Course Syllabus
Sophomore Studio - Experience Design (with project)
Course Numbers: ID-2023 (Fall), ID-2024 (Spring)
Course Title: ID Studio 2
Instructor: Mark Walhimer, MID

Catalogue Description:

Industrial Design Sophomore Studio. This course will continue to build upon the areas of design methods and research, exploration of product form and function, evaluation, communication, and design documentation from the freshman year. This course begins to introduce techniques common to user-centered design, experience design and service design.

Objectives:

ID Sophomore Studio is the second year foundational studio with the objective of building fundamental skills that will be used in future design work. Students will apply the skills and techniques introduced in the first year to design for scenarios dealing with specific user needs. This is a project based course which is focused on topics such as the identification of stakeholders, techniques for engaging stakeholders, researching user needs and identify requirements, and product usability.

ID-2023 Fall Semester Course Description:
Industrial design is going through a significant change. The democratization of design, shared authority and desktop 3D printing is changing the role of designer from maker of products to problem solver. For this new generation of industrial designers their ability to critically analyze users and context, will be their most important skills. The first semester is divided into three sections. The first section “me”, second section “you”, and third section “us”. During the first 5 weeks the students will create a wearable for themselves. To start, students will create Empathy Maps. Through the process of the empathy map, they will understand their view of the world and through this understanding, they will understand how they would like to augment that view of the world. This process of introspection is often the most important part of being a designer; understanding your view of the world is critical to having empathy for others.

As artificial intelligence and automation become more prevalent the human body will take on a role as “sensing unit”. Industrial designers will be tasked with deciding how the human body will interact in the experiential process with surroundings. The coursework will ask big questions about future scenarios of human to human communication and human to computer communication (HCI).

In this view of Industrial Design the question of “why are you creating the project?” is more important than “what are you creating?”. The students are to be graded on their ability to defend their view of “why” they created their project. An important part of the coursework is that each student is to develop their own process and skills. Each student is encouraged to incorporate their own personal abilities into their projects in order to best communicate their desired message.

Future industrial designers will be as likely to work on a societal issue as creating experiential environments. This Sophomore Studio will give an overview of creating omni experiences (a unified experience of product, service and space) where students will create unified experiences for a variety of selected audiences.

Coursework to include; readings, model making, laminas, presentation boards, presentation booklets and group presentations. The final project of the class will be a unified interactive experience with each student responsible

for an interactive element (product, service or exhibit) of the experience as well students will work together to present a unified project.

In addition to project development this course will also include field trips to museum exhibition departments, experiential fabrication firms and design studios. Also included will be critiques by production experts, branding experts and customer experience (CX) experts. Use of the digital fabrication lab and 3D printing will also be a part of the coursework.

Learning will occur through three projects over the semester:

Weeks 1-5: Create Wearable Sensing Device (How you view the world)
Weeks 6-10: Create Interactive Educational Exhibit (Designing for others)
Weeks 11-15: Create Omni Experience; Incorporating Wearable Sensing Devices and Exhibit

Course Schedule:

Weeks 1-5, Designing Wearable Device (me)
Demonstrate successful translation of user needs and wants in the creation wearable product design.
Weeks 5-10, Educational Exhibit (you)
Identify user needs, develop, and test an educational exhibit to for a Museum.
Weeks 10-16, Experience Design (us)
Using the wearable and the designed exhibit rethink the visitor experience a Museum.

ID-2023 Fall Semester Course Description:
During the first semester of the sophomore year students will continue to understand the value of designing for others with a greater focus on developing their technical abilities. During the second semester students will gain dexterity working with Raspberry Pi, Arduino and Processing. The course work will now have greater emphasis on the realization of the student's design intent.

Course work will shift from problem solving to problem identification and an emphasis creating user behavioral change as a problem solution.

Learning will occur through three projects over the semester:

Weeks 1-5: Create Assistive Device for an Emotional Condition (Device for a mildly depressed office worker)
Weeks 6-10: Map and insert a behavioral change in a system
Weeks 11-15: Create an experience or product that creates enthusiasts for an experience.

