Meaning & Form
(Human-Computer Interaction Design II)

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Kevin Makice, Associate Instructor

Introduction
This course helps you build competence in the foundations of Human-Computer Interaction Design (HCI/D). The field of Human-Computer Interaction (HCI) has origins primarily in computer science and cognitive psychology. Nowadays, it also exists in a confluence with design as a discipline that owes to traditions of art, architecture, product design, and communications design. There is an extensive literature about HCI and much of it is collected in the HCI Bibliography (http://hcibib.org/) and the Association for Computing Machinery (ACM) digital library (http://portal.acm.org/dl.cfm). This course takes a very design-oriented perspective on HCI/d.
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Textbook
There is no required textbook for this course; however, it is assumed that you have read a standard text in HCI such as:


If you have not, you should read this textbook (or a similar one) to acquire basic knowledge for this course.

Structure
The structure of this class is different from others you may have taken. You will be asked to complete a weekly assignment in the form of a design challenge. The number of design challenges is equal to the number of substantive weeks in the course. Expect each design challenge assignment to take about six hours to complete, as a rough guide.

There are no exams in this class.

The design challenges are of two sorts, namely (i) design research projects which require you to find and critique existing designs or otherwise understand the motivations and behaviors of people, and (ii) design concept projects which require you to use the design research you have undertaken to create conceptual designs that delight and elevate people and life.

Design Challenge Themes
There are several themes that form the content for a paired design research project and design concept project as shown in the schedule that appears earlier in this document. The schedule is a draft schedule. The actual design challenge themes may include such research and concept pairs as:
- Time Keeping & Time Telling Systems
- Comfort & Climate Control Systems
- Music Enjoyment & Music Discovery Systems
- Sustainability & Personal Carbon Calculator Systems
- Travel & Travel Memories Preservation Systems
- Food & Food Advisor Systems
- Imagery & Image Sharing Systems
- Diversity & Community Awareness Systems
- Wayshowing & Digital Signage Systems
- Mobility & Mobile Applications Systems,...

Details of how to interpret these themes will be provided in Tuesday classes. I reserve the right to and very likely will substitute some of these themes with some others during the course of the semester, in order to tailor the assignments based on particular class interests and class experience in practice.

Tuesdays
On Tuesdays, we will meet all together in with the following regular Agenda under normal circumstances:
- 4:00-4:10 Introduction
- 4:10-4:55 Final Round Critique Competition for the preceding week’s design challenge
- 4:55-5:15 Foundational background & new design challenge assignment details

The assignments are in two parts—a sketch that needs to be prepared for the Thursday class of the same week, and a final form completed assignment. Completed assignments are due on or before the start of class on Tuesdays. Late assignments will not be accepted except in strict accordance with University policies. Assignments will be posted online on Tuesdays, after they have been described in class.
**Thursdays**
On Thursdays, you will meet with Associate Instructor Kevin Makice:
1. You will briefly present your design challenge sketch to the class,
2. Everyone will engage in discussion about the weekly design challenge assignment, and
3. The AI will select 6 representatives for the Final Round Critique Competition on the following Tuesday using a merit based process that will be explained in class.

**Grading**
You will assemble your work each week into a print form and digital form to be specified. Your weekly final work is due on the Tuesday of the week following its assignment (and the sketch is due on the preceding Thursday). We will assign a grade at the end of the semester based on your entire portfolio of work, which you will need to submit in both print and digital forms. Your final portfolio will include all of your assignments from the semester. You may modify your individual assignments for the final portfolio, but only if you have made a good faith effort on each particular assignment in the week when it was due—you are not permitted to include assignments in your final portfolio where you have missed the original due date. The grade will take into account your participation in the class and especially how well you do in the weekly competition. If you win or place in at least two of the weekly competitions, you are likely to receive an A grade. If you never win or place in any weekly competition, you are unlikely to receive an A grade.

Some of the criteria that will be used to grade your individual work will include:
- Aesthetic and visual literacy (how well do the artifacts communicate the design explanation)
- The range of exploration (making sufficient predispositions, choosing the best of multiple concepts)
- The clarity of how the design challenge was operationalized (well-defined interpretation)
- The strength of the design explanation (how grounded are the decisions)
- How well and conscientiously you have attributed the work of others

**Doing Your Own Work and Sharing and Attributing Others**
In this class, your assignments are individual. However, you are welcome to work in groups with others and encouraged to share your ideas with others. In the real world, it is important to build on the work of others. When you present or submit your work, you need to be prepared to give an account of what part of a design concept or research is your own work and which part was inspired or informed by the work of others. You must properly attribute the work of others.

If you work with others and share ideas and properly attribute the contributions of others and are clear and truthful about the way you have added value and conducted your own synthesis, you will tend to be rewarded with better grade evaluations.

On the other hand, if you use the work of others without attribution and acknowledgement, you will be subject to academic sanctions concerning plagiarism with all deliberate intent. **Acts of plagiarism—using the work of others without attribution or reusing your own work without attributing prior use—will be subject to a zero-tolerance policy in this class.** If you believe that someone else in the class has used your work without attributing you, please talk to the instructor or one of the AIs.

**Digital Photography & Other Tools**
At the time I write this, IU has worked out a special licensing arrangement with Adobe and students can now download Adobe software from [http://iuware.iu.edu](http://iuware.iu.edu) using your student IU login for your own educational use. You can also access [http://lynda.com](http://lynda.com) from [http://iuware.iu.edu](http://iuware.iu.edu), which provides instruction for how to use Adobe tools. There are a lot of Adobe software tools worth mastering, but especially Photoshop CS4 Extended, Acrobat 9 Pro, Illustrator CS4, Flash CS4 Professional, and Dreamweaver CS4 are useful tools for doing the assignments in this course. Also of interest may be: Adobe Photoshop Elements, Photoshop Lightroom, and Premiere Elements. You will also want to master
either Microsoft PowerPoint (available from iware) or Apple Keynote (http://www.apple.com/iwork/keynote/). You are expected to learn these tools on your own using the instructions that come with the software or any of the myriad of self-tutor books on the topics, but this class is an opportunity to learn-by-doing in practicing your use of these tools.

You will also want to have a digital camera, since use of imagery to express your design ideas or conduct observational design research is particularly germane to this course. I will attempt to include as much content about how to improve your digital image making in this course as I possibly can. In general, any digital camera will do for our purposes. If you are ambitious about digital photography within and beyond the scope of this class, I recommend you purchase a camera with reasonable manual control capabilities, raw mode files, and wide angle lens capabilities. These are—roughly in order: Leica D-Lux 4, Panasonic Lumix DMC-LX3, Ricoh GR Digital III or II or I, Olympus PEN E-P1 or E-P2, Canon PowerShot G11 or G10, Sigma DP1 or DP2, and there are others. Some of these manufacturers have student discount purchase programs. These are all compact cameras. I do not recommend buying a DSLR—the cameras I list are preferable for our purposes. More important than which camera you have, you should acquire and use a decent tabletop tripod and hot shoe mount spirit level.

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**Office Hours**
By appointment. Send an email to the Instructor or an Associate Instructor to make an Appointment. In general, you should try to seek help or assistance from the AIs first, before contacting the Instructor. However, my door is open to you.

**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.

**Laptops**

In order to encourage you to read on screen, rather than print the resources out on paper, you will be permitted to use laptops in class. The expectation is that you will use the laptops to look up things that are relevant to class. Please do not use the laptops to do things that are not related to the class. If the AIs or the instructor notices that you are doing things on your laptop unrelated to the class, you may lose your attendance point for that day.