

HUMAN CENTERED COMPUTING, MS

Human-Centered Computing (HCC) is the interdisciplinary practice of conceptualizing, designing, prototyping, and fielding technology-based products or services that place human needs, behaviors, and experiences at the forefront. It integrates both technological and humanistic perspectives to ensure that computing solutions are usable, accessible, and impactful. By nature, HCC brings together aspects of computer science, design, psychology, data science, and videogame design and development with a wide range of other disciplines such as health care, education, entrepreneurship, the arts, and public administration. It emphasizes a holistic and immersive approach to technology development—focusing not only on the technical feasibility of an idea but also on its human relevance and societal implications.

There is a great demand for HCC entrepreneurs and professionals locally, regionally, and nationally, and the MS in HCC program was created, in part, to prepare a workforce to meet those demands, in addition to satisfying the intellectual curiosity and honing the intellectual capacity of passionate creatives who work in and with technology.

Program Related Information

Program Contact

si2gpc@unomaha.edu

Program Website (<https://www.unomaha.edu/college-of-information-science-and-technology/academics/it-innovation.php>)

Fast Track

The School of Interdisciplinary Informatics (SI2) has developed a Fast Track program for highly qualified and motivated students providing the opportunity to complete a bachelor's degree and a master's degree in an accelerated time frame. With Fast Track, students may count up to nine (9) graduate hours toward the completion of their undergraduate program as well as the graduate degree program. Students will work with both undergraduate and graduate advisors to ensure graduate classes selected will count toward both programs, should a student wish to earn a graduate degree in a separate College of Information Science & Technology (CIST) area than their undergraduate degree.

Program Specifics:

- This program is available for undergraduate students pursuing any of the following:
 - Students pursuing a CIST undergraduate degree desiring to pursue an MS in either the same or a related CIST field
 - Students pursuing the Bachelor of Multidisciplinary Studies desiring to pursue the MS in human centered computing.
 - Students pursuing the BS in neuroscience.
- Students must have completed no less than 60 undergraduate hours and with at least 24 undergraduate credits yet to complete.
- Students must have a minimum undergraduate GPA of 3.0.
- Students must complete the Fast Track Approval form and obtain all signatures and submit it to the Office of Graduate Studies prior to first enrollment in a graduate course.
- Students will work with their undergraduate advisor to register for the graduate courses.
- A minimum cumulative GPA of 3.0 is required to remain in good standing.

- Students remain undergraduates until they meet all the requirements for the undergraduate degree and are eligible for all rights and privileges granted undergraduate status including financial aid.
- Near the end of the undergraduate program, formal application to the graduate program is required. All applicants will need to meet any other admission requirements established for the MS in the selected CIST program. The application fee will be waived if the applicant contacts the Office of Graduate Studies for a fee waiver code prior to submitting the MS application.
 - Admission to Fast Track does NOT guarantee admission to the graduate program.
 - The admit term must be after the completion term of the undergraduate degree.

Admissions

General Application Requirements and Admission Criteria (<http://catalog.unomaha.edu/graduate/admission/>)

Application Deadlines

- Spring 2026: December 1
- Summer 2026: April 1
- Fall 2026: July 1

Other Requirements

- The minimum undergraduate grade point average (GPA) requirement for the MS in human centered computing program is 3.0 or equivalent score on a 4.0 scale. Provisional admission may be granted to applicants with a GPA of 2.7 or above (see categories of admission below). Applicants should have the equivalent of a four-year undergraduate degree.
- **English Language Proficiency:** Applicants are required to have a command of oral and written English. Those who do not hold a baccalaureate or other advanced degree from the U.S., **OR** a baccalaureate or other advanced degree from a predetermined country on the [waiver list \(https://www.unomaha.edu/office-of-graduate-studies/admissions/entrance-exams.php\)](https://www.unomaha.edu/office-of-graduate-studies/admissions/entrance-exams.php), must meet the minimum language proficiency score requirement in order to be considered for admission.
 - Internet-based TOEFL: 80, IELTS: 6.5, PTE: 53, Duolingo: 110
- **Writing Sample:** Applicants are required to submit a writing sample about an area of innovation, information technology, or design that is of specific interest to them. This should be a two page double-spaced word processed essay that showcases your unique interest in interdisciplinary ideas and applications in technology, and demonstrates your potential for success in a hands-on and self-directed the graduate program.
- **Resume:** Submit a detailed resume indicating your work experience and background.
- **Optional:** One letter of recommendation from a reference who can evaluate your work and/or academic achievements.

