



**PLAN OF STUDY**  
**[SPRING 2023 ADMITS]**

**MASTER OF SCIENCE IN HUMAN-COMPUTER INTERACTION (HCI)**  
 School of Informatics and Computing (SoIC)

<b>MS HCI Degree: 36 Credit Hours</b>			
<b>Required Core Courses (15 cr.)</b>	<b>Required Selectives (9 cr.)</b>	<b>Open Electives (6 cr.)</b>	<b>Final Project (6 Cr.)</b>
H541, H543, H561, H563, H564	<b>Choose one:</b> {H565 <u>or</u> H517} <b>Choose one:</b> {H567 <u>or</u> H581 <u>or</u> H582, <u>or</u> N505} <b>Choose one:</b> {H566 <u>or</u> H570 <u>or</u> H583} <b>Additional options: Digital Making courses (page 2)</b>	HCI Internship (INFO-I595): any 500-level course on campus that complements your HCI background. Recommended electives include: I575, H554, PSY6000; <u>any selective course not taken as selective.</u>	MS Final Capstone Project: [H680 and H681, taken sequentially] <u>or</u> MS Thesis: 2 × H694 ( <i>faculty approval required</i> )

	<b>SPRING</b>	<b>SUMMER</b>	<b>FALL</b>
<b>Y R 1</b>	<b>H541</b> Interaction Design Practice (O) <b>H564</b> Prototyping for Interactive Systems (O) <u>Register for one more course based on the following:</u> <b>Selective Option (choose one):</b> <b>H567</b> IoT Interface Design for Business Innovation <b>H581</b> Experience Design & Eval. of Access technologies <b>H566</b> Experience Design and Ubiquitous Computing	<b>• Elective or • Internship*</b> HCI selective available: <b>H570</b> <i>Tangible and Embodied Interaction (only online)</i>	<b>H543</b> Interaction Design Methods (O) <b>H563</b> Psychology of HCI (O) <u>Register for one more course based on the following:</u> <b>Open Electives (choose one):</b> <b>I575</b> Informatics Research Design <b>H554</b> Independent Study in HCI ( <i>faculty approval required</i> ) <b>See more elective options on Page 2.</b> Also available: <b>H564</b> Prototyping for Interactive Systems
<b>Y R 2</b>	<b>H561</b> Meaning and Form in HCI (O) <b>H680</b> HCI Professional Practice 1 <u>Register for one more course based on the following:</u> <b>Selective Option (choose one):</b> <b>H566</b> Experience Design and Ubiquitous Computing <b>H582</b> UX Design Ethics <b>H583</b> Conversational User Interfaces ( <i>only online</i> )	<b>• Elective or • Internship*</b> HCI selective available: <b>H570</b> <i>Tangible and Embodied Interaction (only online)</i>	<b>H681</b> HCI Professional Practice 2 <u>Register for one more course based on the following:</u> <b>Selective Option (choose one):</b> <b>H565</b> Collaborative & Social Computing <b>H517</b> Visualization Design and Analysis
<i>NOTES: (O) = Additional Online section available</i>			

**FINAL PROJECT REQUIREMENTS**

**H680-H681 HCI Final Project:** The “default” graduation option for all MS students is the Final Project of 6 Cr. Hrs., consisting of the sequence H680 and H681.

- H680 HCI Professional Practice 1 (3 cr.).**
  - Prerequisites: all core courses in first two semesters.
- H681 HCI Professional Practice 2 (3 cr.).**
  - Prerequisites: H680
- The H680/681 course sequence includes a formally scheduled in-class time that students must attend.
  - Students will work on one, final project (typically team-based) that extends throughout the two courses (fall and spring).
  - Students will receive an official grade at the conclusion of each course/semester.
  - Incompletes are **NOT** permitted.
  - The successful completion of the H680-H681 sequence (along with all other coursework) guarantees timely graduation for all students.

**INFO-H694 Thesis:** Upon permission granted by a faculty member who commits to be a thesis advisor, a student may replace the H680-H681 course with a H694 Thesis (6 credits). This option requires much more proactive commitment, time management, research skills and autonomy to the capstone and is granted only by a faculty member who is willing to accept the student as thesis advisor for at least two consecutive semesters. H694 will be considered completed only after the final thesis has been completed and approved by the thesis advisor and the committee members.

- Students taking the H694 Thesis Option **must take I575 – Research Design** as one of their elective courses. Based on the thesis advisor's recommendation and the nature of the thesis work, the student may take an alternative research methods course as an elective, if useful to the completion of thesis.

## HCI Professional Internship (I595) (Equivalent to Elective Courses)

The Informatics Career Services Office assists students with finding HCI-related Internships (e.g., summer semesters) to gain valuable professional experience within the HCI industry prior to graduation. **Up to 6 credits of internships (course I595) may be counted towards elective credits. Credit for an internship should be requested prior to the starting 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 **Career Services (soiccso@iupui.edu)** to learn more about internship opportunities and the credit internship evaluation and approval process. <https://soic.iupui.edu/careers/internships/info-mas/>

### Area of Emphasis in Digital Making

MS HCI students can pursue an area of emphasis in digital making by completing **9-12 credit hours** of Media Arts and Science graduate-level sections that **count towards 6 elective credits and 3-6 credits of selective courses in the HCI MS programs**. The area of emphasis in digital making allows students to complement their HCI preparation with *application development skills to produce interactive media experiences and environments*, and explore their connections with local businesses as well as the national industry. This area of emphasis is particularly well-suited to HCI MS students with a solid programming background. The graduate-level sections available for this area of emphasis include:

- o **NEWM-N 501 Foundations of Digital Production (3 cr.)**
- o **NEWM N585 Motion Graphics (3 cr.)**
- o **NEWM N505 Advanced Issues in Emerging Media Environments (3 cr.)**
- o **NEWM-N 585 Experiential Innovation I - Advanced Visualization (3 cr.)**
- o **NEWM-N 585 Emerging Wearable Applications for Enterprise Business (3 cr.)**
- o **NEWM-N 537 Virtual Worlds Design and Development (3 cr.)**
- o **NEWM-N 539 Augmented Reality Design and Development (3 cr.)**

*Additional digital making courses may become available. Check with the Department Chair (dbolchin@iupui.edu) for updates.*

### Electives Courses from the Herron School of Art and Design

MS HCI students can choose elective courses offered by the Herron School of Art and Design in the areas of visual communication and design thinking. The graduate-level sections available include:

- o **HER-V 500 Visual Design for User Interfaces (3 cr., Online)**
- o **HER-V 512 Intro to Design Thinking for Tackling Wicked Problems and Sensemaking (3 cr., Online)**
- o **HER-V 513 Design Methods for Framing Problems (3 cr., Online)**

*Semester offering may vary. Check with the Herron School of Art and Design for updates and availability.*

### Additional Options for Elective Courses

**(Students MUST Check for Prerequisites and Course Availability from the Respective Schools/Departments)**

**Entrepreneurship:** H550 Legal and Business Issues in Informatics  
**Project Management:** B505 Project Management.

#### 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

#### 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