1. Introduction
2. HCI/d MS Program Structure
3. Course Descriptions
4. For Reference

Kindly note that this handbook is revised annually and is subject to change. Please direct any questions about it to Jeffrey Bardzell: jbardzel@indiana.edu
1. INTRODUCTION

This handbook details the Master of Science (MS) program in Human-Computer Interaction Design (HCI/d) at the School of Informatics & Computing, Indiana University, Bloomington, Indiana USA.

The Core HCI/d Faculty are:

- **Jeffrey Bardzell**
  Associate Professor of Informatics,
  Director of the HCI/d Program

- **Shaowen Bardzell**
  Associate Professor of Informatics

- **Eli Blevis**
  Professor of Informatics

- **Hamid Ekbia**
  Professor of Informatics

- **Marty Siegel**
  Professor of Informatics,
  Director of Graduate Programs for Informatics

- **Erik Stolterman**
  Professor of Informatics,
  Division Chair for Informatics

- **Patrick Shih**
  Assistant Professor of Informatics

- **Norman Su**
  Assistant Professor of Informatics

The Staff associated with this program are:

- **Linda Hostetter**
  Associate Director of Graduate Administration

- **Cheryl Engel**
  Informatics Admissions Coordinator

- **Carrie Stemen**
  Graduate Admissions and Records Assistant

- **Kate Caldwell**
  Director of Career Services

Associated faculty include:

- **Travis Brown**
  Lecturer
Kindly refer to www.soic.indiana.edu for contact and other details of these faculty and staff.

The Director of the HCI/d program—Prof. Jeffrey Bardzell—has the overall responsibility for the program, courses, and everything else that relates to the program. You may write to him about the program and once you are enrolled, you may contact him as well with any personal issues, concerns, or ideas you may have affecting your studies or the program or your well-being in general.

The Graduate Director of the Informatics MS and PhD program—Prof. Mart F. Siegel—is involved in more overall issues of being a graduate student in our school. You may also contact him with any issues or concerns, or just to chat. Marty is very friendly and approachable, with a great reputation for helping students.

The collective goal of the core HCI/d faculty is to help you succeed in our program as an individual, while also ensuring that high standards are met as a collective investment in reputation by all faculty, students, and alumni who are connected to our program. Our goal is to be the best design-oriented HCI program in the world, and each of us participates in this vision.
2. HCI/D MS PROGRAM STRUCTURE

Schedule of Classes
The Master of Science Degree Program in HCI/d consists of 36 credit hours of studies, normally taken over two consecutive years, evenly distributed as 3 classes or 9 credit hours per semester.

The schedules on the following pages show the classes you will take. There is some choice available in the second year of study in the form of electives.

Since this is a two-year program, the schedule shows classes in whole or in part for several different cohorts, for example:

The Class of 2018
Year 1 Fall 2016
Year 1 Spring 2017
Year 2 Fall 2017
Year 2 Spring 2018

The Class of 2019
Year 1 Fall 2017
Year 1 Spring 2018
Year 2 Fall 2018
Year 2 Spring 2019 ...

and so forth

Kindly read these schedules keeping your respective cohort in mind.

How to Apply
We are accepting applications for Fall 2017.

Fall 2017 Deadlines for Admission and Financial Aid:

- PhD Applicants: December 1, 2016
- MS Applicants: January 1, 2017

We may accept applications from exceptionally well-qualified students after these dates. For information about our graduate programs, go to:

http://www.soic.indiana.edu/graduate/admissions/how-to-apply/informatics.html
Special Instructions for HCI/D MS Students Application Portfolios

HCI/d Program Portfolio: Purpose:
A portfolio of your prior work will greatly help distinguish your application for the HCI/d program. Portfolios do not necessarily need to include only HCI or design work samples—they may include any sort of samples of your prior work as described below. We accept many students from a wide variety of disciplines and backgrounds based on the quality of prior work, rather than the specific focus or area. Many excellent students begin the program without a background in HCI or design, and many excellent students do have prior HCI or design experience.

Themes
The primary reason we accept students from a variety of different backgrounds is that our program is organized into three career-path themes, as described in the handbook, namely (i) interaction design, (ii) design strategies, and (iii) research, scholarship, & creative activity. Different backgrounds predict success in one area or another of these three career-path themes. It is perfectly fine if you are not sure which of these three themes corresponds to your career goals before you start the program—however, the types of things you include in your portfolio may indicate a trajectory in one of these three themes or another, and we do hope to achieve a balanced distribution of accepted students among the three themes.

Format
A single PDF file is the only acceptable format for your portfolio. If your PDF is larger than 2 MB, you must provide a link from which the portfolio can be downloaded. If your PDF file is smaller than 2 MB, you may send it as an email attachment. No other format aside from PDF is acceptable. Only one PDF file may be submitted. You may choose portrait or landscape mode. The paper size must be 8.5 inches x 11.0 inches. Your portfolio will not be considered if it does not meet these criteria.

