

V2.0.0 I694 Thesis and Demonstration Project
MS HCI/d
Syllabus Spring 2015



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INFO-I 694 THESIS/PROJ HUM COMP INTERACTN (6 CR)
18321 PERM 01:00P-04:00P TR I2 150
Above class open to graduates only
Above class requires permission of Department
Above class graded on deferred R grade basis
VERSION 2015-1.0

Introduction

The goal of the Thesis and Demonstration Project is to provide students with the opportunity to wrap up the Master's in HCI/d program with a design project that rises well above the sorts of class projects that they have done previously in ambition, execution, rigor, and documentation. The Thesis and Demonstration Project class supports this effort and is intended to provide an opportunity to:

Contribute a rigorously executed and well-crafted project in one of the following three areas: interaction design; strategic design planning; or research, scholarship & creative activity;

Develop a portfolio piece of which both the individual student and the HCI/d program as a whole can be proud;

Put into practice the design, research, and prototyping skills you have learned, want to develop better, and/or want to showcase in your portfolio;

Contribute to the program's archive of showcase design work.

Structure

You should arrive the first day of class with a good idea of your project topic. You should have decided which Career Path Track you are in, per the deliverables later described. If your Thesis and Demonstration Project involves a study requiring IRB approval, you must apply to the IRB on or before the first week of classes.

You need to hand in on the first day of class a one page summary of your proposed topic for your Thesis and Demonstration Project. This should include a title, an arena of interest, and initial ideas for what your capstone will be about. It does not need to be long, but it does need to be thoughtful. You will receive feedback in class.

Your class will be divided into several meeting groups of roughly 5 students. You will have the floor roughly one class in four as part of your assigned group for twenty minutes, depending on enrollment numbers.

Each presentation you make during your group meetings is an opportunity for feedback, including feedback from your peers. You should also expect to attend each and every class--paying attention to the presentations on your group's presentation days , as well as using the time to work on your own Thesis and Demonstration Project.

In addition, there will be Faculty shows, if and as scheduling permits, during which you will have a chance to present your work in Poster form to the entire HCI/d core faculty for feedback. These will be scheduled outside of regular class time. Please note that the HCI/d faculty are not strictly required to attend, and it is likely that not every HCI/d core faculty member will attend every show.

There will be a Public Show at the end of the class.

General Rules and Important Advice

Templates will be provided for the layout and structure of all deliverable formats and must be followed, exactly. Your goal is to create meaningful content and explicitly not to create decorative layout.

You must attend every class, which is work time. The instructors may check with you at any time to look at your work in progress. The Associate Instructor will take attendance and also offer advice.

You will need to work in addition to the class time.

Thesis and Demonstration Project projects become part of the permanent archive of the program, and you agree to allow your work to be displayed in a manner which is fully attributed to both you and the program.

Additional Comments about the Structure of the Class

You have Studio Time when you're not in a meeting group that is presenting that class (meeting groups are assigned).

All projects are individual.

Depending on the number of teams, we may reconstitute meeting groups so as to optimize individual attention and the possibility of mentoring between one team and another.

In your meeting groups, be prepared to provide a focused artifact (i.e. part of a print form design, diagrams, paper reviews, concept sketches, prototype plan) to stimulate a discussion that helps you advance your Thesis and Demonstration Project – expect about 20-30 minutes of holding the floor for discussion per person.

In your meeting groups, be prepared to listen to the discussion of other students and provide feedback and mentoring.

Class time will be normally organized into Opening Remarks and Attendance and Open Clinic 1:00-1:30; Group meeting or work time 1:30-3:50; Closing Remarks and Attendance 3:50-4:00.

The Associate Instructors may circulate among the studio from time to time.

As a unifying theme for the projects, you are strongly encouraged to make the title of your project be in the form "Wellbeing and _____." The idea is to create some sort of coherence and possibility of common interest among the projects and to ensure that every project relates in some way to social values.

Generalized Weekly Schedule [Subject to change]

This schedule will be discussed in class, and modified from time to time to accommodate holidays and other outside events.

