User Experience Design

CEN 4722

Class Periods: Mondays, Wednesdays, and Fridays, 7th period, 1:55 PM - 2:45 PM

Location: CSE E121 **Academic Term:** Spring 2023

Instructor:

Benjamin Lok lok@ufl.edu

Office Hours: Mondays, 12:50 am - 1:40 am (6th period), CSE 544

Teaching Assistant/Peer Mentor/Supervised Teaching Student:

Please contact through the Canvas website

• Heng Yao, hengyao1993@ufl.edu, TBD

Course Description

Catalog description. Introduces methods and tools used in User Experience Design (UXD): the early stages of software design focused on meeting user needs. Key concepts include user research, contextual design, design thinking, ideation, iterative design, prototyping, and design documentation. Projects utilize software tools used in the industry. Credits: 3.

Notes. No prior design experience is necessary for this class. This course will require students to work on a final group project designing to solve using computing an identified problem. Developers with experience in UX/UI design methods are in high demand in today's software industry, and the projects students work on in this course will strengthen their portfolios. This is the undergraduate version of the UX Design course.

Course Pre-Requisites / Co-Requisites

COP 3530. Communicate with the instructor if you want to discuss the adequacy of prior training. A recommendation for student background is familiarity with technology and computing, similar to that obtained with a computing, engineering, or technical undergraduate degree.

Course Objectives

By the end of this course, students should be able to:

- Define the term "user experience design" and identify how it fits into the software development lifecycle.
- Understand key concepts in interaction design
- Critically analyze technologies in terms of the concepts of interaction design
- Conduct *exploratory* user experience design activities to understand a design space when designing a new user interaction.
- Conduct *generative* user experience design activities to creatively fill user needs when designing a new user interaction.
- Conduct *refining* user experience design activities to select and iteratively improve a design concept for new user interaction.
- Participate effectively in *design critiques*, and be able to use this experience to be a more effective design team member.
- Design and produce an *interactive prototype* of a complete design concept to present to a client for a new user interaction.

Materials and Supply Fees

A fee is charged for the course for materials provided to students for class activities.

Required Textbooks and Software

No textbook is required for this course. Weekly readings in the form of textbook chapters and online resources will be posted to the course website up to three weeks prior to the due date. Students will be responsible for accessing the readings and downloading any relevant links provided.

Recommended Materials

Many readings for the course will be taken from the following books. Students may choose to purchase their own copy of one or more of these textbooks to read beyond the scope of the course. This may be especially useful for students considering UX/UI careers, which make heavy use of UXD methods and concepts.

- Interaction Design: Beyond Human-Computer Interaction, by Rogers, Sharp, and Preece, John Wiley & Sons. ISBN-10 # 0470665769
- The Design of Everyday Things, by Norman, ISBN-10 # 0465050654
- The UX book: process and guidelines for ensuring a quality user experience, by Hartson, R., & Pyla, P. S. Elsevier.

Other useful books:

- Sketching User Experiences: Getting the Design Right and the Right Design, by Buxton, ISBN-10 # 0123740371
- Sketching User Experiences: The Workbook, by Greenberg, Carpendale, Marquardt, and Buxton, ISBN-10 # 0123819598
- Designing for Small Screens: Mobile Phones, Smart Phones, PDAs, Pocket PCs, Navigation Systems, MP3 Players, Game Consoles, by Studio 7.5, Zwick, and Schmitz, ISBN-10 # 2940373078

Course Schedule (Recorded video to watch before class)

Tools Phase

Week 1 (Course Intro Week):	Course Introduction and SyllabusIntroduction to UXD	
Week 2 (UXD overview week):	 1/16 MLK Jr. Day - NO CLASS Usability & User Experience History of Usability 	User Experience and Experience Design
Week 3 (Theory Week):	Process ModelsDesign Critiques	First Principles of Interaction Design Gestalt Principles (1) Gestalt Principles (2) Gestalt Principles (3)
Week 4 (Set-up for project week):	Interaction ConceptsGestalt Principles	<u>Design Critiques</u>

