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

<table>
<thead>
<tr>
<th>Math Option A</th>
<th>Math Option B</th>
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<tbody>
<tr>
<td>AS.110.107/109 Calculus II OR AS.110.113 Honors Single Variable Calculus</td>
<td>EN.553.111 Statistical Analysis I</td>
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<tr>
<td>AS.110.201 Linear Algebra OR AS.110.212 Honors Linear Algebra OR EN.553.291 Linear Algebra &amp; Differential Equations</td>
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<td>EN.553.171 Discrete Mathematics</td>
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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.050.332 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.601.490 Introduction to Human-Computer Interaction
- EN.601.482 Machine Learning: Deep Learning
- EN.601.475 Machine Learning
- 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

Area D: Philosophy of Mind [COGS-PHLMD]
- AS.050.105 Introduction to Cognitive Neuropsychology
- AS.050.332 Developmental Cognitive Neuroscience
- AS.050.365 Theory & modeling of information coding in neural activity
- EN.500.113 Gateway Computing: JAVA
- EN.500.112 Gateway Computing: PYTHON
- 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

Area E: Neuroscience [COGS-NEURO]
- AS.050.105 Introduction to Cognitive Neuropsychology
- 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.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
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- EN.601.464 Artificial Intelligence
- EN.601.465 Natural Language Processing
- EN.601.467 Introduction to Human Language Technology
- EN.500.113 Gateway Computing: PYTHON

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 aphasias - 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.

Posted 4.13.20.  
https://cogsci.jhu.edu/undergraduate/cognitive-science-major/