

# COGNITIVE SCIENCE MAJOR: MINDS, MACHINES, & COMPUTATIONS TRACK

1. Foundation Requirement in Cognitive Science (185:201; 4cr)
2. Logical and Statistical Reasoning (One Course from Each Column)

Computational/Logical Reasoning	Statistical Reasoning
<ul style="list-style-type: none"> <li>• Introduction to Logic (730:201; 3cr)</li> <li>• Introduction to Logic (730:202; 4cr)</li> <li>• Computing for Math and the Sciences ((198:107; 3cr)</li> <li>• Introduction to Discrete Structures I (198:205; 4cr)</li> <li>• Mathematical Logic (640:461; 3cr)</li> <li>• Introduction to Mathematical Reasoning (640:300; 3cr).</li> </ul>	<ul style="list-style-type: none"> <li>• Methods in Cognitive Science (185:320; 3cr)</li> <li>• Discrete Structures II (198: 206; 4cr)</li> <li>• Calculus I (640:135; 4cr) or Honors (640:191; 4cr)</li> <li>• Calculus II (640:136; 4cr) or Honors (640:192; 4cr)</li> <li>• Calculus I for Mathematical and Physical (640:151; 4cr)</li> <li>• Calculus I for Mathematical and Physical (640:152; 4cr)</li> <li>• Quantitative Methods in Psychology (830:200; 4cr)</li> <li>• Statistics I (960:211; 3cr)</li> <li>• Introductory Statistics for Business (960:285; 3cr)</li> <li>• Basic Statistics for Economics (960:201; 4cr)</li> <li>• Basic Statistics for Research (960:401; 3cr)</li> </ul>

3. Distributional requirements (One Course from Three Columns)

Cognitive Neuroscience	Decision Making	Language	Minds, Machines, & Computation	Perception
<ul style="list-style-type: none"> <li>• Brain, Mind and Behavior (119:195; 3cr)</li> <li>• Fundamentals of Neurobiology (146:245; 3cr; for CBN majors)</li> <li>• Essentials of Cell Biology &amp; Neuroscience (146:295; 3cr)</li> <li>• Data Structures (198:112, 4cr)</li> <li>• Physiological Psychology (830:313; 3cr)</li> </ul>	<ul style="list-style-type: none"> <li>• Cognition and Decision Making (185:301; 4cr)</li> <li>• Intermediate Microeconomics Analysis (220:320; 3cr)</li> </ul>	<ul style="list-style-type: none"> <li>• Meaning and Numbering (185:330; 3cr)</li> <li>• Language and Cognition (185: 410; 4cr)</li> <li>• Introduction to Linguistic Theory (615:201; 3cr)</li> <li>• Philosophy of Language (730:210; 3cr)</li> <li>• Psychology of Language (830:351; 3cr)</li> </ul>	<ul style="list-style-type: none"> <li>• The Concept of ‘Concepts’ in Cognitive Science (185: 310; 3cr)</li> <li>• Introduction to Computer Science (198:111; 4cr) or</li> <li>• Introduction to Artificial Intelligence (198: 440, 4cr)</li> <li>• Minds, Machines and Persons (730:329; 3cr)</li> <li>• Philosophical Aspects of Cognitive Science (730:360; 3cr)</li> </ul>	<ul style="list-style-type: none"> <li>• Design and Analysis of Computer Algorithms (198:344; 4cr)</li> <li>• Sensation &amp; Perception (830:301; 3cr)</li> </ul>

4. Capstone Course (One Course from the Following)

Advanced Topics in Cognitive Science (185:411; 4cr)	Research in Cognitive Science (185:395; 3cr)
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5. Electives (Three Courses from the Following)	6. Additional Requirements
<ul style="list-style-type: none"> <li>• Brain, Mind, and Behavior (119:195; 3cr; honors)</li> <li>• Introduction to Neural Processes (125:405; 3cr)</li> <li>• The Concept of 'Concepts' in Cognitive Science (185:360; 3cr)</li> <li>• Introduction to Discrete Structures I (198:205; 4cr)</li> <li>• Introduction to Discrete Structures II (198:206; 4cr)</li> <li>• Design and Analysis of Computer Algorithms (198:344; 4cr)</li> <li>• Introduction to Artificial Intelligence (198:440; 4cr)</li> <li>• Formal Languages and Automata (198:452; 3cr)</li> <li>• Minds, Machines and Persons (730:329; 3cr)</li> <li>• Philosophical Aspects of Cognitive Science (730:360; 3cr)</li> <li>• Philosophy of Mind (730:418; 3cr)</li> <li>• Cognition (830: 305; 3cr)</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum of 36 credits</li> <li>• Four Cognitive Science Courses</li> <li>• Grades of C or better must be earned in all courses counted towards the major.</li> <li>• Two thirds of total credits must be from School of Arts and Sciences</li> <li>• Two thirds of total credits must be 300 level+</li> <li>• No more than 4 courses from Philosophy or Computer Science</li> <li>• No more than 3 courses from any other department</li> <li>• Note: Courses used to satisfy the Distribution requirement cannot also be used to satisfy the Track elective requirements</li> </ul> <p>Students may declare the major using myMajor after taking Intro to Cog Sci (185:201), 1 Computational/Logical course, and 1 Statistical Reasoning course.</p>



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