# MS IN COMPUTING: HUMAN-CENTERED COMPUTING

In human-centered computing (HCC) the design and development of technology is motivated by the needs of people. HCC focuses on understanding how people use technology, creating new and accessible technology that enables novel interactions, and evaluating how technology impacts and supports people in the world. The core methods and techniques in HCC are grounded in computer science, but are also draw on social science and design. Current HCC focus areas in the School of Computing include personal informatics, mobile interaction, visualization, games, and privacy.

## TRACK FACULTY

Erik Brunvand, Rogelio E. Cardona-Rivera, Tamara Denning, Alexander Lex, **Miriah Meyer (track director),** Jason Wiese, R. Michael Young

CORE CLASSES: Required courses:	
CS 6540	HCI
CS бххх	Advanced HCI
CS 6630	Visualization for Data Science
ED PS 6010	Introduction to Statistics and Research Design

**ELECTIVES:** 6 electives in total.

Pre-approved course list from within CS and across campus (1) Up to 3 electives can be taken from outside CS (2) Other electives require director approval

### **PRE-APPROVED CS ELECTIVES**

#### Data Science

CS 6140	Data Mining	
CS 6160	Computational Geometry	
CS 6190	Probalistic Modeling	
CS 6340	Natural Language Processing	
CS 6350	Machine Learning	
CS 6530	Database Systems	
Visualization		
CS 6635	Visualization for Scientific Data	
Robotics		
CS 6300	Artifiial Intelligence	
CS 6310	Robotics	
CS 6320	3D Computer Vision	

### **Computer Graphics**

CS 6610	Interactive Computer Graphics
CS 6640	Introduction to Digital Imaging
Embedded Systems	
CS 6780	Embedded System Design
CS 6785	Advanced Embedded Software

# MS IN COMPUTING: HUMAN-CENTERED COMPUTING

### PRE-APPROVED NON-CS ELECTIVES

### Design

DES 5320	Typographic Communication
DES 5370	Digital Fabrication
DES 5710	Product Design and Development
Ed Psychology	
ED PSY 6030	Introduction to Research Design
Psychology	
PSY 6120	Advanced Human Cognition
PSY 6140	Cognitive Neuroscience Approaches to Research
PSY 6420	Methods in Social Psychology
PSY 6700	Neuropsychology
Anthropology	
ANTH 6169	Ethnographic Methods
Sociology	
SOC 6110	Methods of Social Research
Entertainment Arts	and Engineering
EAE 6900	Games User Research
EAE 6900	A.I. For Games

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CORE CLASSES: Required courses:	
CS 6540	HCI
CS бххх	Advanced HCI
CS 6630	Visualization for Data Science
ED PS 6010	Introduction to Statistics and Research Design

**ELECTIVES:** 5 electives in total

Pre-approved course list from within CS and across campus (1) Up to 3 electives can be taken from outside CS (2) Other electives require director approval

### **PRE-APPROVED CS ELECTIVES**

#### Data Science

CS 6140	Data Mining
CS 6160	Computational Geometry
CS 6190	Probalistic Modeling
CS 6340	Natural Language Processing
CS 6350	Machine Learning
CS 6530	Database Systems
Visualization	

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Robotics

CS 6300	Artifiial Intelligence
CS 6310	Robotics
CS 6320	3D Computer Vision

### **Computer Graphics**

CS 6610	Interactive Computer Graphics
CS 6640	Introduction to Digital Imaging
Embedded Systems	
CS 6780	Embedded System Design
CS 6785	Advanced Embedded Software