DES-151: INTERACTION DESIGN (UX/UI)

Effective Term
Fall 2025

BOT Approval Date
12/17/2024

Discipline
DES - Design
Course Number
151

Course Title
Interaction Design (UX/UI)

Short Title
Interaction Design (UX/UI)

Credit Status (CB 04)
D - Credit - Degree applicable

Units

Activity Units
3.00

Total Units
3.00

Hours

Activity Contact Hours
96-108
Out of Class Hours Activity
48-54

Total Contact Hours
96 - 108

Total Out of Class Hours
48 - 54

Total Student Learning Hours
144 - 162

Distance Education
Yes

Distance Education

Distance Education Type
Both Fully Online and Hybrid Online

Fully Online Delivery Requirements:
a. Students must be notified via the college schedule of classes and the syllabus for the class if proctored tests are required for this course
b. Any planned face-to-face meetings, such as an orientation or study session, must be optional

c. The MSJC curriculum committee requires the use of accessible, asynchronous discussion as a component of every fully online course

Are you using publisher content?

No

Regular Substantive Interaction

Instructor-to-student, student-to-student, and student-to-content contact shall be distributed in a manner that will ensure regular substantive interaction (RSI) is maintained not only weekly but also for the duration of the course. Instructor interactions should be equivalent in time, quality and consistency to the engagement students would receive in a face-to-face course—for example, through announcements, discussion participation, personalized feedback, video messages, or other instructional communications. Instructors are expected to be responsive to student inquiries within a 24-72 hour time frame excluding holidays. RSI will be maintained through a variety of methods: • Orientation - Students must be oriented to the online and face-to-face portions at the start of the course. • Announcements - Announcements using the course management system must be posted at least weekly to keep students current on course events, due dates, materials, etc. • Discussion Forums - Content-related discussion forums within the designated CMS will include appropriate instructor participation and will be initiated and maintained, with timely feedback provided. Instructors are required to monitor the discussions and related activities to provide guidance and direction. Open-ended discussion boards may be used to further learning and interaction. • MSJC Communication – Instructor will use MSJC-administered communication tools (such as email or the designated CMS communication tools) to regularly communicate with and provide ease of access to students. • Timely Feedback - Timely feedback on student work will be provided by the instructor, which may include comments and/or rubrics, within the Grades area of the designated CMS. • Scheduled Meetings – Hybrid and synchronous courses will meet at regularly scheduled times. ADA Compliance - All course interactions and content must be designed with accessibility in mind and meet ADA requirements.

Catalog Description

This course is an introduction to human-centered design through concepts in user experience (UX) and user interface (UI) including web development, script programming, application development, syntax, object-oriented principles, memory management, and functional interactive concepts. Students will use storyboarding and wireframes to design user interfaces for applications with multiple pages to plan and create full-scale projects.

Requisites

Prerequisite(s)

Prerequisite(s) (must be taken before)
ART-131 (with a grade of C or better)
and ART-123 (with a grade of C or better).

Codes

TOP Code (CB 03)

1030.00* - *Graphic Art and Design

CIP Code

50.0706 - Intermedia/Multimedia.

Repeatability Code

No

Grading Option

Letter grade OR P/NP

Learning Objectives

Learning Objectives

Learning Objective
1. Examine multiple approaches to problem solving as it relates to problem identification, research and information gathering, and analysis.

2. Investigate and integrate the needs of marketing, manufacturing, and production into your design process and final design decisions.
3. Develop visual form in response to communication problems using the principles of visual organization, composition, information and message hierarchy, symbolism, typography, aesthetics, and the construction of meaningful images.
4. Demonstrate skill of using current technology to conceive, design, produce, and create visual form to successfully communicate ideas, opinions, and concepts that are consistent with the professional field of applied digital media.
5. Critique the ability of yourself and others to identify, define, and evaluate potential, problems, variables, and requirements; conceptualize and evaluate alternatives; and, test and refine solutions throughout the formal design process to determine final design decisions and outcomes.
6. Formulate a design process that recognizes and considers the physical, cognitive, cultural, social, and human factors that shape your design decisions and final outcomes.
7. Appraise and value design from multiple perspectives through cultural and contexts of diversity.
8. Design with sensitivity towards people in marginalized communities by making informed decisions about accessibility and equity issues.

