ART385/ART793 Advanced Topics/Graphic Design

UI/UX Design

Course Information

- **Meeting time**: Tu Th 3:00PM - 5:15PM

- **Location:** Zoom / Renaissance Hall, Room 310

- **Instructor:**

    Aaron Yang
    zhenhua.yang.1@ndsu.edu
    Office Hours by appointment

Course Overview

User Experience and User Interface Design is one of the most popular topics in the design area. A successful product can accurately meet users' needs and provide an excellent user experience. In this course, we will explore user research and digital product design methodologies. The tasks include interview and survey, user needs analysis, wireframing, prototyping, testing, and visual design. What you will learn in this course does not only help you make satisfying web or mobile applications. More importantly, it provides you with an approach to discover and solve problems in broader areas.

Communication

- Instructors will utilize the following tools to notify students of updates and changes:
    - NDSU e-mail system (please check your NDSU e-mail account frequently);
    - Google Classroom Announcements
      (https://classroom.google.com/u/2/c/NDg1MDg1NTUxOTBa).

- Students may contact the instructor with questions or concerns by utilizing:
    - NDSU e-mail system – the instructor will respond within 24 hours;
    - Office hours – students may drop by the instructor's office within the office hours as posted at the beginning of the syllabus.

Equipment and supplies needed in this course

Computer (Mac or PC)
Drawing supplies,
Sticky notes,
Smart phone, etc.

Software

Prototyping tool: Adobe Experience Design (XD)
Online collaboration tool: Miro

Suggested Readings

We don't have specific textbook in this course. Following books are recommended for you.

- *The Design of Everyday Things: Revised and Expanded Edition*, by Don Norman, 2013
- *Don't Make Me Think, Revisited: A Commonsense Approach to Web Usability* (3rd Edition), by Steve Krug, 2014
- *The Elements of User Experience: User-Centered Design for the Web*, by Jesse James Garret, 2010
- *Designing Interfaces*, by Jenifer Tidwell, 2019

Course Project

In this semester, you will complete two design projects in a team. You are required to submit what you have done each week.

Individual Assignment

This is a practice or a mini project on what you will learn in the lectures and reading materials.

Course Outline

The following is a tentative schedule – the instructor reserves the right to make changes as necessary to the schedule and will notify students via Blackboard of these changes. It is YOUR responsibility to stay on time with your assignments.

The required course work would include class exercises and one course project. The class exercises are required to be done during the class time and the course project could be done in class or at home. The students must submit the updated part of the project every week, according to the schedule. ==The deadlines are the midnight (11:59pm) of each Sunday unless specified==.

---

1. Week 1. Overview of User Experience Design and User Research

Tue: Introducing UX and user research
- **Lecture (50min)**:
    - **Intro to the course**: about the instructor, syllabus, google classroom, course website.
    - Terminologies: Design, User Experience, User Interaction, Usability

- o User-centered Design Process
- o Design sprints
- o Introduce the course project
- **Activity (10min)**: Create your team.
- **Group Activity (30min)**: Group discussion and project selection: (1) what do you want to make? (2) what problems are you going to solve?
- **Present & Feedback (If time permits)**: project selection

Thu: Introduction to User Research

- **Lecture (30min)**:
  - o Why user research?
  - o Primary research vs. secondary research
  - o Quantitative research vs. qualitative research
  - o Interview
  - o Usability study (an introduction)
  - o Survey

- **Activity**: Make interview plans
- **Present & Feedback**: Interview plan

Reading:

- *What Does a UX Designer Actually Do?* https://theblog.adobe.com/what-does-a-ux-designer-actually-do/
- *What is your UX process?* https://uxdesign.cc/what-is-your-ux-process-2fa146eb8380

Assignment

- Submit a report about your project topic and target user, then justify your selection.
- Submit your interview plan
- Interview 5 users (due next Wednesday)

2. User Research

Tue: User research 2

- Each team talk about their user interview:
  - o How was it going?
  - o Who did you interview?
  - o What did you learn from their response?
  - o Was there anything surprised you?

- **Lecture (40min)**:
    1. Analyzing user needs.
    2. What are pain points?
    3. Affinity diagram
- **Before Thursday**: finish user interview (5 users).
- **Activity (60min)**:
    o Create an Affinity diagram.
    o Identify pain points

Thu: Personas

- Pain Points and Solutions.
- Create personas
- **Activity**:
    1. Create 3 personas.

Readings:

- *UX Surveys: a quick guide to get the most out of them:* https://uxdesign.cc/ux-surveys-a-quick-guide-to-get-the-most-out-of-them-1889d136be6a
- *Design Thinking Methods: Affinity Diagrams*: https://uxdict.io/design-thinking-methods-affinity-diagrams-357bd8671ad4

Assignment: Project update –interview notes/audios and a photo of the affinity wall, 3 personas

3. User stories, user journey map, and user problems

Tue: User stories and user journey map

- **Lecture (30 min)**:
    1. Craft user stories
    2. Create a user journey map
- **Activity**:
    1. Create user stories (15 min)
    2. Instructors jump into each group to give feedback
    3. Keep working on refining the user story and create user journey map (60 min).
    4. Report the user stories and user journey maps (20 min).
-

Thu: User problems and solutions

- Define problems and hypothesis statements
- Create value proposition.
- **Activity**:

Define problems and hypothesis statements.

- **Assignment**:

-

4. Storyboard and wireframe

Tue: Create Story board

- Create Storyboards

- User flow

- Sketch wireframes

- Demo of creating user flow chart with Miro.

