Cognitive Science

Director: Corinne Bloch-Mullins, Ph.D.

Cognitive science is the study of cognition – thought, learning and mental organization – through the integrated use of methods from psychology, philosophy, computer science, artificial intelligence, neuroscience, mathematics, linguistics, biology and anthropology. Cognitive scientists ask questions such as: How do we perceive sensory input? How do we process information? What processes underly learning and memory? Can machines think?

The cognitive science major offers students a unique opportunity to study the mind/brain in an interdisciplinary manner, through a combination of courses that examine cognition from different perspectives, theoretical frameworks and methodologies. Students integrate the different approaches through a capstone seminar in cognitive science.

Graduates of cognitive science programs enjoy a wide range of professional careers and graduate programs opportunities. These opportunities include psychology, medicine, research, software development, information technology, education, marketing and communication, industrial design and more.

Cognitive Science Major

The major in cognitive science consists of seven required courses (22 cr. hrs.), one course from each of the four cognitive science content areas (12 cr. hrs.), and 9 hours of elective credits.

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<th>Code</th>
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<td>PHIL 1001</td>
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<td></td>
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<td>Individual and Social Behavior - Choose one of the following:</td>
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<td></td>
<td>ANTH 2301</td>
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<td>ENGL 4170</td>
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**Electives - Choose three of the following:**

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<td>Diseases of the Brain</td>
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<td>Object-Oriented Software Design</td>
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<td>Fundamentals of Artificial Intelligence</td>
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<td>COSC 4995</td>
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<td>PSYC 3101</td>
<td>Developmental Psychology: Conception Through Adolescence</td>
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PSYC 3120  Developmental Psychology: Adulthood and Aging  
PSYC 3201  Introductory Social Psychology  
PSYC 3210  The Psychology of Prejudice  
PSYC 3220  Human Sexuality  
PSYC 3240  Psychology of Racism  
PSYC 3301  Learning and Behavior  
PSYC 3401  Abnormal Psychology  
PSYC 3501  Theories of Personality  
PSYC 3560  Psychology of Religion  
PSYC 3601  Biopsychology  
PSYC 3650  Affective Neuroscience  
PSYC 3701  Principles of Psychological Testing  
PSYC 3840  Psychology of Happiness  
PSYC 4320  Learning and Memory  
PSYC 4330  Human Factors Engineering  
PSYC 4820  Concepts and Principles of Behavior  
PSYC 4931  Topics in Psychology  
PSYC 4956  Advanced Undergraduate Research  
or PSYC 4956H  Honors Advanced Undergraduate Research  
SOCI 2500  Self, Language and Social Interaction  

Total Credit Hours: 43

1  Topic must be approved by the program director.
2  Student may not earn credit for both ENGL 4110 Exploring the English Language and ENGL 4120 Anatomy of English (or ENGL 4120H Honors Anatomy of English).
3  A course completed in fulfillment of an elective requirement may not fulfill another program requirement.
4  Student may need to complete more than three courses if credit hours earned in three elective courses do not meet the minimum 9 credits hours required.
5  A maximum of 6 credits of 4956 may be completed in fulfillment of elective requirements.

Courses

INCG 2010. Introduction to Cognitive Science. 3 cr. hrs.
An introduction to the interdisciplinary study of the mind, drawing on and integrating concepts and tools from disciplines such as psychology, artificial intelligence, philosophy, linguistics, anthropology and others. Asks foundational questions in cognitive science and examines how the various disciplines that comprise the field come together to offer a framework for an investigation into the fundamentals of cognition.

INCG 3986. Internship in Cognitive Science. 3 cr. hrs.
Gain professional experience in cognitive science or one of the specific disciplines it encompasses for the purpose of furthering the student's integration of theory and practice in a professional setting. Placement is for a minimum of 140 hours per term under the supervision of agency personnel. S/U grade assessment. Prereq: Jr. stndg., INCG major, and cons. of internship coordinator.

INCG 4986. Advanced Internship in Cognitive Science. 3 cr. hrs.
Continuation of the internship experience (INCG 3986). Gain professional experience in cognitive science or one of the specific disciplines it encompasses, for the purpose of furthering the student's integration of theory and practice at the same agency as the previous internship. Placement is for a minimum of 140 hours per term under the supervision of agency personnel. S/U grade assessment. Prereq: INCG 3986, Jr. stndg., INCG major, and cons. of internship coordinator.

INCG 4997. Capstone in Cognitive Science. 3 cr. hrs.
Students become familiar with some of the dominant approaches in cognitive science and discuss fundamental issues pertaining to the methodology, basic premises and models in the discipline. In the first part, students examine foundational issues in cognitive science. In the second part, students explore specific aspects of cognition. Prereq: INCG major and Sr. stndg. or cons. of instr.; PSYC 3320 or cons. of instr.; one of the following: PHIL 3410, PHIL 3450, PHIL 3460, PHIL 3640, PHIL 3650, PHIL 4450, PHIL 4470 or cons. of instr.