Learning Outcome Information

Course Learning Outcomes

Learning Outcome
1. Students will organize and test ideas through wireframing and prototyping.
2. Students will understand and define and principles of UI/UX Design in order to design with intention.
3. Students will construct functional human-centered design applications.
4. Students will explore interaction design contexts of various cultures.

Program Learning Outcomes

Learning Outcome
Demonstrate problem solving skills in the process of producing art.
Demonstrate the use of appropriate terminology in evaluating art and design.
Develop a progression of works that demonstrate their creative style, technical skill, and personal approach to subject and media.

Institutional Learning Outcomes

Communication: The student will effectively express and exchange ideas through listening, speaking, reading, writing, visual works, and other modes of interpersonal expression.
Critical Thinking: The student will analyze problems, gather and synthesize relevant information, evaluate ideas, information, and evaluate alternative points of view to create, innovate and implement effective solutions.
Information and Technology Literacy: The student will access, interpret, evaluate, and apply relevant information sources and digital media effectively, and in an ethical and legal manner.

Content

Course Activity Content

1. User Experience Design Summary
   a. interactive experiences
   b. life experiences
   c. stakeholders
   d. Methods
2. Users
   a. User research
   b. Co-Experiences
   c. Emotional Responses
   d. Memory
   e. Fallibility
   f. Expectation
   g. Motivation

3. Types of Experience Design
    a. Brands
    b. Productivity
    c. Fun
    d. Usability
    e. Simplicity
    f. Challenge
    g. Gestalt
    h. Semiotics
    i. Narrative
    j. Constraints
4. Design Process
    a. Design requirements
    b. Communication and Planning
    c. Design Standards
    d. Technology Standards
5. User Interface Design
    a. Aesthetics
    b. Requirements
    c. Semantics
    d. Patterns
    e. Layout
    f. Responsive Design
    g. Image
    h. Type
6. Mindset and Tools
    a. Technological platforms
        i. Web
        ii. iOS
        iii. Android
    b. Empathy
    c. Ideation
    d. Problem Solving
7. Product Development
    a. Maps and flowcharts
    b. Prototyping
    c. Testing
    d. Final deployment
8. Accessibility in UI Design
    a. Key Principles
        i. Perceivable
        ii. Operable
        iii. Understandable
        iv. Robust (POUR)
    b. Types of Impariments
        i. Visual (Low Vision, Color Blindness)
        ii. Hearing
        iii. Motor
        iv. Cognitive
    c. Core Accessibility Guidelines
        i. WCAG - Web Content Accessibility Guidlines
        ii. Keyboard Navigation
        iii. Text Alternatives
        iv. Color Contrast
    d. Current Technological Solutions

i. Screen Readers
ii. Voice Control
iii. Other Alternative Inputs

Methods of Instruction

Method

Activity

Integration

In class activities on various design problems that develop an understanding of using software to achieve a specific design goal by creating wireframes, making interactive design decisions, and properly compiling files for deployment.

DE Adaptations for MOI

The same activity will be done individually through use of pre recorded video demonstrations and then submitting the final work through the course management system (CMS).

Method

Critique

Integration

In-class critiques, done individually and in groups, of student work. Critiques should always follow that students are using good decisions in visual design and applying accessibility to design output through testing of prototypes.

DE Adaptations for MOI

Student's projects will be compiled into a PDF format or other format as needed and posted into the course management system (CMS) in a way that other students and the instructor can give feedback on the various stages of work listed in the objective areas by discussing concept, strategy, inspiration, process, and self-reflection. This will typically be done in a shared space like the CMS or through a feedback form given to each student to run an analysis on other students' works to post on the discussion boards.

