

PROGRAM PLANNER FOR COGNITIVE SCIENCE MAJOR

2011 (WQB: YES)

A. BA REQUIREMENTS

120 semester hours which include at least:

- 65 semester hours in Arts subjects (includes major/minor credits if in Arts)
- 45 upper division semester hours (includes major/minor credits)
- Arts major program or two extended minors
- Writing, Quantitative and Breadth requirements as laid out in the first section of the SFU calendar under "Programs Offered - Undergraduate Degree Requirements".

GPA requirements:

- COGS (COGS checklist, including courses substituted for those on this list) > 2.0
- UD COGS (each discipline in 3 chosen streams) > 2.0
- CGPA > 2.0
- UDGPA > 2.0

B. COGNITIVE SCIENCE MAJOR REQUIREMENTS

LOWER DIVISION

Introductory Courses (21 - 27 credit hours)

A student must take:

- COGS 100-3 Exploring the Mind **(B-Hum, B-Soc or B-Sci)**

Plus the introductory courses listed below:

(a) Computing Science:

- CMPT 126-3 Introduction to Computing Science and Programming **(Q) (B-Sci)**
- OR** CMPT 120-3 Introduction to Computing Science and Programming I **(Q) (B-Sci) AND**
- CMPT 125-3 Introduction to Computing Science and Programming II **(Q)**

Additionally, students who choose Computing Science at the Intermediate level must complete the following course:

- MACM 101-3 Discrete Mathematics I **(Q) (B-Sci)**

(b) Linguistics:

- LING 220-3 Introduction to Linguistics

(c) Philosophy:

- PHIL 100-3 Knowledge and Reality **(W) (B-Hum)**

(d) Psychology:

- PSYC 100-3 Introduction to Psychology I **(B-Soc)**
- PSYC 102-3 Introduction to Psychology II **(B-Soc)**

Intermediate Courses (18 - 25 credit hours)

A student must take:

- COGS 200-3 Foundations in Cognitive Science

And must fulfill the requirements listed below for at least three of the four disciplines:

(a) Computing Science

- CMPT 225-3 Data Structures and Programming **(Q)**

(b) Linguistics

- LING 221-3 Introduction to Phonetics and Phonology
- LING 222-3 Introduction to Syntax

(c) Philosophy

- ___ PHIL 201-3 Epistemology
- ___ PHIL 210-4 Natural Deductive Logic **(Q)**

(d) Psychology

- ___ PSYC 201-4 Introduction to Research Methods in Psychology **(W) (Q)**
- ___ PSYC 221-3 Introduction to Cognitive Psychology
- ___ PSYC 280-3 Introduction to Biological Psychology **(B-Sci)**

UPPER DIVISION (33 – 35 credit hours)

Students must complete:

- ___ COGS 300-3 Selected Topics in Cognitive Science
- ___ COGS 310-3 Consciousness

Plus fulfill the requirements listed below for the three disciplines selected previously at the intermediate level:

(a) Computing Science

One of:

- ___ CMPT 379-3 Compiler Design
- ___ CMPT 383-3 Comparative Programming Languages
- ___ CMPT 384-3 Symbolic Computing
- ___ MACM 300-3 Formal Languages and Automata with Applications **(Q)**

Two of:

- ___ CMPT 310-3 Artificial Intelligence Survey
- ___ CMPT 411-3 Knowledge Representation
- ___ CMPT 412-3 Computational Vision **OR** ___ CMPT 414-3 Model-based Computer Vision
- ___ CMPT 413-3 Computational Linguistics
- ___ CMPT 417-3 Intelligent Systems
- ___ CMPT 418-3 Computational Cognitive Architecture
- ___ CMPT 419-3 Topics in Artificial Intelligence

(b) Linguistics

Three of:

- ___ LING 321-3 Phonology
- ___ LING 322-3 Syntax
- ___ LING 323-3 Morphology
- ___ LING 324-3 Semantics **(Q)**
- ___ LING 330-3 Phonetics
- ___ LING 350-3 First Language Acquisition
- ___ LING 400-3 Formal Linguistics **(Q)**
- ___ LING 411-3 Applied Phonetics
- ___ LING 415-3 Neuro Linguistics
- ___ LING 480-3 Topics in Linguistics I*
- ___ LING 481-3 Topics in Linguistics II*

* relevant topics for
LING 480 and 481 include
discourse analysis,
functional linguistics,
computational linguistics

(c) Philosophy

Three of:

- ___ PHIL 302-3 Topics in Epistemology and Metaphysics
- ___ PHIL 310-3 Modal Logic and its Applications **(Q)**
- ___ PHIL 314-3 Topics in Logic I
- ___ PHIL 341-3 Philosophy of Science
- ___ PHIL 343-3 Philosophy of Mind
- ___ PHIL 344-3 Philosophy of Language I
- ___ PHIL 444-4 Philosophy of Language II **(W)**

COGS 300 can be taken more
than once for credit as the
topics change. Appropriate
topics can be substituted for
upper division stream options.
See advisor.

(d) Psychology

Three of:

- ___ PSYC 303-3 Perception
- ___ PSYC 325-4 Memory and Mind
- ___ PSYC 330-3 Attention
- ___ PSYC 335-3 Sensation
- ___ PSYC 354-3 Development of Children's Thinking
- ___ PSYC 383-3 Psychopharmacology
- ___ PSYC 382-3 Cognitive Neuroscience
- ___ PSYC 385-3 Evolutionary Psychology