

## Fall 2016 Courses for Cognitive Science Majors

The following courses satisfy degree requirements for the Cognitive Science major. Also, an Advanced Course Search tab in ISIS 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 ([sciotol3@jhu.edu](mailto:sciotol3@jhu.edu)). Please provide a course description and a syllabus, if available.

### Required for all Cognitive Science Majors: AS.050.101 Cognition

#### Math

For Option A ("Any two of the following")

- AS.110.106 Calculus I
- AS.110.107 Calculus II  
OR AS.110.109 Calculus II  
OR AS.110.113 Honors Single Variable Calculus
- 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
- EN.550.171 Discrete Mathematics

Option B ("All three required: Statistics sequence")

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

- AS.200.207 Research Methods in Experimental Psychology
- EN.550.111 Statistical Analysis I
- EN.550.112 Statistical Analysis II

#### Courses by Focal Area

##### Area A: Cognitive Psychology & Cognitive Neuropsychology

- AS.050.102 Language & Mind
- AS.050.105 Introduction to Cognitive Neuropsychology
- ~~AS.050.206 Bilingualism (to be offered in Spring 2017)\*~~
- ~~AS.050.319 Visual Cognition\*\*\*~~
- AS.050.332 Developmental Cognitive Neuroscience
- AS.200.101 Introduction to Psychology
- AS.200.132 Introduction to Developmental Psychology
- AS.200.211 Sensation & Perception
- AS.200.316 Thought & Perception
- AS.200.363 Mind, Brain & Experience
- AS.376.371 Topics in Music Cognition I

##### Area B: Linguistics

- AS.050.102 Language & Mind
- ~~AS.050.206 Bilingualism (to be offered in Spring 2017)\*~~
- AS.050.317 Semantics I
- EN.600.465 Natural Language Processing

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

- AS.050.372 Foundations of Neural Network Theory
- AS.050.375 Probabilistic Models of the Visual Cortex \*\*NEW
- AS.250.205 Introduction to Computing
- EN.500.200 Computing for Engineers & Scientists
- EN.520.414 Image Processing & Analysis
- EN.600.226 Data Structures
- EN.600.233 Computer System Fundamentals
- EN.600.271 Automata & Computation Theory
- EN.600.320 Parallel Programming (EN.600.420)
- EN.600.461 Computer Vision
- EN.600.463 Intro to Algorithms
- EN.600.465 Natural Language Processing
- EN.600.471 Theory of Computation
- EN.600.475 Introduction to Machine Learning
- EN.600.479 Representation Learning

*At most, one of the following courses:*

- EN.500.200 Computing for Engineers & Scientists
- EN.600.107 Intro to Programming in JAVA
- EN.600.120 Intermediate Programming

##### Area D: Philosophy of Mind

- AS.150.136 Philosophy & Science: An Introduction to Both
- AS.150.223 Formal Methods of Philosophy (AS.150.423)
- AS.150.427 Aristotelian Philosophical Psychology
- AS.150.476 Philosophy & Cognitive Science
- AS.200.316 Thought & Perception

##### Area E: Neuroscience

- AS.050.105 Introduction to Cognitive Neuropsychology
- ~~AS.050.319 Visual Cognition\*\*\*~~
- AS.050.332 Developmental Cognitive Neurosciences
- AS.080.105 An Introduction to Neuroscience
- AS.080.250 Neuroscience Laboratory
- AS.080.305 The Nervous System I
- AS.080.308 Neuroeconomics
- AS.080.345 Great Discoveries in Neuroscience
- AS.080.348 Neuroeducation
- AS.080.355 Visual System
- AS.080.360 Diseases & Disorders of the Nervous System
- AS.080.370 The Cerebellum: Is it just for motor control?
- AS.200.141 Foundations of Brain, Behavior & Cognition
- AS.200.363 Mind, Brain & Experience

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

This course provides the opportunity to learn about adult aphasia, language disorders which are one of the most common consequences of stroke. You will receive training in supportive communication techniques and work as a communication partner with an individual with aphasia for two hours per week. Three class meetings for orientation and reading assignments will be held on campus; training and practicum will be conducted at a local 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's permission required. Find more details on the [Neuroscience Dept website](#).