

MASTER OF SCIENCE IN Human-Computer Interaction

The integration of computer systems, the Internet, and the World Wide Web into the working world and home life have highlighted the need for professionals who can design human-computer interactions that allow people to work intuitively and with less dependence on long, detailed instructions. Rensselaer's M.S. in Human-Computer Interaction (HCI) combines coursework in human-computer interaction, technical communication, human factors, information design, cognitive science, and computer science to provide the education designers of such systems will need in the future.

The program integrates theory of computer usability and human communication theory with research and practice in designing and evaluating human-computer communication systems. While the program provides HCI implementation skills, the focus is on the study of basic problems in human-technology communication. Our degree emphasizes fundamental principles and evaluation of human-computer interfaces, performance support systems, and system usability, rather than focusing on the hardware or software tools used to implement products.

ADMISSION REQUIREMENTS

- Bachelor of Science degree in an applicable area from an accredited undergraduate institution
- Undergraduate GPA of 3.0 or higher
- Grades of "B" or better in courses completed since bachelor's degree
- GRE or completion of HCI certificate from Rensselaer
- Completed application form
- Official transcripts for all undergraduate and graduate work
- Statement of background and goals as it applies to the program
- TOEFL required for international students
- Two letters of recommendation
- Resume

GRADUATION REQUIREMENTS

- Matriculated status
- Approved Plan of Study
- At least 15 credits must be at the 6000 level
- Minimum 3.0 GPA

PLAN OF STUDY (30 credit hours)

I. Core Course Requirements (21 credits)

Students complete the HCI certificate as part of the M.S. program. Studio Design in HCI constitutes the capstone course.

COMM-6420	Foundations of HCI Usability
COMM-6750	Communication Design for the World Wide Web
COMM-6760	Electronic Coaching Systems
COMM-6810	Studio Design in HCI
COMM-696X	Information Architecture
COMM-6480	Theory and Research in Technical Communication and HCI
COMM-6530	Communication Research I

NOTE: Students may substitute COMM-696X Professional Master's Project (Terminal M.S. students only) or COMM-6990 Master's Thesis (Ph.D. track) as their Capstone Requirement instead of COMM-6810 Studio Design in HCI.

II. HCI Implementation Course (3 credits)

Select one of the following courses:

COMM-696X	HCI Prototype Production
COMM-696X	HCI Implementation: Flash
COMM-6961	Interactive Narrative

III. Advanced HCI Topics Elective (6 credits)

COMM-69XX	Seminar in Human-Computer Interaction Research
COMM-696X	Advanced Topics in HCI

Courses designated as HCI topics courses may be added in the future.

NOTE: Students may apply for a waiver for one of the above requirements and may substitute the following courses offered on the Troy campus:

- Additional courses in Research Methods/Usability Testing such as COMM-6963 Ethnography and Cultural Analysis or PSYC-6570 Advanced Behavioral Statistics
- Additional courses in Human Factors/Cognitive Psychology such as PSYC-6240 Cognitive-Systems Engineering
- Electives in Communication chosen from department offerings. Courses available in Web Design, Interface Design, Characters for Games, and other areas.