

# Syllabus

## INLS 718 User Interface Design (3 credits), Spring 2023

**Instructor:** Fei Yu ([feifei@unc.edu](mailto:feifei@unc.edu))

**Class Mode:** Remote-only instruction (Synchronously and asynchronously)

**Schedule:** Online class session on Thursdays 5:45 to 7:15 PM

**Office Hours:** By appointment

**Prerequisites:**

*INLS582, System Analysis; INLS382, Information Systems Analysis and Design; or permission of instructor*

**Course Description**

*INLS718* introduces fundamental design principles relevant to the design of the human interface to computer-mediated information systems. The major topics include universal design principles, user research methods, the characteristics of tasks supported by information systems, user interface design process, and methods for evaluating an interface design.

This course is designed to prepare students to participate in the design of information system interfaces. It focuses on analyzing and designing the functions that systems perform. *INLS718* also introduces the methods used in the evaluation of system interfaces. This course is a prerequisite for *INLS818, Seminar in Human-Computer Interaction*.

This is not a programming class although UI/UX designers usually work closely with software engineers or application developers; this is not a graphic design class either although graphic design tools or skills can facilitate the prototyping process.

**Course Objectives**

- Students develop familiarity with UI design concepts, terminologies, principles, theories, framework, and practice;
- Students can apply proper principles, theories and methods to their UI/UX research and gain hands-on experience in system design;
- Students know how to effectively evaluate UI/UX design and generate evaluation deliverables;
- Students walk through the whole system design process and develop an ability to interact with others to achieve goals;
- Students master one or two important prototyping tools and apply them to their class projects;
- Students know how to create/improve technology experience for all people, especially those underrepresented, disabled, or in adversity with a professional attitude towards their responsibilities;
- Students understand the personal and social nature of UI design including better understanding themselves, aesthetics, values and limitations of their own experience and develop a deeper understanding of people who live in social situations very different from them.

**Textbooks:** (Different versions are accepted)

1. Lidwell, W., Holden, K., Butler, J., & Elam, K. (2010). **Universal principles of design: 125 Ways to enhance usability, influence perception, increase appeal, make better design decisions, and teach through design.** Beverly, Mass: Rockport Publishers.
2. Krug, S. (2014). **Don't make me think, revisited: A common sense approach to Web usability.** Indianapolis: New Riders
3. Sharp, H., Rogers, Y., & Preece, J. (2015). **Interaction design: Beyond human-computer interaction.** Chichester: John Wiley.

### Class Structure

The class sessions are online only with a combination of synchronous and asynchronous modes.

**Asynchronous mode:** students are expected to complete the following before-class activities specified in weekly lesson modules: (1) to watch a short instruction video for the week; (2) to read assigned weekly readings including textbook chapters and research/industry articles; (3) to take a short quiz. In addition, this class encourages each student to create and maintain a personal website (e.g., [tarheels.live](http://tarheels.live)) and record weekly design reflection.

**Synchronous mode:** students are expected to attend the weekly synchronous online session (1.5 hours) during which they will participate in class lectures and discussion.

### Recommended Prototyping Software

Each student needs to use **at least three** different prototyping tools for their class activities, assignments, and final project. The recommended tools include but are not limited to: Adobe XD, Axure, Sketch, Figma, and PowerPoint. It is the student's responsibility to manage access to the software through trials or purchase.

### Course Requirement

Requirement	% of total grade
Weekly online attendance (individual)	15%
Class participation (individual) <ul style="list-style-type: none"><li>• Weekly quiz</li><li>• Class discussion</li></ul>	15% <ul style="list-style-type: none"><li>• 10%</li><li>• 5%</li></ul>
Three Mini-design projects & presentations (group) <ul style="list-style-type: none"><li>• Mini-design #1</li><li>• Mini-design #2</li><li>• Mini-design #3</li></ul>	20% <ul style="list-style-type: none"><li>• 6%</li><li>• 6%</li><li>• 8%</li></ul>
Assignments (group) <ul style="list-style-type: none"><li>• Homework 1</li><li>• Homework 2</li><li>• Homework 3</li></ul>	35% <ul style="list-style-type: none"><li>• 5%</li><li>• 10%</li></ul>

• Homework 4	<ul style="list-style-type: none"> <li>• 10%</li> <li>• 10%</li> </ul>
Class project presentation & final report (group)	5% & 10%

### Grading

Undergraduate Students		Graduate Students	
Grade	Range	Grade	Range
<b>A</b>	90-100	<b>H</b>	95-100
<b>B</b>	80-89	<b>P</b>	80-94
<b>C</b>	70-79	<b>L</b>	70-79
<b>D</b>	60-69	<b>F</b>	69 or below
<b>F</b>	59 or below		

### Schedule

Please regularly check the Sakai site for the weekly schedule and assigned readings because course schedule may change. I reserve the right to make changes to the syllabus, including project due dates and test dates. These changes will be announced as early as possible.

