

Graduate Certificate in Human-Computer Interaction (HCI)

What is it?

There is a growing demand within industry for workers with expertise in human-computer interaction (HCI), who generally hold titles such as interface designer; usability researcher analyst; usability engineer; user experience specialist; or information architect. HCI specialists bridge the gap in organizations between groups who build the technologies and groups who use the technologies. The qualifications for these positions generally fall into the following categories: 1) Knowledge of human-computer interaction principles; 2) Skills in collecting user requirements; 3) Skills in developing prototypes, both low fidelity (e.g., paper) and high fidelity (e.g., html mock-up); and 4) Skills in evaluation of the impact of technologies on humans.

The Business & Information Technology department at the Missouri University of Science & Technology (S&T) offers both undergraduate and graduate programs in Human-Computer Interaction. These programs prepare students for positions as HCI specialists, and provide working IT professionals with additional skills to aid in the design and evaluation of usable systems. The Business & Information Technology department at S&T includes some of the leading researchers in the field of HCI, with strong ties to industry usability professionals.

When are the classes offered?

Required Core Courses:

IST 5885 (385) Human-Computer Interaction	Offered Fall & Spring Semesters
IST 5886 (386) Human-Computer Interaction Prototyping	Offered Fall Semester
IST 5887 (387) Human-Computer Interaction Evaluation	Offered Spring Semester

Choose one of the following as an elective course:

IST 6680 (480) Advanced Web and New Media Studies	Offered Fall Semester
IST 6887 (487) Research Methods in Human-Computer Interaction	Offered Fall Semester

How do I apply?

The graduate certificate program is open to all individuals holding a BS, MS or PhD degree in areas such as business, social sciences, technology, engineering, or related disciplines. In order to receive a Graduate Certificate, the student must have an average graduate cumulative grade point of 3.0 or better on a 4.0 scale in the certificate courses taken. Students admitted only to the certificate program will have non-degree graduate status but will earn graduate credit for the courses they complete. If the four-course sequence approved by the graduate advisor is completed with a grade of B or better in each of the courses taken, the student will, upon application, be admitted to the Master of Business Administration or to the Master of Science in Information Science and Technology. The certificate courses taken by students admitted to the program will count towards the MBA program or the M.S. in Information Science and Technology degree program. Once admitted to the Certificate program, a student will be given three years to complete the program as long as a B or better average is maintained in the courses taken.

Who do I contact for more information?

Department of Business & Information Technology
573-341-7216 (phone)
573-341-4812 (fax)
bit@mst.edu

Course Descriptions (All courses are offered both in class and via distance)

Required Core Courses:

IST 385/5885: Human Computer Interaction (Campus/Distance)

Introduction to the field of Human-Computer Interaction (HCI). Students examine issues and challenges related to the interaction between people and technology. The class explores the social and cognitive characteristics of people who use information systems. Students learn techniques for understanding user needs, interface prototyping, and interface evaluation. Prerequisite: PSYCH 1101

IST 386/5886: Human-Computer Interaction Prototyping (Campus/Distance)

This course covers designs, methods and tools for creating low and high fidelity prototypes of information technology systems, which is part of the iterative design cycle commonly used for the creation of usable information technologies. Prerequisites: Preceded or accompanied by IST 5885

IST 387/5887: Human-Computer Interaction Evaluation

This course covers research and analysis methods for evaluating the impact of information technology systems on humans and organizations. During the course, students will use different technical and non-technical tools to evaluate various information technologies. The goal of the course is to teach students to conduct practical evaluations of systems with the goal of providing recommendations for improving system functionality and usability. Prerequisite: Preceded or accompanied by IST 5885

Elective Courses (Choose one):

IST 480/6680: Advanced Web and New Media Studies

The course examines web and new-media technologies from a socio-psychological perspective. The class will focus on recent innovations, integrating these approaches into class interaction and student projects.

IST 487/6887: Research Methods in Human-Computer Interaction

This course covers advanced skills necessary for conducting research within the area of human-computer interaction. The course will cover techniques and tools for carrying out literature reviews; forming research goals; designing appropriate research methodology; conducting data analyses; and preparing manuscripts and presentations of findings. Prerequisite: Preceded or accompanied by IST 5885