**Ph.D. in Informatics Human-Computer Interaction Track**

**Course Requirements & 5-Year Plan of Study**

[For Students Starting in Fall 2016 and Forward]

The Ph.D. in Human Computer Interaction is a 90 credit hour program that includes:

- **Core Courses** 24 cr.
  - Informatics Core 6 cr. (H501, I600) + HCl Core 18 cr. (H541, H624, H634, H564, 2xHCI Research Area Selectives)

- **Methods Courses** 18 cr.
  - I575 + 2xMethods Electives + 3xResearch Rotations I790

- **Specialization** 18 cr.
  - Disciplinary Affinities 0-6 cr. (1 cr. Colloquia Series and/or Electives) + Minor 12-18 cr.

- **Dissertation** 30 cr.
  - Thesis Reading and Research I890

---

### Recommended Plan of Study

<table>
<thead>
<tr>
<th></th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yr. 1</td>
<td>• H541 HCI</td>
<td>• I575 Informatics Research Design</td>
<td>• I790 Research Rotation</td>
</tr>
<tr>
<td></td>
<td>• H624 HCI Advanced Seminar I</td>
<td>• H634 Advanced Seminar II</td>
<td>• Disciplinary Affinity Elective or Minor Course (if not H599)</td>
</tr>
<tr>
<td></td>
<td><strong>H599 Research Colloquia Series (1 cr.)</strong></td>
<td><strong>H599 Research Colloquia Series (1 cr.)</strong></td>
<td>• First-year Review: Research Portfolio</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Qualifying Exams</td>
</tr>
<tr>
<td>Yr. 2</td>
<td>• HCI Research Area Selective [H563 Psychology of HCI or H565 Collab And Social Computing]</td>
<td>• HCI Research Area Selective [H566 Exper Design and Ubi Comp]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Research Methods selective</td>
<td>• H564 Prototyping for Interactive Systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>H599 Research Colloquia Series (1 cr.)</strong></td>
<td><strong>H599 Research Colloquia Series (1 cr.)</strong></td>
<td></td>
</tr>
<tr>
<td>Yr. 3</td>
<td>• Minor course</td>
<td>• H501 Intro to Informatics</td>
<td>• I790 Research Rotation</td>
</tr>
<tr>
<td></td>
<td>• Minor course or Research Methods Selective</td>
<td>• Minor course or Research Methods Selective</td>
<td>• Dissertation Proposal Defense</td>
</tr>
<tr>
<td></td>
<td><strong>H599 Research Colloquia Series (1 cr.)</strong></td>
<td><strong>H599 Research Colloquia Series (1 cr.)</strong></td>
<td></td>
</tr>
<tr>
<td>Yr. 4</td>
<td>• I600 Prof. and Pedagogy in Informatics</td>
<td>• Dissertation credits</td>
<td>• Dissertation credits</td>
</tr>
<tr>
<td></td>
<td>• Dissertation credits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yr. 5</td>
<td>• Dissertation credits</td>
<td>• Dissertation credits</td>
<td>• Dissertation Defense</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Detailed instructions on the first-year review and PhD Qualifying exams are available at:**

[http://soic.iupui.edu/graduate/hci/phd/](http://soic.iupui.edu/graduate/hci/phd/)

---

**HCI Research Area Selectives**
- H563 Psychology of HCI
- H565 Collab. and Social Comp.
- H566 Experience Design and Ubi Comp.
- 1590 Interactive Visual Analytics
- More may become available

**Sample Research Methods Electives**
- PSY600 Statistical Inference
- PSY601 Experimental Design
- PSY608 Measur. Theory and Data Interpret.
- See list on next page for more options

**Sample Electives**
- I590 User Experience Architectures
- H543 Usability and Eval Methods
- H561 HCI 2
- N585 Web/Mobile/Media Develop.
- See list on next page for more options in other Schools and Departments

---

1 Please note that required courses are NOT offered in more than one semester; if you miss the course, you may have to wait another year and potentially delay your graduation.
2 Students who receive full support from the School as a teaching assistant (TA) or research assistant (RA) are on a 12-month appointment and must remain as a full time students in the summer, i.e., they must continue to work 20 hours per week and take a minimum of 6 credit hours per semester. The department Scholarship will cover no more than 18 cr. hours in a given academic year (fall, spring and summer)
### OTHER RESEARCH METHODS COURSES

