

# HUMAN-COMPUTER INTERACTION AND USER EXPERIENCE

become part of the  
community bridging  
the gap!

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.

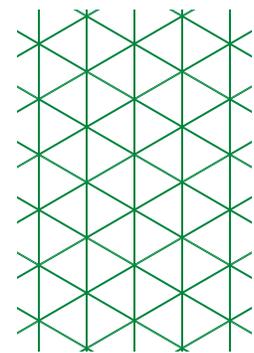
## Admission requirements

The graduate certificate program is open to all individuals holding a bachelor's, master's or Ph.D. 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.



MISSOURI  
S&T

# COURSE DESCRIPTIONS

Most courses are offered both on campus and via distance education

## REQUIRED CORE COURSES

### **IST 5885: Human Computer Interaction**

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

### **IST 5886: Prototyping Human-Computer Interactions**

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.

*Preceded or accompanied by IST 5885*

### **IST 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 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 6887: Research Methods in Business & IS&T**

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.