The first page of the PDF must include only your name and the following text:

"I certify that the work included in this portfolio is my own original work. Work included which was conducted as part of a team or other group is indicated and attributed as such—the other team members are named and a true description of my role in the project is included."

You must also include your signature on this title page indicating your certification of originality and proper attribution. In the event that any work you provide in your portfolio is improperly represented in terms of authorship, your application will be dismissed without review. We do apologize for including this requirement, and please do understand that it is a necessary requirement to secure the integrity of our community because of only a very few cases.

Types of work to submit
You may include images and descriptions of any prior work, including and not limited to:

- web site designs
- interaction designs
- any form of design work
- published papers or essays
- writing samples, including creative writing, and/or technical/professional pieces
- professional work of any sort
- design competition entries
- photography
- curricular materials you have developed
- prototypes
- samples of program code or other forms of engineering experience
- ethnographic work
- strategic design plans or other evidence of entrepreneurial experience
To be very clear, the list above is not exhaustive and only illustrates the kinds of things you may wish to include. Do not worry if you do not have a lot of prior work or every kind of prior work to show—not every applicant is expected to have every type of experience. Focus on quality, rather than quantity. Combine the images and descriptions or your work and entire papers you wish to include into a single PDF file. A link to a website will not be considered, owing to the large number of applicants we receive—put your best work into a PDF portfolio format instead.

**Page limit**
A good portfolio should usually be no more than 10 pages; however, in the case that you are including published papers, it may understandably be longer—thus, there is no hard and fast page limit. If your PDF file is longer than 10 pages, you must include a table of contents as the second page, and you may do so even if your PDF files is shorter.

**Important note**
Please consider completing your portfolio carefully, before submitting. You may submit your portfolio only once. Please do not ask nor attempt to send revised portfolios—such requests will be rejected without response, due to the large number of such requests we would otherwise receive.
# CLASS SCHEDULE: 2017/2018 (PROJECTED, SUBJECT TO CHANGE)

<table>
<thead>
<tr>
<th>Year 2 Fall 2016</th>
<th>Year 2 Spring 2017</th>
<th>Year 1 Fall 2017</th>
<th>Year 1 Spring 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLASS OF 2017</strong></td>
<td><strong>CLASS OF 2017</strong></td>
<td><strong>CLASS OF 2018</strong></td>
<td><strong>CLASS OF 2018</strong></td>
</tr>
<tr>
<td><strong>Required:</strong></td>
<td><strong>Required:</strong></td>
<td><strong>Required:</strong></td>
<td><strong>Required:</strong></td>
</tr>
<tr>
<td>I590 Prototyping</td>
<td>Capstone (6 Credits)</td>
<td>Interaction Design Practice (IDP)</td>
<td>Interaction Design Methods</td>
</tr>
<tr>
<td>Norman Su</td>
<td>Jeffrey Bardzell, Shaowen Bardzell</td>
<td>Marty Siegel</td>
<td>Shaowen Bardzell</td>
</tr>
<tr>
<td><strong>Recommended Electives:</strong> (Select 2)</td>
<td><strong>Recommended Electives:</strong> (Select 1)</td>
<td><strong>Recommended Electives:</strong> (Select 1)</td>
<td><strong>Recommended Electives:</strong></td>
</tr>
<tr>
<td>FINA S552 Graphics &amp; Diagraming</td>
<td>TBD</td>
<td>Foundations of HCI/d</td>
<td>Experience Design</td>
</tr>
<tr>
<td>TBD</td>
<td><strong>Recommended Electives:</strong> (Select 1)</td>
<td>Hamid Ekbia</td>
<td>Jeffrey Bardzell</td>
</tr>
<tr>
<td><strong>Design Theory</strong></td>
<td><strong>Recommended Electives:</strong> (Select 1)</td>
<td><strong>Recommended Electives:</strong> (Select 1)</td>
<td>Visual Thinking, Meaning &amp; Form (VTMF)</td>
</tr>
<tr>
<td><strong>Rapid Design for Slow Change</strong></td>
<td><strong>Recommended Electives:</strong> (Select 1)</td>
<td><strong>Recommended Electives:</strong> (Select 1)</td>
<td>Eli Blevis</td>
</tr>
<tr>
<td>Marty Siegel</td>
<td><strong>Recommended Electives:</strong> (Select 1)</td>
<td><strong>Recommended Electives:</strong> (Select 1)</td>
<td></td>
</tr>
<tr>
<td><strong>Design Strategies</strong></td>
<td><strong>Recommended Electives:</strong> (Select 1)</td>
<td><strong>Recommended Electives:</strong> (Select 1)</td>
<td></td>
</tr>
<tr>
<td>Travis Brown</td>
<td><strong>Recommended Electives:</strong> (Select 1)</td>
<td><strong>Recommended Electives:</strong> (Select 1)</td>
<td></td>
</tr>
</tbody>
</table>

