ENTERPRISE

UDACITY

SCHOOL OF BUSINESS

User Experience (UX) Designer

Nanodegree Program Syllabus

Overview

This Nanodegree program teaches the foundational skills all user experience (UX) designers use, whether they design mobile apps, desktop apps, or web platforms. It is ideal for students who want to understand how to create development-ready designs, and build a UX portfolio to start and succeed in a user experience (UX) designer role.

Learning Objectives

A graduate of this program will be able to:

- Understand the fundamentals of UX design, including Neilsen's Heuristic Evaluation, quantitative and qualitative research methodologies, and the design psychology behind designing for humans.
- Synthesize user research, frame design opportunities, run design sprints from ideation to prototype using Miro board, and conduct usability tests to improve designs based on feedback.
- Convert designs into a wireframe and low-fidelity sketch using Figma and then into a high-fidelity interactive design that can then be prepared for engineering handoff.
- Incorporate visual design basics: information hierarchy, UI design patterns, visual hierarchy, as well as grid systems, typography, style guides, and basic design systems into one's designs.
- Measure design performance through qualitative analytics to improve a design based on data.

Program information

Estimated Time

3 months at 10hrs/week*

Skill Level

Beginner

Prerequisites

No required prerequisites

Required Hardware/Software

Learners will need access to the internet and a 64-bit computer.

*The length of this program is an estimation of total hours the average student may take to complete all required coursework, including lecture and project time. If you spend about 5-10 hours per week working through the program, you should finish within the time provided. Actual hours may vary.

Course 1

UX Fundamentals & Design Research

Product design starts with understanding the needs of users, which is gathered through comprehensive research. Learn the core principles of human-centered design and how to appropriately scope a design problem. Understand how to empathize with users when performing user research, including how to conduct in-depth interviews, create quantitative surveys, and use research data to uncover opportunities. Then apply psychology to design sketches, keeping the end user in mind.

Course Project

Formulate a Research Report

The first step to designing a great product is empathizing with users and uncovering their needs. Develop a discussion guide, recruit research participants, and synthesize findings in the form of a research report. Validate insights from interviews using surveys to get a comprehensive view of the topic. The goal of this project is to ask the right questions when interviewing users to understand their experiences in order to identify design opportunities, and create initial sketches that incorporate design psychology principles.

Lesson 1

Introduction to UX

- Apply usability principles to heuristic evaluation of product designs.
- Use design principles to identify user-friendly vs. manipulative design solutions.
- Learn how to scope a research topic to select a design problem.

Lesson 2

UX Research

- Learn how to design and execute a UX research plan including research goals, recruiting criteria, and scripts.
- See how to build empathy with users and construct questions needed to run a semi-structured user interview and survey study.
- Understand how to analyze quantitative data collected from the user interview using the affinity diagramming method.

Lesson 3

Design for Humans

- Learn how to appeal to human emotional and behavioral needs through design.
- Use design psychology principles to critique and iterate design sketches.

Course 2

Concept to Low-Fidelity Prototyping

The best products have gone through rounds of iteration based on user research and feedback. Learn the process of a design sprint and how to translate findings from research into a prototype that can be tested with users. Understand how to foster team collaboration and use divergent and convergent thinking to rapidly create testable prototypes. Apply user interface principles in the design of a clickable prototype, and conduct a usability test to gain valuable feedback from users that can be used in design iterations.

Course Project

Develop a Validated Low-Fidelity Prototype

Insights from research are inputs to the design sprint process of creating a validated design solution. Take a product idea through the design sprint process to come up with a user-tested low-fidelity prototype of the solution. Set up the infrastructure to start the design sprint and synthesize research findings. Go through ideation exercises to create paper sketches and digital prototypes based off the paper sketches. Conduct a usability test of the prototype with users to validate design assumptions and create a second iteration of the prototype based on user feedback.

Lesson 1

Define the Design Sprint

- Learn how to apply the Double Diamond design process to create product concepts.
- Apply guerilla design sprints to collaboratively design with users.
- Understand how to facilitate collaborative work sessions to build a collective understanding of the user, source ideas, and obtain “buy-in” from various stakeholders.

Lesson 2

Synthesis: Research to Features

- Discover themes and opportunity areas from research.
- Learn how to define problems as opportunities.
- Understand collaborative ideation techniques and how to apply them to focus on the best ideas given the design scope.
- Learn how to prioritize ideas as design features based on a value-complexity matrix to create a minimum viable product.

Lesson 3

UI Principles

- Understand various user interface layouts at different levels of fidelity.
- Learn how to organize visuals and touchpoints so designs are user-friendly.
- Understand how to ensure designs are accessible to all populations with different user needs.

Lesson 4

Clickable Prototyping

- Learn how to incorporate UI kits and components into a prototype.
- Understand the capabilities of prototyping tools for product design.
- Define users flow and user interactions to create a clickable prototype.