Method

Lecture

Integration

Classroom lectures on Ui/Ux concepts and the entire process of developing a interaction design for intended audiences. Lectures on design process, coding syntax, design styles, and technology.

DE Adaptations for MOI

Lectures on design process, coding syntax, design styles, and technology. made in captioned video format. Students will watch captioned videos and respond to questions about the videos in a blog entry online that facilitates a real time discussion or analysis of what they have just watched.

Methods of Evaluation

Method

Presentations

Integration

In-class presentations, done individually and in groups, of student work.

DE Adaptations for MOE

Student's projects will be compiled into a video format or other format as needed and posted into the course management system in a way that other students and the instructor can give feedback on the various stages of work listed in the objective areas by discussing functionality, aesthetic, usability, cultural empathy, and self-reflection. This will typically be done in a shared space in the

course management system or through a feedback form given to each student to run an analysis on other students' works to post on the discussion boards.

Method

Projects

Integration

Projects that span multiple classes and explore the creative design process from wire-framing, to prototyping, to deployment of finished products which demonstrate good visual design skills and functional/accessible content.

DE Adaptations for MOE

Projects that span multiple classes and explore the creative design process from wireframing, to prototyping, to deployment of finished products. The process will be submitted online through the course management system in their various stages and will be given feedback based on criteria in each section of a rubric.

Method

Class Participation

Integration

Class participation in critiques based on the instructor's observation of the student's analytic commentary on peer's design solutions.

DE Adaptations for MOE

Students will be required to critique others work in the development of their projects, likely through video recording and screen capture of interactivity. Typically, this is done at the prototype stage, but also can happen during the initial wireframe. Each stage needs to be placed into the course management system so that an open dialogue/critique can take place regarding the student projects.

Assignments

Assignment Type

Writing

In-class and/or outside of class

In-class

Formative or Summative

Formative

Assignment

Designing for Others.

In a team to three or four run through the process using sticky notes. You will be developing a food menu. Remember it is the process we are interested in, NOT THE MENU.

Step 1 (Quick Solution) - Create a 3 course menu that would be a great dining experience.

Step 2 (The User) - Now that you've arrived at a menu, you need to consider a specific user group. Pick a random number from 1 - 4. After picking the number, use the appropriate group on this list: 1. 6-year-old boys 2. Vegetarians 3. A middle-aged couple. 4. A Fashion Model

Step 3 - The Context. Now that you have a menu for your user, consider the context of where it is prepared. Select a Random number from 1 - 4 again WITHOUT LOOKING AT THE NUMBERS .... 1. A street cafe in the afternoon 2. At a campground in an open field with 6 others. 3. A First-Class seat on an airplane. 4. In a hospital bed.

Now that you have settled on the menu, list the iterations on a piece of paper and answer the following questions individually:
How did your team relate to the user group chosen at random?
Were there stereotypes used? (like all small boys like hot dogs or all models eat salads).
Are stereotypes sensible and if not, how do designers connect with their users?
Did the context make a difference in the menu?
Should the context be considered earlier in the process?
Did the final menu still meet the requirements of Step 1?
Is the final menu still suitable for the other choices?
Finally, how important do you think the user and context is to a designer creating an experience?
Submit your final paper in DOC format to the assignment area.

Grading
10% for submitting on time - 2% for each day late up to 5 days.
30% complete content with all objectives completed.
40% ROBUST Visual and textual Descriptions.
20% Group Grade, Each Student will grade you. Did you put effort into the project, if not you will not have as high a grade as your peers.

How assignment will be adapted in online format

The adaption to online would be either in the discussion board where students do not see the answers until they have responded, or students will have to meet in real time on a video conferencing system or other applications. The final report can be submitted the same in both formats and grading will also be the same between both formats.

