

Master of Science – Human-Centered Computing

2025-2026

REQUIREMENTS	HUMAN-CENTERED COMPUTING TRACKS
<p style="text-align: center;"><u>Admission Requirements</u></p> <ol style="list-style-type: none"> Grade point average of 3.0 (B) from all undergraduate coursework. Resume detailing work experiences and accomplishments. Personal statement of career goals and background experiences, including an explanation of how this program will help achieve educational and professional objectives. Recommendations: Two professional or academic recommendations received online, addressing the candidate's potential for graduate study completion. You will provide the emails of two references, and they will be sent a link to complete their online recommendation. Candidates are recommended to have knowledge of a programming language equivalent to 2 or 3 undergraduate courses. Candidates are recommended to have knowledge of applied statistics. <p style="text-align: center;"><u>Degree Requirements</u></p> <p>The Human-Centered Computing (M.S.) program requires a minimum of 34 credits.</p> <p style="text-align: center;">Core Courses (13 credits)</p> <p>Required:</p> <ul style="list-style-type: none"> • HCC 502 User Experience Research (3 credits) • HCC 503 User Experience Design (3 credits) • HCC 601 HCC Synthesis: Foundations and Trajectories in Social Computing (3 credits) • HCC 602 Design for Creative Learning Experiences (3 credits) • HCC 605 Professional Development for Human Subjects Research (1 credit) <p style="text-align: center;">Electives Requirements (3-6 credits)</p> <p>Any 500 or 600 level CIS course can be used as an elective. Students will require 3 additional elective credits if the project option of the capstone is chosen.</p> <p style="text-align: center;">Capstone Requirements (3 or 6 credits)</p> <p>Each candidate must complete either the project course or the thesis sequence. Please contact the graduate program director one semester prior to starting any of these.</p> <p>Project course:</p> <ul style="list-style-type: none"> • CIS 693 Master's Project <p>Thesis sequence:</p> <ul style="list-style-type: none"> ◦ CIS 690 Thesis Research Preparation ◦ CIS 695 Master's Thesis 	<p>All candidates are required to complete one of the listed tracks of 4 classes for a total of 12 credits.</p> <p>Augmented and Virtual Reality Development</p> <p>This track equips students with skills to design and develop multi-modal applications for innovative user interactions and interfaces.</p> <p>Required:</p> <ul style="list-style-type: none"> • HCC 552 AR/VR Design and Research • HCC 553 AR/VR Development <p>Choose 2 of the following:</p> <ul style="list-style-type: none"> • CIS 657 Mobile Application Development • CIS 678 Machine Learning • SE 511 Intro to Software Engineering (CIS 611)* <p>Human-Centered Artificial Intelligence</p> <p>This track prepares students with skills to design and apply AI in diverse contexts focused on the needs of the users. Students will be able to apply AI within domain of interest to deploy critical infrastructure to augment human-machine intellect.</p> <p>Required:</p> <ul style="list-style-type: none"> • AI 501 Introduction to Artificial Intelligence • HCC 531 Human AI Interaction <p>Choose 2 of the following:</p> <ul style="list-style-type: none"> • AI 502 Introduction to Generative AI • AI 511 AI Ethics and Bias • AI 531 Natural Language Processing • CIS 671 Information Visualization • CIS 678 Machine Learning <p>Human-Centered Software Development</p> <p>This track prepares students to create user-centered, reliable and scalable software products for diverse computing applications.</p> <p>Required:</p> <ul style="list-style-type: none"> • SE 511 Introduction to Software Engineering (CIS 611)* • SE 512 Requirements Specification (CIS 612)* <p>Choose 2 of the following:</p> <ul style="list-style-type: none"> • AI 521 Applied Computer Vision • AI 531 Natural Language Processing • CIS 678 Machine Learning • SE 522 Software Architecture and Design (CIS 622)* • SE 537 Software Quality Assurance

*may be listed under a CIS designation