

Student Name: \_\_\_\_\_

Student ID: \_\_\_\_\_

Grad term/year: \_\_\_\_\_

**Interfaculty Program Cognitive Science (54 credits)**

**Honours Cognitive Science (60 credits)**

**Core Courses (24 credits)**

**Required Course (3 credits)**

NSCI 201 Introduction to Neuroscience 2

**Logic Course (3 credits)**

COMP 230 Logic and Computability

MATH 318 Mathematical Logic

PHIL 210 Introduction to Deductive Logic 1

**Computer Science Course (3 credits)**

COMP 202 Foundations of Programming

COMP 204 Computer Programming for Life Sciences

COMP 250 Introduction to Computer Science

**Statistics Course (3 credits)**

PSYC 204 Intro to Psychological Statistics

MATH 203 Principles of Statistics 1

MATH 323 Probability

**Linguistics Course (3 credits)**

LING 201 Introduction to Linguistics

LING 210 Introduction to Speech Science

LING 260 Meaning in Language

**Philosophy Course (3 credits)**

PHIL 200 Introduction to Philosophy 1

PHIL 201 Introduction to Philosophy 2

PHIL 221 Intro to the History and Philosophy of Science 2

**Neuroscience Course (3 credits)**

NSCI 200 Introduction to Neuroscience 1

PSYC 211 Introductory Behavioural Neuroscience

**Psychology Course (3 credits)**

PSYC 212 Perception

PSYC 213 Cognition

**Complementary Courses (30 credits):**  **15 credits must be 400+ level**

18 cr. from one of the five areas below. Area: \_\_\_\_\_

12 cr. chosen from any of the complementary courses below: \_\_\_\_\_

Notes:

**Computer Science**

- COMP 206 Introduction to Software Systems
- COMP 250 Introduction to Computer Science
- COMP 251 Algorithms and Data Structures
- COMP 280 History and Philosophy of Computing
- COMP 302 Programming Languages and Paradigms
- COMP 330 Theory of Computation
- COMP 345 From Natural Language to Data Science
- COMP 360 Algorithm Design
- COMP 400 Project in Computer Science
- COMP 409 Concurrent Programming
- COMP 417 Introduction Robotics and Intelligent Systems
- COMP 421 Database Systems
- COMP 424 Artificial Intelligence
- COMP 445 Computational Linguistics

- COMP 451 Fundamentals of Machine Learning
- COMP 523 Language-based security
- COMP 527 Logic and Computation
- COMP 531 Advanced Theory of Computation
- COMP 546 Computational Perception
- COMP 549 Brain-inspired Artificial Intelligence
- COMP 550 Natural Language Processing
- COMP 551 Applied Machine Learning
- COMP 558 Fundamentals of Computer Vision
- COMP 562 Theory of Machine Learning
- COMP 579 Reinforcement Learning
- MATH 222 Calculus 3
- MATH 223 Linear Algebra
- MATH 240 Discrete Structures

**Linguistics**

Any course at the **300, 400 or 500 level** from the department of Linguistics, or from the following:

- LING 201 Introduction to Linguistics
- LING 210 Introduction to Speech Science
- LING 260 Meaning in Language
- LING \_\_\_\_ [Any LING course 300, 400 or 500 level](#)

**Philosophy**

- NSCI 300 Neuroethics (Note: This counts as a Science class)
- PHIL 306 Philosophy of Mind
- PHIL 310 Intermediate Logic
- PHIL 311 Philosophy of Mathematics
- PHIL 341 Philosophy of Science 1
- PHIL 354 Plato
- PHIL 355 Aristotle
- PHIL 360 17th Century Philosophy
- PHIL 361 18th Century Philosophy
- PHIL 367 19th Century Philosophy
- PHIL 411 Topics in Philosophy of Logic and Mathematics
- PHIL 415 Philosophy of Language
- PHIL 419 Epistemology
- PHIL 421 Metaphysics
- PHIL 441 Philosophy of Science 2
- PHIL 470 Topics in Contemporary Analytic Philosophy
- PHIL 474 Phenomenology

### Psychology

- ANTH 440 Cognitive Anthropology
- MUMT 250 Music Perception and Cognition
- PSYC 204 Introduction to Psychological Statistics
- PSYC 211 Introductory Behavioural Neuroscience
- PSYC 212 Perception
- PSYC 213 Cognition
- PSYC 301 Animal Learning & Theory
- PSYC 302 The Psychology of Pain
- PSYC 303 *Intro to Human Memory (approved substitution)*
- PSYC 304 Child Development
- PSYC 305 Statistics for Experimental Design
- PSYC 310 Intelligence
- PSYC 311 Human Cognition and the Brain
- PSYC 315 Computational Psychology
- PSYC 317 Genes and Behaviour
- PSYC 318 Behavioural Neuroscience 2
- PSYC 319 Computational Models - Cognition
- PSYC 340 Psychology of Language
- PSYC 341 The Psychology of Bilingualism
- PSYC 342 Hormones and Behaviour
- PSYC 352 Research Methods & Lab in Cognitive Psych