Course Schedule:

Weeks 1-5, Designing Emotional Assistive Devices
User research to understand relatively mild emotional states and create solutions to be tested with identified user.
Weeks 5-10, Creating solutions that have an emotional and behavioural change on users.
Weeks 10-16, Experience Design
Combine an understanding of emotional connection and behavioral change to create a device that encourages "broadcasting" by the user.

Methods: User-Centered Design, Systems Thinking, Experiential Design, Interactive Experience Design, Ethnography

Philosophies: Semiotics, Phenomenology, Constructivist Learning Theory

Covered during coursework:

Research	**Ideation**
1. Emotional Connections	16. Sketching
2. Project Briefs (Hypothesis)	17. “Quick Prototyping”
3. Area Research	18. Umbrella Concepts
4. Cool Hunting	19. Mock-ups
5. “Step by Step User Experience”	20. “What don’t you know”
Stakeholder Analysis	21. Mood Boards
Task Analysis	22. Project Canvases
6. Contextual Mapping	
8. Empathy Maps	**Testing**
9. Ethnographic Profiles	23. Prototyping
10. Personas	24. Interviewing Users
11. “Your Lens”	25. User / Product Use Videos
12. Absurd Solutions (Antithesis)	26. Journey Maps
13. “Parking Lot Talks”	
14. Product and User Context	**Evaluation**
15. User Requirements	27. System Blueprints (Synthesis)
	28. Group Presentations
	29. Project Canvases
	30. Flow Charts

Learning Outcomes:

Upon completion of the course, students are expected to demonstrate knowledge, skill, and abilities in the following areas:

Design
- User-centered focus on experiences rather than products
- Design for humanity, responding to current societal questions
- User studies that explore the rationale behind user wants and needs
- Design solutions that are innovative and make a demonstrated impact

Management
- Structure in place that supports sequenced student design inquiry
- Deliverables targeted to map onto design inquiry
- Independence grows from scaffolded series of inquiries

Skills
- Innovative design solutions driven by user research insights
- Communicating and testing project ideas through a range of representations
- Refined appearance modeling

Writing
- Writing that persuades and communicates with clarity
- Writing that articulates connected design decision making

Presentation

- Present work in a professional manner (visual and verbal)
- Ability to communicate ideas effectively with verbal and visual presentations.

Course Format:

Instructional methods for teaching the course include:

- Lectures and in-class discussions
- Group and individual projects
- In-class exercises
- Presentations and project reviews
- Workshop sessions
- Readings

* Open studio sessions may include a combination of project production, one-on-one / group tutorials, and desk critiques

Weekly Learning Activities:

- Lectures and workshop sessions (12 hours)
- Off-line reading (2 hours)
- Outside project work (8 hours)
- Total hours (22 hours)

Scope of Work:

• Students will undertake three projects during this course. Each project will require the creation of a process book, a presentation of their work, and the creation of a designed product as outlined in each project description. Individual projects may require additional deliverables. (case by case basis)

• Projects in this class will require time in the workshop, both during and outside of class.

• Projects and class lectures will be accompanied by outside reading. The readings are compiled to cover the basics and should be considered required. Students are strongly encouraged to explore material beyond the required readings in order to more fully explore the topics that are introduced.

• The class will include outside field trips in order to provide exposure to different aspects of the professional design world.

General Responsibilities and Expectations:

Attendance: Students are required to be in class for designated times with all assigned work completed. Attendance will be recorded for each student for each class during the semester. Excessive missed classes will affect final course grades. A total of 3 unexcused absences are allowed before impacting a final grade. A fourth unexcused absence will result in the reduction of one letter grade from the final course grade. Each additional unexcused absence will result in the reduction of an additional letter grade. Excessive unexcused absences will result in failure of the course. Students are expected to be on time. Students will be recorded as late if arriving more than 15 minutes after the scheduled start of class. 3 unexcused late arrivals will be counted equivalent to 1 unexcused absence. If late, it is the student's responsibility to personally check in with an instructor upon arrival to class to ensure proper recording of attendance. Failure to check in with an instructor upon late arrival may result in being marked absent. Students arriving more than one hour late without a valid excuse will be counted

absent. If you know that you will miss a class for a valid reason (such as for a major religious observance or participation in an approved Institute activity), please let your instructor know at least 24 hours in advance. If an unexpected situation occurs, it is your responsibility to contact your instructor within 24 hours of the scheduled class time. Tardiness or missed classes will be excused only for valid reasons.