Undergraduate HCI/d Classes, including classes cross-listed with graduate classes:

**Fall 2017**
- I300 Introduction to HCI/d Travis Brown
- I300 Introduction to HCI/d Tom Mitchell
- I310 Multimedia Arts and Technology TBD

**Spring 2018**
- I300 Introduction to HCI/d Marty Siegel
- I310 Multimedia Arts and Technology TBD

The recommended electives detailed above are the elective classes that students most typically select and the classes which they can select without additional approval from the Program Director. It is possible for particular students to tailor their particular program by selecting with approval of the Director alternative graduate classes (numbered 500 or above) from within the University. Independent Study or Internship Credits are sometimes possible as an additional alternative, as described later in this HCI/d MS Handbook. Electives can be from any school or college at Indiana University with courses related to the student’s area of concentration, including other areas in Informatics and Computing and SLIS. Courses that have appealed to our students can be found in the School of Fine Arts, the Department of Communication and Culture, the Department of Telecommunications, and the Kelley School of Business. Please note that other schools are not required to allow HCI/d students to participate in their courses.
Career Goal Themes
There are three main career goal themes in the program. These are:

1. Interaction Design
2. Design Strategies
3. Research, Scholarship, & Creative Activity

Every student will participate in class work relating to each one of these themes. Most students will emphasize one theme over another depending on individual career goals. It is very important to understand that your views of the programmatic material will vary depending on which theme relates to your particular career goals and to appreciate that some students may emphasize a different theme than you.

You should expect to achieve a baseline proficiency in all three themes, and take seriously the choice of which of these three themes will guide your career. As a general rule, expect that each cohort will self-distribute approximately evenly over these three themes. If at the outset of the program, you do not know which of these three themes most appeals to you, do not worry—you will have plenty of exposure to these three themes over the course of the program and this choice should become clear to you as you start your second year, if not before.

Interaction Design
The theme of interaction design will appeal most to those students who want to design products using the materials of digital technologies. If you want to professionally design interfaces, interactive applications, social networking sites, digital products, and so on and so forth, interaction design is the theme for you. In our program, interaction design is always a values-rich theme—we require that everything we design adds genuine and sustainable value to peoples’ lives and respects humankind’s relationship to the natural environment.

Design Strategies
The theme of strategic design planning will appeal most to students who want to start their own design consultancies, or who want to achieve executive level positions and influence in design firms or other firms that make use of digital technologies, or who want to pioneer systemic design innovations for social good. If you want to design strategy from the perspectives of social values, technological insights, and enterprise considerations, strategic design planning is the theme for you. [Note: we are presently revising how Design Strategies are covered in the curriculum].

Research, Scholarship, & Creative Activity
The theme of research, scholarship, & creative activity will appeal most to students who are considering a career in scholarship, as a professor or researcher.

The table on the following page shows approximately how these themes are distributed in emphasis among the various required courses and elective courses taught by the core faculty.
<table>
<thead>
<tr>
<th>Career Goal Themes</th>
<th>Year 1 Fall</th>
<th>Year 1 Spring</th>
<th>Year 2 Fall</th>
<th>Year 2 Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I541 IDP Interaction Design Practice</td>
<td>I542 FHCI Foundations of HCI/d</td>
<td>I543 URM Interaction Design Methods</td>
<td>I544 ED Experience Design</td>
</tr>
<tr>
<td></td>
<td>IDP</td>
<td>FHCI</td>
<td>URM</td>
<td>ED</td>
</tr>
<tr>
<td>Interaction Design</td>
<td>■</td>
<td>○</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Design Strategies</td>
<td>□</td>
<td>○</td>
<td>○</td>
<td>■</td>
</tr>
<tr>
<td>Research, Scholarship, &amp; Creative Activity</td>
<td>○</td>
<td>■</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

LEGEND | ■: Primary Focus  | □: Secondary Focus  | ○: Tertiary Focus  | REQUIRED CLASSES: Large Icons  | ELECTIVE CLASSES: Small Icons
Portfolio Development
One of the most important aspects of our program is that it gives you a chance to develop your individual web-based portfolio. The portfolio consists of presentations of your learning experiences in the form of designs, writings, projects, and so on and so forth. The portfolio reflects your very personal competence and skills. When applying for a job or a Ph.D. program, your portfolio will be as important or maybe more important than your course work.

You will begin to put together your portfolio, if you don’t already have one, in 1590 Visual Literacy in HCI/d. You will create lots of content for your portfolio in the course of study of nearly all of the classes you take.