Thu: Create wireframes

- **Before class: Answer to the accessibility assignment**

- **Activity:**
    1. Each team member makes sketches individually.
    2. Present your sketches to your team and justify your design.
    3. Work with your team together and select the best solutions.
    4. Test your solution

Assignment: information architecture, user flow, wireframe sketches

5. Wireframing and low fidelity prototyping in Adobe XD

Tue: Digital wireframes in AD

- introduction to Adobe XD

- Digital wireframes

- **Individual Assignment:** digital wireframe practice

- **Assignment**: Project update and XD files (Teamwork).

Thu: Digital wireframes and prototype

- **Reading**: *UX Design 101: Prototyping Rapidly — Sketching & Wireframes*
  https://blog.prototypr.io/ux-design-101-prototyping-rapidly-sketching-wireframes-65b7dfbabf52
  10 Practical Tips on Sketching Your Wireframes:
  https://www.mockplus.com/blog/post/sketching-your-wireframes

6. Usability Testing and Analyzing

Tue: Lecture of usability testing

- Plan and conduct usability testing

- Interviewing the participants
- Refine your wireframe and prototypes

Thu: Workday. Meet with each team to view prototype and usability testing preparing.

7. Visual design principles and High-fidelity prototype with XD

- Mood board
- Visual design principles: spacing, alignment, sizing, contrast, fonts, information hierarchy
- Create high-fidelity prototype (Note: open "xxx_low-fi" file and save as "xxx_hi-fi" so that your low-fi is not deleted).
- Refine your wireframe and prototypes

8. Test the Prototype and refine your design

Invite guest speakers for the feedback?

9. Project Presentation

- Prepare for the presentation
- Presentation and Critique

10. Spring Break

11. Introduction to the second project

Tue
Project selection: (1) what do you want to make? (2) what problems are you going to solve?

Thu
Lecture: Interview and Survey
Activity: Prepare for the interview / survey.

12. Personas, User Stories and User Journey

Tue
Analyzing user needs and create personas

Thu
Create user stories and user journey maps

13. Low-fi Design

Tue
- user problems
- hypothesis statement (optional)
- value proposition (optional)
- list of features
- storyboards

Thu
- Wireframes and user flow
- ideation

14. Low-fi Prototype and Usability Testing

Tue

Lecture: Layout for web
From wireframe to prototype

Thu
Continue prototype and prepare for testing.

15. Hi-fi Design, mood board, color palette, typography

Tue
Lecture: Responsive Design.
Individual Assignment: Mini project – Design a hi-fi responsive web page

Thu
Project update - mood board, color palette, typography, and icon design/selection

16. Hi-fi Design: Micro Interactions

Tue

- State and changes
- Animation
- Micro interaction
- **Demo**: Creating animation and interaction with Adobe XD
- **Individual Assignment**: Mini project – Interactive prototype

Thu

Working Day

17.   Final Presentation

- Presentation and Critique: 15 minutes per team
- **Assignment**: Final presentation.

18.   Final Week

~~~

Grading

All the assignments and presentations will be graded. We will use a weighted system whereby:

- Participation (attendance, contribution, attitude): 10%
- Course Project: 40%
- Individual Assignment: 30%
- Presentations: 20%

The final grade will simply be based on the NDSU standard percentage grading. Typical grade ranges would be approximately:

- A: 90-100%
- B: 80-89.99%
- C: 70-79.99%
- D: 60-69.99%
- F: Below 60%

Note: The instructor reserves the right to make downward adjustments to the cutoff percentages. The highest grade for each assignment will be used in the final grade calculation.

Grading Criteria

The total score of each assignment is 100. The work will be graded by following criteria:
1. The work is submitted correctly: +60;
2. The work includes all the required items (e.g., number of pages, required design elements, etc.): +30;
3. The work performs required quality: +10;
4. Bonus points: +5;

Score deduction:
1. Nothing submitted: -100;
2. The work is not complete: -5 for each missing item, maximum deduction is 30;

Due Dates & Late Policy

Assignments are due as indicated on the schedule, which can also be found in the Blackboard area of the course. You are given plenty of time to complete the assignment, so timing should not be an issue. **However, should you turn in a project late, there is a deduction of 5% per day; assignments are not accepted after 7 days.**

Attendance Statement

According to NDSU Policy 333 (www.ndsu.edu/fileadmin/policy/333.pdf), attendance in classes is expected. Veterans and student service members with special circumstances or who are activated are encouraged to notify the instructor as soon as possible and are encouraged to provide Activation Orders.

Academic Honesty Statement

The best policy is to not cheat.

The academic community is operated on the basis of honesty, integrity, and fair play. NDSU Policy 335: Code of Academic Responsibility and Conduct applies to cases in which cheating, plagiarism, or other academic misconduct have occurred in an instructional context. Students found guilty of academic misconduct are subject to penalties, up to and possibly including suspension and/or expulsion. Student academic misconduct records are maintained by the Office of Registration and Records. Informational resources about academic honesty for students and instructional staff members can be found at www.ndsu.edu/academichonesty.

University Policy on Computer Usage

Individuals who use NDSU computer facilities must assume the responsibility for using these resources in an appropriate manner. Misuse of computer facilities is considered a violation of University policy and may also be violation of law if other computer users are disturbed or the privacy rights of individuals are violated. Unauthorized copies of copyrighted materials shall not be created, distributed, or knowingly utilized. More detailed information can be found at (http://its.ndsu.edu/security)

Americans With Disability Act Statement for Students with Special Needs

Any students with disabilities or other special needs who need special accommodations in this course are invited to share these concerns or requests with the instructor and contact the Disability Services Office (www.ndsu.edu/disabilityservices) as soon as possible.