



IUPUI

SCHOOL OF INFORMATICS AND COMPUTING
Department of Human-Centered Computing

PLAN OF STUDY

FALL 2021 (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 <u>or</u> H565 Choose one: H567 <u>or</u> H581 <u>or</u> H582 <u>or</u> H583 Choose one: H566 <u>or</u> H570 Tangible & Embodied Int.	<i>Recommended electives include:</i> HCI Professional Internship (I595); any 500-level course on campus that complements your HCI background; I575, H554, N510, PSY6000; <u>Any selective courses not taken.</u>	MS Final Project: [H680 and H681, taken sequentially] <u>or</u> MS Thesis: 2 × H694 (<i>faculty approval required</i>)

	FALL	SPRING	SUMMER
Y R 1	H541 Interaction Design Practice (O) H543 Interaction Design Methods (O) <i>Required in either Y1 OR Y2:</i> H563 Psychology of HCI (O) <i>Selective Option (choose one):</i> - H517 Visualization Design, Analysis, and Evaluation - H565 Collaborative & Social Computing	H561 Meaning and Form in HCI (O) H564 Prototyping for Interactive Systems (O) <i>Selective Option (choose one)</i> - H567 Internet-Of-Things Design for Business Innovation - H581 Experience Design and Eval. of Access Technologies - H582 UX Design Ethics - H583 Conversational User Interfaces (O)	• Elective or • Internship*
Y R 2	H680 HCI Professional Practice 1 <i>Required in either Y1 OR Y2:</i> H563 Psychology of HCI (O) <i>Selective Option (choose one):</i> - H517 Visualization Design, Analysis, and Evaluation - H565 Collaborative & Social Computing One Open Elective	H681 HCI Professional Practice 2 <i>Selective Option (choose one)</i> - H566 Experience Design and Ubiquitous Computing - H570 Tangible and Embodied Interaction One Open Elective	

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 Prof. Davide Bolchini dbolchin@iupui.edu

FINAL PROJECT or THESIS REQUIREMENTS

The Professional Practice Courses H680-H681 are 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.

- 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.

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.



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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 (soicco@iupui.edu)** to learn more about internship opportunities and the credit internship evaluation and approval process.

Potential Elective Courses

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

OTHER ELECTIVE COURSES IN HUMAN-CENTERED COMPUTING

HCI selective courses not chosen as selectives can be taken as electives.

Entrepreneurship: H550 Legal and Business Issues in Informatics (contact: Sara Hook).

Project Management: B505 Project Management.

Game Design: N534 Serious Games and Simulations; 500-level sections of Game Production courses (contact: Mat Powers).

3D Graphics/Animation: 500-level sections of 3D Graphics and Animation courses (contact: Zeb Wood).

Web Design/Development: N504 Advanced Int. App. Design; 500-level sections of Web Design/Dev. courses (contact: Todd Shelton, Travis Faas).

Video Production: 500-level sections of Video Production courses (contact: C. Thomas Lewis).

PSYCHOLOGY

- PSY570 Industrial Psychology – Fall, odd yr
- PSY572 Organizational Psych – Sping, 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

Other Research Methods Courses

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

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| ANTH-E404 | Field Meth in Ethnography | SOC-R 559 | Intermediate Soc Statistics |
| COM 501 | Qualitative Research | STAT 511 | Statistical Methods 1 |
| COM 502 | Applied Qualitative Research Methods | STAT 512 | Applied Regression Analysis |
| EDU 520 | Strategies for Educational Inquiry | STAT 516 | Basic Probability Appl |
| EDU 611 | Qualitative Inquiry in Education | STAT 519 | Intro to Probability |
| 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 | | |