Electives
The curriculum endeavors to meet the goals of the program, but elective coursework is available as well. Electives allow students the freedom to customize their education to meet their personal interests and needs and these courses may come from any department at Indiana University (with permission from that department).

The opportunity to take electives is ordinarily available only in the second year of study, except in special circumstances.

Specializations
A specialization is a special expertise that you wish to develop while in the HCI/d program. The choice of specialization may be tailored to the individual student. Common areas of specialization will include: computing, education, business, communications, psychology, new media, gaming, sports, security, music, and research methods. Your choice of specialization area determines some aspects of your capstone project. For example, if you care deeply about entrepreneurship, you may wish to include a detailed strategic business plan in your project deliverables. If you care deeply about software, you may wish to construct working prototypes or an especially detailed implementation specification beyond the basic requirements. If you care deeply about communications, you may wish to construct compelling appearance prototypes. If you care deeply about usability, you may wish to emphasize observation techniques or possibly uncover new and unique ways of understanding users. Specialization courses (electives) should be chosen with the help of the program director or an HCI/d faculty member.
Background
As an example of a portfolio piece, in “Clockwork Moths,” Shad Gross illustrates not only considerable pyrotechnical Photoshop skills, but also provides an image that deeply pushes the limits of the modern digital commons. The work is composed mainly from materials provided by Shad Gross, himself, but additionally is derivative from parts of images that are licensed under creative commons and other forms of relaxed copyright. Some of the images used in the composite image may only be used in derivative work, some of the images may be used for derivative work with attribution, and some of the images may be used for derivative work just in the case that others are free to use the resulting image. The images used here are:

- BronzeCopper0027 (Texture: #11578)
- Insects0001 (Texture: #18081)
- Insects0007 (Texture: #19473)
  from www.cgtextures.com;
- Christina Rutz
  www.flickr.com/photos/paparutzi/252725115/;
- Steve Jurvetson
  www.flickr.com/photos/jurvetson/17945646/;
- User “history_aficionado”
  www.flickr.com/photos/history_aficionado/532658724/;
- User “timlewisnm”
  www.flickr.com/photos/gozalewis/3256814461/.

Independent Studies
An independent study is a course that you develop in close relation to a professor in an area that is of interest both for you and the professor. An independent study can be a way for you to do more design oriented work or more research oriented work.

To initiate an independent study, you need to find a faculty member—not necessarily a faculty member in the core area of HCI/d—who is willing to advise your independent study. There is a form which you can obtain from Linda Hostetter that needs to be filled out and approved by the faculty member and the program director.

In special circumstances, an internship which extends beyond the summer can be used to create an independent study. Speak or write to the program director if you are considering this option.

Please see additional information about Independent Studies and Internship Credits below.
The following is a list of course descriptions as supplied by the faculty at the time of writing. To be certain you have the latest descriptions, it is a good idea to check the web sites of the various faculty for up-to-date course descriptions—where available.

**I541 Interaction Design Practice (IDP) Marty Siegel**

The goal of this course is to begin the transformation from non-designer to (interaction) designer. The following topics are listed in approximately the order they will be uncovered—from Norman’s notion of the design of everyday things to the design of software; old and new design models; mock ups, sketches, and how they are used; seven themes of good design, presented as a whole and then individually throughout the semester; group decision protocols; guidelines for critiquing designs; thinking like an architect; thinking like an instructional designer; thinking like a composer, novelist, playwright, or choreographer; interactive instruction: a case for computer imagination; computer-based training: a new view; design of information appliances; post-mortem analysis; time management challenges; philosophy and ethics of design. Throughout the course, these topics will be interspersed: case studies (a variety of web and real products); critiques of design projects; life in the trenches as an interactive systems designer; professionalism as an interaction designer; and the philosophy of design. These topics will play out through the group design of five real-world and challenging design projects, with the last project culminating as a submission to the annual CHI International Student Design Competition.

**I542 Foundations of HCI/d Jeffrey Bardzell/Hamid Ekbia**

Foundations of HCI offers a survey overview of the field of Human-Computer Interaction Design. It introduces the main themes of HCI set generally in a historical context.

Compared to more mature disciplines, such as Biology or English, HCI is young and still finding its intellectual identity and agenda. An applied and interdisciplinary field, HCI reflects concerns from cognitive science, sociology, engineering, philosophy, design, management, and digital media studies. Today, HCI is undergoing major intellectual shifts from an older paradigm of HCI that integrated cognitive science, engineering, and traditional social science, to a newer paradigm that integrates design and humanistic approaches. Much of Indiana’s HCID curriculum rejects a forward-looking to the rising paradigm of HCI.

