# **Spring 2017 Courses for Cognitive Science Majors**

The following courses satisfy degree requirements for the Cognitive Science major. An Advanced Course Search tab in SIS allows you to look up focal area courses using POS Tags starting with "COGS-...". If you believe a course qualifies to be added to one of these lists, contact Sarah Ciotola, Academic Program Coordinator (<a href="sciotol3@jhu.edu">sciotol3@jhu.edu</a>). Please provide a course description and a syllabus.

#### Math

For Option A (Any two)

- AS.110.106 Calculus I
- AS.110.107 Calculus II OR AS.110.109 Calculus II
- AS.110.201 Linear Algebra

OR AS.110.212 Honors Linear Algebra
OR EN.550.291 Linear Algebra & Differential Eq.

- AS.110.202 Calculus III
- AS.150.118 Introduction to Formal Logic
- EN.550.171 Discrete Mathematics

Option B (Statistics Sequence, three courses total)

Default math option if Area A (below) is one of your focal areas

- EN.550.111 Statistical Analysis I
- EN.550.112 Statistical Analysis II

## **Courses by Focal Area**

# Area A: Cognitive Psychology & Cognitive Neuropsychology

- AS.050.203 OR AS.080.203 Cognitive Neuroscience
- AS.050.206 Bilingualism
- AS.050.315 Cognitive Neuropsych. of Visual Perception
- AS.050.333 Psycholinguistics
- AS.200.110 Introduction to Cognitive Psychology
- AS.200.141 Foundations of Brain, Behavior & Cognition
- AS.200.159 Freshmen Seminar: Evolutionary Psychology
- AS.376.372 Topics in Music Cognition
- AS.200.361 Tests & Measurements

### **Area B: Linguistics**

- AS.050.107 Language and Advertising
- AS.050.206 Bilingualism
- AS.050.320 Syntax I
- AS.050.333 Psycholinguistics
- AS.050.325 Phonology I

#### **Area C: Computational Approaches to Cognition**

- AS.050.326 Foundations of Cognitive Science
- AS.150.429 Topics in Logic: Ontology & Knowledge Representation
- EN.520.415 Image Process & Analysis II
- EN.520.433 Medical Image Analysis
- EN.550.426 Introduction to Stochastic Processes
- EN.550.493 Mathematical Image Analysis
- EN.580.491 Learning Theory
- EN.600.226 Data Structures
- EN.600.233 Computer System Fundamentals
- EN.600.271 Automata & Computation Theory
- EN.600.320 Parallel Programming
- EN.600.426 Principles of Programming Languages
- EN.600.430 Ontologies and Knowledge Representation
- EN.600.435 Artificial Intelligence
- EN.600.436 Algorithms for Sensor-Based Robotics
- EN.600.463 Algorithms I
- EN.600.475 Machine Learning
- EN.600.476 Machine Learning: Data to Models

At most, one of the following computation courses:

- AS.250.205 Introduction to Computing
- EN.510.202 Computation and Programming
- EN.580.200 Introduction to Scientific Computing
- EN.600.107 Intro to Programming in JAVA
- EN.600.120 Intermediate Programming

#### Area D: Philosophy of Mind

- AS.050.326 Foundations of Cognitive Science
- AS.150.476 Philosophy and Cognitive Science

#### Area E: Neuroscience

- AS.050.203 OR AS.080.203 Cognitive Neuroscience
- AS.050.315 Cognitive Neuropsych. of Visual Perception
- AS.080.250 Neuroscience Laboratory
- AS.080.304 Neuroscience Learning & Memory
- AS.080.306 The Nervous System II
- AS.080.320 The Auditory System
- AS.200.141 Foundations of Brain, Behavior & Cognition
- AS.200.304 Neuroscience of Decision Making
- AS.200.311 Sensory Representations in the Brain
- AS.200.318 Quantitative Methods for Brain Sciences
- AS.200.368 Sleep, Dreams & Altered States of Consciousness
- AS.200.369 Neuroscience of Motivation and Reward
- AS.200.376 Psychopharmacology
- AS.200.380 Neurobiology of Human Cognition

# AS.050.318 (080.400) Practicum in Lang Disorders (2 credits)

This course provides the opportunity to learn about adult aphasias, language disorders which are one of the common consequences of stroke. You will receive training in supportive communication techniques and work as a communication partner with an individual with aphasia for 2 hrs a week. Three class meetings for orientation and reading assignments will be held on campus. Training and practicum will be conducted at an aphasia support center. Transportation required. Student must have an A- or better in AS.050.203, AS.080.203, AS.050.105, OR AS.050.311; have junior or senior status; and hold a 3.5 GPA or better. Instructor permission required. More details on the Neuroscience Dept website: <a href="mailto:krieger.jhu.edu/neuroscience/bs-program/practicums">krieger.jhu.edu/neuroscience/bs-program/practicums</a>