Course Syllabus: Advanced UX Design

Instructor

Neeresh Padmanabhan

Lecture Hours

Sat 10AM-1PM

Email

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Location

ONLINE

Course Overview

This course offers a hands-on, realistic overview of the skills and techniques used in the field of User Experience & Research.

You will learn how to hone in on real user needs & problems, obsess over user flows, and gauge scalability of your designs as you iterate through them. This course is fun and lab-based for the most part so get ready to solve real-world problems through projects!

Throughout this course, you will go through the various steps of designing a great app/website that serves a real need in the market.

About the Instructor

Neeresh is an engineer turned UX'er who currently leads the International Retail design division within Amazon. Prior to that, he had roles leading UX in companies such as Western Digital and EMC. Fun fact: He is also an ex-student of the IS program from one of the earliest batches at NEU!

Interactive Setting

This class will mostly have projects (lab sessions), and occasionally, guest lectures from design leaders in industry. This model permits and encourages continuous interactions in the class. During the lab sessions, students will engage in hands-on design and research activities under instructor supervision. The goal is for students to practice the art of breaking down business requirements into small manageable components, and iterate through them to create something useful.

Grading

Activity	Percentage
Assignments, Labs	60%
Class Participation	15%
Final Presentation	25%

Prerequisite:

Anyone with an interest in pursuing a potential career in Software Engineering, User Experience Design or applying design techniques/thinking to everyday problems may take this class – no prior experience/knowledge necessary.

Plagiarism Policy

When there is evidence that a student has committed plagiarism, copied the work

of others, allowed others to copy their work, cheated on an exam, altered class material or scores, or has inappropriate possession of exams, or sensitive material, the incident will be investigated. The consequences for academic dishonesty are severe and that will include a straight F in the course with the potential for dismissal.

Weekly course schedule is listed below.

Week 1

Lecture:

- Intro to UX – IxD, VisD and User Research
- UX Talent need in industry
- Design in Everyday things (Class discussion)

Lab 1 – **Obsess over User Flows** Think about a problem – lets take elevator design. Let's try to fix a problem users will care about. Example: Elevators usually do not provide a way to unselect an accidental selection. What are the things to consider here?

Flows: What if there is only one selection and the elevator has started moving? What will unselect do? What happens if you unselect and someone else on another floor hits the button?

Discoverability – How will people actually discover this feature?

How do we discourage some people from selecting a bunch of buttons before they exit? Do we impose a max limit?

Default State – What is an elevator's "home" state when no one is using it? Why should it be the last floor it dropped off someone?

Lab 2 – **Information Architecture**

Think about a simple thing – like a boarding pass. Understand the diff pieces of information portrayed. Every airline makes it slightly differently. But YOUR job is to make it user-centric.

What is important is HOW the user is going to use this information – How should info. be prioritized, loud/silent and in what order should it be displayed?

Print at home vs Print at Kiosk vs Mobile use cases

Lab 3 – Iterate and present Elevator and Boarding pass exercises, discuss and see peers work to catch things you might not have.

Homework:

- Complete exercises from class and submit by Weds.
- Look at 2 websites or apps and email me about what or why you like them in how they solve a user problem. Mention 2 websites where you dislike how they solve a user problem.
- Pick a car and review it's dashboard. How would you reorganize for better IA if you were in charge? We will discuss when we start the next class.

Week 2

Lecture:

- Discuss HW – Car Dashboard
- Business Value of UX (ex: $300 mn button)
- Other Examples | McKinsey Study

- Introduce Class Project **TravelMate** – We will learn UX Design by doing it!

Lab 1 - Draw a flow of how you think a travel website should work

Lab 2 – Re-draw the user flows

<Discuss any feature lists that are missing>

Lab 3 – Draw Ideal user flow

Challenge the requirements, Clarify ask. If you don't clarify, someone else will.

