

Syllabus

INLS 718 User Interface Design (3 credits)

Instructor: Fei Yu (feifei@unc.edu)

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

Schedule: Online class session, 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 students to the methods used to evaluate 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, although graphic design tools or skills can facilitate the prototyping process.

Course Objectives

- Students develop familiarity with UI design concepts, terminologies, principles, theories, frameworks, and practices.
- Students can apply proper principles, theories, and methods to their UI/UX research and gain hands-on experience in system design.
- Students can effectively evaluate UI/UX design and generate evaluation deliverables.
- Students walk through the 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 a better understanding of themselves, aesthetics, values, and limitations of their own experience, and develop a deeper understanding of people who live in social situations very different from theirs.

Textbooks: (Different or old versions are acceptable.)

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

This course is delivered exclusively online, utilizing a blend of synchronous and asynchronous teaching methods to provide a comprehensive and flexible learning experience.

- **Asynchronous mode:** In this mode, students are expected to engage in a variety of pre-class activities outlined in the weekly lesson modules, including (1) a short instruction video designated for each week; (2) assigned weekly readings, which encompass textbook chapters and research papers; and (3) a short quiz to assess understanding of the week's material. In addition, students are strongly encouraged to develop and maintain a personal website where they can document and reflect on their weekly design practices. While highly beneficial for learning and portfolio development, creating a personal website is optional and not a course requirement.
- **Synchronous mode:** The synchronous component of the course involves mandatory participation in weekly online sessions, each lasting 1.5 hours. These sessions are integral to the course and feature interactive class lectures, group discussions, and collaborative learning activities. To foster a more engaging online classroom environment, **students must keep their cameras on during these sessions, assuming their internet connection is sufficiently stable.** This practice promotes active participation and enhances the overall learning experience for everyone involved.

Recommended Prototyping Software

For class activities, assignments, and the final project, each student must utilize a minimum of three distinct prototyping software applications. Suggested tools include, but are not limited to, Adobe XD/Figma, Axure, Sketch, and PowerPoint. Students are responsible for securing access to these software applications through free trials or purchases. Additionally, students are encouraged to explore and experiment with the latest artificial intelligence-based prototyping tools to enhance their skill set and project outcomes.

Course Requirement

Requirement	% of Total Grade
Attendance (weekly online meeting)	10%
Class participation	20%
<ul style="list-style-type: none">• Weekly quiz• Class activities & discussion	<ul style="list-style-type: none">• 10%• 10%
Three mini-design projects & presentations	20%
<ul style="list-style-type: none">• Mini-design #1• Mini-design #2	<ul style="list-style-type: none">• 6%• 6%

• Mini-design #3	• 8%
Assignments	30%
• Homework 1	• 5%
• Homework 2	• 7%
• Homework 3	• 10%
• Homework 4	• 8%
Class project presentation & final report	5% & 15%

Grading

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

(*Depending on the latest SILS or UNC graduate school policy, the grading system may change.)

Schedule

Please regularly check the Sakai site for the weekly schedule and assigned readings because the course schedule may change. I reserve the right to change 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. 11	Introduction	H1 Release	Sharp (Ch1.3 What is Interaction Design? 1.4 The User Experience; 1.6.3 Design Principles; 2.5 Interaction Types) Lidwell (p.14, 22, 54, 56, 60, 82, 104, 250)
2	Jan. 18	Design process	1 st mini-design announcement	Sharp (Ch1.5 The Process of Interaction Design; 9 The Process of Interaction Design; 12.2 AgileUX) Lidwell (p.66, 68, 72, 74, 102, 142, 150, 160, 168, 210) Adobe XD
3	Jan. 25	User study intro	H2 Release	Sharp (Ch3.2 What is Cognition? 3.3.3 Information Processing)

				<p>Lidwell (p.26, 32, 34, 62, 104, 128, 136, 138, 200, 242)</p> <p>Krug (Ch1)</p> <p>Adobe XD</p>
4	Feb. 1	User research methods	H1 due	<p>Sharp (Ch7 Data Gathering, 10.4 Data Gathering for Requirements)</p> <p>Lidwell (p. 42, 46, 70, 88, 94, 132, 226, 228, 240)</p> <p>Krug (Ch2)</p>
5	Feb. 8	Data analysis & Persona	<p>1st mini-design due</p> <p>2nd mini-design announcement</p>	<p>Sharp (Ch8 Data analysis, Interpretation, & Presentation, 10.3 What are requirements, 10.5 Data analysis, Interpretation, & Presentation)</p> <p>Lidwell (p. 36, 38, 44, 90, 104, 106, 112, 166, 182,186, 198)</p> <p>Stakeholder Analysis for UX projects</p> <p>Figma</p>
6	Feb. 15	Conceptual model	<p>H2 due</p> <p>H3 Release</p>	<p>Sharp (Ch3.3 Cognitive Framework; 11.3 Conceptual Design)</p> <p>Lidwell (p. 22, 84, 108, 116, 126, 152, 154)</p> <p>Figma</p>
7	Feb. 22	User tasks & User journey	2 nd mini-design due	<p>Sharp (Ch10.6 Task Description; 10.7 Task Analysis; Ch8.6.3 Activity Theory)</p> <p>Lidwell (p. 50, 52, 120, 166, 172, 174, 246)</p> <p>Krug (Ch)</p>
8	Feb. 29	Information architecture	H4 Release	<p>Lidwell (p. 18, 40, 86, 100, 108, 122, 140, 146, 188, 190, 216, 260)</p> <p>Krug (Ch4, 6); Web Style Guides: Ch. 4</p>
9	Mar. 7	Aesthetics	<p>H3 due</p> <p>3rd mini-design announcement</p>	<p>Lidwell (p. 20, 44, 48, 96, 114, 116, 124, 176, 194, 202, 226)</p> <p>Krug (Ch5, 7)</p> <p>https://www.nngroup.com/books/emotional-design/</p>

