



Required 1st-year Courses for Cognitive Science Majors

ALL STUDENTS

LING 1001 – Introduction to Linguistics I [0.5 credit]

PSYC 1001 – Introduction to Psychology I [0.5 credit]

PSYC 1002 – Introduction to Psychology II [0.5 credit]

- Students are required to take 1.0 credit from the following options:

CGSC 1001 – Mysteries of the Mind [0.5 credit]

PHIL 1301 – Mind, World, and Knowledge [0.5 credit]

FYSM 1604 – Cognitive Science: Understanding the Mind [0.5 credit]

- Based on your concentration or degree program, select the appropriate option below.



BIOLOGICAL FOUNDATIONS CONCENTRATION

CGSC 1005 – Computational
Methods in Cognitive Science
[0.5 credit]

NEUR 1202 – Neuroscience of
Mental Health and Psychiatric
Disease [0.5 credit]

NEUR 1203 – Neuroscience of
Mental Health and Neurological
Disease [0.5 credit]



COGNITION AND COMPUTATION CONCENTRATION

COMP 1005 – Introduction to
Computer Science I [0.5 credit]

COMP 1006- Introduction to
Computer Science II [0.5 credit]

****Computation Concentration
must take COMP 1005****



ALL OTHER CONCENTRATIONS AND THE 15.0 CREDIT DEGREE

CGSC 1005 – Computational
Methods in Cognitive Science
[0.5 credit]

- Select enough additional courses and electives for a course load of up to 2.5 credits per term.

• **Timetickets:** [Find Your Timeticket](#)

[First Year Course Selection Guide](#)

Course Descriptions

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.

COMP 1005 [0.5 credit]

Introduction to Computer Science I

Introduction to computer science and programming. Topics include algorithm design; control structures; variables and types; linear collections; functions; debugging and testing. Special attention is given to procedural programming in a modern language, computational thinking skills, and problem decomposition.

Includes: Experiential Learning Activity

COMP 1006 [0.5 credit]

Introduction to Computer Science II

A second course in programming emphasizing problem solving and computational thinking in an object-oriented language. Topics include abstraction, mutable data structures, methods, inheritance, polymorphism, recursion, program efficiency, testing and debugging.

Includes: Experiential Learning Activity

FYSM 1604 [0.5 credit]

Cognitive Science: Understanding the Mind

Interdisciplinary examination of discoveries in linguistics, psychology, philosophy, and computer science concerning the question "What is cognition"? Issues may include the mind-brain controversy, the role of language in thought, and artificial versus natural intelligence.

LING 1001 [0.5 credit]

Introduction to Linguistics I

Nature of language and linguistic knowledge. Formal description and analysis of language: phonetics, phonology, morphology, syntax and semantics.

NEUR 1202 [0.5 credit]

Neuroscience of Mental Health and Psychiatric Disease

Clinical symptoms of psychiatric disease, including biological, developmental, experiential and environmental factors that contribute to disease. Topics may include depressive disorders, schizophrenia, autism, ADHD, anorexia, narcolepsy, substance abuse, and personality disorders.

NEUR 1203 [0.5 credit]

Neuroscience of Mental Health and Neurological Disease

Clinical symptoms of neurological disease, including biological, developmental, experiential and environmental factors that contribute to disease. Topics may include stroke, multiple sclerosis, migraine, seizure disorder, Parkinson's disease, ALS, chronic pain, Alzheimer's disease and concussion.

PHIL 1301 [0.5 credit]

Mind, World, and Knowledge

Introduction to a variety of philosophical works, including contemporary, on such topics as: the nature of being, the mental, the external, consciousness, perception, experience, meaning, truth, the nature of knowledge, scientific understanding, and how language and thought represent the world

PSYC 1001 [0.5 credit]

Introduction to Psychology I

A survey of topics associated with psychology's role as a natural science, including neuroscience, cognition, and learning.

PSYC 1002 [0.5 credit]

Introduction to Psychology II

A survey of topics associated with psychology's role as a social science, including social psychology, personality, clinical psychology and mental health.

[See <http://calendar.carleton.ca/undergrad/> for more details]