Proposed Topic	W1								
	TUES	THUR							
All Instructors	Intro	Open							
Proposed Topic	W2								
	TUES	THUR							
Tan/Blevis	ABCD								
Beck/Brown		EFGH							
Design Research (PRI)	W3		W4		W5		W6		
	TUES	THUR	TUES	THUR	TUES	THUR	TUES	THUR	
Tan	A		C		B		D		
Blevis	B		D		A		C		
Beck		E		G		F		H	
Brown		F		H		E		G	
Design Concepts (RIC)	W7		W8		W9		W10		
	TUES	THUR	TUES	THUR	TUES	THUR	TUES	THUR	
Tan	A		C		B		D		
Blevis		E		G		F		H	
Beck		F		H		E		G	
Brown	B		D		A		C		
Prototype(s) or Strategies or Essay (PS)	W11		W12		W13		W14		
	TUES	THUR	TUES	THUR	TUES	THUR	TUES	THUR	FRIDAY
Tan		E		G		F		H	Final
Blevis	A		C		B		D		Due
Beck	B		D		A		C		Date
Brown		F		H		E		G	
All Instructors	W15		W16						
	Fac Show		Public Show						

Deliverables

	Interaction Design	Strategic Design Planning	Research, Scholarship, & Creative activity
5 Minute Presentation (mp4)	●	●	●
Poster (indd)	●	●	●
Prototypes	◉	◉	□
Web Portfolio (html, ...)	◉	◉	□
Print Form Interaction Design Explanation (pdf)	●	□	□
Print Form Strategic Design Plan (pdf)	□	●	□
Publishable Paper (pdf)	□	□	●
Annotated Bibliography (pdf)	◉	◉	◉
Curriculum Vitae (pdf)	□	□	◉

● required, high importance | ◉ required | ◉ optional | □ not required

The deliverables depend on which one of three possible career tracks you declare for your Thesis and Demonstration Project, as explained in the HCI/d Handbook:

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.

Strategic Design Planning

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.

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.

Texts

Although students will work on their own projects, all students are expected to follow roughly the same process, as described in:

Eli Blevis. 2011. The PRInCiPleS Design Framework. *Indiana University School of Informatics & Computing Human-Computer Interaction Design (HCI/d) Program Technical Report Number HCID-2011-001*. <http://hdl.handle.net/2022/14050>

also available as:

Eli Blevis. 2012. The PRInCiPleS Design Framework. In Carroll, John M. (Ed.) *Creativity & Rationale*. 2012. Springer.

<http://www.springer.com/computer/hci/book/978-1-4471-4110-5>

The Springer series is accessible under IU Libraries license.

You must also be familiar with

Bruce Hanington and Bella Martin. 2012. *Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions*. Rockport Publishers.

<http://www.amazon.com/Universal-Methods-Design-Innovative-Effective/dp/1592537561>

Grading Policy

Summary

You will receive a single grade for the class when you submit your final work. Your final work may be submitted once and once only.

If your work is submitted by the final due date, your work will be graded by all instructors, by consensus.

If you fail to submit your work by the final due date, you will receive a grade of "I". You may request a grade of "I" for any reason—you do not need to state a reason.

If you request or receive an "I" grade for the class, you may submit your work within one year once and once only for grading. If you do so, your work will be graded by the instructor of record, only. In this case, your work must be submitted without additional meetings with the instructors outside of the regular semester, reflecting the criteria that showing steady progress throughout the semester is a significant requirement. Please see important notes under the section "Format of Feedback."

You do not start with a perfect grade and lose points. You earn your grade by satisfying the requirements, with a grade that corresponds to the quality with which you have satisfied the requirements, in the judgement of the instructors. There are certain deficiencies which can cause your grade to be lowered, considering the degree of the deficiency in the judgement of the instructors, all other accomplishments in terms of meeting the requirements notwithstanding.

Denotations of Letter Grades

- A+ = perfect work, publishable quality, reference quality, no deficiencies
- A = excellent work, near publishable quality, no deficiencies
- B+ = very good work, no deficiencies
- B = good work, **average work**
- C+ = less than average work, with some merit
- C = poor work, with some merit
- F = poor work, or no work, with little merit

Requirements

The following are the requirements to receive a passing grade, and the degrees to which your work accomplishes each requirement are considered together to determine which overall grade your work receives:

General Requirements

- Your work is of excellent overall quality.
- Your work has social value.
- Your work is presented with high production values, throughout.
- Your work is original.

Structural Requirements

- You have clearly stated and illustrated predispositions that enumerate and illustrate the tensions between all viewpoints.
- Your work has clearly reported and attributed secondary research from credible scholarly or journalist sources in sufficient number.

