

## Fall 2024 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 Prof. Colin Wilson, ([colin.wilson@jhu.edu](mailto:colin.wilson@jhu.edu)) and cc: Chamera Sampson, ([csampso7@jh.edu](mailto:csampso7@jh.edu)) and provide a course description and syllabus.

### Math

#### Math Option A

- AS.110.106/108 Calculus I
- AS.110.107/109 Calculus II OR  
AS.110.113 Honors Single Variable Calculus
- AS.110.201/212 Linear Algebra OR  
EN.553.291 Linear Algebra & Differential Equations

- AS.150.420 Mathematical Logic I
- AS.050.371 Bayesian Inference
- EN.553.171 Discrete Mathematics

#### Math Option B

*Required math option if Area A is one of your focal areas*

- AS.200.200 Research Methods in Psychology

### Courses by Focal Area

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

- AS.050.102 Language and Mind
- AS.050.105 Introduction to Cognitive Neuropsychology
- AS.050.236 Neurolinguistics
- AS.050.312 Cognitive Neuroimaging Methods in High-Level Vision
- AS.050.348 First Language Acquisition
- AS.050.358 Language & Thought
- AS.200.101 Introduction to Psychology
- AS.200.132 Introduction to Developmental Psychology
- AS.200.141 Foundations of Brain, Behavior and Cognition
- AS.200.238 Primate Minds
- AS.200.322 Clinical Neuropsychology

- EN.601.464 Artificial Intelligence
- EN.601.465 Natural Language Processing
- EN.601.467 Introduction to Human Language Technology
- EN.601.468 Machine Translation
- EN.601.475 Machine Learning
- EN.601.482 Machine Learning: Deep Learning
- EN.601.490 Introduction to Human-Computer Interaction

***At most, one of the following applied toward your major:***

- EN.601.220 Intermediate Programming
- EN.500.112 Gateway Computing: JAVA
- EN.500.113 Gateway Computing: Python

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

- AS.150.136 Philosophy & Science: An Introduction to Both
- AS.150.361 Partial Truth
- AS.150.423 Theory of Knowledge

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

- AS.050.105 Introduction to Cognitive Neuropsychology
- AS.050.236 Neurolinguistics
- AS.050.244 Cognitive Neuroscience Lab
- AS.050.312 Cognitive Neuroimaging Methods in High-Level Vision
- AS.050.347 Deep Learning for Cognitive Neuroscience<sup>NEW</sup>
- AS.050.365 Cracking the code: Theory and modeling of information coding in neural activity
- AS.080.250 Neuroscience Laboratory
- AS.080.301 Behavioral Assessment of Animal Models of Cognition and Neuropsychiatric Disorders
- AS.080.305 Neuroscience: Cellular and Systems I
- AS.080.308 Neuroeconomics
- AS.080.316 Prefrontal Cortex- Computational Models & Neurophysiology
- AS.080.323 Advances in Neuroplasticity and its Applications in Neurology
- AS.080.355 Computational Principles of Biological Vision
- AS.080.360 Diseases & Disorders of the Nervous System
- AS.200.141 Foundations of Brain, Behavior & Cognition
- AS.200.376 Neuropsychopharmacology
- AS.200.380 Neurobiology of Human Cognition

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

- AS.050.347 Deep Learning for Cognitive Neuroscience<sup>NEW</sup>
- AS.050.365 Cracking the code: Theory and modeling of information coding in neural activity
- AS.050.371 Bayesian Inference
- AS.050.375 Probabilistic Models of the Visual Cortex (EN.601.485)
- AS.080.316 Prefrontal Cortex- Computational Models & Neurophysiology
- AS.080.355 Computational Principles of Biological Vision
- AS.250.205 Introduction to Computing
- EN.520.414 Image Processing & Analysis
- EN.553.436 Introduction to Data Science
- EN.601.226 Data Structures
- EN.601.229 Computer System Fundamentals
- EN.601.230 Mathematical Foundations for Computer Science
- EN.601.428 Compilers & Interpreters
- EN.601.433 Intro Algorithms
- EN.601.461 Computer Vision
- EN.601.463 Algorithms for Sensor-Based Robotics

**Note:** Course offerings are subject to change; departments may add or cancel courses at any time.