Human-Computer Interaction

This section presents the requirements for programs in:

- **Master of Human-Computer Interaction**
- **Master of Human-Computer Interaction with Collaborative Specialization in Accessibility**

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**

Master of Human-Computer Interaction with Collaborative Specialization in Accessibility (5.5 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. 1.0 credit in:		1.0
ACCS 5001 [0.5]	Critical Disability Studies	
ACCS 5002 [0.5]	Accessibility and Inclusive Design Seminar	
6. 2.5 credits in:		2.5
HCIN 5909 [2.5]	Thesis in Human-Computer Interaction (in the specialization)	
Total Credits		**5.5**

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.

Note: a Regularly Scheduled Break as described for immigration purposes does not supersede the requirement for continuous registration in Thesis, Research Essay, or Independent Research Project as described in Section 8.2 of the Graduate General Regulations.

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. Precludes 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.
Precludes 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 Reality and 3D User Interfaces
Research in and design of virtual reality and 3D systems. Applications, history, human factors, display and input hardware, and interaction techniques for navigation, selection and manipulation. Students develop and evaluate a VR or 3D system using game engines and 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