- Your work has primary research that is clearly documented as to methods, appropriate choice of methods, study, and reporting.
- Your work makes use of collections as a means of design research.
- Your work develops and articulates clear insights, based on evidence from the design research you conducted, and presents these insights using appropriate techniques.
- Your work develops and articulates clear concepts and systems of concepts that follow from the insights that follow from the design research that you have conducted.
- Your concepts are nicely illustrated—rough sketches are not acceptable as finished work.
- Your work designs, implements, iterates, and reports on behavioral (low fidelity) prototypes.
- Your work designs, implements, iterates, and reports on appearance prototypes.
- [
 - If you have an **interaction design focus**, Your work designs, implements, iterates, and reports on working (proof of concept, high fidelity, usability) prototypes, or
 - if you have a **strategic design focus**, your work designs, implements, iterates, and reports on a strategic design plan in terms of entrepreneurial viability, technological feasibility, and social desirability, or
 - if you have a **scholarship focus**, your work takes the form of a ~8000 word paper in ACM SIGCHI format with no fewer than 50 references from scholarly sources.
-]
- Your work does not confuse research methods (i.e. interviews, or surveys, or ...) with concept illustration methods (i.e. personas, or scenarios, or ...).
- Your work shows iterative development, especially with respect to research forms and prototyping forms.

It is possible that there will be additional clarifications about the above requirements that are not fully anticipated above. The instructors reserve the right to add additional detail to this list at any time.

Deficiencies

The following deficiencies can cause your grade to be lowered, including to a failing grade in the most serious cases:

- Use of photographs, illustrations, video, or diagrams that you yourself did not create, even if clearly attributed, under most circumstances.
- Nearly any form of plagiarism, including but not limited to self-plagiarism, failure to adequately cite, and failure to conscientiously research and/or attribute prior art within reason.
- Failing to attend class, except for documented excused absences (limit 5).
- Failing to show steady progress.
- Failing to take the advice of the instructors seriously.
- Actions that disrupt the class.
- Work that does not follow the specified formats.

It is possible that there are additional deficiencies that are not enumerated above. The instructors reserve the right to add to this list at any time.

Judging Your Progress

Given the detail above, you may be able to assess your progress yourself during the course of the semester. You can go through the lists of requirements and deficiencies and understand the degree of accomplishment that you have achieved for each of the requirements and the degree of risk that you may be exposed to with respect to each of the deficiencies. You may at any time during the semester ask one of the instructors to sit down with you and state her or his tentative judgement about the degree to which you have met particular requirements or are at risk of particular deficiencies; however, no grades are assigned and no tentative judgement can be assumed to be a final judgement until the final submission is judged as a whole.

Format of Feedback

You will receive feedback and advice when you present in class. You may also make appointments with any of the instructors during the semester to request feedback and advice.

We will make every effort to grade all work submitted by the due date (Week 14 Friday) within a week of the due date. If you are unhappy with your grade, you may request a meeting with the instructors to review the judgements they have made face to face during Week 16.

If you do not submit all deliverables by the due date, you will receive an "I" for the course. If you receive an "I" for the course, your work will be graded after it is received, but no sooner than after the Fall semester begins, whereafter you may request a meeting with the instructor of record to review the judgements about your work face to face.

Please note that the result of any meeting to appeal your grade may result in the grade being raised, or staying the same, or being lowered. Alternatively, you may request a face to face meeting to receive feedback without reconsideration of the grade. Any such meeting will need to occur in week 15 or 16, or after the fall semester begins, as described above.

Your work will be assessed using the Grading Forms that follow according to a formula:

Average of requirement scores – Sum of Deficiency Adjustments

This formula will yield a number less than or equal to 5 that translates to a letter grade:

4.3 to 5 = A+ = perfect work, publishable quality, reference quality, no deficiencies

3.3 to 4.2 = A = excellent work, near publishable quality, no deficiencies

2.3 to 3.2 = B+ = very good work, no deficiencies

1.3 to 2.2 = B = good work, **average work**

0.3 to 1.2 = C+ = less than average work, with some merit

0 to 0.2 C = poor work, with some merit

Less than 0 = F = poor work, or no work, with little merit

The Grading Feedback Forms that follow are the written feedback you will receive. You will receive all other feedback according to the class or face to face appointments as detailed above. Please do not expect to receive feedback by email or according to any other schedule than the one outlined above. The only way to give you meaningful feedback beyond the detail in the forms is to sit down with you and review your work face to face.

