Twin Cities Campus

Cognitive Science Minor

CLA Dean's Office

College of Liberal Arts

Link to a list of faculty for this program.

Contact Information:
Center for Cognitive Sciences, University of Minnesota, 205 Elliott Hall, 75 East River Road, Minneapolis, MN 55455 (612-626-3570; fax: 612-626-7253)
Email: cogsci@umn.edu
Website: http://www.cogsci.umn.edu

- Program Type: Graduate minor related to major
- Requirements for this program are current for Spring 2022
- Length of program in credits (Masters): 9 to 10
- Length of program in credits (Doctorate): 12 to 13
- This program does not require summer semesters for timely completion.

Along with the program-specific requirements listed below, please read the General Information section of the catalog website for requirements that apply to all major fields.

The cognitive science minor provides an opportunity for students to pursue integrated coursework, which emphasizes theory and methods in cognitive science.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Prerequisites for Admission

Special Application Requirements:
Students interested in the minor are strongly encouraged to confer with their major field advisor and director of graduate studies, and the Cognitive Science director of graduate studies regarding feasibility and requirements.

For an online application or for more information about graduate education admissions, see the General Information section of the catalog website.

Program Requirements

Use of 4xxx courses toward program requirements is permitted under certain conditions with adviser approval.

The minimum cumulative GPA for coursework applied to the minor is 3.00.

Coursework

Introduction Course (3 to 4 credits)

Select one of the following courses, or a substitute course, with the approval of the Cognitive Science director of graduate studies.
CGSC 8000 - Seminar: Philosophy of the Cognitive Sciences (3.0 cr)
or CGSC 8041 - Cognitive Neuroscience (4.0 cr)
or PSY 8042 - Proseminar in Cognition, Brain, and Behavior (3.0 cr)

Electives (5 to 9 credits)

Master's students select at least 5 credits, and doctoral students select at least 9 credits from the following to meet minimum requirements for the minor. Approval of the Cognitive Science director of graduate studies is required.

Cognitive Science

CGSC 8410 - Perspectives in Learning, Perception, and Cognition (2.0 cr)

Cognitive Psychology

CPSY 8301 - Developmental Psychology: Cognitive Processes (4.0 cr)
EPSY 5114 - Psychology of Student Learning (3.0 cr)
EPSY 8112 - Mathematical Cognition (3.0 cr)
EPSY 8116 - Reading for Meaning: Cognitive Processes in the Comprehension of Texts (3.0 cr)
EPSY 8118 - Advanced Cognitive Psychology (3.0 cr)

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PSY 5014 - Psychology of Human Learning and Memory (3.0 cr)
PSY 5015 - Cognition, Computation, and Brain (3.0 cr)
PSY 5031W - Perception [WI] (3.0 cr)
PSY 5054 - Psychology of Language (3.0 cr)
PSY 5062 - Cognitive Neuropsychology (3.0 cr)
PSY 5064 - Brain and Emotion (3.0 cr)
PSY 8010 - Advanced Topics in Learning (3.0 cr)
PSY 8036 - Topics in Computational Vision (3.0 cr)
PSY 8055 - Seminar: Cognitive Neuroscience (3.0 cr)
PSY 8201 - Social Cognition (3.0 cr)

Computer Science

CSCI 5115 - User Interface Design, Implementation and Evaluation (3.0 cr)
CSCI 5127W - Embodied Computing: Design & Prototyping [WI] (3.0 cr)
CSCI 5421 - Advanced Algorithms and Data Structures (3.0 cr)
CSCI 5511 - Artificial Intelligence I (3.0 cr)
CSCI 5521 - Machine Learning Fundamentals (3.0 cr)
CSCI 5525 - Machine Learning: Analysis and Methods (3.0 cr)
CSCI 5561 - Computer Vision (3.0 cr)
CSCI 5609 - Visualization (3.0 cr)
CSCI 5619 - Virtual Reality and 3D Interaction (3.0 cr)
CSCI 8115 - Human-Computer Interaction and User Interface Technology (3.0 cr)
CSCI 8551 - Intelligent Agents (3.0 cr)

Linguistics

LING 5001 - Introduction to Linguistics (4.0 cr)
LING 5201 - Syntactic Theory I (3.0 cr)
LING 5202 - Syntactic Theory II (3.0 cr)
LING 5205 - Semantics (3.0 cr)
LING 5206 - Linguistic Pragmatics (3.0 cr)
LING 5207 - Advanced Semantics (3.0 cr)
LING 5801 - Introduction to Computational Linguistics (3.0 cr)
LING 8200 - Topics in Syntax and Semantics (3.0 cr)
LING 8210 - Seminar in Syntax (3.0 cr)
LING 8900 - Seminar: Topics in Linguistics (3.0 cr)
LING 8921 - Seminar in Language and Cognition (3.0 cr)

Neuroscience

NSC 5461 - Cellular and Molecular Neuroscience (3.0 cr)
NSC 5561 - Systems Neuroscience (4.0 cr)
NSC 8217 - Systems and Computational Neuroscience (2.0 cr)
NSCI 5551 - Statistical Foundations of Systems Neuroscience (3.0 cr)

Philosophy

PHIL 5615 - Mind, Bodies and Machines (3.0 cr)
PHIL 8131 - Epistemology Survey (3.0 cr)
PHIL 8180 - Seminar: Philosophy of Language (3.0 cr)
PHIL 8620 - Seminar: Philosophy of the Biological Sciences (3.0 cr)
PHIL 8670 - Seminar: Philosophy of Science (3.0 cr)
PHIL 8602 - Scientific Representation and Explanation (3.0 cr)

Program Sub-plans

Students are required to complete one of the following sub-plans.
Students may not complete the program with more than one sub-plan.

Masters

Doctoral

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