Assignment Type

Other

In-class and/or outside of class

Outside of class

Formative or Summative

Summative

Assignment

Overview

Your task is to create at least one wireframe, and one mockup of a web application. Your wireframe(s) and mockup will need to be responsive and take into account a desktop view and a mobile view.

Your wireframe will be uploaded to the course management system (CMS) discussion page where we will hold critiques. You will then create your mockup based on the feedback that you receive and any changes to the wireframe that you see fit. You will not be able to start assignment 5 until you have created your final mockup.

Part 1: The Idea
You can design a web application of your choice for this assignment--choose something you're excited about. When choosing your idea, keep in mind these following points:
• Who is this app for?
• What are the goals of the app?
• What makes the app better than similar existing ones (if any?)
• How many pages will your app contain? Your app should be no more than 5 pages.
• What features will you include in your app design?
If you are having trouble coming up with a concept for your web application, here are a few ideas (along with some guiding questions):
• Group scheduling tool
• Will this be used by peers, subordinates, or superiors
• How concise do you want your time intervals?
• News-reading application
• Will this be used by a busy person or someone just looking to be entertained?
• Will the app be specific to a particular topic, or for all users' interests?

Part 2: Wireframes
Must be uploaded to CMS by …
Responsive design example.
Wireframes are low-fidelity and show only the bare skeleton design of an app. The aim of a wireframe is to show the general layout, functionality, and navigation of your app before taking into consideration any visual or aesthetic details such as color, fonts, and images. The purpose of wireframing is to easily and cheaply iterate on the layout and functionality. You can show it to potential users and ask for feedback which is great because people will pay more attention to the functionality and user experience than the aesthetics. As such, wireframes typically use placeholder symbols to represent content -- lines can be used to represent text and "X" squares can be used to indicate placeholders for images. A few key characteristics of wireframes are:
• Displaying the main chunks of content
• Drawing the outline and layout structure
• Depicting the most basic UI
For this assignment, you will need to create at least one wireframe. You may create more to get a better idea of how wireframing works, for getting more feedback from critiques, and for having more options for a mockup. A wireframe should contain all of the important pages in both desktop view and mobile view. A wireframe should contain all functionality and important navigation --this means your wireframe(s) need to show all states of your app. An example of a state change would be a hamburger menu that opens a dropdown menu when selected. You will have to depict what the page will look like with and without the hamburger menu open.
A wireframe may be either hand-drawn or created with a wireframing tool. If hand-drawn, please scan it and make sure it is neat and readable. Points will be deducted if your wireframe(s) are not presentable.
Examples of wireframing tools that you can use include:
• Balsamiq (30 day free trial)
• Photoshop/Illustrator/Adobe XD (part of your CC subscription)
Once complete, upload all your wireframes to CMS. Along with the files, please include a description of the concept of your app as well as any specific areas of your wireframes that you would like feedback on.

Part 3: Critiques
We will be holding critiques in class or on CMS. These will be helpful for getting immediate feedback on your wireframes.
On the CMS page, please comment on others' submissions providing helpful and constructive feedback. Feel free to respond to comments and continue conversation threads as necessary. Try to prioritize commenting on posts that haven't received feedback yet.

Here are some points you may want to touch on in your posts:
• Layout - Are elements placed in a clear, visually appealing way?
• Usability - Is the app easy to navigate and understand? How could it be more user-friendly
• Concept - Is there a consistent thematic concept for the app? Is it effective?
• Audience - Is this an appropriate application for the intended audience?
• Functional & Accessible - Does the app include all of the necessary functionality? Are the goals realistic? Conducting tests with screen readers and using accessibility checkers.
• Responsiveness - Does the app transition smoothly from desktop to mobile view?
Be sure to reference specific aspects of the wireframes in your critique, and if you're pointing out an area that could be improved, try to give suggestions. Don't be afraid to point out things that you think were done well!