However, understanding HCI’s rising paradigm requires a holistic understanding of both the accomplishments (e.g., usability) and limitations of earlier paradigms. It also assumes some understanding relationships between emerging technologies in the past decades and research and practice in HCI as a field. Finally, practicing the rising paradigm of interaction design requires an understanding of how older approaches remain relevant to and continue to inform newer approaches. I542: Foundations of HCI is just such a survey.
I528 Participatory Design
Shaowen Bardzell

Participatory Design (PD) is an influential design approach that democratizes the design process by involving end-users. PD focuses on how meaningfully to involve those who will have and use made things in their creation and maintenance. This course has two objectives: First, we will survey PD’s emergence in the creation of computing/information systems, initially in the Nordic countries in the 1970s and ‘80s, as well as the evolution of its tools as it traveled around the world; and second, we will explore what participation means in technology design today, in contexts such as gender and IT, international development, and citizen science, among others.

I543 Interaction Design Methods
Shaowen Bardzell

The course introduces students to data collection and analysis techniques commonly used in Human Computer Interaction. Students will learn and practice both traditional human-centered design methods as well as newer methodologies from anthropology and the humanities to understand people’s uses of technological artifacts and the contexts in which these occur. Such methods are used to help reveal user needs and requirements; more broadly, these methodologies also seek to help interaction designers understand needs, values, and qualities of good interaction and implement them in interactive technologies.

Students are expected to conduct fieldwork in individual and small teams throughout the course: user research is a professional skill that must be practiced to be learned.

I544 Experience Design
Jeffrey Bardzell/Erik Stolterman

The focus of HCI is moving beyond efficiency and productivity. Computers are a part of our everyday lives, and we use them to connect to friends and family, create and manage our personal music and photo libraries, explore fantastic new worlds with virtual friends, view mass and viral media, network professionally, and pursue our hobbies. Computer interfaces are no longer tools we use to accomplish tasks; they are the environments in which we work, play, relax, love, and kill time. As a result, designers are increasingly focusing on creating experiences, rather than interfaces. This shift in focus implies a corresponding shift in the conceptualization, methodologies, and practice of HCI.

In this course, students will be introduced to anthropological and philosophical conceptualizations of human experience and then, guided by recent HCI literature, apply that understanding to interaction design. In a highly participatory environment, students will examine design artifacts, from Japanese punk fashion to Chicago skyscrapers, using theories from visual culture, simultaneously critiquing these designs and sketching new ones based on them.

As a final project, students will develop a series of experience prototypes before designing a universally accessible educational museum exhibit.
I561 Visual Thinking, Meaning & Form (VTMF) Eli Blevis

We will look at the notion and use of still digital imagery as a material of interaction design, as information, social mechanisms, and technology, as well as techniques of digital image making, visual thinking in general, and diagrammatic reasoning. The class will be primarily studio-based—that is, participants will be asked to complete assigned projects and show their work in class for discussion and critique. Reading assignments will be selected from online sources. Photography experience is neither prerequisite nor exclusionary, as the course will primarily reflect on the nature and transformations of the artifacts of externalized visual memories that digital technologies have created and predict. A cell phone camera will do at minimum for the class assignments, but other options will be discussed in class and understanding the range of technologies associated with digital imagery will be within the scope of this class. Students will also gain skills with professional software tools associated with visual communications.

I590 Prototyping
Shaowen Bardzell/Norman Su

Prototyping is the activity of exploring a design space and trying out design ideas. In interaction design, common prototyping techniques include screen sketches, storyboards with a series of scenes, a PowerPoint slide show, a video simulating the use of a system, a cardboard mock-up, or a piece of software with limited functionality.

In this course, we will explore issues surrounding the construction of prototypes (e.g., breath, depth, look, interaction, low/high, vertical/horizontal, serial/parallel, etc.) as well as learning how to interact and manipulate different materials from papers, foam core, to digital sensors to communicate design ideations and concepts. Students will also learn about and practice different prototype evaluation techniques, including cognitive walkthroughs, heuristic evaluation, and interaction criticism, among others.

FINA S552 Graphics/Typography
TBD

This class is offered in two sections, in order to keep the learning setting small. The class will focus on creating meaning with elements of form and the historical significance of typography and graphics in relation to design-oriented disciplines. This is an important course which will allow you to apply the skills you will have acquired in the earlier classes in profound ways.
I590 Rapid Design for Slow Change (RDSC) Marty Siegel

This is an elective class. Whether it’s diet, exercise, disease prevention, addiction recovery, financial planning, citizenship awareness, or environmental responsibility, appropriate behaviors in these and similar domains are particularly challenging to initiate and sustain. Moreover, web sites that support these behaviors are unsuccessful for many people beyond an initial period of compliance.

