

MASTER OF HUMAN-COMPUTER INTERACTION AND HUMAN FACTORS (MHCIHF) DEGREE

Program Learning Outcomes for the MHCIHF Degree

Upon completing the MHCIHF degree, students will be able to:

1. Have a clear understanding of the fundamental concepts in human factors and engineering psychology.
2. Have a clear understanding of human cognitive functions and limitations, and how those impact the design of systems.
3. Specify the design of an engineering human computer system so that it supports human capabilities.
4. Analyze critically and evaluate one's own findings and those of others.
5. Communicate effectively ideas, methodologies, analyses, and interpretations of the research topic.

Requirements for the MHCIHF Degree

The MHCIHF degree is a non-thesis master's degree. For general university requirements, please see [Non-Thesis Master's Degrees \(https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-non-thesis-masters-degrees/\)](https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-non-thesis-masters-degrees/). For additional requirements, regulations, and procedures for all graduate programs, please see [All Graduate Students \(https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/\)](https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/). Students pursuing the MHCIHF degree must complete:

- A minimum of 11 courses (39-40 credit hours, depending on course selection) to satisfy degree requirements.
- A minimum of 39 credit hours of graduate-level study (graduate semester credit hours, coursework at the 500-level or above).
- A minimum of 24 graduate semester credit hours must be taken at Rice University.
- A minimum of 24 graduate semester credit hours must be taken in standard or traditional courses (with a course type of lecture, seminar, laboratory, lecture/laboratory).
- A minimum residency enrollment of one fall or spring semester of full-time graduate study at Rice University.
- A maximum of 2 courses (6 graduate semester credit hours) from transfer credit. For additional program guidelines regarding transfer credit, see the [Policies](#) (p. 2) tab.
- An internship.¹ All students in the Master's program are required to intern in the summer between their two years of study.
- A capstone design course. (This is to be a project course, supervised jointly by all the HCI and HF faculty, and should be taken in the second semester of the second year.)
- A minimum overall GPA of 2.67 or higher in all Rice coursework.
- A minimum program GPA of 3.00 or higher in all Rice coursework that satisfies requirements for the non-thesis master's degree.

The courses listed below satisfy the requirements for this degree program. In certain instances, courses not on this official list may be substituted upon approval of the program's academic advisor, or where applicable, the department or program's Director of Graduate Studies. Course substitutions must be formally applied and entered into Degree Works by the department or program's [Official Certifier \(https://registrar.rice.edu/facstaff/degreeworks/officialcertifier/\)](https://registrar.rice.edu/facstaff/degreeworks/officialcertifier/). Additionally, these must be approved by the Office of Graduate and Postdoctoral Studies. Students and their academic advisors should identify and clearly document the courses to be taken.

Summary

Code	Title	Credit Hours
Total Credit Hours Required for the MHCIHF degree		39-40

Degree Requirements

Code	Title	Credit Hours
Core Requirements		
PSYC 502 / STAT 509	ADVANCED PSYCHOLOGICAL STATISTICS I	4
PSYC 503 / STAT 510	ADVANCED PSYCHOLOGICAL STATISTICS II	3
PSYC 520	FOUNDATIONS OF COGNITIVE PSYCHOLOGY	3
PSYC 531	HF/HCI RESEARCH SEMINAR (4 semesters required, 1st semester)	1
PSYC 531	HF/HCI RESEARCH SEMINAR (4 semesters required, 2nd semester)	1
PSYC 531	HF/HCI RESEARCH SEMINAR (4 semesters required, 3rd semester)	1
PSYC 531	HF/HCI RESEARCH SEMINAR (4 semesters required, 4th semester)	1
PSYC 540	FOUNDATIONS OF ENGINEERING PSYCHOLOGY	3
PSYC 541	HUMAN-COMPUTER INTERACTION	3
PSYC 561	TEACHING IN PSYCHOLOGY	3
PSYC 609	METHODS IN HUMAN-COMPUTER INTERACTION	3
Internship Requirement		
PSYC 595	HUMAN-COMPUTER INTERACTION AND HUMAN FACTORS PROFESSIONAL MASTER'S INTERNSHIP ¹	1-2
Elective Requirements		
<i>Select 2 courses from the following:</i>		6
PSYC 504	COMPUTER APPLICATIONS IN PSYCHOLOGY	
PSYC 521	PSYCHOLOGY OF PERCEPTION	
PSYC 522	INFORMATION PROCESSING AND ATTENTION	
PSYC 524	MEMORY	
PSYC 525	PSYCHOLINGUISTICS	
PSYC 527	REASONING, DECISION MAKING, PROBLEM SOLVING	
PSYC 530	FOUNDATIONS OF I-O PSYCHOLOGY	
PSYC 535	HUMAN FACTORS/ERGONOMICS	

