COGNITIVE SCIENCE (CGSC)

CGSC 110a / PSYC 130a, Introduction to Cognitive Science Brian Scholl
An introduction to the interdisciplinary study of how the mind works. Discussion of tools, theories, and assumptions from psychology, computer science, neuroscience, linguistics, and philosophy. SO

CGSC 175a, The Mystery of Sleep Meir Kryger
The role in which sleep and circadian rhythms affect attention, cognition, and memory through multidisciplinary consideration of neurobiology, epidemiology, and humanities. Psychological aspects of sleep; sleep disorders; sleep deprivation; and the history of sleep in philosophy, literature, and art. This course is not open to students previously enrolled in CSPC 350, CSMC 370, or CSYC 390. SC

CGSC 216b / LING 116b / PSYC 116b, Cognitive Science of Language Staff
The study of language from the perspective of cognitive science. Exploration of mental structures that underlie the human ability to learn and process language, drawing on studies of normal and atypical language development and processing, brain imaging, neuropsychology, and computational modeling. Innate linguistic structure vs. determination by experience and culture; the relation between linguistic and nonlinguistic cognition in the domains of decision making, social cognition, and musical cognition; the degree to which language shapes perceptions of color, number, space, and gender. SO

CGSC 276a / PHIL 276a, Metaphysics Staff
Examination of some fundamental aspects of reality. Topics include time, persistence, modality, causation, and existence. HU 0 Course cr

* **CGSC 314a / PSYC 314a, Performance Psychology and Neuroscience** Marvin Chun
Human cognitive and motor performance fluctuates over time and varies across situations. What explains peak performance and how can it be sustained? The variation can be explained by neural mechanisms of attention and executive control; psychological factors like emotion, stress, mindset, and positive thinking; and physiological factors such as sleep and exercise, which affect the brain and mind. SO

* **CGSC 375a / LING 375a / PSYC 375a, Linguistic Meaning and Conceptual Structure** Maria Pinango
The meaning of a word or sentence is something in the human mind that has specific properties: it can be expressed (written/signed/spoken forms); it can be combined with other meanings; its expression is not language dependent; it connects with the world; it serves as a vehicle for inference; and it is hidden from awareness. The course explores these properties in some detail and, in the process, provides the students with technical vocabulary and analytical tools to further investigate them. The course is thus intended for those students interested in undertaking a research project on the structure of meaning. the nature of lexico-conceptual structure, that is, the structure of concepts which we refer to as "word meanings", and how they may be combined through linguistic and non-linguistic means. Its ultimate objective is to bridge models of conceptual structure and models of linguistic semantic composition, identify their respective strengths and weaknesses and explore some of the fundamental questions that any theory of linguistic meaning composition

must answer. Evidence discussed will emerge from naturalistic, introspectional, and experimental methodologies. Prerequisites: LING 110, CGSC 110, LING 217, or LING 263. SO

* **CGSC 395a / PHIL 395a, Junior Colloquium in Cognitive Science** Isaac Davis
Survey of contemporary issues and current research in cognitive science. By the end of the term, students select a research topic for the senior essay. Enrollment limited to Cognitive Science majors. ½ Course cr

* **CGSC 471a and CGSC 472a, Directed Research in Cognitive Science** Joshua Knobe
Research projects for qualified students. The student must be supervised by a member of the Cognitive Science faculty, who sets the requirements and directs the research. To register, a student must submit a written plan of study to the director of undergraduate studies and the faculty supervisor. The normal minimum requirement is a written report of the completed research, but individual faculty members may set alternative equivalent requirements. Only one term may be offered toward the major, with permission of the director of undergraduate studies; two terms may be offered toward the bachelor's degree.