

Human-Computer Interaction

This section presents the requirements for programs in:

- Master of Human-Computer Interaction

Master of Human-Computer Interaction (5.0 credits)

Requirements:

1. 0.5 credit in:		0.5
HCIN 5100 [0.5]	Fundamentals of HCI Design and Evaluation	
2. 0.5 credit in:		0.5
HCIN 5200 [0.5]	Software and User Interface Development	
3. 0.5 credit in:		0.5
HCIN 5300 [0.5]	Emerging Interaction Techniques	
4. 0.5 credit from the following, to be selected with the approval of the supervisor		0.5
HCIN 5400 [0.5]	Experimental Methods and Statistics	
HCIN 5403 [0.5]	Research methods in HCI	
HCIN 5404 [0.5]	Design Research Methods	
5. 0.5 credit from a wide range of available electives with the guidance and permission of the supervisor of graduate studies		0.5
6. 2.5 credits in:		2.5
HCIN 5909 [2.5]	Thesis in Human-Computer Interaction	
Total Credits		5.0

Regulations

See the General Regulations section of this Calendar.

Regularly Scheduled Break

For immigration purposes, the summer term (May to August) for the Master of Human-Computer Interaction is considered a regularly scheduled break approved by Carleton University. Students should resume full-time studies in September.

Admission

Applicants for the M.H.C.I. program will normally hold an honours degree or equivalent professional degree in a related field such as architecture, arts and social sciences, business, cognitive science, computer science, engineering, information technology.

In addition to transcripts and letters of reference, application packages must include a statement of interest outlining the applicant's relevant background and proposed area of research.

Applicants judged to be generally acceptable but still requiring some preparation may be asked to complete course work in addition to the program requirements.

Human-Computer Interaction (HCIN) Courses

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. Prerequisites: additional credit for PSYC 5105 (no longer offered).

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.

Also listed as ITEC 5204.

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.

Prerequisites: additional credit for PSYC 5106 (no longer offered).

HCIN 5404 [0.5 credit]

Design Research Methods

Critical review of qualitative and quantitative research methods to support interdisciplinary design. Methods used by collaborators from the sciences and humanities as well as methods designers bring to interdisciplinary collaborations are introduced. Research for design, research through design and theoretical frameworks are discussed.

Includes: Experiential Learning Activity

Also listed as IDES 5102.

HCIN 5501 [0.5 credit]**Virtual and Augmented Reality Technology**

Research in and design of virtual/augmented reality systems. Applications, history, human factors, display and input hardware, and interaction techniques for navigation, selection and manipulation. Students develop and evaluate a VR/AR system using modern game engines and 3D hardware devices such as head-mounted displays.

Includes: Experiential Learning Activity

Also listed as ITEC 5208.

HCIN 5900 [0.5 credit]**Directed Studies**

Independent study under supervision of a member of the Human/Computer Interaction faculty. 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): Enrolment in the HCI program and permission of the program Director.

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**