – Directed Group Study (0.5-5 units)

*Course Description:* Directed group study in cognitive science.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Variable 1-15 hour(s).

*Repeat Credit:* May be repeated when topic differs.

*Grade Mode:* Pass/No Pass only.

### CGS 099 – Special Study for Lower Division Students (1-5 units)

*Course Description:* Special study for lower division students.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Variable 3-15 hour(s).

*Repeat Credit:* May be repeated.

*Grade Mode:* Pass/No Pass only.

### CGS 107 – Neuroeconomics/Reinforcement Learning & Decision Making (4 units)

*Course Description:* Theoretical and empirical approaches to neuroeconomics (neuroscience of decision making) from psychology, neuroscience, economics, and computer science. Neuroscience of judgment and decision making, behavioral economics, and reinforcement learning.

*Prerequisite(s):* (PSC 100 or PSC 100Y or PSC 135 or ECN 100A or ARE 100A or NPB 162 or NPB 163); (STA 013 or STA 013Y or STA 100 or PSC 103A); or consent of instructor.

*Learning Activities:* Lecture 3 hour(s), Term Paper.

*Cross Listing:* ECN 107, PSC 133.

*Grade Mode:* Letter.

*General Education:* Social Sciences (SS); Scientific Literacy (SL).

### CGS 134 – Computational Cognitive Neuroscience (4 units)

*Course Description:* Explorations of how brain secretes mind, via computer simulations that are manipulated and probed to investigate how neurons produce perception, attention, memory, language, and cognitive control.

*Prerequisite(s):* (PSC 001 or PSC 001Y); PSC 100 or PSC 101 or PSC 135 recommended.

*Learning Activities:* Lecture 3 hour(s), Laboratory 2 hour(s).

*Cross Listing:* PSC 134.

*Grade Mode:* Letter.

### CGS 138 – Consciousness & Cognition (4 units)

*Course Description:* Current theoretical and empirical evidence in the study of cognition and consciousness. Theories of consciousness, psychological and neural basis of conscious and unconscious processes such as attention, intentionality, and dreams.

*Prerequisite(s):* (PSC 001 or PSC 001Y); PSC 041; (PSC 100 or PSC 100Y or PSC 135).

*Learning Activities:* Lecture 4 hour(s).

*Cross Listing:* PSC 138.

*Grade Mode:* Letter.

### CGS 190 – Seminar in Cognitive Science (4 units)

*Course Description:* Intensive treatment of a special topic or problem related to cognitive science.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Seminar 3 hour(s), Extensive Writing/Discussion.

*Repeat Credit:* May be repeated when topic differs.

*Grade Mode:* Letter.

### CGS 192 – Fieldwork in Cognitive Science (1-5 units)

*Course Description:* Supervised internship off and on campus, in community and institutional settings.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Fieldwork 3-15 hour(s).

*Repeat Credit:* May be repeated 12 unit(s).

*Grade Mode:* Pass/No Pass only.

### CGS 194HA – Special Study for Honors Students (3 units)

*Course Description:* Directed research. Supervised reading, research and writing leading to submission of a Senior Honors thesis under the direction of faculty sponsor.

*Prerequisite(s):* Consent of instructor. Senior standing in Cognitive Science; qualifications for admission into college honors program.

*Learning Activities:* Independent Study 9 hour(s).

*Grade Mode:* Letter.

### CGS 194HB – Special Study for Honors Students (3 units)

*Course Description:* Directed research. Supervised reading, research and writing leading to submission of a Senior Honors thesis under the direction of faculty sponsor.

*Prerequisite(s):* Consent of instructor. Senior standing in Cognitive Science; qualifications for admission into college honors program.

*Learning Activities:* Independent Study 9 hour(s).

*Grade Mode:* Letter.

### CGS 198 – Directed Group Study (0.5-5 units)

*Course Description:* Directed group study in cognitive science.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Variable 1-15 hour(s).

*Repeat Credit:* May be repeated when topic differs.

*Grade Mode:* Pass/No Pass only.

### CGS 199 – Special Study for Advanced Undergraduates (1-5 units)

*Course Description:* Special study for advanced undergraduates.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated.

*Grade Mode:* Pass/No Pass only.