MASTER OF SCIENCE IN HUMAN-COMPUTER INTERACTION

Course Requirements & Plan of Study

The MS in Human Computer Interaction is a 36 credit hour program that includes:

- Core courses (marked with *) 18 Cr. Hr.
- Electives 12 Cr. Hr.
- Final Project/Thesis (marked with **) 6 Cr. Hr.

**FULL-TIME STUDENT: PLAN OF STUDY**

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<thead>
<tr>
<th>Yr. 1</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
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<tbody>
<tr>
<td></td>
<td>1541 Interaction Design Practice* [in-class</td>
<td>1558/561 HCI Design 2* [in-class</td>
<td>Elective – Arranged</td>
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<tr>
<td></td>
<td>(Other title: HCI Design 1)</td>
<td>online]</td>
<td>(other title: Meaning and Form in HCI)</td>
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<td></td>
<td>1543 Interaction Design Methods* [in-class</td>
<td>1564 Prototyping for Interactive Systems* [in-class</td>
<td>Elective – Arranged</td>
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<td>(Other title: Usability &amp; Eval. Methods)</td>
<td>[online]</td>
<td>online]</td>
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<td>1563 Psychology of HCI* [in-class</td>
<td>1575 Informatics Research Design* [in-class</td>
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<td>[online]</td>
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<tr>
<th>Yr. 2</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
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<tbody>
<tr>
<td></td>
<td>1680 HCI Professional Practice 1** [in-class]</td>
<td>1501 Introduction to Informatics* 5 [in-class]</td>
<td>Elective – Arranged</td>
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<td>1624 HCI Advanced Seminar I3 [in-class]</td>
<td>HCI Professional Practice 2** [in-class]</td>
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<td>Elective – Arranged</td>
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Detailed schedule of each course is updated and published every semester on the IUPUI Registrar website.

**FINAL PROJECT OPTION**

Required Courses for Project (6 cr.)

- 1680 HCI Professional Practice 1 (offered only in the Fall semester) (3 cr.). Prerequisites: I541, I561, I543, I563, and I564.
- 1681 HCI Professional Practice 2 (offered only in the Spring semester) (3 cr.). Prerequisites: I680.

Final Project Requirement:

- All HCI students must complete a final project by registering for two courses: 1680 HCI Professional Practice 1 (offered ONLY in the Fall) and 1681HCI Professional Practice 2 (offered ONLY in the Spring). Each course includes a formally scheduled in-class time that students must attend. Students will work on one final project that extends throughout the two courses, i.e., in both fall and spring semesters. Students will receive an official grade at the conclusion of each course/semester. Students are encouraged to propose a project that can be realistically completed by the conclusion of I681, the Spring semester. Incompletes are NOT permitted.
- Students taking the final project option are not required to take I575 (Informatics Research Design), which is primarily for HCI Master’s Thesis students and Ph.D. students. However, project students may take I575 as an elective if they wish.

**THESIS OPTION** (Only with special permission)

Required Course (6 cr.)

- 1694 HCI Thesis

Thesis Requirement:

- The Thesis option is reserved ONLY for students who plan to pursue a Ph.D. at a later time, and possess a demonstrated ability to carry out top-notch empirical research. Part-time graduate students will not be considered eligible for this option. Qualified students must inform their advisor of their interest to write a thesis by the completion of the first semester. Permission will be determined by a minimum of two HCI faculty immediately following the request.
- Students taking the Thesis option must take and successfully pass I575 Informatics Research Design, as well as at least one additional statistics course by the completion of their first year. See course list below. 6 Work MUST be completed by the end of the Spring or Summer semester. As with the final project, incompletes will NOT be permitted. It is the student’s responsibility to propose a thesis that can be completed within a two-semester timeline. To do this, students MUST provide their primary thesis advisor with a full thesis proposal and outline that includes a timeline for the writing of the thesis.

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1 This Plan of Study is based on a full-time schedule for the Project Option. Part-time students will take courses according to courses offered each semester, but should still maintain the order outlined.
2 I575 Informatics Research Design is ONLY required for students taking the Thesis option. Thesis students must move I564 (Prototyping) to the spring semester of their second year, taking in its place a statistics course. (Project students may take I575 as an HCI Elective.)
3 Advanced Seminar I is primarily for HCI PhD students, but MS students may also register for this course as Elective.
4 Some elective courses may have prerequisites, so students should check with instructors from the respective program before enrolling.
5 Students should take I501 in the spring semester only. I501 offered in the fall is designed only for Bio and Health Informatics students.
6 STAT 51100 Statistical Methods, R559 Intermediate Sociological Statistics, NURS-L 650 Data Analysis for Clinical and Administrative Decision Making, and or P600 (PSY) Statistical Inference, the following Fall. NURS-L 650 is also offered in the summer.
Recommended Elective Courses
(Students MUST Check for Prerequisites and Course Availability from the Respective Schools and Departments)