- PSYC 403 *Modern Psyc in Hist Perspective (approved substitution)*
- PSYC 406 Psychological Tests
- PSYC 410 Special Topics in Neuropsychology
- PSYC 413 Cognitive Development
- PSYC 427 Sensorimotor Neuroscience
- PSYC 433 Cognitive Science
- PSYC 439 Correlational Techniques
- PSYC 443 Affective Neuroscience
- PSYC 470 Memory and Brain
- PSYC 506 Cognitive Neuroscience of Attention
- PSYC 513 Human Decision-Making
- PSYC 514 Neurobiology of Memory
- PSYC 522 Neurochemistry and Behaviour
- PSYC 526 Advances in Visual Perception
- PSYC 529 Music Cognition
- PSYC 531 Structural Equal Models
- PSYC 537 Advanced Seminar in Psychology of Language
- PSYC 538 Categorization, Comm., & Consciousness
- PSYC 541 Multilevel Modelling
- PSYC 545 Topics in Language Acquisition

### Neuroscience

- ANAT 321 Circuitry of the Human Brain
- BIOL 200 Molecular Biology
- BIOL 201 Cell Biology and Metabolism
- BIOL 306 Neural Basis of Behaviour
- BIOL 307 Behavioural Ecology
- BIOL 320 Evolution of Brain and Behaviour
- BIOL 414 Invertebrate Brain Circuits and Behaviours
- BIOL 506 Neurobiology of Learning
- BIOL 507 Animal Communication
- BIOL 517 Cognitive Ecology
- BIOL 530 Advances in Neuroethology
- BIOL 532 Developmental Neurobiology Seminar
- BIOL 580 Genetic Approaches to Neural Systems
- BIOL 588 Advances in Molecular/Cellular Neurobiology
- CHEM 212 Introductory Organic Chemistry 1
- NEUR 310 Cellular Neurobiology
- NEUR 503 Computational Neuroscience
- NEUR 507 Topics in Radionuclide Imaging
- NSCI 200 **OR** PHGY 209  
Introduction to Neuroscience 1/Mammalian Physiology 1
- NSCI 300 Neuroethics
- PHGY 311 Channels, Synapses & Hormones
- PHGY 314 Integrative Neuroscience

- PHGY 556 Topics in Systems Neuroscience
- PSYC 211 Introductory Behavioural Neuroscience
- PSYC 302 The Psychology of Pain
- PSYC 303 *Intro to Human Memory (approved substitution)*
- PSYC 311 Human Cognition and the Brain
- PSYC 317 Genes and Behaviour
- PSYC 318 Behavioural Neuroscience 2
- PSYC 342 Hormones and Behaviour
- PSYC 410 Special Topics in Neuropsychology
- PSYC 427 Sensorimotor Neuroscience
- PSYC 433 Cognitive Science
- PSYC 443 Affective Neuroscience
- PSYC 444 Sleep Mechanisms and Behaviour
- PSYC 502 Psychoneuroendocrinology
- PSYC 506 Cognitive Neuroscience of Attention
- PSYC 514 Neurobiology of Memory
- PSYC 522 Neurochemistry and Behaviour
- PSYC 526 Advances in Visual Perception
- PSYC 529 Music Cognition
- PSYT 301 Issues in Drug Dependence
- PSYT 500 Advances: Neurobiology of Mental Disorders
- PSYT 515 Advanced Studies in Addiction

### Research Course

- COGS 401 Research Cognitive Science 1 (6 credits)

**Honours Course (6 credits)** - required course for Honours (6 credits in addition to the 54 credits needed for Interfaculty Program).

- COGS 444 Honours Research

### Minor (18 credits)

### B.A. & Sc. Degree Requirements

Minimum Arts and Science cr. in CogSci + Minor combined:  21 credits in Arts  21 credits in Science

### Foundation (freshman) Requirements

- 3 Foundation Science courses: \_\_\_\_\_
- 2 Foundation Math courses: \_\_\_\_\_
- 3 Foundation Arts courses (in 2 categories):  
H / SS / L \_\_\_\_\_  
H / SS / L \_\_\_\_\_  
H / SS / L \_\_\_\_\_