(Students MUST Check for Prerequisites & Semesters Offered from the Respective Departments: Key Courses in BOLD)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Offered Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 600</td>
<td>Statistical Inference</td>
<td>Fall Even Yr</td>
</tr>
<tr>
<td>PSY 601</td>
<td>Experimental Design</td>
<td>(Spg Even Yr)</td>
</tr>
<tr>
<td>PSY 608</td>
<td>Measurement Theory and Interpret Data</td>
<td></td>
</tr>
<tr>
<td>PSY 640</td>
<td>Survey of Social Psychology I</td>
<td></td>
</tr>
<tr>
<td>PSY 655</td>
<td>Cognitive Development</td>
<td>(Fall Even Yr)</td>
</tr>
<tr>
<td>PSY-I 643</td>
<td>Field Methods &amp; Exper</td>
<td></td>
</tr>
<tr>
<td>ANTH-E404</td>
<td>Field Meth in Ethnography</td>
<td></td>
</tr>
<tr>
<td>COM 501</td>
<td>Qualitative Research</td>
<td></td>
</tr>
<tr>
<td>COM 502</td>
<td>Applied Qualitative Research Methods</td>
<td></td>
</tr>
<tr>
<td>EDU 520</td>
<td>Strategies for Educational Inquiry</td>
<td></td>
</tr>
<tr>
<td>EDU 611</td>
<td>Qualitative Inquiry in Education</td>
<td></td>
</tr>
<tr>
<td>NURS-L 650</td>
<td>Data Ana Clinical &amp; Admin Dec.-Making</td>
<td></td>
</tr>
<tr>
<td>NURS-R 612</td>
<td>Interpretive Data Analy (2 cr.)</td>
<td>Sum I-II</td>
</tr>
<tr>
<td>PSY 640</td>
<td>Survey of Social Psychology I</td>
<td></td>
</tr>
<tr>
<td>PSY 655</td>
<td>Cognitive Development</td>
<td>(Fall Even Yr)</td>
</tr>
<tr>
<td>PSY-I 643</td>
<td>Field Methods &amp; Exper</td>
<td></td>
</tr>
<tr>
<td>ANTH-E404</td>
<td>Field Meth in Ethnography</td>
<td></td>
</tr>
<tr>
<td>COM 501</td>
<td>Qualitative Research</td>
<td></td>
</tr>
<tr>
<td>COM 502</td>
<td>Applied Qualitative Research Methods</td>
<td></td>
</tr>
<tr>
<td>EDU 520</td>
<td>Strategies for Educational Inquiry</td>
<td></td>
</tr>
<tr>
<td>EDU 611</td>
<td>Qualitative Inquiry in Education</td>
<td></td>
</tr>
<tr>
<td>NURS-L 650</td>
<td>Data Ana Clinical &amp; Admin Dec.-Making</td>
<td></td>
</tr>
<tr>
<td>NURS-R 612</td>
<td>Interpretive Data Analy (2 cr.)</td>
<td>Sum I-II</td>
</tr>
</tbody>
</table>

### ELECTIVE COURSES IN THE SCHOOL AND ON CAMPUS

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

#### INFORMATICS
- **H503** Social Impact of Information Technology
- **H505** Informatics Project Management
- **H510** Data Acquisition and Lab Automation
- **H512** Scientific Data Management
- **H535** Clinical Information Systems
- **H540** Data Mining for Security
- **H550** Legal and Business Issues in Informatics
- **H554** Independent Study in HCI (1–3 cr.)

#### MEDIA ARTS AND SCIENCE
- **N585** Topics Courses in Media Development and Production
  - 3D Production
  - Advanced Game Development
  - Advanced Narrative Film
  - Advanced Sound Design
  - Advanced Tech. in 3D
  - Advanced Web
  - Computer & Information Ethics
  - Creature Design
  - Data Driven Applications
  - Digital Effects
  - DV & CGI Digital Effects
  - Game Theory
  - Healthcare New Media
  - Multi-User Virtual Worlds
  - On-Line Document Dev II

#### 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 503** Operating Systems
- **CSCI 504** Concepts in Computer Organ
- **CSCI 507** Object-Oriented Design & Prog
- **CSCI 536** Data Comm. & Computer Networks
- **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–V 501** Design Thinking (1.5 cr.)
- **HER–V 502** Human Factors in Design (1.5 cr.)
- **HER–R 511** Visual Research (3 cr.)

#### COMMUNICATION
- **COMM–C 500** Advanced Communication 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** Information Architecture for the Web