Part 4: Mockup
If wireframes are the skeleton of your app design, then mockups can be thought of as the skin. Mockups are more high-fidelity and display all the visual themes of the app. The purpose of the mockup is to show what fonts will be used, how colors will be placed, and what types of images will be used. Mockups are a static map of your app (so like a wireframe, they are not clickable).
Once you have received feedback on both of your wireframes, create a single high-fidelity mockup of all the important pages in both desktop view and mobile view. This final mockup can combine elements of both wireframes or be the final draft of the wireframe you think is better.

You may create your mockup in a program of your choosing; some design software you can use include:
• Photoshop/Illustrator
• Adobe XD
• Sketch (not free)
• Moqups (free for one project)
• Figma (free)

Part 5: Writeup
Your write up should address the following areas:
Idea:
• What is the application concept?
• What are the goals for your application?
• What makes it better than existing alternatives (if any)?
• Wireframes:

• What/how many pages did you decide to include and why?
• Why did you choose the layout that you did? Ex.: Grid layout
• What features did you decide to include and why?
• What steps would a user need to take to accomplish the goal?

Mockup:
• Usability: Is the app easy to use? What choices did you make to improve navigation? Ex.: Purpose of different navigation items. Does it address accessibility?
• Visual Design: What design decisions did you make and why? How did you tailor the visual design to meet the needs and concept of the application?
• Examples of things you can address: Font choices, color choices, image alignment
• Responsiveness: How does the application change from Desktop to Mobile view?
• Critiques: How did you incorporate feedback from the critiques you received? What did you learn?
There is no page length or word count requirement for this writeup. Just make sure your write up is well thought out.
Requirements
• One wireframe uploaded to CMS
- Should have a mobile and desktop view
- Should show all state changes
- Should be neat and presentable
• Two constructive critiques on CMS
• Final mockup of your app with a mobile and a desktop view
• Writeup which addresses all 3 required areas mentioned in the writeup section of this handout

Turn in
Upload your wireframe to CMS by DATE 1.
Submit your two critiques to CMS by TWO DAYS AFTER DATE 1.
Upload your final mockup and writeup on Canvas by DATE 2.

Grading
10% for submitting on time - 2% for each day late up to 5 days.
30% complete content with all objectives completed
30% Design Aesthetic, using good graphic styles in the layouts
20% Function. Everything works is understandable and accessible
10% Feedback to other students 5% per student. MUST BE QUALITY FEEDBACK!

Students will receive their grades and feedback through the CMS under each grading criterion.

How assignment will be adapted in online format

Student and instructor feedback will be done in the course management system (CMS) in the discussion board and according to the project rubric. Some recorded video feedback will also take place so students can see peer reviews as well. Grading schema will remain the same as the assignment.

Assignment Type

Reading

In-class and/or outside of class

Outside of class

Formative or Summative

Summative

Assignment

Read Donald Norman's "The Psychopathology of Everyday Things," p. 1-8.

Create a blog post with the following:
A paragraph on what you thought about the reading;
A paragraph on a similar design/useability problem you've discovered. (Does your grandmother still have trouble with the microwave? Is there a feature in your phone that doesn't make sense? Is there something that could be improved in the CityTech email? Etc…)

Grading: On Time 10%
Use of References and citations 20%
Full Thoughtful Answering of the questions 40%
A synthesis of thought related to the real world 30%

Students will receive their grades and feedback through the CMS and within the document (if necessary).

How assignment will be adapted in online format

The assignment will be uploaded into the course management system and graded based on the same criteria above.

Course Materials

Textbooks

Wells, Mark. (2024) User Experience Design: An Introduction to Creating Interactive Digital Spaces. Laurence King Publishing ISBN:1529420261

Class Size Information

Class Size

30

Class Size Category

F - Individualized, skills#based instruction/field practice 30

Diversity and Inclusion

Explain how diversity and inclusion(e.g., gender, culture/race, sexuality, etc.) is infused into the course.