PSYC 543	COMPUTATIONAL MODELING OF COGNITIVE PROCESSES	
PSYC 581	VISION SCIENCE	
PSYC 601	MULTIVARIATE STATISTICS	
PSYC 602	PSYCHOMETRICS	
PSYC 630	ADVANCED TOPICS IN I/O	
PSYC 634	PERSONNEL PSYCHOLOGY	
PSYC 640	TOPICS IN HUMAN-COMPUTER INTERACTION	
PSYC 662	NON-TRADITIONAL INTERFACES	
PSYC 663	MEDICAL HUMAN FACTORS	
PSYC 664	USABILITY ASSESSMENT	
PSYC 667	HUMAN FACTORS IN CYBERSECURITY	
Capstone Requirement		
PSYC 600	HCI & HF PROFESSIONAL MASTER'S CAPSTONE PROJECT ²	6
Total Credit Hours		39-40

Footnotes and Additional Information

¹ All students in the Master's program are required to intern in the summer between their two years of study. That internship is reflected in the student's course of study as PSYC 595, and students should register for that summer course. Some students may need to take PSYC 595 again during the fall semester of the second year of studies to complete their internship requirement. If students need help finding an internship, faculty in the HCI and HF area have relationships with multiple local and national companies and government labs that may be suitable. Students sponsored by their employer may return to that company for the summer internship, provided that the work was classified as human factors-related.

² The capstone requirement, PSYC 600, is to be a project course, supervised jointly by all the HCI and HF faculty, and should be taken in the second semester of the second year.

Proposed Plan-of-Study

The following plan-of-study represents the lockstep five-semester sequence in which students pursuing the MHCIHF degree complete the required coursework.

Course	Title	Credit Hours
1st Semester		
PSYC 502 / STAT 509	ADVANCED PSYCHOLOGICAL STATISTICS I	4
PSYC 531	HF/HCI RESEARCH SEMINAR	1
PSYC 541	HUMAN-COMPUTER INTERACTION	3
PSYC 609	METHODS IN HUMAN-COMPUTER INTERACTION	3
Credit Hours		11
2nd Semester		
PSYC 531	HF/HCI RESEARCH SEMINAR	1
PSYC 503 / STAT 510	ADVANCED PSYCHOLOGICAL STATISTICS II	3
PSYC 540	FOUNDATIONS OF ENGINEERING PSYCHOLOGY	3
PSYC 561	TEACHING IN PSYCHOLOGY	3
Credit Hours		10

3rd Semester		
PSYC 595	HUMAN-COMPUTER INTERACTION AND HUMAN FACTORS PROFESSIONAL MASTER'S INTERNSHIP ¹	1
Credit Hours		1
4th Semester		
PSYC 531	HF/HCI RESEARCH SEMINAR	1
PSYC 520	FOUNDATIONS OF COGNITIVE PSYCHOLOGY	3
PSYC 595	HUMAN-COMPUTER INTERACTION AND HUMAN FACTORS PROFESSIONAL MASTER'S INTERNSHIP ¹	0-1
Elective one	Elective one	3
Credit Hours		7-8
5th Semester		
PSYC 531	HF/HCI RESEARCH SEMINAR	1
Elective two	Elective two	3
PSYC 600	HCI & HF PROFESSIONAL MASTER'S CAPSTONE PROJECT ²	6
Credit Hours		10
Total Credit Hours		39-40

Footnotes and Additional Information

¹ All students in the Master's program are required to intern in the summer between their two years of study. That internship is reflected in the student's course of study as PSYC 595, and students should register for that summer course. Some students may need to take PSYC 595 again during the fall semester of the second year of studies to complete their internship requirement. If students need help finding an internship, faculty in the HCI and HF area have relationships with multiple local and national companies and government labs that may be suitable. Students sponsored by their employer may return to that company for the summer internship, provided that the work was classified as human factors-related.

² The capstone requirement, PSYC 600, is to be a project course, supervised jointly by all the HCI and HF faculty.

Department of Psychological Sciences Graduate Program Handbook

The General Announcements (GA) is the official Rice curriculum. As an additional resource for students, the department of Psychological Sciences, the home department for the Human-Computer Interaction and Human Factors program, publishes a graduate program handbook, which can be found here: https://gradhandbooks.rice.edu/2023_24/Psychological_Sciences_MHCIHF_Graduate_Handbook.pdf

Admission

Admission to graduate study in Human-Computer Interaction and Human Factors is open to qualified students holding a BS or a BA degree in a quantitative field from an accredited institution. The MHCIHF degree governing committee will evaluate the previous academic record and credentials of each applicant individually, and will make all admissions decisions.

Financial Aid

No financial aid is available from Rice University or the Psychological Sciences Department for students in the MHCIHF degree program.

Program Transfer Credit Guidelines

Students pursuing the MHCIHF degree should be aware of the following program-specific transfer credit guidelines:

- No more than 2 courses (6 credit hours) of transfer credit from U.S. or international universities of similar standing as Rice may apply towards the degree. Transferred courses must be comparable in content and depth to the corresponding course at Rice, and must not have counted toward another degree.
- Requests for transfer credit will be considered by the program director on an individual case-by-case basis.

Additional Information

For additional information, please see the Psychological Sciences website: <https://psychology.rice.edu/>

Opportunities for the MHCIHF Degree

Additional Information

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