IU

IUPUI
SCHOOL OF INFORMATICS AND COMPUTING
Department of Human-Centered Computing

PLAN OF STUDY
FALL 2022 (ON-CAMPUS)

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.)**
H541, H543, H561, H563, H564.	*Choose one*: H517 or H565 Choose one: H567 or H581 or H582 or H583 *Choose one*: H566 or H570 Tangible & Embodied Int.	*Recommended electives include:* HCI Professional Internship (I595); any 500-level course on campus that complements your HCI background; *Any selective courses not taken*.	MS Final Project: [H680 and H681, taken sequentially] or MS Thesis: 2 × H694 (*faculty approval required*)

	FALL 2022	**SPRING 2023**	**SUMMER**
Y R 1	**Register for the two required courses:** 　**H541** Interaction Design Practice　　(O) 　**H543** Interaction Design Methods　　(O) **Register for one more course based on the following:** 　*Required in either Year I Fall OR Year 2 Fall:* 　　**H563** Psychology of HCI　　　　(O) 　*Selective Option (choose one):* 　　**H517** Visualization Design & Eval. (Online Only) 　　**H565** Collaborative & Social Computing 　*Required in Year I (Fall OR Spring)* 　　**H564** Prototyping for Interactive Systems	**Register for the two required courses:** 　**H561** Meaning and Form in HCI　　　(O) 　**H564** Prototyping for Interactive Systems　(O) **Register for one more course based on the following:** 　*Selective Option (choose one)* 　　**H567** Internet-Of-Things Design for Business Innovation 　　**H581** Experience Design of Access Technologies 　　**H583** Conversational User Interfaces　(Online Only**)** 　　**H566** Experience Design and Ubiquitous Computing 　*Open Electives available include:* 　*HER-V500 Visual Design of User Interfaces, Digital Making courses; see page 2 for more options.*	**Optional courses:** • Elective or • I595 Internship* *Check summer schedule for availability of electives, selective, or core courses available. Options may include:* **H565** *Soc. Computing* **H566** *UbiComp* **H570** *Tangible Int.* **H582** *UXD Ethics*
	FALL 2023	**SPRING 2024**	
Y R 2	**Register for the required final project course:** 　**H680** HCI Professional Practice 1 **Register for two more courses based on the following:** 　*Required in either Year I Fall OR Year 2 Fall:* 　　**H563** Psychology of HCI　　　　　(O) 　*Selective Option (choose one):* 　　**H517** Visualization Design & Eval. (Online Only) 　　**H565** Collaborative & Social Computing 　*Open Electives available include:* 　*Examples: INFO-I575; Digital Making NEWM courses; see page 2 for more options.*	**Register for the required final project course:** 　**H681** HCI Professional Practice 2 **Register for two more courses based on the following:** 　*Selective Option (choose one)* 　　**H567** Internet-Of-Things Design for Business Innovation 　　**H581** Experience Design of Access Technologies 　　**H582** UX Design Ethics 　　**H583** Conversational User Interfaces　(Online Only**)** 　　**H566** Experience Design and Ubiquitous Computing 　*Open Electives available include:* 　*HER-V500 Visual Design of User Interfaces, Digital Making courses; see page 2 for more options.*	

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 HCI Program Director Professor Davide Bolchini dbolchin@iupui.edu

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 Department Chair (dbolchin@iupui.edu) for updates.

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.)

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

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

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