Class	Date	Topic	Assignment	Reading
1	Jan. 12	Introduction	H1 Release	<b>Sharp</b> (Ch1.3 What is Interaction Design? 1.4 The User Experience; 1.6.3 Design Principles; 2.5 Interaction Types) <b>Lidwell</b> (p.14, 22, 54, 56, 60, 82, 104, 250)
2	Jan. 19	Design process	1 <sup>st</sup> mini-design announcement	<b>Sharp</b> (Ch9.2 What is involved in interaction design; 12.2 AgileUX) <b>Lidwell</b> (p.66, 68, 72, 74, 102, 142, 150, 160, 168, 210) Adobe XD
3	Jan. 26	User study intro	H2 Release	<b>Sharp</b> (Ch3.2 What is Cognition? 3.3.3 Information Processing) <b>Lidwell</b> (p.26, 32, 34, 62, 104, 128, 136, 138, 200, 242) <b>Krug</b> (Ch1) Adobe XD

4	Feb. 2	User research methods	H1 due	<p><b>Sharp</b> (Ch7 Data Gathering, 10.4 Data Gathering for Requirements)</p> <p><b>Lidwell</b> (p. 42, 46, 70, 88, 94, 132, 226, 228, 240)</p> <p><b>Krug</b> (Ch2)</p>
5	Feb. 9	Data analysis & Persona	<p>1<sup>st</sup> mini-design due</p> <p>2<sup>nd</sup> mini-design announcement</p>	<p><b>Sharp</b> (Ch8 Data analysis, Interpretation, &amp; Presentation, 10.3 What are requirements, 10.5 Data analysis, Interpretation, &amp; Presentation)</p> <p><b>Lidwell</b> (p. 36, 38, 44, 90, 104, 106, 112, 166, 182,186, 198)</p> <p><a href="#">Stakeholder Analysis for UX projects</a></p> <p>Figma</p>
6	Feb. 16	Conceptual model	H3 Release	<p><b>Sharp</b> (Ch3.3 Cognitive Framework; 11.3 Conceptual Design)</p> <p><b>Lidwell</b> (p. 22, 84, 108, 116, 126, 152, 154)</p> <p>Figma</p>
7	Feb. 23	User tasks & User Journey	H2 due	<p><b>Sharp</b> (Ch10.6 Task Description; 10.7 Task Analysis; Ch8.6.3 Activity Theory)</p> <p><b>Lidwell</b> (p. 50, 52, 120, 166, 172, 174, 246)</p> <p><b>Krug</b> (Ch)</p>
8	Mar. 2	Information architecture	<p>2<sup>nd</sup> mini-design due</p> <p>3<sup>rd</sup> mini-design announcement</p>	<p><b>Lidwell</b> (p. 18, 40, 86, 100, 108, 122, 140, 146, 188, 190, 216, 260)</p> <p><b>Krug</b> (Ch4, 6); <a href="#">Web Style Guides: Ch. 4</a></p>
9	Mar. 9	Aesthetics	H4 Release	<p><b>Lidwell</b> (p. 20, 44, 48, 96, 114, 116, 124, 176, 194, 202, 226)</p> <p><b>Krug</b> (Ch5, 7)</p> <p><a href="https://www.nngroup.com/books/emotional-design/">https://www.nngroup.com/books/emotional-design/</a></p>
	Mar. 16	No online class meeting (Spring Break)		

10	Mar. 23	Prototyping	H3 due	<b>Sharp</b> (Ch11.2 Prototyping) <b>Lidwell</b> (p. 92, 110, 162, 170, 180, 194, 244) <b>Krug</b> (Ch3)
11	Mar. 30	Usability & Evaluation methods	3 <sup>rd</sup> mini-design due	<b>Sharp</b> (Ch13 Introducing evaluation) <b>Lidwell</b> (p. 60, 98, 204, 214, 220, 222, 236, 262) <b>Krug</b> (Ch 8-9)
	Apr. 6	No online class meeting (UNC Well-Being Day)		
12	Apr. 13	Usability evaluation session	H4 due	<b>Sharp</b> (Ch14 Evaluation Studies) Krug (Ch10-11) <a href="#">NNG video</a>
13	Apr. 20	Evaluation deliverables		<b>Sharp</b> (Ch15 Evaluation: Inspections, Analytics, and Models); <b>Lidwell</b> (p. 16, 76, 130, 152, 156, 184, 206, 208, 238, 248) <b>Krug</b> (Ch 12)
14	Apr. 27	Web standards, accessibility, & style guide	Class Project Presentation	<b>Krug</b> (Ch 13) <a href="#">7 Steps to benchmark your product's UX</a>
	May 4	Class Project Report Due		

## Absence

No right or privilege exists that permits a student to be absent from any class meetings, except for these University Approved Absences: (1) authorized University activities; (2) disability/religious observance/pregnancy, as required by law and approved by [Accessibility Resources and Service](#) and/or the [Equal Opportunity and Compliance Office \(EOC\)](#); (3) significant health condition and/ or personal/family emergency as approved by the [Office of the Dean of Students](#), [Gender violence Service Coordinators](#), and/ or the Equal Opportunity and Compliance Office (EOC).

