



Faculty of Arts and Social Sciences
COGNITIVE SCIENCE

COGS 200: FOUNDATIONS IN COGNITIVE SCIENCE

Instructor: John Alderete
Office: RCB 8315

Time: 12:30 – 2:30 Mon, 12:30 – 1:30 Wed
Office Hours: TBA

COURSE DESCRIPTION:

This course investigates the major empirical methods and theoretical frameworks for exploring the mind. It introduces students to some of the major results in cognitive science and fleshes out several of the foundational debates that have fueled investigations in the past fifty years. Taking an interdisciplinary approach, the course illustrates how a convergence of ideas from psychology, philosophy, linguistics, and computer science has led to deep explanations of the topics listed below, as well as clarified some research questions that are being actively investigated today.

Depending on class interest, topics may include, but are not limited to, the following:

- The mind as a computer/Cognitive processes as algorithms
- Computational models
- Nature of language and communication
- Nature of beliefs
- Mental representations
- Human vision
- Concept learning
- Categorization
- Rationalism/empiricism
- Role of experience/prior knowledge in learning
- Consciousness
- Levels of analysis (neural substrate or higher level mental knowledge)
- Processing of statistical/structural information

REQUIRED TEXTS:

- *What is Cognitive Science?*, Edited by Ernest Lepore and Zenon Pylyshyn, 1999, Blackwell Publications.
- *Cognitive Science, An introduction to the science of the mind*, Jose Luis Bermudez, 2010, University of Cambridge Press.

COURSE REQUIREMENTS: Homework problems 20%, write-ups of readings 35%; quizzes 30%, take-home final 15%.

PREREQUISITES: COGS 100 or permission of the instructor with two of the following: LING 220, PSYC 100, PHIL 100.

Students requiring accommodations as a result of a disability, must contact the Centre for Students with Disabilities (604-291-3112 or csdo@sfu.ca)

COGS 200 is required for students declaring a Minor, Major or Honours in Cognitive Science.

It is strongly recommended that you see the Program Manager regarding your degree requirements at least two semesters before you plan to graduate. Students must meet both faculty and major/minor requirements to graduate.