This course relies heavily on exposing students to as many diverse perspectives in creative endeavors along lines of gender identity, sexual expression, cultural identity, racial identity, etc. We accomplish this by showing students works of art from each of these categories throughout the full spectrum of design history as well as modern cutting-edge designs. Going beyond simply showing these design solutions, students are then required to examine their own personal identity and synthesize original works of art that reflect these values. Students will then communicate to the instructor and to each other how they have responded to these varied examples and identities in their projects.

Describe how assignments, instruction, evaluation, course content, and interactions are contextualized for diverse learners promoting an equitable course.

Assignments, Instruction, and Content will all be delivered using Universal Design as the main concept. This will entail providing each student with multiple platforms and paths to the information needed to reach the Learning Objectives. This course will use the CMS, printed material, direct instruction, and supplemental instruction to ensure all strategies for learning are addressed. Evaluations will use explicit rubrics which are distributed at the time the work is assigned and where applicable, alternate forms of evaluations such as oral presentation, written presentation, and visual presentation will be applied.

Interactions

Explain how the course will incorporate student-to-student interaction.

Team Collaboration: Students often work in groups to tackle design challenges, develop prototypes, or conduct user research. This collaboration fosters teamwork, helps distribute tasks, and allows students to leverage each other's strengths.

Role Assignments: Within these groups, students may take on specific roles such as researcher, designer, or presenter, enabling them to specialize and contribute uniquely to the project.

Design Critiques: During class critiques, students present their work to the group and receive feedback from peers, which can spark discussions and offer new insights into their designs.

In online formats team collaboration and critiques will happen though email, discussion boards, or real-time meetings facilitated by students. The instructor can also assign required student feedback through peer-review on each assignment.

Explain how the course will incorporate instructor-to-student interaction.

Instructor to Student interactions will be varied.
Lecture: Presentations on historical and modern design trends with group discussion amongst students.
Workshops: Teachers might conduct workshops where students learn and practice specific tools or techniques, such as using design software or conducting usability tests. Students apply their knowledge in a hands-on environment, working on projects with the teacher's guidance and support.

For online - Lectures will take place through video or textual presentation, Students will use the discussion board or quizzes to demonstrate that they have gained the knowledge from asynchronous learning.
For Workshops, instructor will provide demo videos and textual project descriptions in the CMS. Instructor will provide file sharing for problem solution using recorded video format on each individual student's work or through real-time video conferencing with file sharing.

Explain how the course will incorporate student-to-content interaction.

Readings and Case Studies: Students will read design-related articles, books, and case studies provide additional learning outside of class.

Real-World Projects: Students work on projects that simulate real-world client briefs, creating entire design systems, websites, or app interfaces. Students get practical training with industry-standard design tools such as Adobe XD, Figma, Sketch, and InVision to create wireframes, mockups, and prototypes.

Explore and Use Design Systems and Patterns: Students will investigate and apply variable design possibilities through applying visual components, styles, and patterns that can be used across multiple projects.

In online format, students will be given PDFs of reading or web samples of case-studies. In projects students will use their own computer or visit the school to work on course content in creating real-world projects. For Design Systems and Patterns, students will use library resources or web resources to get inspiration on possible design solutions.

Explain how the course will incorporate student-to-self interaction (metacognitive).

Discussion and Ideation: Classes often involve discussions around design principles, usability issues, and case studies. Students share ideas, debate design choices, and work together to understand user needs better, thus students will use these different ideas to expand their own iterations of projects.

User Testing: In some projects, students may test each other's designs by acting as users. This helps the student get feedback on how intuitive and user-friendly their design is. This will also allow them to self-reflect and make decisions about improving their work.

Portfolio Development
Throughout the course, students are encouraged to build a portfolio that showcases their projects, documenting the design process from research to final implementation.

For online format students will investigate other student and professional work to make considerations on changes in their design ideas. User testing will be done by sharing application files in the discussion board and allow others to do user testing. Testing other student designs will also help the student make adjustments to their own projects by seeing what works well or what doesn't.

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