Why are these intractable behaviors unsustainable? Do our modern technologies and ubiquitous access conspire against us? For designers, are there new considerations or principles beyond current practice that should be applied to these domains? We refer to this design research, characterized by initiating and sustaining slow behavioral change, as “slow change interaction design” (SCID). These issues provide the backdrop of this course. For the designer, SCID problems are particularly messy, ill structured, and wicked.

The course will be divided into five parts—(1) a theoretical exploration of slow change; (2) exemplar exploration of slow change; (3) rapid design practice (general problems); (4) rapid design practice (specific to slow change problems); and (5) a culminating SCID project. Each rapid design practice project will last one week or less; the final SCID project will last five weeks.

I590 Interaction Culture
Jeffrey Bardzell

Interactive technologies’ move from the workplace and into everyday life entails far more than changes in UI widgets. Technological forms (e.g., mobile devices, tabletop interaction, and information appliances) and design practices (e.g., design research, prototyping and evaluation) alike are undergoing profound changes. Among the root causes of these changes is the rising significance of culture to interaction. Interaction design increasingly takes issues such as emotion, user experience, social change and social justice, cultural differences (e.g., between the West and the developing world), and aesthetic interaction more seriously, and many of the field’s traditional approaches, such as usability and workplace studies, are not positioned well to support these forms of contemporary interaction design.

The field of design, which includes product and industrial design, architecture, fashion, interior design and urban planning, service design, and graphic design among others, has increasingly been turned to as a new resource for HCI. One reason for the rise of design in HCI has been its strengths in applying cultural sophistication to understanding and designing for human needs. For example, not only do our clothes protect us from the elements, but they also help us express personal, professional, and/or national identities; relate to others appropriately in diverse social situations; and just feel good against our skin.

The kind of cultural sophistication that is applied in design situations is not, however, primarily acquired empirically through surveys and observational studies. More commonly, this skill is acquired through an ongoing reflective encounter with cultural artifacts, including design artifacts, works of art, and crafts. Using the practice of critique, designers develop both theoretical and practical understandings of designs as they participate in and constitute everyday life. I590 Interaction Culture introduces students to the major strategies of interaction criticism, bringing together a combination of critical theories and a wide range of examples, from the arts (including lm and digital media), design (including interaction design and fashion), and craft (including both digital and traditional crafts).
I604 Design Theory
Erik Stolterman

Many professionals are involved in the ongoing design and re-design of our environments, artifacts, machines, systems, tools and things. This is true also for informatics and HCI professionals. The challenge for most designers is to design artifacts, systems, and environments that have qualities good enough to be accepted and incorporated into our everyday reality. The design process is a highly complex process, difficult to describe, hard to understand, and almost impossible to prescribe, however, every design is a result of such a process, and every such process is a result of someone’s design. This course aims at supporting each student to create a developed intellectual understanding of the professional design process. An underlying assumption is that a reflective and philosophical understanding of practice supports and fosters a developed practical design competence. In the course we will therefore examine, analyze, study, and discuss how design can be understood, described, and developed as a process of inquiry, thought, and action. The course is divided into two types of activities. The two are (1) theoretical and philosophical studies of design, and (2) empirical studies of design practice. These activities are designed to support each student to establish a personal, reflective, and examined intellectual position in relation to design as a professional practice. The overall purpose of the course is to prepare students (1) to take a leadership role when it comes to design as a professional activity and (2) for scholarly work in the field.

I694 Capstone Thesis Project
Jeffrey Bardzell/Shaowen Bardzell/Eli Blevis

By the time you get to the Capstone class in the last semester of the program, you should have a clear choice of which of the three career goal themes described earlier you intend to follow. Your Capstone project or thesis will take the form of (i) an interaction design project, or (ii) a design strategies plan, or (iii) a thesis in the genre of scholarship, research, & creative activity. The class will be run studio style in two 3.5 hour sessions per week. This class will be not at all like previous years and is completely redesigned for 2014.
**4. FOR REFERENCE**

**Additional Materials**
In this, the final section of this handbook, we include various items material to the program for your reference.

**Seminar Series**
We provide our Master's degree students with the opportunity to attend seminars by distinguished faculty and insightful practitioners with the purpose to broaden and stimulate your intellectual development. The School organizes weekly Colloquia with invited speakers. There is an Honors Seminar Series that will be open for all students, and there are the HCI/d Seminars as well. Participation in these seminars deepens and enriches your Informatics experience.

**Plagiarism**
One of the highest values in an academic setting is the generation of new ideas while building on the work of others. Not providing appropriate credit when borrowing, either directly or in your own words, is a violation of the Indiana University Code of Student Rights, Responsibilities, and Conduct (see: dsa.indiana.edu/Code/index1.html). The violation is called “plagiarism” and it is considered a serious ethical violation in U.S. academic institutions.