INFORMATICS
I503 Social Impact of Information Technology
I505 Informatics Project Management
I510 Data Acquisition and Lab Automation
I512 Scientific Data Management
I535 Clinical Information Systems
I540 Data Mining for Security
I550 Legal & Business Issues in Informatics
I554 Independent Study in HCI (1-3 cr.)
I590 Structured Conceptual Design for Interactive Applications
I605 Social Foundations of Informatics

MEDI A ARTS AND SCIENCE
N500 Principles of Digital Arts Production
N502 Digital Media Motion & Sim. Meth
N503 Digital Media Appl Design Proc
N504 Advanced Interactive Design Appl
N506 Media Arts and Technology Project
N510 Web Database Concepts
N501 Foundations of Digital Production

PSYCHOLOGY
PSY570 Industrial Psychology – Fall, odd yr
PSY572 Organizational Psych – Spring, even yr
PSY615 Physiological Psych – Fall, even yr
PSY640 Social Psychology I – Fall, odd yr
PSY655 Cog Development – Fall, even yr

COMPUTER SCIENCE
CSCI 507 Object-Oriented Design & Prog
CSCI 537 Intro to Distributed Computing
CSCI 541 Database Systems
CSCI 550 Computer Graphics
CSCI 552 Advanced Graphics and Visualization
CSCI 565 Programming Language

DESIGN (HERRON)
HER-V501 Design Thinking (1.5 cr.)
HER-V502 Human Factors in Design (1.5 cr.)
HER-R511 Visual Research (3 cr.)

COMMUNICATION
COMM-C 500 Advanced Comm Theory
COMM-C 531 Media Theory and Criticism
COMM-C 592 Advanced Health Communication
COMM-C 620 Computer-Mediated Communication

SOCIOLOGY
SOC-R 556 Advanced Sociological Theory I
SOC-R 557 Advanced Sociological Theory II
SOC-R 559 Intermediate Sociological Statistics
SOC-R 593 Applied Fieldwork for Sociologists
SOC-S 530 Introduction to Social Psychology

GEOGRAPHY
GEOG-G 536 Advanced Remote Sensing
GEOG-G 537 Computer Cartography and Graphics
GEOG-G 538 Intro to Geographic Information Systems
GEOG-G 539 Advanced Geographic Information Systems

OTHERS
ANTH 501 Fundamentals of Applied Anthropology
ED 531 Computers in Education
SLIS-S 532 INFO Architecture for the Web

INTERNSHIP EXPERIENCE (ELECTIVE COURSE)
The Informatics Career Services Office assists students with finding HCI-related Internships (e.g., fall, spring, summer semesters and the academic year) to gain valuable professional experience within industry prior to graduation. Up to 6 credits of internships can be counted towards your elective credits. Credit for an internship should be requested prior to the start date of the internship since retro-credit is not permitted. Once approved authorization is given to register for an online credit internship course. Please contact Brian Benedict (bbenefic@iupui.edu) to learn more about internship opportunities and the credit internship evaluation and approval process.

Recommended Research Methods Courses
(Students MUST Check for Prerequisites and Course Availability from the Respective Schools and Departments)

I-590 Res. Methods: Analysis, Interpretation and Reporting
ANTH-E404 Field Meth in Ethnography
COM 501 Qualitative Research
COM 502 Applied Qualitative Research Methods
EDU 611 Qualitative Inquiry in Education
NURS-L 650 Data Ana for Clinical & Admin Decis-Making
NURS-R 612 Interpretive Data Analysis (2 Cr.), Summer I-II
PSY 600 Statistical Inference (Fall Even Yr)
PSY 601 Experimental Design (Spg Even Yr)
PSY 608 Measurement Theory and Interpret Data
PSY 640 Survey of Social Psychology I
PSY 655 Cognitive Development (Fall Even Yr)
PSY 643 Field Methods & Exper
SOC-R 551 Quantitative Methods – Sociology
SOC-R 559 Intermediate Soc Statistics
STAT 511 Statistical Methods 1
STAT 512 Applied Regression Analysis
STAT 516 Basic Probability Appl
STAT 519 Intro to Probability
STAT 521 Statistical Computing
STAT 522 Sampling and Survey Techniques
STAT 524 Applied Multivariate Analysis
STAT 525 Intermediate Stat Methodology
STAT 529 Applied Dec Theory and Bayesian Stat
STAT 619 Probability Theory

HCI MS Plan of Study Revised: 12/3/2012 1:33:51 PM