Lesson 5

Usability Testing

- Understand how to design a digital journey map.
- Learn how to conduct in-person and remote usability tests to gather specific types of feedback on prototypes.
- Understand how to iterate on prototypes based on user feedback.

Course 3

High-Fidelity Prototyping to Post-Launch Analysis

Once products have been tested for its effectiveness, they need to be enhanced for engagement. Learn advanced user interface principles to build interactive designs that are ready to be handed off to engineering for feedback. Understand how to solicit and integrate feedback from engineering to enhance the design before it is ready for development. Assess the engagement of the product through remote usability testing and other experimentation methods. Learn how to improve design and user experiences based on engagement data in order to increase key performance indicators.

Course Project

Create and Improve a High-Fidelity Design

A low-fidelity prototype allows you to validate that the core functionality of a solution addresses user needs, and the next step is to ensure the interface and experience of the solution engages and delights users as much as possible. Enhance a low-fidelity prototype through the application of a data-enhanced, high-fidelity design by submitting a midterm and a final project. For the midterm project, source visual design inspiration to develop a style guide and component library. Use the style guide and component library to create a high-fidelity mockup of the low-fidelity prototype. For the final project, improve the accessibility of the design and iterate the design based on engagement data and key performance indicators.

Lesson 1

UI Design Basics

- Learn how to recognize UI trends and apply various interaction and typography styles.
- Learn the value and process of annotating designs.
- Understand the components of a design system.

Lesson 2

Building Interactive Designs

- Learn how to find and use UI kits and plugins in a high-fidelity design.
- Learn how to source inspiration to generate the visual elements of a style guide.
- Apply design principles to generate high-fidelity mockups.

Lesson 3

Preparing Design for Engineering Handoff

- Understand the various levels of accessibility and how to incorporate them into a design.
- Understand how to build user stories and tasks flows that facilitate feedback from engineering.
- Learn how to adjust designs and export assets so they are production-ready for handoff to engineering.

Lesson 4

Improving Design Performance

- Understand the key performance indicators that drive an engaging design.
- Learn how to use remote testing tools and techniques to collect and make sense of data.
- Learn how to optimize designs using engagement data.

Course 4

UX Portfolio Design

UX designers demonstrate their skills by showcasing their designs and processes in a portfolio. Understand what should and shouldn't be included in a portfolio as well as the key components that appeal to target audiences. Learn how to organize previous work and communicate it online, keeping the audience and your career objectives in mind. Apply storytelling and branding frameworks to create a personal profile that conveys a unique value proposition. Learn best practices for maintaining and updating a UX portfolio.

Capstone Project

Build a UX Portfolio Case Study

A UX portfolio is the tool that UX designers use to display their abilities and experience to the world. Apply portfolio design and personal branding best practices to create a starter portfolio that consists of projects completed in this Nanodegree program. Reflect and document the process to complete the projects. Organize assets and notes in a way that visualizes the steps taken to complete these projects. Develop an accompanying "About Me" page that conveys what makes one unique as a UX professional.

Part 1

Introduction to Portfolio Design

- Understand the purpose of a portfolio for storytelling.
- Learn the key components of a UX portfolio and how to avoid pitfalls when creating one.
- Understand ways to get inspired and prepared before building a UX portfolio.

Part 2

Building a Starter Portfolio

- Learn how to select and create a prototype of a project case study.
- Learn how to finalize and prepare content of a project case study to be displayed online.
- Understand how to design for the portfolio experience and update a UX portfolio based on industry best practices.

Meet your instructors.

Shuang Liu

UX Designer at Google

Shuang has enjoyed working in UX design across a variety of domains at Google, from YouTube to technical cloud platforms. She is particularly interested in bringing a human touch to products. She received her master's in human-computer interaction from the University of Michigan.

Gabriel Ruttner

Co-Founder & CTO at Feather Docs

Gabe leads product, UX, and engineering for machine learning products at early-stage startups. His last company built UX research tools for designers at Fortune 500 companies. He holds degrees from Cornell University and Stony Brook University.

