

Cognitive Science (CGSC)

Cognitive Science (CGSC) Courses

CGSC 1001 [0.5 credit]

Mysteries of the Mind

Challenges faced in understanding the mind, and some of the approaches cognitive science has brought to bear on them. Topics may include the nature of knowledge, how we learn, the extent to which human thinking is rational, biases in thinking, and evolutionary influences on cognition.

Lectures three hours per week.

CGSC 1005 [0.5 credit]

Computational Methods in Cognitive Science

Introduction to computational methods, with an emphasis on programming. Topics and assignments will focus on applications in cognitive science. No prior computing experience required.

Precludes additional credit for COMP 1005.

Lecture three hours and tutorial one and a half hours a week.

CGSC 2001 [0.5 credit]

Introduction to Cognitive Science

An integrated background of the discipline of Cognitive Science, with an historical overview (1940's onward) and examination of the extent to which the discipline has assimilated the collective knowledge of contributing disciplines (e.g., psychology, philosophy, linguistics, artificial intelligence and neuroscience).

Prerequisite(s): second-year standing or permission of the Institute.

Lectures three hours a week.

CGSC 2002 [0.5 credit]

Theories and Methods in Cognitive Science

Selected topics in cognitive science covered from the perspectives of psychology, computer science, linguistics, philosophy, and other related disciplines. Students may be required to complete independent research projects.

Prerequisite(s): CGSC 2001, second year standing, and two of PSYC 1001, LING 1001, COMP 1005, PHIL 1301 or PHIL 2501, or permission of the Institute. Restricted to students enrolled in B.Cog.Sc. General or Honours.

Seminars and tutorials six hours per week.

CGSC 3004 [0.5 credit]

Philosophy and Cognitive Science

An examination of the significance and role of philosophy in cognitive science. Topics may include: philosophical methods for studying the mind, prospects for naturalizing consciousness and intentionality, assessing competing models of the mind.

Prerequisite(s): third-year year standing and 0.5 credit in CGSC 2001 and PHIL 2501.

Seminar three hours per week.

CGSC 3201 [0.5 credit]

Empirical Issues in Cognitive Science

Issues in empirical Cognitive Science are examined through a detailed consideration of selected topics.

Prerequisite(s): third-year standing, and 0.5 credit in CGSC 2001 or PSYC 2700.

Seminar three hours per week.

CGSC 3301 [0.5 credit]

Language and Cognitive Science

Issues related to language and cognitive science are examined through a detailed consideration of selected topics.

Prerequisite(s): third-year standing, and CGSC 2001.

Seminar three hours per week.

CGSC 3501 [0.5 credit]

Cognitive Neuroscience

Issues related to the role of cognitive neuroscience research in cognitive science are examined through a detailed consideration of selected topics.

Prerequisite(s): third-year standing and CGSC 2001.

Seminar, three hours per week.

CGSC 3908 [0.5 credit]

Honours Seminar in Cognitive Science

Major theories and empirical approaches within Cognitive Science are examined through a detailed consideration of selected topics. Students are required to complete independent research projects to prepare for their fourth-year honours theses.

Precludes additional credit for CGSC 3001 (no longer offered) and CGSC 3002 (no longer offered).

Prerequisite(s): third year standing, CGSC 2001 and CGSC 2002, and enrolment in B. Cog. Sc. Honours with a CGPA in the major requirements of 8.0.

Seminars and tutorials six hours per week.

CGSC 3999 [0.0 credit]

Co-operative Work Term

CGSC 4001 [0.5 credit]

Artificial Intelligence for Cognitive Scientists

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

Prerequisite(s): third-year standing and CGSC 2002 and (CGSC 1005 or COMP 1005). Restricted to students enrolled in B.Cog.Sc. Honours.

Seminars and labs six hours per week.

CGSC 4601 [0.5 credit]**Cognitive Modelling in 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.

Prerequisite(s): third year standing, CGSC 2001, and (CGSC 1005 or COMP 1005).

Also offered at the graduate level, with different requirements, as CGSC 5106, for which additional credit is precluded.

Seminar three hours per week, tutorial one and a half hours per week.

CGSC 4801 [0.5 credit]**Independent Study**

A reading or research course for selected students who wish to investigate a particular topic of interest.

Normally students may not offer more than one credit of independent study in their total program (including independent study credits taken through other departments).

Prerequisite(s): third- or fourth-year standing and permission of the Institute.

CGSC 4802 [0.5 credit]**Independent Study**

A reading or research course for selected students who wish to investigate a particular topic of interest.

Normally students may not offer more than one credit of independent study in their total program (including independent study credits taken through other departments).

Prerequisite(s): third- or fourth-year standing and permission of the Institute.

CGSC 4900 [0.5 credit]**Special Topics in Cognitive Science**

The topic of this course will vary from year to year. Students may register in more than one section of CGSC 4900 but may register in each section only once. Prerequisite(s): each section will have its own prerequisites and permission of the department if is required.

Seminar three hours per week.

CGSC 4908 [1.0 credit]**Honours Thesis**

Interdisciplinary thesis. In developing a thesis, students must consult the Undergraduate Supervisor. Only the Undergraduate Supervisor can assign a supervisor or grant approval to register in this course. Faculty regulations governing Honours Research Essays and Honours Theses apply.

Precludes additional credit for CGSC 4909.

Prerequisite(s): fourth year standing, CGSC 3908, and enrolment in B.Cog.Sc. Honours with a major CGPA of 8.0.

CGSC 4909 [1.0 credit]**Honours Project**

Interdisciplinary project. Students engage in one or more group research projects.

Precludes additional credit for CGSC 4908.

Prerequisite(s): 4th year standing, enrolment in B. Cog. Sc. Honours.

Seminar

Summer session: some of the courses listed in this Calendar are offered during the summer. Hours and scheduling for summer session courses will differ significantly from those reported in the fall/winter Calendar. To determine the scheduling and hours for summer session classes, consult the class schedule at central.carleton.ca

Not all courses listed are offered in a given year. For an up-to-date statement of course offerings for the current session and to determine the term of offering, consult the class schedule at central.carleton.ca