

VCIM-2380: INTERACTIVE MEDIA II - APP DESIGN

Cuyahoga Community College

Viewing: VCIM-2380 : Interactive Media II - App Design

Board of Trustees:

January 2023

Academic Term:

Fall 2023

Subject Code

VCIM - VC-Interactive Media

Course Number:

2380

Title:

Interactive Media II - App Design

Catalog Description:

Introduction to app design. Explores current and emerging interactive technologies. The class covers app design from project inception to functional prototypes. No app development or coding is covered.

Credit Hour(s):

3

Lecture Hour(s):

2

Lab Hour(s):

3

Requisites

Prerequisite and Corequisite

VCIM-2372 Interactive Media I or concurrent enrollment.

Outcomes

Course Outcome(s):

Recognize the basic principles of user experience design and research.

Objective(s):

- a. Define the basic human constraints that designers need to consider when designing interactions intended for humans.
- b. List the different types of user research available.
- c. Identify the best type of user research, based on the information you have and the information you seek.

Course Outcome(s):

Apply the design thinking process and results of research to mobile app prototype projects.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

- a. Demonstrate knowledge of the design thinking process by following the steps independently in a project.
- b. Construct the design of your mobile app prototype using the results of your own research as a foundation.
- c. Recursively evaluate your progress through peer, self, and external critique, to gain valuable insight into your process and work.

Course Outcome(s):

Create design documentation to present research results and produce presentations of your prototypes.

Essential Learning Outcome Mapping:

Oral Communication: Demonstrate effective verbal and nonverbal communication for an intended audience that is clear, organized, and delivered effectively following the standard conventions of that language.

Written Communication: Demonstrate effective written communication for an intended audience that follows genre/disciplinary conventions that reflect clarity, organization, and editing skills.

Objective(s):

- a. Analyze the information gathered, and determine how it can be applied to your own project.
- b. Report on research results, including research methods, information gathered, and recommendations based on research results.
- c. Produce a complete presentation of your project, including your ideation process, research, and product demonstration.

Methods of Evaluation:

- a. Class participation
- b. Lab and field activities
- c. Oral and written reports
- d. Project and assignments
- e. Quizzes and exams

Course Content Outline:

- a. User Experience Design Principles
 - i. Human abilities and constraints.
 - ii. Human cognitive abilities and constraints.
 - iii. 10 heuristic design principles for human interfaces.
 - iv. Accessibility considerations for all humans.
- b. User Research
 - i. Identify problems you have and information you are missing.
 - ii. Best practices for a variety of research methods.
 - iii. Choosing research method based on the answers you are looking for.
 - iv. Analyze results and apply to design.
- c. Design Thinking
 - i. Review design thinking process.
 - ii. Follow design thinking process through construction of mobile app prototype.
 - iii. Collaborate and evaluate progress with peers.
 - iv. Collaboration and workplace team communication software.
- d. App Design
 - i. Mobile app design patterns.
 - ii. Design systems for Apple and Android.
 - iii. Mobile app prototyping software.
- e. App Design Communication
 - i. How to organize and present research results.
 - ii. How to communicate with a design team effectively.
 - iii. Presentation best practices.
 - iv. Presentation software.

Resources

Tidwell, Jennifer; Brewer, Charles; Valencia, Aynne. *Designing Interfaces: Patterns for Effective Interaction Design*. 3rd. O'Reilly Media, 2020.

Nielsen, Jakob. (Nov 15, 2020) 10 Usability Heuristics for User Interface Design. *Nielsen Norman Group*, <https://www.nngroup.com/articles/ten-usability-heuristics/>

Levy, Jaime. *UX Strategy: How to Devise Innovative Digital Products that People Want*. 1. O'Reilly Media, 2015.

Kalbach. *Mapping Experiences: A Complete Guide to Creating Value through Journeys, Blueprints, and Diagram*. 1. O'Reilly Media, 2016.

Farkas, David; Nunnally, Brad. *UX Research: Practical Techniques for Designing Better Products*. O'Reilly Media, 2016.

Pannafino, James; McNeil, Patrick. *UX Methods: A Quick Guide to User Experience Research Methods*. 1. CDUXP LLC, 2017.

Portigul, Steve. *Interviewing Users: How to Uncover Compelling Insights*. 1. Rosenfeld Media, 2013.

Lamdan, Noam; Sharon, Tomer. *Validating Product Ideas: Through Lean User Research*. 1. Rosenfeld Media, 2016.

Neil, Theresa. *Mobile Design Pattern Gallery: UI Patterns for Smartphone Apps*. 2nd. O'Reilly Media, 2014.

Tome Greever. *Articulating Design Decisions: Communicate with Stakeholders, Keep Your Sanity, and Deliver the Best User Experience*. 2nd. O'Reilly Media, 2020.

Resources Other

- a. Google's Material Design System (<https://material.io/design/introduction/#principles>)
- b. Apple's Human Interface Guidelines for iOS (<https://developer.apple.com/design/human-interface-guidelines/ios/overview/themes/>)
- c. Inclusive Design Methodology from Microsoft (<https://www.microsoft.com/design/inclusive/>)
- d. Design Kit from IDEO.org (<http://www.designkit.org/>)

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