

# HUMAN COMPUTER INTERACTION

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## Interdepartmental Graduate Program

Human Computer Interaction is an interdepartmental graduate program that seeks to improve the way individuals and groups use computers through an understanding of the social and cognitive aspects of the design and use of computational devices. Students in the program learn about cognitive psychology, graphic design principles, the impacts of technology on society, evaluating system usability, and cutting edge computer programming for computational perception and language parsing.

Student research projects have explored the latest in virtual reality studies, improving natural interaction through touch screens and 3D camera gesture controls, virtual engineering using force feedback devices, and many other projects at the bleeding edge of technological innovation. Graduates of the program have gone to work at many of the largest technology firms in the US and abroad while others have gone on to positions in academia.

Degrees are offered for the Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees with a major in Human Computer Interaction (HCI). A Graduate Certificate and an Online Master of Human Computer Interaction (M.HCI) degree are also offered; these degrees are especially targeted for the benefit of students working in business and industry wanting education in this field. The graduate program in Human Computer Interaction (HCI) welcomes applicants from a diverse collection of technical and creative fields whose unifying characteristic is the desire to develop new ways to bridge the gap between human and machine. The students must demonstrate skill in software development and proficiency in high-level, object-oriented programming. These skills can be acquired after admission to the program. Other entrance requirements will include an undergraduate degree and transcripts, test scores and other indicators that the applicant can be successful at the graduate level. All students admitted to the PhD program on campus must secure a graduate assistantship.

Program requirements can be found on the program's webpage (<http://www.vrac.iastate.edu/hci/>) and in the Human Computer Interaction Graduate Student Handbook.

All programs of study for the Ph.D. must include:

1. one core course of their choice from each of the categories of Implementation, Design, Evaluation and Phenomena, if not completed as part of the student's master's program

2. two more courses of their choice from a list of recommended electives
3. a minimum of nine research credits.

The M.S. degree calls for 30 credits of course work including appropriate credit for the master's thesis. M.S. students must take one core course of their choice from each of the categories of Implementation, Design, Evaluation and Phenomena. In addition to these courses, M.S. students will be required to take a minimum of 3 research credits.

The online M.HCI program is most appropriate for individuals with a bachelor's degree in a scientific, engineering, business, or artistic discipline, who are pursuing a professional career, and who already have a strong base of information technology skills. Requirements for the online M.HCI Program include taking four courses, one each from the Design, Implementation, Phenomena and Evaluation categories. However, M.HCI students must take two additional courses of their choice from the list of core courses or the list of recommended electives. M.HCI students will therefore be required to take a total of six courses (18 credits) and the remaining four courses (12 credits) would be electives of your choosing.

Requirements for the HCI Graduate Certificate program include three core HCI courses plus one elective.

Information on applications procedures and specific requirements of the major can be obtained on the program webpage: <http://www.vrac.iastate.edu/hci/>