Michael Dedrick

UX Designer at Google

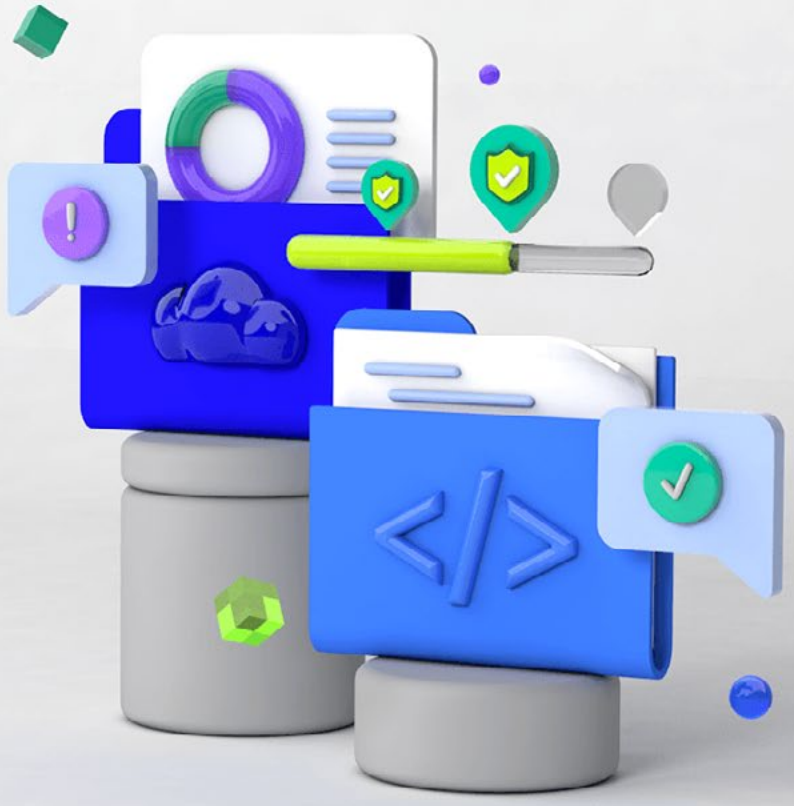
Michael is a UX Designer for Google after leading design at a blockchain startup and working at a partnership with Apple and IBM. He is committed to connecting with clients and users and bringing their vision to life. He has a design background from Sheridan, Toronto Film School, and OCAD University.

Melissa Hui

Founder at Context Leap

Melissa is the founder of Context Leap, an SF-based organizational and leadership transformation agency. With over a decade as a design and innovation strategist in the technology industry, she is dedicated to evolving the role of design in creating scalable and thoughtful human-centered experiences.

Udacity's learning experience



Hands-on Projects

Open-ended, experiential projects are designed to reflect actual workplace challenges. They aren't just multiple choice questions or step-by-step guides, but instead require critical thinking.

Quizzes

Auto-graded quizzes strengthen comprehension. Learners can return to lessons at any time during the course to refresh concepts.

Knowledge

Find answers to your questions with Knowledge, our proprietary wiki. Search questions asked by other students, connect with technical mentors, and discover how to solve the challenges that you encounter.

Custom Study Plans

Create a personalized study plan that fits your individual needs. Utilize this plan to keep track of movement toward your overall goal.

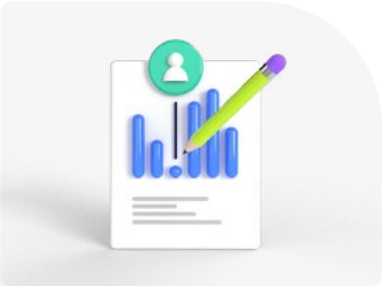
Workspaces

See your code in action. Check the output and quality of your code by running it on interactive workspaces that are integrated into the platform.

Progress Tracker

Take advantage of milestone reminders to stay on schedule and complete your program.

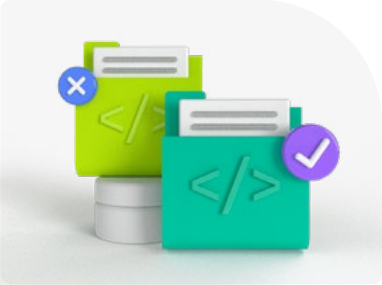
Our proven approach for building job-ready digital skills.



Pre-Assessments

Identify skills gaps.

- In-depth assessments benchmark your team's current level of knowledge in key areas.
- Results are used to generate custom learning paths.



Experienced Project Reviewers

Verify skills mastery.

- Personalized project feedback and critique includes line-by-line code review from skilled practitioners with an average turnaround time of 1.1 hours.
- Project review cycle creates a feedback loop with multiple opportunities for improvement—until the concept is mastered.
- Project reviewers leverage industry best practices and provide pro tips.

Technical Mentor Support

24/7 support unblocks learning.

- Learning accelerates as skilled mentors identify areas of achievement and potential for growth.
- Unlimited access to mentors means help arrives when it's needed most.
- 2 hr or less average question response time assures that skills development stays on track.

Mentor Network

Highly vetted for effectiveness.

- Mentors must complete a 5-step hiring process to join Udacity's selective network.
- After passing an objective and situational assessment, mentors must demonstrate communication and behavioral fit for a mentorship role.
- Mentors work across more than 30 different industries and often complete a Nanodegree program themselves.

Dashboard & Reporting

Track course progress.

- Udacity's enterprise management console simplifies management of bulk enrollments and employee onboarding.
- Interactive views help achieve targeted results to increase retention and productivity.
- Maximize ROI while optimizing job readiness.

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