	Mar. 14	Spring break (No class)		
10	Mar. 21	Prototyping		Sharp (Ch11.2 Prototyping) Lidwell (p. 92, 110, 162, 170, 180, 194, 244) Krug (Ch3)
	Mar. 28	Wellness Day (No class)		
11	Apr. 4	Usability & evaluation methods	3 rd mini-design due	Sharp (Ch13 Introducing evaluation) Lidwell (p. 60, 98, 204, 214, 220, 222, 236, 262) Krug (Ch 8-9)
12	Apr. 11	Usability evaluation Practice	H4 due	Sharp (Ch14 Evaluation Studies) Krug (Ch10-11) NNG video
13	Apr. 18	Evaluation deliverables		Sharp (Ch15 Evaluation: Inspections, Analytics, and Models); Lidwell (p. 16, 76, 130, 152, 156, 184, 206, 208, 238, 248) Krug (Ch 12 - 13)
14	Apr. 25	Class project presentation		
	May 2	Class Project report due		

Absence

Students are expected to attend all class meetings, as there is no inherent right or privilege to be absent, except for specific **University Approved Absences**. These include:

- (1) Authorized University activities.
- (2) Absences due to disability, religious observance, or 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).

Since this class meets once a week and each session is densely packed with content and discussions, missing a class can significantly impact your learning experience. It is crucial to understand that if you have more than two online absences or any unexcused absences, your attendance and participation grade will be reduced by 25% for each additional absence. Early communication about potential

absences is important. Please note that when requesting a university-approved absence, you are subject to the standards of the [Honor Code](#).

Writing Skills and Citation Information

Strong written communication skills are essential in both academic and professional settings. When submitting assignments, your responses must adhere to the following criteria. If you need any assistance with your writing or wish to improve it, you are encouraged to utilize the resources available at the [UNC Writing Center](#).

- Well-organized: Your writing should have a clear structure, making it easy to follow your arguments or explanations.
- Clarity: Your ideas should be expressed straightforwardly and understandably.
- Conciseness: Be direct and to the point, avoiding unnecessary elaboration.
- Grammatical Accuracy: Ensure your writing is free from grammatical errors.
- Originality: Your work should be your own, showcasing your unique perspective and understanding.
- Correct Citation: Properly cite all sources to acknowledge the work of others and avoid plagiarism.

While I do not mandate a specific citation style, such as Chicago or APA, your citations must be complete enough to allow me to locate the same resources you used. Your citations should include:

- Author: This could be an individual or an organization such as Kaiser Family Foundation.
- Year of publication.
- Title of publication.
- If accessed online, also include:
 - Date of access: the date that you viewed the website.
 - URL: A direct link to the resource.
- If citing a journal article, include the journal name, volume, and page numbers in addition to the article title.

Place your full reference at the end of your document. In the text, use a short identifier (either author, year, or number) for in-text citations. For example,

- In-text Citation Example 1

"A significant proportion of U.S. citizens are now required to have health insurance (Kaiser Family Foundation, 2010)."

At the end of the document, provide the full reference:

Kaiser Family Foundation. (2010). *Overview of Health Reform*. Retrieved May 13, 2023, from <http://www.kff.org/healthreform/8061.cfm>

- In-text Citation Example 2:

"A significant proportion of U.S. citizens are now required to have health insurance [1]."

At the end of the document, provide the full reference:

[1]. Kaiser Family Foundation. (2010). *Overview of Health Reform*. Retrieved May 13, 2023, 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 to develop the habit of citing your sources appropriately. Many academic fields and departments have preferred citation formats, which you can learn and practice.

Due Dates and Late Work

The homework assignments are normally due on Thursdays before 5:45 PM. Assignments submitted past the deadline will incur a late penalty of 10% per day unless prior arrangements have been made with the instructor.

Despite the late penalties, students are highly encouraged to submit their homework assignments even if they are late. Completing the assignments contributes to your learning and understanding of the course material.

If you anticipate difficulties meeting a deadline, please contact me as early as possible to discuss potential accommodation.

Sakai

We use Sakai for Course Materials, Homework Assignments, and the Class Project Deliverables. It is the responsibility of each student to make sure they have reliable access to Sakai and can submit assignments by the specified deadlines. If you encounter technical issues with Sakai that prevent you from submitting an assignment, you may email the assignment directly to me along with a note explaining the specific issues you encountered with Sakai.

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 regarding cooperation, collaboration, 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 significantly impair 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 as 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. Accommodation is 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>