Requirements

All of	A+ (5) perfect work, publishable quality, reference quality, no deficiencies	A (4.2) excellent work, near publishable quality, no deficiencies	B+ (3.2) very good work, no deficiencies	B (2.2) good work, average work	C+ (1.2) less than average work, with some merit	C (0.2) poor work, with some merit	F (0) poor work, or no work, with little merit
Your work is of excellent overall quality.							
Your work has social value.							
Your work is presented with high production values, throughout.							
Your work is original.							
You have clearly stated and illustrated predispositions that enumerate and illustrate the tensions between all viewpoints.							
Your work has clearly reported and attributed secondary research from credible scholarly or journalist sources in sufficient number.							
Your work has primary research that is clearly documented as to methods, appropriate choice of methods, study, and reporting.							
Your work makes use of collections as a means of design research.							
Your work develops and articulates clear insights, based on evidence from the design research you conducted, and presents these insights using appropriate techniques.							
Your work develops and articulates clear concepts and systems of concepts that follow from the insights that follow from the design research that you have conducted.							
Your concepts are nicely illustrated—rough sketches are not acceptable as finished work.							
Your work designs, implements, iterates, and reports on behavioral (low fidelity) prototypes.							
Your work designs, implements, iterates, and reports on appearance prototypes.							
Your work does not confuse research methods (i.e. interviews, or surveys, or ...) with concept illustration methods (i.e. personas, or scenarios, or ...).							
Your work shows iterative development, especially with respect to research forms and prototyping forms.							

Career Theme Track Specific Requirements (Double Weighted)

One of	A+ (10) perfect work, publishable quality, reference quality, no deficiencies	A (8.4) excellent work, near publishable quality, no deficiencies	B+ (6.4) very good work, no deficiencies	B (4.4) good work, average work	C+ (2.4) less than average work, with some merit	C (0.4) poor work, with some merit	F (0) poor work, or no work, with little merit
if you have an interaction design focus, Your work designs, implements, iterates, and reports on working (proof of concept, high fidelity, usability) prototypes.							
if you have a strategic design focus, your work designs, implements, iterates, and reports on a strategic design plan in terms of entrepreneurial viability, technological feasibility, and social desirability,							
if you have a scholarship focus, your work takes the form of a ~8000 word paper in ACM SIGCHI format with no fewer than 50 references from scholarly sources.							

Deficiencies

	Serious - 1.0	Moderate - 0.5	Mild - 0.2
Use of photographs, illustrations, video, or diagrams that you yourself did not create, even if clearly attributed, under most circumstances.			
Nearly any form of plagiarism, including but not limited to self-plagiarism, failure to adequately cite, and failure to conscientiously research and/or attribute prior art within reason.			
Failing to attend class, except for documented excused absences (limit 5).			
Failing to show steady progress.			
Failing to take the advice of the instructors seriously.			
Actions that disrupt the class.			
Work that does not follow the specified formats.			

Requirements

number of A+ = ___ * 5.0 =
 number of A = ___ * 4.2 =
 number of B+ = ___ * 3.2 =
 number of B = ___ * 2.2 =
 number of C+ = ___ * 1.2 =
 number of C = ___ * 0.2 =
 number of F = ___ * 0.0 =
 (R) TOTAL =

Career Theme Requirement

A+ = 10.0
 A = 8.4
 B+ = 6.4
 B = 4.4
 C+ = 2.4
 C = 0.4
 F = 0.0
 (C) TOTAL =

Deficiencies

number of serious = ___ * 1.0 =
 number of moderate = ___ * 0.5 =
 number of mild = ___ * 0.2 =
 (D) TOTAL =

Final Grade

$((R + C) / (|R| + |C|)) - D =$

Accommodations & Feedback

We welcome your feedback. We will do our best to accommodate specific requests if they are reasonable and have merit.

Academic Misconduct

The class is morally and procedurally bound by IU's policies on academic misconduct, the details of which you can read about at the following website: <http://www.indiana.edu/~code/code/index.shtml>

Religious Observance

In accordance with the Office of the Dean of Faculties, any student who wishes to receive an excused absence from class must submit a request form available from the Dean of Faculties for each day to be absent. This form must be presented to the course professor by the end of the second week of the semester. A separate form must be submitted for each day. The form must be signed by the instructor, with a copy retained by instructor, and the original returned to the student. Information about the policy on religious observance can be found here: <http://www.indiana.edu/~vpfaa/holidays.shtml>

English

If English is not your native language or you are otherwise shy about speaking in class, please do not worry. You will not be penalized in any way for making contributions to the class in less than perfect English or for taking time to compose your answers. You are welcome to say what you want to say in your language of choice first and then ask for help from others to translate to English. I will frequently emphasize to the class the need for all of us to be supportive of each other when it comes to contributing to the discussions. There is no need to feel rushed when responding to questions in class—an important part of the class is the construction of a feeling of community with the faculty and your peers.

Classroom Behavior and Timeliness

We expect everyone to conduct her or himself in a professional manner during class. That includes showing up to class on time. It also means treating others with respect, even if you disagree with them.