

## Spring 2020 Courses for Cognitive Science Majors

The following courses satisfy degree requirements for the Cognitive Science major in the specified term. **The Advanced Course Search tab in SIS also allows you to search 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)); provide a course description and syllabus. Note that course offerings are subject to change. Departments may add or cancel courses at any time.

### Math

#### For Math Option A offered courses

- AS.050.370 Mathematical Models of Language
- AS.050.371 Bayesian Inference
- AS.110.106/108 Calculus I
- AS.110.107/109 Calculus II
- AS.110.201 Linear Algebra  
OR AS.110.212 Honors Linear Algebra  
OR EN.553.291 Linear Algebra & Differential Equations
- AS.150.118 Introduction to Formal Logic
- EN.553.171 Discrete Mathematics

#### For Math Option B/Statistics Sequence offered courses

*Required if Cognitive Psychology/Neuropsychology is a chosen focal area.*

#### OLD Option B (option for majors who enrolled at JHU FA17 or earlier)

- EN.553.111 Statistical Analysis I
- EN.553.112 Statistical Analysis II

#### NEW Option B (option for all majors)

- AS.200.201 Design & Analysis for Experimental Psychology

### Offered Courses by Focal Area

#### Area A: Cognitive Psych. & Cognitive Neuropsych. [COGS-COGPSY]

- AS.050.116 Visual Cognition
- AS.050.203 Neuroscience: Cognitive
- AS.050.315 Cognitive Neuropsychology of Visual Perception
- AS.050.339 Cognitive Development
- AS.050.349 Second Language Acquisition
- AS.050.358 Language and Thought
- AS.200.110 Introduction to Cognitive Psychology
- AS.200.141 Foundations of Brain, Behavior and Cognition
- AS.200.385 Mind, Brain & Experience
- AS.376.372 Topics in Music Cognition (PY.610.638)

#### Area B: Linguistics [COGS-LING]

- AS.050.320 Syntax I
- AS.050.349 Second Language Acquisition
- AS.050.358 Language and Thought
- AS.050.370 Mathematical Models of Language
- AS.130.218 Language and Society

#### Area C: Computational Approaches to Cognition [COGS-COMPCG]

- AS.050.116 Visual Cognition
- AS.050.326 Foundations of Cognitive Science
- AS.050.370 Mathematical Models of Language
- AS.050.371 Bayesian Inference
- AS.080.321 Computational Neuroscience
- AS.200.329 Real World Human Data: Analysis & Visualization
- EN.520.415 Image Process & Analysis II
- EN.520.433 Medical Image Analysis
- EN.553.426 Introduction to Stochastic Processes
- EN.553.493 Mathematical Image Analysis
- EN.601.226 Data Structures
- EN.601.229 Computer System Fundamentals
- EN.601.231 Automata & Computation Theory
- EN.601.320 Parallel Programming (EN.601.420)
- EN.601.426 Principles of Programming Languages
- EN.601.433 Intro Algorithms
- EN.601.463 Algorithms for Sensor-Based Robotics
- EN.601.464 Artificial Intelligence
- EN.601.475 Machine Learning
- EN.601.482 Machine Learning: Deep Learning
- EN.601.491 Human-Robot Interaction

- EN.601.783 Vision as Bayesian Inference adv ugrads/instructor permission

*At most, one of the following Area C courses:*

- AS.250.205 Introduction to Computing
- EN.500.112 Gateway Computing: JAVA
- EN.500.113 Gateway Computing: Python
- EN.500.114 Gateway Computing: MatLab
- EN.601.220 Intermediate Programming

#### Area D: Philosophy of Mind [COGS-PHLMND]

- AS.050.326 Foundations of Cognitive Science
- AS.150.118 Introduction to Formal Logic
- AS.150.193 Philosophy of Language Seminar
- AS.150.330 Decisions, Games & Social Choice
- AS.150.688 Philosophy of Psychology adv ugrads/instructor permission

#### Area E: Neuroscience [COGS-NEURO]

- AS.050.116 Visual Cognition
- AS.050.203 Neuroscience: Cognitive
- AS.050.315 Cognitive Neuropsychology of Visual Perception
- AS.050.339 Cognitive Development
- AS.080.250 Neuroscience Laboratory
- AS.080.304 Neuroscience Learning and Memory
- AS.080.306 Neuroscience: Cellular and Systems II
- AS.080.321 Computational Neuroscience
- AS.080.328 Behavioral Neuroscience Lab
- AS.080.345 Great Discoveries in Neuroscience
- AS.200.141 Foundations of Brain, Behavior and Cognition
- AS.200.304 Neuroscience of Decision Making
- AS.200.329 Real World Human Data: Analysis & Visualization
- AS.200.370 Functional Human Neuroanatomy
- AS.200.385 Mind, Brain & Experience

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

This course provides the opportunity to learn about adult aphasia, 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/wk. 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.

Posted 10.24.19. Revised 10.25.19 to update Linguistics list.

<https://cogsci.jhu.edu/undergraduate/cognitive-science-major/>