Non-Degree students interested in taking courses without admission to the MS in human centered computing degree program may do so with permission of the graduate program committee.

Degree Requirements

Code	Title	Credits
Core		9
HCC 8000	TECHNOLOGY & INNOVATION STUDIO (repeat 3 times for a total of 9 credits)	9
Electives		15-18

A total of 15-18 graduate-level credits from any program in the NU system that aligns with the student's area of interest. Students are encouraged to consider the following examples of acceptable electives from within the HCC program:

HCC 8210	DESIGN SCIENCE AND THEORY DEVELOPMENT	
HCC 8220	DESIGN PROCESS	
HCC 8006	SPECIAL TOPICS IN IT INNOVATION	
HCC 8910	INTERNSHIP	
HCC 8900	INDEPENDENT STUDIES	
Exit Requirement (choose one)		3-6
HCC 8960	THESIS EQUIVALENT PROJECT IN IT INNOVATION	6
or		
HCC 8990	THESIS	6
or		
CIST 8950	GRADUATE CAPSTONE ³	3
Total Credits		30

¹ A maximum of 6 credit hours of internship may be used towards degree requirements.

² A maximum of 6 credit hours of independent study may be used towards degree requirements.

³ Students choosing the capstone exit option are required to take 3 additional credits of electives to earn 30 credit hours total.

Exit Requirements

Specific guidance and requirements for each exit requirement option are described below:

Guidance for Thesis-Equivalent Project Exit Option

Students who choose this exit option will identify a project topic that they would like to pursue. Thesis-equivalent projects are independent (each student is responsible for their own project) and involve a substantial development component (e.g., application, website, algorithm, hardware systems) of an artifact, system, or product of interest to the student. Students are highly encouraged work with IS&T faculty members to refine their ideas and seek mentors prior to starting the project. Students who choose this exit option are required to:

1. Apply for eligibility to take HCC 8960 with a chosen faculty advisor who will serve as their supervisory committee chair. The HCC graduate committee will act as the de facto supervisory committee for the thesis equivalent project.
2. Register for 6 credits of HCC 8960 to complete the chosen project.
3. Participate in a public oral defense of their project work to their supervisory committee.

Guidance for Thesis Exit Option

All candidates completing the thesis option should carefully review the Graduate College requirements for forming the supervisory committee, Thesis/Thesis-Equivalent Proposal Approval forms, and final approval and submission of the thesis. Students who choose this exit option are required to:

1. Apply for eligibility to take HCC 8990 with a chosen HCC faculty advisor who will serve as their thesis committee chair.
2. Form a supervisory thesis committee composed of 2 HCC faculty and 1 outside member. All supervisory committee members will then sign the Proposed Supervisory Committee form.
3. Students will draft a written thesis proposal outlining the proposed research activities to be conducted for their thesis. The scope and contributions are to be developed with the guidance of the supervisory

committee chair. This proposal is distributed to their supervisory committee members for review.

4. Present their thesis proposal in a presentation to their supervisory committee members, and feedback received from this presentation is used to guide the student to refine their proposal. Once all changes have been finalized, the supervisory committee signs the Thesis Proposal Approval form.
5. Register for 6 credits of HCC 8990 to conduct the research under the supervision of their thesis committee chair.
6. At the conclusion of the student's thesis work, they will finalize a draft of the thesis and send it to their supervisory committee for review. Students will then schedule a public thesis defense session where they will present the work done to date and answer questions from their committee about the research. The committee will then either approve the thesis outright or request changes. Once all changes have been finalized, the Report of Completion of Degree form will be signed by all committee members.

Since disciplinary norms can vary, students are strongly encouraged to work with their supervisory committee chair to make sure expectations are met.

Guidance for Capstone Exit Option

Students who choose this exit option will enroll in CIST 8950, which is an interdisciplinary capstone course in the final semester of their program. Students who choose this option are required to take 3 credits of additional electives, subject to the requirements outlined above. Students choosing this option are highly encouraged to take HCC 8210 and HCC 8220 prior to enrolling in CIST 8950.

Quality of Work Standards

The Graduate College's Quality of Work standards shall be applied to foundation courses as well as courses taken as part of the degree program. In particular, the GPC will recommend to the Graduate College that any

1. Student receiving a grade of "C-" or below in any foundation courses will be automatically dismissed from the program or, in the case of unclassified or non-degree students, be automatically denied admission.
2. Student receiving a grade of "C+" or "C" in any foundation course will be placed on probation or dismissed from the program.
3. Student not maintaining a "B" (3.0 on 4.0 scale) average in foundation courses will be placed on probation or dismissed from the program.