Specifically, the Code defines plagiarism as “presenting someone else’s work, including the work of other students, as one’s own. Any ideas or materials taken from another source for either written or oral use must be fully acknowledged, unless the information is common knowledge. What is considered ‘common knowledge’ may differ from course to course.

A student must not adopt or reproduce ideas, opinions, theories, formulas, graphics, or pictures of another person without acknowledgment.

A student must give credit to the originality of others and acknowledge indebtedness whenever:

1. Directly quoting another person’s actual words, whether oral or written;
2. Using another person’s ideas, opinions, or theories;
3. Paraphrasing the words, ideas, opinions, or theories of others, whether oral or written;
4. Borrowing facts, statistics, or illustrative material; or
5. Offering materials assembled or collected by others in the form of projects or collections without acknowledgment.”

We urge all students entering the program to review the entire Code (see the above link) to become familiar with your rights and responsibilities as an IU student. To learn more about plagiarism related to the field of HCI, see ACM’s policy at http://www.acm.org/publications/policies/plagiarism_policy.

You can also learn more at the following site: plagiarism.org. Failure to follow the university’s guidelines could result in failure in your course and expulsion from IU and the HCI/d graduate program!
**Additional Information about Independent Studies**

The purpose of an independent study (IS) is to present an opportunity for students to create a learning experience when there is no formal course available about a particular topic. The success of an IS depends on some preconditions and also requires a process and some documents.

An Independent Study is a privilege, not a right: A student needs to find a faculty member who agrees to be the advisor and who will grade the work. The student also needs to present a sufficient plan (syllabus) for the IS (see below).

Faculty Members are not obligated to advise independent studies: Professors are not required to advise independent studies by the school and the work receives very little recognition from the school. The reason a professor would accept to serve as an advisor is that the topic is of interest to the professor, and the advisor wants to work with a particular student, based on earned rapport.

**Teams**

Students may propose an independent study alone, or as a team of two, but no more than two.

Use the following process to establish an independent study:

1. The student(s) need to develop an idea and present the idea to potential faculty advisors.
2. A professor needs to be willing to accept the role of advisor for the proposed Independent Study.
3. The student(s) need to write an independent study syllabus that is approved by the advisor.
4. The student(s) need to register for an independent study and attach the syllabus to the independent study form.
5. There has to be a complete syllabus for the independent study before the student(s) register (or at least a final approval from the advisor that the independent study is well enough developed).

The independent study description or syllabus. A syllabus has to contain the following sections:

1. A title that describes the work (similar to a course name).
2. A section that describes the topic, why it has been chosen, why it is important for the student(s), and how it will contribute to the students' overall education.
3. A section that clearly describes the learning outcome of the independent study.
4. A section that describes the activities that will constitute the main work during the independent study.
5. A section that lists the readings that will be part of the independent study.
6. A section that describes the outcomes (papers, designs, prototypes, etc.) of the independent study.
7. A section that describes how and what will be graded and a deadline for when the final material will be delivered.
8. A fairly detailed plan for the semester, with planned activities, readings, outcomes, and so forth—roughly similar to a course schedule.
9. At the end of the independent study, the student(s) need to give the material that will be graded to the advisor, in a well-organized form.
Additional Information about Internship Credits

Many students have the opportunity to do an internship during their studies. It is possible for a student to receive course credits for an internship. Such credits are available only when there is a clear learning experience that extends above and beyond what would be considered normal for the practical experience anyone gets from any internship, in general.

To be able to get credits for an internship means that there has to be special learning possibilities entailed in the particular internship in question. Regular internships are not sufficient for earning credits.

To earn credits, the student needs to make a well argued case that her or his internship is special in some way, and that it will lead to learning experiences that equal those of a formal course. This means that practical experience is not enough. To reach the same level of learning outcome as a course, the practical experience has to be combined with readings in the field, and reflection that relates reading with the practical experience.

An internship for credits also requires that the student has an advisor in the organization in which the internship takes place. The advisor has to agree to be the advisor and to take the responsibility for advising the student. The advisor should also agree to be a contact person with the academic advisor. It is the student’s responsibility to find a faculty member who is willing to serve as the academic advisor.

An internship for credits also has to result in a written document that describes the practical experience, summarizes and comments on the readings, and relates them to each other. The document should be well argued, well referenced, complete, produced with high production values, and possibly be published.

