



IUPUI
LUDDY SCHOOL OF
INFORMATICS, COMPUTING,
AND ENGINEERING
 DEPARTMENT OF HUMAN-CENTERED COMPUTING

FALL 2023 (ON-CAMPUS) PLAN OF STUDY
MASTER OF SCIENCE IN HUMAN-COMPUTER INTERACTION (HCI)

MS Degree Requirements: 36 Credit Hours			
Required Core (15 cr.)	Required Selectives (9 cr.)	Open Electives (6 cr.)	Final Project (6 Cr.)
<ul style="list-style-type: none"> • H541 Int Design Practice (FA) • H543 Int Design Methods (FA) • H561 Meaning & Form (SP) • H563 Psychology of HCI (FA) • H564 Prototyping (SP) 	<p><i>Choose <u>three</u> from this list:</i></p> <ul style="list-style-type: none"> • H517 Visualization (FA, SP) • H565 Social/Collaborative (FA) • H566 Ubiquitous Comp (SP) • H567 Internet of Things (FA, SP) • H570 Tangible/Embedded (SU) • H581 Access Tech (SP) • H582 Design Ethics (SP) • H583 Conversational UI (SP) <p>See additional selective options on page 2, "Area of Emphasis in Digital Making"</p>	<p><i>Recommended electives include:</i></p> <p>HCI Professional Internship (I595); any 500-level course on campus that complements your HCI background; or any additional course from the selective list after the first three.</p>	<p>MS Final Project: [H680 and H681, taken sequentially]</p> <p style="text-align: center;"><u>or</u></p> <p>MS Thesis: 2 x H694 (<i>faculty approval required</i>)</p>
<p>NOTE: Not every course is offered every semester. Courses are marked with when they are most commonly taught - Fall (FA), Spring (SP), or Summer (SU) - but availability may vary</p>			

	FALL 2023	SPRING 2024	SUMMER
Y R 1	<p>Register for the two required courses:</p> <p>H541 Interaction Design Practice (O) H543 Interaction Design Methods (O)</p> <p>Register for one more course based on the following:</p> <p>Required in either Year 1 Fall OR Year 2 Fall: H563 Psychology of HCI (O)</p> <p>Required in Year 1 (Fall OR Spring) H564 Prototyping for Interactive Systems (Online Only in Fall)</p> <p>Selective Options H517 Visualization Design & Eval. (Online Only) H565 Collaborative & Social Computing H567 Internet-Of-Things Design for Business Innovation</p>	<p>Register for the one required course: H561 Meaning and Form in HCI (O)</p> <p>Register for two more courses based on the following:</p> <p>Required in Year 1 (Fall OR Spring) H564 Prototyping for Interactive Systems</p> <p>Selective Options: H517 Visualization Design & Eval. (Online Only) H566 Experience Design and Ubiquitous Computing H567 Internet-Of-Things Design for Business Innovation H581 Experience Design of Access Technologies H582 UX Design Ethics H583 Conversational User Interfaces (Online Only)</p> <p>Open Electives available include: HER-V500 Visual Design of User Interfaces, Digital Making courses; see page 2 for more options.</p>	<p>Optional courses:</p> <ul style="list-style-type: none"> • Elective or • I595 Internship* <p><i>Check summer schedule for availability of electives, selective, or core courses available. Options may include:</i> H570 Tangible Int. H563 Psychology (online only)</p>
Y R 2	<p>Register for the required final project course: H680 HCI Professional Practice 1</p> <p>Register for two more courses based on the following:</p> <p>Required in either Year 1 Fall OR Year 2 Fall: H563 Psychology of HCI (O)</p> <p>Selective Options: H517 Visualization Design & Eval. (Online Only) H565 Collaborative & Social Computing H567 Internet-Of-Things Design for Business Innovation</p> <p>Open Electives available include: <i>Examples: INFO-I575; Digital Making NEWM courses; see page 2 for more options.</i></p>	<p>Register for the required final project course: H681 HCI Professional Practice 2</p> <p>Register for two more courses based on the following:</p> <p>Selective Options: H517 Visualization Design & Eval. (Online Only) H566 Experience Design and Ubiquitous Computing H567 Internet-Of-Things Design for Business Innovation H581 Experience Design of Access Technologies H582 UX Design Ethics H583 Conversational User Interfaces (Online Only)</p> <p>Open Electives available include: HER-V500 Visual Design of User Interfaces, Digital Making courses; see page 2 for more options.</p>	

NOTES: (O) = Online section available. We recommend taking no more than three graduate courses per semester. For questions on degree requirements and course selection, contact the HCC Graduate Academic Advisor Julie Seman, M.S. (jseman@iu.edu).



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HCI FINAL MS PROJECT or THESIS REQUIREMENTS

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

1. H680 HCI Professional Practice 1 (3 cr.).
 - Prerequisites: all core courses in first two semesters.
2. H681 HCI Professional Practice 2 (3 cr.).
 - Prerequisites: H680
3. 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) positions the students for timely graduation.

H694 Thesis OPTION: Upon permission granted by a faculty member who commits to be a thesis advisor, a student may request permission to replace the H680-H681 course with a H694 Thesis (6 credits). This option requires much more proactive commitment, early planning, time management, research skills and autonomy than the final project 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 approved by the thesis advisor and the committee members, presented and orally defended.* 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.

INFO-I595 Professional Internship (Counts as 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.

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 Media Arts and Science graduate-level sections available for this area of emphasis include:

- NEWM-N 501 Foundations of Digital Production
- NEWM N585 Motion Graphics (3 cr.)
- NEWM N505 Advanced Issues in Emerging Media Environments (3 cr.)
- NEWM-N 585 Experiential Innovation I – Advanced Visualization (3 cr.)
- NEWM-N 585 Real-world Emerging Wearable Technology Applications for Enterprise Business (3 cr.)

Additional digital making courses may become available. Check with the HCC Graduate Academic Advisor Julie Seman, M.S. (jseman@iu.edu) for updates.



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Additional Potential Elective Courses in Other Schools on Campus

(Students MUST Check for Prerequisites & Course Availability from the Schools and Departments on campus)

DESIGN (HERRON)

HER-V500 Topic: Visual Design for User Interfaces (3 cr.) Online
 HER-V501 Design Thinking (1.5 cr.)
 HER-V502 Human Factors in Design (1.5 cr.)
 HER-R511 Visual Research (3 cr.)

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

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

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

COMPUTER SCIENCE

CSCI 507 Object-Oriented Design & Prog
 CSCI 537 Intro to Distributed Computing
 CSCI 541 Database Systems
 CSCI 550 Computer Graphics

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

CSCI 552 Advanced Graphics and Visualization
 CSCI 565 Programming Language

OTHERS

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

Other Research Methods Courses

(Students MUST Check for Prerequisites & Course Availability from the Schools and Departments on campus)

ANTH-E404 Field Meth in Ethnography
 COM 501 Qualitative Research
 COM 502 Applied Qualitative Research Methods
 EDU 520 Strategies for Educational Inquiry
 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-I 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