(Video) Stop Sign

Homework:

- Finish up user flows, submit by weds

Week 3

Lecture:

- User Personas
- Storyboarding
    - Storyboardthat.com

Lab – Low Fidelity - Balsamiq

- Get familiarized with Balsamiq
- Start drawing screens
- Link to other screens
- PDF Prototype

Guest Lecture

AS, UX Mgr, Google – Topic: Systems Design, Design Thinking

Homework:
Think about designing an email for Grandma. What would that look like? What would you prioritize/deprioritize?

Week 4 -- No Class – Neeresh will likely be out this week

Week 5

Lecture:
Prototyping Tools
Figma, JustInMind, Invision

Lab:
Continue iterating on Balsamiq prototypes. Goal is to complete high-level prototype (desktop+ mobile).

Homework: Submit completed prototypes for mobile and desktop by Weds.

Week 6

Lab – High Fidelity Mocks

- Introduction to Sketch
- Start building hi-fidelity mocks

Guest Lecture

RL, Principal UX, Amazon – Topic: Designing for scale and complexity

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Week 7

Lab:

- Consult & get feedback on designs
- Continue work on hi-fidelity mocks

Guest Lecture

RH, Principal Design Technologist, Amazon – Topic: Design Technology Basics

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Week 8

Lecture:

- Introduction to prototyping
- Tools in industry – Figma, Invision, JustinMind, Axure

Lab 1:

- Use Invision to stitch all the screens together – Desktop
- Discuss, feedback, changes

Lab 2:

- Use Invision to stitch all the screens together – Desktop
- Discuss, feedback, changes

Week 9

“Empathy is at the heart of design. Without the understanding of what others see, feel, and experience, design is a pointless task.**” —Tim Brown, CEO** of the innovation and design firm **IDEO**

Lecture:

- Importance of User Research
- Types of User Research

Lab:

- Run usability study on prototypes on Usertesting.com – 10-15 participants – Mobile
- Run usability study on prototypes on Usertesting.com – 10-15 participants – Desktop
- Start collecting data

Homework: Compile a 5 min “Highlight reel” of the interesting and relevant feedback using the tool.

Week 10

Lecture:

- Students present their 5 min highlight reel to class
- Students discuss changes that need to happen for their work
- Students answer Q&A from other students and/or discuss any shared relevant findings

Lab:

- Changes to sketch mocks made due to feedback from users

Homework: Compile a 1 pager or 2 pager usability report. A format for this, if needed, can be provided. Basic structure: Research Objective, Executive Summary, Findings (What worked), Findings (What didn’t work), Recommendations/Next Steps

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Week 11

Lecture:

- UX & Innovation

Lab:

- Identify 2-3 places in your project where you consider something being done is innovative with respect to how you see most products behave today (Ex: Logging in with OTP, SSO with big companies, Automatic Expenses etc.)
- Add innovation mockups into your project
- Present your innovation pieces & ideas to class

Week 12

Lecture:

Globalization & UX

- I18N compatible designs
- BiDi (Guidelines)

Lab:

- Pick 5 key screens and change the text to Brazilian Portuguese or German using Google Translate. Evaluate whether the design scales or breaks (if breaks, discuss fixes needed). No need to add to project.
- Pick 5 key screens to make in RTL – pick a language and use Google Translate. No need to add to project.
- If time exists, user test them in usertesting.com

Week 13

Lecture:

Accessibility

- W3C checklist
- Load up relevant plugins (ex: Chrome plugins) for accessibility

Lab:

- Go around your project and check for contrast ratios (color blindness)
- Pick 5 websites or apps and go through Voiceover or accessibility utilities to navigate the website. Take training, if necessary. Note down top 5 or top 10 problems.
    - If possible, try not looking at your screen monitor as much as possible while navigating. Also try using your non-dominant hand for clicking etc.
- Class Discussion

Lecture:

- Presenting design work (stakeholders, leadership)
- Importance of a Portfolio

Lab:

Finish up anything you need for projects/final presentation.

Week 14 – Final Presentations