Twin Cities Campus

Translational Sensory Sciences Minor

Psychology

College of Liberal Arts

Link to a list of faculty for this program.

Contact Information:
Center for Applied & Translational Sensory Science
S39 Elliott Hall
75 East River Parkway
Minneapolis, MN
Email: catss@umn.edu

- Program Type: Graduate free-standing minor
- Requirements for this program are current for Spring 2023
- Length of program in credits (Doctorate): 12
- 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 translational sensory sciences minor provides students with a focused, multidisciplinary educational background and research training opportunities to address critical challenges in the development of assistive technologies that meaningfully improve the lives of people with sensory disabilities.

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 Translational Sensory Sciences 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.

Coursework offered on both the A-F and S/N grading basis must be taken A-F, with a minimum grade of C+ earned for each course.

Required Courses (5 credits)

Take the following courses:
GCC 5022 - The Human Experience of Sensory Loss: Seeking Equitable and Effective Solutions [TS] (3.0 cr)
CGSC 8410 - Perspectives in Learning, Perception, and Cognition (2.0 cr)

Electives (7 credits)

Select 7 credits from the following, in consultation with the Translational Sensory Sciences director of graduate studies, to complete the 12-credit minimum. Other courses may be applied to this requirement with approval of the Translational Sensory Sciences director of graduate studies.
BMEN 5413 - Neural Decoding and Interfacing (3.0 cr)
BMEN 8101 - Biomedical Digital Signal Processing (3.0 cr)
CSCI 5115 - User Interface Design, Implementation and Evaluation (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 5619 - Virtual Reality and 3D Interaction (3.0 cr)
CSCI 5801 - Software Engineering I (3.0 cr)
KIN 5941 - Clinical Movement Neuroscience (3.0 cr)
KIN 8211 - Seminar: Perception and Action (3.0 cr)
OTOL 8234 - Anatomy of the Head and Neck and Temporal Bone Dissection (2.0 cr)
PSY 5031W - Perception [WI] (3.0 cr)
PSY 5038W - Introduction to Neural Networks [WI] (3.0 cr)
PSY 5065 - Functional Imaging: Hands-on Training (3.0 cr)
PSY 8041 - Proseminar in Perception (3.0 cr)
SLHS 5804 - Cochlear Implants (3.0 cr)
SLHS 5807 - Noise and Hearing Conservation (3.0 cr)
SLHS 5808 - Pathophysiology of Hearing Disorders (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.

Doctoral