The final document will be graded by the academic advisor. The academic advisor must receive input from the organizational advisor on the quality of the work of the student.
A LIST OF COMPANIES AT WHICH OUR GRADS HAVE WORKED OR INTERNED

Booz Allen Hamilton  Smart Design  Inflection
Sabre Holdings  Adaptive Path  Jobvite
Intel  Accenture  Lulu.com
Pearson  AKQA  Rockmelt
Lexis Nexis  The Barbarian Group  Sling Media
Blackbaud  Effective UI  Social Rep
Involution  LEVEL Studios  Wolfram Research
Leo Burnett  Punchcut  Angie’s List
Option Six  Sequence  Uber
Northrop Grumman  Active Network  Yahoo!
igoDigital  Adobe  CheddarGetter
Ebay  Cerner  GrubHub
Teradata/Aprimo  Cisco  Inflation
Autodesk  Cummins Inc.  Jobvite
Symantec  Deloitte  Kno, Inc.
Ziba Design  Paypal  Lulu.com
Oracle  GE  Rockmelt
Opower  Groupon  Rockmelt
StubHub  HP  Rockmelt
COOK Medical  Intuit  Sling Media
Fluid  Kohl’s  Social Rep
Pop  Logitech  Wolfram Research
CheddarGetter  Microsoft  Angie’s List
Razorfish  Mozilla  Uber
Whirlpool  Nokia  Yahoo!
IBM  Orbitz  Xiaolin
Digitas  Salesforce.com  Zotero
23andMe  SAP  Ziba Design
Zoosk  Sears  Adobe
Luckie & Co.  Turner Broadcasting  Adobe
Designkitchen  VMware  Adobe
Acquity  Volkswagen/Audi  Adobe
gravitytank  Wells Fargo  Adobe
Lextant  AppNexus  Adobe
Sapient Nitro  Bazaarvoice  Adobe
HUGE, Inc.  GrubHub  Adobe
R/GA  Adobe  Adobe
Mentoring Responsibilities
As an MS HCI/d student, you may be invited to serve as a mentor in certain classes. This is generally considered to be an honor that helps you build a stronger resume, in addition to the valuable experience you gain in learning by teaching.

However, it is very important that you do not use the mentoring opportunity to preemptively teach in one class the things that are taught in other classes. If you find yourself wanting to share things you learned in some of the classes with newer students, you must do so in a way which lets them clearly know that they will learn these things as part of a subsequent class, and which augments the excitement of learning in the subsequent classes. If you fail to do this, you may spoil the experience of other classes for the newer students and undermine the integrity of the program. In the event such a breach of your mentoring relationship responsibilities is discovered, you may be asked to discontinue your participation as a mentor and asked not to list mentoring on your resume as an accomplishment. Moreover, in the event that such breaches become common, the mentoring program may be discontinued.

Associate Instructor Appointments
If you were awarded an AI-ship on entry to the program, your application was very competitive and you were selected for this award with the agreement of all of the core HCI/d faculty. If you are in good standing and you have done your AI duties conscientiously, you will receive an AI-ship in the second year.

If you are presently a first year student and you hope to have an AI-ship in your second year, kindly note:

1. The number of AI-ships are limited; however, there are sometimes opportunities to receive these awards, based on needs for AIs department wide;
2. These awards are competitive, based solely on academic merit and other merit factors that influence teaching potential, and most importantly, where offered to HCI/d students, are decided by the entire core HCI/d faculty as a whole considering the entire pool of HCI/d students; Although individual faculty can ask to have particular students serve as AIs for their classes, individual faculty never award AI-ships individually;
3. Individual faculty will normally ask for particular AIs for their classes based on whom they think has skills that align with the goals of her or his class;
4. Serving as a mentor for any class has many rewards; however, please note that serving as a mentor does not increase your chances of being offered an AI-ship award.

Please understand that serving as an AI is a job that must be taken seriously. This means that you should not accept an AI-ship if you are unable to attend all classes, including at the start of semesters. It is possible to lose your AI-ship if you do not do your job, which includes returning late from breaks, missing classes, and not grading on time, for examples.
MEET THE HCI/D CORE FACULTY

Jeffrey Bardzell, Associate Professor of Informatics
jbardzel@indiana.edu
(812) 856-1850
Informatics West, Room 303
http://crit.soic.indiana.edu

Shaowen Bardzell, Associate Professor of Informatics
selu@indiana.edu
(812) 855-1341
Informatics West, Room 305
http://sbardzell.wordpress.com/

Eli Blevis, Professor of Informatics
eblevis@indiana.edu
Informatics East
http://eli.informatics.indiana.edu/

Hamid Ekbia, Professor of Informatics
hekbia@indiana.edu
Informatics East
http://homes.soic.indiana.edu/hek-bia/bio.html

Patrick Shih, Assistant Professor of Informatics
patshih@indiana.edu

Martin Siegel, Professor of Informatics
msiegel@indiana.edu
(812) 856-1103
Informatics East, Room 340B
http://profmartysiegel.com/

Erik Stolterman, Professor of Informatics
estolter@indiana.edu
(812) 856-5803
Informatics East, Room 340A
http://transground.blogspot.com/

Norman Su, Assistant Professor of Informatics
normsu@indiana.edu