This is a once-a-week class, and a lot of contents and discussions are packed into each session. If you miss a session, you will miss a lot. If you have more than 2 online absences (or any unexcused absences), your attendance and participation grade will decrease by 25% for every subsequent absence. Please communicate with me early about potential absences. Please be aware that you are bound by the [Honor Code](#) when making a request for a university approved absence.

## Writing Skills and Citation Information

Strong written communication skills are critical in both academia and the workplace. Your responses to assignments must be well-organized, clear, concise, free from grammatical errors, original, and corrected cited. Students who have questions about their writing, or who want to improve their writing are encouraged to contact the [Writing Center](#) which has many excellent resources to help you with your writing.

I do not require a single specific style of citation, although you are welcome to use an established citation style like Chicago or APA. My **main priority** is that I can access the same resources that you used based on the citation you provided. This means providing the unique identifiers of your source, which include:

- Author (this can be an individual or an organization such as Kaiser Family Foundation).
- Year of publication.
- Title of publication.
- If you accessed the resource online:
  - Date of access (the date that you viewed the website).
  - A link to the resource.
- If you are referencing a journal article, in addition to the online citation, please also include the journal name, volume, pages, etc.

Put your full references at the end of your document, and some short unique identifier (either author, year, or a number) after the part of your writing that is being cited. For example, if I were citing the Kaiser Overview of Health Reform, in the text I would write:

*Most U.S. citizens are now required to have some form of health insurance coverage (Kaiser Family Foundation, 2010)*

Or I could also write:

*Most U.S. citizens are now required to have some form of health insurance coverage (1).*

Then, at the end of my answer, I would put (with any other references that I had used):

1. Kaiser Family Foundation. (2010). *Overview of Health Reform*. Retrieved May 13, 2013 from <http://www.kff.org/healthreform/8061.cfm>

Don't worry too much about the details of the citation format beyond what I mentioned here. The priority is just to get you in the habit of citing your sources. Many fields and departments have a specific citation format that they prefer, and you can use this to practice, or plan to learn it later when it becomes necessary.

## Due Dates and Late Work

The homework assignments are normally due on Thursdays before 5:45 PM. A late penalty of 10% per day will be applied unless prior arrangements have been made with the instructor. Students are highly encouraged to submit their homework even if it is late.

### **Sakai**

We will use Sakai for Course Materials and Homework Assignments, and the Class Project Deliverable. It is the responsibility of each student to make sure they have access to Sakai and can submit assignments when they are due. If for some reason you are unable to submit an assignment to Sakai, you may email it to me along with a note about the problem you encountered.

### **Honor Code**

Faculty and students at the University of North Carolina at Chapel Hill adhere to their Code of Student Conduct. Accordingly, you all should recognize that most software applications available in the computer lab are copyrighted and cannot be copied. We can learn much from each other and we will do that. I expect each of you to help each other. We'll discuss what we expect in terms of cooperative, collaborative, shared work and the honor code.

The code of student conduct

It shall be the responsibility of every student at The University of North Carolina at Chapel Hill to obey and support the enforcement of the Honor Code, which prohibits lying, cheating, or stealing when these actions involve academic processes or University, student or academic personnel acting in an official capacity.

It shall be the further responsibility of every student to abide by the Campus Code; namely, to conduct oneself so as not to impair significantly the welfare or the educational opportunities of others in the University community.

The University of North Carolina at Chapel Hill facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability or pregnancy complications resulting in barriers to fully accessing University courses, programs and activities.

### **Diversity Statement**

I value the perspectives of individuals from all backgrounds reflecting the diversity of our students. I broadly define diversity to include race, gender identity, national origin, ethnicity, religion, social class, age, sexual orientation, political background, and physical and learning ability. I strive to make this classroom an inclusive space for all students. Please let me know if there is anything I can do to improve, I appreciate suggestions.

### **Accessibility Resources**

The University of North Carolina at Chapel Hill facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability or pregnancy complications resulting in barriers to fully accessing University courses, programs and activities. Accommodations are determined through the Office of Accessibility Resources and Service (ARS) for individuals with documented qualifying disabilities in accordance with applicable state and federal laws. See the ARS Website for contact information: <https://ars.unc.edu> or email [ars@unc.edu](mailto:ars@unc.edu).