Desk Presentations: Students are expected to maintain a professional standard of presentation in their studios at their desks, such that any faculty or student could stop by at any time and easily understand or engage in the work-in-progress.

Project Presentations: Attendance at all project presentations is required. An unexcused absence to a project presentation will result in a 0 for all parts of the project that are evaluated on the missed day.

Participation: Attendance and participation is expected for class, field trips, and scheduled meetings. Demonstration of independence, initiative, and time management is also expected.

Evaluation Criteria: Projects will be evaluated on demonstrated understanding and relevance to assignment criteria, clarity of representation, attention to execution of design process, clarity of verbal presentation, and demonstration of commitment. Craft and quality of material submissions, and clarity of verbal and graphic presentations will also contribute to grade assessment.

Grading Criteria:

Group Participation
Effort
Creativity
Sketching
Content
Overall Aesthetic

Fall Semester Grading:

Wearable Device 30% of final grade. Demonstrate successful translation of user needs and wants in the creation of a wearable product design.

Educational Exhibit 35% of final grade. Identify needs, develop, and test an educational exhibit to teach an identified user a DIY task.

Experience Design 35% of final grade. Identify needs, develop, and test an experience solution to accomplish a task for a targeted group of visitors of the Fernbank Science Center.

Total 100%

Spring Semester Grading:

Emotional Assistive Device 30% of final grade. Understanding users needs develop a solution using arduino and processing that “assists” user with a mild emotional issue.

Emotional and Behavioural Change 35% of final grade. Using arduino and processing create an emotional attachment between user and device and a behavioral change.

Experience Design Broadcasting 35% of final grade. Using arduino, processing and raspberry Pi create a device that creates a desire in the user to encourage others to use the same device.

Total 100%

Bibliography:

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Schwartzman, Madeline. *See Yourself X: Human Futures Expanded.* London: Black Dog Publishing, 2017

Unger, Russ, and Carolyn Chandler. *A project guide to UX design: for user experience designers in the field or in the making*. Berkeley, Ca.: New Riders, 2012.

General Notes (policies and procedures):

Office Hours

If you would like to meet with Mark on a particular day, please meet after class so that we can arrange a time for a meeting. You may also setup a meeting with Mark Walhimer via e-mail (mark@walhimer.com). I normally respond quickly, but please allow 24 hours for a response. If you have an emergency, you may call Mark Walhimer at 415-794-5252.

Student Academic Bill of Rights

1. The right to attend classes at regularly scheduled times without deviation from such time and without penalty if the student cannot attend instructional, lab, or examination hours not institutionally scheduled.
2. The right to consult with an assigned and qualified advisor for a reasonable amount of time each term.
3. The right to consult with faculty outside usual classroom time such as regularly scheduled office hours by appointment.
4. The right to have reasonable access to campus facilities of which use is required to complete course assignments and/or objectives.
5. The right to receive a syllabus for each course at the first class meeting. The syllabus should include an outline of the course objectives, criteria used in determining the course grade, and any other requirements. Students should be informed of any changes made to the syllabus with reasonable time to adjust to these changes.
6. The right to have reasonable time to learn course material prior to the administration of an examination.
7. The right of each student to receive access to any of his/her records kept by the institution.
8. The right to have reasonable access to grading instruments and/or evaluation criteria and to have graded material returned in a timely fashion.
9. The right to be informed of the grade appeals process.
10. The right to have reasonable facilities in which to receive instruction and examinations.
11. The right to be informed in each course of the definition of academic