

Fall 2020 Courses for Cognitive Science Majors

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

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 Linear Algebra OR AS.110.212 Honors Linear Algebra OR EN.553.291 Linear Algebra & Differential Equations
- 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 Experimental Psychology
- EN.553.111 Statistical Analysis I

Stats I required only if student entered Fall 2017 or prior and they are taking "old" Math Option B sequence
Visit <https://bit.ly/2lvTzPp> for details.

Courses by Focal Area

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

- AS.050.102 Language & Mind
- AS.050.105 Introduction to Cognitive Neuropsychology
- AS.050.121 Theory of Mind and the Science of "Mindreading"
- AS.050.206 Bilingualism
- AS.050.311 Written Language: Normal Processing and Disorders
- AS.050.332 Developmental Cognitive Neuroscience
- AS.050.348 First Language Acquisition
- AS.200.101 Introduction to Psychology
- AS.200.132 Introduction to Developmental Psychology
- AS.200.141 Foundations of Brain, Behavior & Cognition
- AS.200.322 Clinical Neuropsychology
- AS.200.335 How Does the Brain Predict the Future?
- AS.376.371 Introduction to Music Cognition

Area B: Linguistics [COGS-LING]

- AS.050.102 Language & Mind
- AS.050.206 Bilingualism
- AS.050.317 Semantics I
- AS.050.348 First Language Acquisition
- EN.601.465 Natural Language Processing
- EN.601.467 Introduction to Human Language Technology

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

- AS.050.365 Theory & modeling of information coding in neural activity
- AS.050.375 Probabilistic Models of the Visual Cortex
- AS.080.316 Prefrontal Cortex- Computational Models & Neurophysiology
- AS.080.355 Computational Principles of Biological Vision
- AS.200.313 Models of Mind and Brain
- AS.250.205 Introduction to Computing
- EN.520.315 Intro to Bio-Inspired Processing of A/V Signals
- EN.520.412 Machine Learning for Signal Processing
- EN.520.414 Image Processing & 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.601.428 Compilers & Interpreters
- EN.601.433 Intro Algorithms
- EN.601.461 Computer Vision
- EN.601.463 Algorithms for Sensor-Based Robotics
- 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 computational courses:

- 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.050.121 Theory of Mind and the Science of "Mindreading"
- AS.150.136 Philosophy & Science: An Introduction to Both
- AS.150.223 Formal Methods of Philosophy (AS.150.434)
- AS.150.245 Philosophy of Mind
- AS.150.423 Theory of Knowledge
- AS.150.475 Philosophy and Cognitive Science
- AS.150.498 Modal Logic and Its Applications

Area E: Neuroscience [COGS-NEURO]

- AS.050.105 Introduction to Cognitive Neuropsychology
- AS.050.311 Written Language: Normal Processing and Disorders
- AS.050.332 Developmental Cognitive Neuroscience
- AS.050.365 Theory & modeling of information coding in neural activity
- AS.080.250 Neuroscience Laboratory
- AS.080.305 Neuroscience: Cellular and Systems I
- AS.080.308 Neuroeconomics
- AS.080.316 Prefrontal Cortex- Computational Models & Neurophysiology
- AS.080.355 Computational Principles of Biological Vision
- 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.200.376 Neuropsychopharmacology
- AS.200.380 Neurobiology of Human Cognition

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

[May apply to 9 credits of "Additional Upper-Level CogSci Electives."] This course provides the opportunity to learn about adult aphasia - language disorders - 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 2 hr/wk. Three class meetings for orientation and reading assignments will be held on campus; training and practicum will be at a local aphasia support center. Transportation required. Prerequisite: A- or better in AS.050.203, AS.080.203, AS.050.105, or AS.050.311; junior or senior status; and hold a 3.5 GPA or better. Instructor approval required.

