Spring 2015 Courses for Cognitive Science Majors

The following courses in Spring 2015 meet course requirements for the Cognitive Science major. Also, a NEW Advanced Course Search tool 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). Please provide a course description and a syllabus, if available.

Math

For Option A (“Any two of the following”)

- AS.050.372 Formal Methods: Neural Networks
- 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.150.118 Introduction to Formal Logic
- EN.550.171 Discrete Mathematics
- EN.550.291 Linear Algebra & Differential Equations

For Option B (“All three required: Statistics sequence“)

**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
- AS.200.207 Research Methods in Experimental Psychology

Courses by Focal Area

**Area A: Cognitive Psychology & Cognitive Neuropsychology**

- AS.050.203 Cognitive Neuroscience
- AS.050.315 Cognitive Neuropsych. of Visual Perception
- AS.050.339 Cognitive Development
- AS.080.203 Cognitive Neuroscience
- AS.200.132 Introduction to Developmental Psychology
- AS.200.159 Freshman Seminar: Evolutionary Psych.
- AS.200.211 Sensation & Perception
- AS.200.386 Animal Cognition

**Area B: Linguistics**

- AS.050.107 Language and Advertising
- AS.050.320 Syntax I
- AS.050.333 Psycholinguistics

**Area C: Computational Approaches to Cognition**

- AS.050.372 Formal Methods: Neural Networks
- AS.250.205 Introduction to Computing
- EN.520.415 Image Process & Analysis II
- EN.550.426 Introduction to Stochastic Processes
- EN.600.108 Introduction to Programming Lab (1 credit)
- 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.600.335 Artificial Intelligence
- EN.600.363 Intro to Algorithms (EN.600.463)
- EN.600.426 Principles of Programming Languages
- EN.600.430 Ontologies and Knowledge Representations
- EN.600.436 Algorithms for Sensor-Based Robotics
- EN.600.468 Machine Translation
- EN.600.469 Approximation Algorithms
- EN.600.476 Machine Learning in Complex Domains

*At most, one of the following courses:*

- EN.600.107 Intro to Programming in JAVA
- EN.600.120 Intermediate Programming

**Area D: Philosophy of Mind**

- AS.150.322 Emotion, Mind, Morality
- AS.150.476 Philosophy and Cognitive Science

**Area E: Neuroscience**

- AS.050.203 Cognitive Neuroscience
- AS.050.315 Cognitive Neuropsych. of Visual Perception
- AS.080.203 Cognitive Neuroscience
- AS.080.250 Neuroscience Laboratory
- AS.080.306 The Nervous System II
- AS.080.320 The Auditory System
- AS.080.357 Developmental Neuroscience
- AS.080.370 The Cerebellum: Is it just for motor control?
- AS.200.141 Foundations of Brain, Behavior & Cognition
- AS.200.304 Neuroscience of Decision Making
- AS.200.318 Quantitative Methods for Brain Sciences*
- AS.200.368 Altered States of Consciousness
- AS.200.370 Functional Human Neuroanatomy
- AS.200.376 Psychopharmacology
- AS.200.380 Neurobiology of Human Cognition

**Area F: Transportation**

- AS.200.207 Research Methods in Experimental Psychology

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

**Area G: Robotics**

- AS.200.211 Sensation & Perception
- AS.200.318 Quantitative Methods for Brain Sciences*
- AS.200.368 Altered States of Consciousness
- AS.200.370 Functional Human Neuroanatomy
- AS.200.376 Psychopharmacology
- AS.200.380 Neurobiology of Human Cognition

**Area H: Psychology**

- AS.150.315 Cognitive Neuropsych. of Visual Perception
- AS.150.322 Emotion, Mind, Morality
- AS.150.476 Philosophy and Cognitive Science

**Area I: Artificial Intelligence**

- AS.050.203 Cognitive Neuroscience
- AS.050.315 Cognitive Neuropsych. of Visual Perception
- AS.080.203 Cognitive Neuroscience
- AS.080.250 Neuroscience Laboratory
- AS.080.306 The Nervous System II
- AS.080.320 The Auditory System
- AS.080.357 Developmental Neuroscience
- AS.080.370 The Cerebellum: Is it just for motor control?
- AS.200.141 Foundations of Brain, Behavior & Cognition
- AS.200.304 Neuroscience of Decision Making
- AS.200.318 Quantitative Methods for Brain Sciences*
- AS.200.368 Altered States of Consciousness
- AS.200.370 Functional Human Neuroanatomy
- AS.200.376 Psychopharmacology
- AS.200.380 Neurobiology of Human Cognition

**Area J: Statistical Methods**

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

**Additional requirements:**

- 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 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 a junior or senior status; and hold a 3.5 GPA or better. Instructor’s permission required. Additional information found on the Neuroscience Department website: [krieger.jhu.edu/neuroscience/practicums/language](http://krieger.jhu.edu/neuroscience/practicums/language)

Legend: *Courses added 11/4/14

**Posted 10/31/14.**