Individual Phase

Week 5 (Cycle 1):	User Interviews lecture (Mock interview) • Lean Business Canvas • Design Licenses • Plagiarism	<u>User Interviews</u>
Week 6:	Conducting User Interviews	
Week 7 (Cycle 2):	Affinity Diagramming (In-class Diagram with all data)	Affinity Diagramming Thematic Analysis
Week 8:	Conducting User InterviewsForm Teams	

Group Phase

Week 9 (Cycle 3):	User needs, Personas	<u>User Needs</u> <u>3 Persona Types</u>
Week 10:	Spring Break	
Week 11:	Scenarios, Storyboards (Make a storyboard on Storyboard.that)	Scenarios Storyboards
Week 12 (Cycle 4):	Task Flows, and Wireframes	Wireframing Wireflows
Week 13:	Low-fidelity prototyping, and Paper prototyping (Miro/Figma)	UX Prototypes: Low Fidelity vs. High Fidelity
Week 14 (Cycle 5):	Interactive prototyping user testing with Dynamic Prototyping (Miro/Figma)	Quantitative vs. Qualitative Usability Testing
Week 15:	TBD	
Week 16:	Cycle 4 - Client showcase	

Students are expected to attend all classes. If a student misses a session and is unable to provide the documentation required for an excused absence, the student will need to consult with other members of the class to determine what was missed and to request guidance from the instructor regarding missed content. There is no provision for making up missed class participation credit for an unexcused absence.

Excused absences must be consistent with university policies in the Graduate Catalog (https://catalog.ufl.edu/graduate/regulations) and require appropriate documentation. Additional information can be found here: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/

Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
In-class activities	20	20%
Reading Quizzes	30	30%
Team Project	50	50%
		100%

Grading Policy

The following is given as an example only.

Percent	Grade	Grade
		Points
91.5 - 100	Α	4.00
89.5 - 91.4	A-	3.67
87.5 - 89.4	B+	3.33
81.5 - 87.4	В	3.00
79.5 - 81.4	B-	2.67
77.5 - 79.4	C+	2.33
71.5 - 77.4	С	2.00
69.5 - 71.4	C-	1.67
67.5 - 69.4	D+	1.33
61.5 - 67.4	D	1.00
59.5 - 61.4	D-	0.67
0 - 59.4	Е	0.00

Late Assignments

There is a 10% penalty for submissions that are late (maximum 48 hours after the initial deadline). Requests for extreme circumstances must be requested in writing preferably before the due date. Requirements for class attendance are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx."

Incompletes

Incompletes will not be granted except under previous agreement of the professors. To be considered for an incomplete, the student *must* 1) let a professor know in advance that they are seeking an incomplete, and 2) provide documentation to support the request.

More information on UF grading policy may be found at: UF Graduate Catalog Grades and Grading Policies

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor. A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session. Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://sccr.dso.ufl.edu/process/student-conduct-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Commitment to a Safe and Inclusive Learning Environment

The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:

- Your academic advisor or Graduate Program Coordinator
- Jennifer Nappo, Director of Human Resources, 352-392-0904, jpennacc@ufl.edu
- Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
- Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: https://registrar.ufl.edu/ferpa.html

Campus Resources:

Health and Wellness

U Matter, We Care:

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: https://counseling.ufl.edu, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Discrimination, Harassment, Assault, or Violence

If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the <u>Office of Title IX Compliance</u>, located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, <u>title-ix@ufl.edu</u>

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or http://www.police.ufl.edu/.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.

Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling; https://career.ufl.edu.

Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. https://teachingcenter.ufl.edu/.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. https://writing.ufl.edu/writing-studio/.

Student Complaints Campus:

https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/;https://care.dso.ufl.edu.

On-Line Students Complaints:

https://distance.ufl.edu/state-authorization-status/#student-complaint.