



**PLAN OF STUDY**  
**[FALL 2018]**

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

| MS: 36 Credit Hours                                      |  |                          |
|--|--|--------------------------|
| Program Core   | Electives or HCI Internship  | Final Project            |
| H541, H543, H561, H563, H564, I501, [H565 or H517], H566 | Recommended Electives (see also next page): I595, I575, H554, H567 | [H680, H681] or H694 x 2 |
| 24 Cr. Hr.   | 6 Cr. Hr.  | 6 Cr. Hr.                |

|             | FALL 2018  | SPRING 2019  | SUMMER   |
|-------------|--|--|--|
| Y<br>R<br>1 | <b>H541</b> Interaction Design Practice [R 6 pm] (O)<br><b>H543</b> Interaction Design Methods [M 6 pm] (O)<br><b>Required in either Y1 or Y2:</b><br><b>H563</b> Psychology of HCI [W 6 pm] (O)<br><i>Selective Option (choose H517 or H565):</i><br>- <b>H517</b> Visualization Design, Analysis, and Evaluation [W 10 am]<br>- <b>H565</b> Collaborative & Social Computing [T 3 pm]  | <b>I501</b> Introduction to Informatics for HCI [M 6 pm]<br><b>H561</b> Meaning and Form in HCI [T 3 pm] (O)<br><b>H564</b> Prototyping for Interactive Systems [W 6 pm] (O)   | <ul style="list-style-type: none"> <li>• Elective course or</li> <li>• Internship as elective</li> </ul> |
| Y<br>R<br>2 | <b>H680</b> HCI Professional Practice 1 [R 6 pm]<br><b>Required in either Y1 or Y2:</b><br><b>H563</b> Psychology of HCI [W 6 pm] (O)<br><i>Selective Option (choose H517 or H565):</i><br>- <b>H517</b> Visualization Design, Analysis, and Evaluation [W 10 am]<br>- <b>H565</b> Collaborative & Social Computing [T 3 pm]<br>-----<br><b>Recommended Electives:</b><br><b>H567</b> IoT Interface Design for Business Innovation [R 12 pm]<br><b>I575</b> Informatics Research Design [M 6 pm]<br><b>H554</b> Independent Study in HCI (faculty approval required) | <b>H681</b> HCI Professional Practice 2 [T 6 pm]<br><b>H566</b> Experience Design for Ubiquitous Computing [R 6 pm]<br>-----<br><b>Recommended Electives:</b><br><b>H567</b> IoT Interface Design for Business Innovation (if not taken in Fall) [T 12 pm]<br><b>H554</b> Independent Study in HCI (faculty approval required) | <ul style="list-style-type: none"> <li>• Elective course or</li> <li>• Internship as elective</li> </ul> |
|             | <b>NOTES:</b> (O) = Also taught Online - [R] = Thursday  |  |  |

**FINAL PROJECT REQUIREMENTS**

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

- H680 HCI Professional Practice 1** (3 cr.)  
Prerequisites: H541, H543, H561, I501, H565
- H681 HCI Professional Practice 2** (3 cr.)  
Prerequisites: H680
- The H680/681 course sequence includes a scheduled class time that students must attend.
  - Students work on one, individual final project that extends throughout the two courses (fall and spring).
  - Students will receive an official grade after each semester.
  - Students are encouraged to propose a project that can be realistically completed by the conclusion of H681 in the spring semester.
  - Incompletes are NOT permitted.
  - The successful completion of the H680–H681 sequence (and all other coursework) enables timely graduation.
  - Students completing H681 are required to present their project results as a poster at the Capstone event.

**H694 Thesis Option:** Upon permission granted by a faculty member who commits to be a thesis supervisor by the end of Summer of the first year, a student may replace the H680-H681 course with a H694 Final Project or Thesis (6 credits). This option is granted only by a faculty member who is willing to accept the student as research thesis supervisor for at least two consecutive semesters. H694 will be considered completed only after the thesis delivered has been approved by the supervisor, and defended in front of a faculty thesis committee.

- 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 additional research methods course as an elective, if useful to the completion of thesis.

**Detailed schedule of each course is updated and published every semester on the [IUPUI Registrar website](#).**

# HCI 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 (soiccco@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)

### OTHER ELECTIVE COURSES

#### IN THE HUMAN-CENTERED COMPUTING DEPARTMENT

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

**UX/HCI:** H590 User Experience Architectures (contact: Davide Bolchini).

**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).

**Digital Media and Healthcare:** N507 Digital Media for Healthcare (contact: Edgar Huang).

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

#### DATA SCIENCE

|           |   |
|-----------|---|
| INFO B505 | Informatics Project Management                      |
| INFO H515 | Introduction to Data Analytics                      |
| INFO H516 | Applied Cloud Computing for Data Intensive Sciences |
| INFO H517 | Visualization Design, Analysis, and Evaluation      |
| INFO I501 | Introduction to Informatics                         |
| INFO I575 | Informatics Research Design                         |
| LIS S511  | Database Design                                     |
| LIS S541  | Information Policy                                  |
| NEWM N510 | Web Database Concepts                               |
| PBHL B561 | Introduction to Biostatistics                       |
| STAT 514  | Design of Experiments                               |

#### RELEVANT ELECTIVES IN BIOHEALTH INFORMATICS DEPARTMENT

**Project Management:** B505 Project Management.

**Health Informatics and Human Factors:** B626 Human Factors Engineering for Health Informatics

#### 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       |

## Other Research Methods Courses

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

|            |   |           |                                  |
|------------|---|-----------|----------------------------------|
| ANTH-E404  | Field Meth in Ethnography                       | PSY-I 643 | Field Methods & Exper            |
| COM 501    | Qualitative Research                            | SOC-R 551 | Quantitative Methods – Sociology |
| COM 502    | Applied Qualitative Research Methods            | SOC-R 559 | Intermediate Soc Statistics      |
| EDU 520    | Strategies for Educational Inquiry              | STAT 511  | Statistical Methods 1            |
| EDU 611    | Qualitative Inquiry in Education                | STAT 512  | Applied Regression Analysis      |
| NURS-L 650 | Data Ana for Clinical & Admin Decis-Making      | STAT 516  | Basic Probability Appl           |
| NURS-R 612 | Interpretive Data Analysis (2 Cr.), Summer I-II | STAT 519  | Intro to Probability             |
| 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)            |           |                                  |