Human-Computer Interaction (HCIN)

HCIN 5100 [0.5 credit]
Fundamentals of HCI Design and Evaluation
Strategies and practices in HCI design and evaluation. Students will learn to perform studies in user interface analysis and design, read research literature critically, distill important points from readings, summarize, write papers, design user interfaces and present their work.
Also listed as PSYC 5105.

HCIN 5200 [0.5 credit]
Software and User Interface Development
Design and development of user interfaces for software systems based on principles for supporting user interaction, with emphasis on frameworks, tools, and processes for user interface development.

HCIN 5300 [0.5 credit]
Emerging Interaction Techniques
Advanced interaction styles and their associated technologies. Topics may include hand held and gestural interactions, ubiquitous computing, deformable user interfaces, physiological computing and tangible user interfaces.

HCIN 5400 [0.5 credit]
Experimental Methods and Statistics
An introduction to the design of experiments and the statistics needed to interpret data.
Also listed as CGSC 5101.

HCIN 5403 [0.5 credit]
Research methods in HCI
An introduction to quantitative and qualitative research methods in HCI. Students will acquire skills in collecting and analyzing HCI data, presenting the findings and specifying practical implications.
Also listed as PSYC 5106.

HCIN 5404 [0.5 credit]
Design Research Methods
Critical analysis of research methods in design and disciplines contributing to design including anthropology, psychology, sociology, and business. Application areas include advanced materials and manufacturing processes, advanced visualization, product interaction design, extreme environments, sustainable design, design and culture, design management, and human-oriented design.
Also listed as IDES 5102.

HCIN 5405 [0.5 credit]
Methodologies for Discrete-Event Modelling and Simulation
Methodological aspects of simulation. Modelling discrete events systems. Modeling formalisms: FSA, FSM, Petri Nets, DEVS, others. Verification and Verification. Cellular models: Cellular Automata, Cell-DEVS. Continous and hybrid models. Parallel and Distributed simulation (PADS) techniques. PADS middleware: HLA, Parallel-DEVS, Time-Warp.
Also listed as SYSC 5104.

HCIN 5406 [0.5 credit]
Object-Oriented Software Development
Issues in modeling and verifying quality and variability in object-oriented systems. Testable models in model-driven and test-driven approaches. System family engineering. Functional conformance: scenario modeling and verification, design by contract. Conformance to non functional requirements: goals, forces and tradeoffs, metrics.
Also listed as COMP 5104.

HCIN 5900 [0.5 credit]
Directed Studies
A course of independent study under the supervision of a member of the Human/Computer Interaction faculty. Open only to students in the HCI program. Students are required to obtain their supervisor's written approval prior to registration and are limited to one such course in their program.
Prerequisite(s): permission of the Director of the HCI program.

HCIN 5901 [0.5 credit]
Advanced Topics
Topics not ordinarily treated in the regular course program due to their contemporary subject matter. The choice of topics varies from year to year. Details will be available at the time of registration.

HCIN 5909 [2.5 credits]
Thesis in Human-Computer Interaction