

# Cognitive Science (CGSC)

---

## **CGSC 5001 [0.5 credit]**

### **Cognition and Artificial Cognitive Systems**

An introduction to the contribution of artificial intelligence and computer modeling of cognitive processes to cognitive science.

## **CGSC 5002 [0.5 credit]**

### **Experimental Research in Cognition**

An introduction to the contribution of experimental psychology and neuroscience to cognitive science.

## **CGSC 5003 [0.5 credit]**

### **Cognition and Language**

An introduction to the contribution of theoretical linguistics and linguistic research to cognitive science.

## **CGSC 5004 [0.5 credit]**

### **Cognition and Conceptual Issues**

An introduction to the contribution of philosophy of mind, philosophy of language, and other conceptual investigations to cognitive science.

## **CGSC 5005 [0.5 credit]**

### **Cognition and Neuroscience**

An introduction to the contribution of neuroscience to cognitive science.

## **CGSC 5100 [0.5 credit]**

### **Issues in Cognitive Science**

A survey of the central problems and issues of cognitive research to start the process of acquiring the interdisciplinary breadth required to understand research in cognitive science.

## **CGSC 5101 [0.5 credit]**

### **Experimental Methods and Statistics**

An introduction to the design of experiments and the statistics needed to interpret data in cognitive science. Also offered at the undergraduate level, with different requirements, as HCIN 5400, for which additional credit is precluded.

## **CGSC 5103 [0.5 credit]**

### **Formal Methods**

The class introduces students to various formal methods relevant to cognitive science, possibly including (but not limited to) formal logic, the theory of computation, probability theory, decision theory. Precludes additional credit for CGSC 5102. Prerequisite(s): permission of the department. Seminar.

## **CGSC 5303 [0.5 credit]**

### **Linguistic Analysis, Culture and Cognition**

Universals of language from a cross-cultural perspective. Study of lesser-known languages leading to critical understanding of universal human concepts and communication practices in culture-specific configurations. Cross-linguistic analysis as a means to general understanding of diversity and universality in human cognition.

## **CGSC 5901 [0.5 credit]**

### **Special Topics in Cognitive Science**

Seminar on current, important issues related to Cognition and Neuroscience, Philosophy, Computer Science, Linguistics and/or Psychology. Topics will vary from year to year.

## **CGSC 5907 [0.5 credit]**

### **Independent Research**

Permission to register and approval of research plan must be obtained from the graduate supervisor. A final research report must be filed in the departmental office prior to submission of course grade. The course may be repeated for credit.

## **CGSC 5908 [1.0 credit]**

### **Research Project**

Students may enroll in multiple sections of this course (as necessary) to complete their Research credits.

## **CGSC 5909 [2.5 credits]**

### **M. Cog. Thesis**

## **CGSC 6002 [0.5 credit]**

### **Methodology Rotation I**

Students spend one term in a laboratory or other research venue using a method for studying cognition (behavioural, linguistic-theoretic, computational, conceptual, neuroscientific). Assignments will be as specified by each rotation supervisor.

## **CGSC 6003 [0.5 credit]**

### **Methodology Rotation II**

Students spend one term in a laboratory or other research venue using a different method for studying cognition (behavioural, linguistic-theoretic, computational, conceptual, neuroscientific). Assignments will be as specified by each rotation supervisor.

## **CGSC 6004 [0.5 credit]**

### **Cognitive Modelling for Cognitive Science**

Introduction to the field of cognitive modelling. Different modelling systems and how to evaluate them against human data; how to create cognitive models using the ACT-R cognitive architecture. Lectures three hours per week.

## **CGSC 6501 [0.5 credit]**

### **Special Topics in Cognitive Science**

Seminar course on a topic of interest to students in Cognitive Science. Topics will vary from year to year. Lectures three hours per week.

**CGSC 6801 [0.5 credit]**

**Proseminar in Cognitive Science**

A survey of the central problems and issues of natural and artificial cognition and a brief examination of contemporary neuroscience. Compulsory in the first year of registration. Precludes additional credit for CGSC 6801 (no longer offered).

**CGSC 6901 [0.5 credit]**

**Directed Studies in Cognitive Science I**

**CGSC 6902 [0.5 credit]**

**Directed Studies in Cognitive Science II**

**CGSC 6909 [6.5 credits]**

**Ph.D. Thesis**