UDACITY

NANODEGREE PROGRAM SYLLABUS

Product Manager

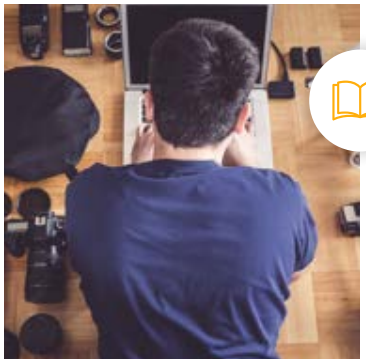
Overview

This Nanodegree program teaches the foundational skills all product managers use in leading the development of software products, whether they are mobile apps, desktop apps, or web platforms for consumers or enterprises. It is ideal for beginners who want to start a career in product management, and set themselves up for success to land and perform on the job.

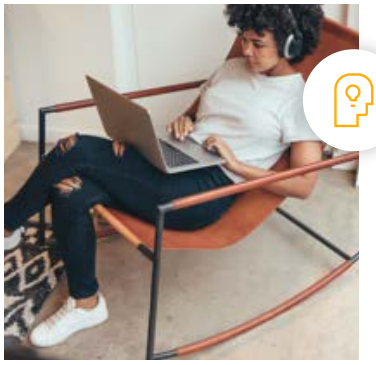
IN COLLABORATION WITH

AT&T Lyft Google

Estimated Time: 4 Months at 10hrs/week



Prerequisites: No prior experience



Flexible Learning: Self-paced, so you can learn on the schedule that works best for you.

Need Help?
udacity.com/advisor
Discuss this program with an enrollment advisor.

Course 1: Product Strategy

The most effective products start with a comprehensive market-based, insight-driven strategy. Understand the role that product managers play during product development, with a focus on activities that happen early in the product development cycle. Learn how to identify the right problems to solve through market research, target user definition, and market sizing. Create a compelling vision and strategy that will set up the team to solve those problems. Understand how to communicate effectively to get people excited and bought into your ideas.

Course Project
Pitch a Product Vision

The inception of any product that gets built starts with a vision and a product manager that rallies stakeholders behind that vision. In this project, you will choose to act as a product manager for one of four top technology companies and develop a compelling pitch for the development of a new product. You'll be provided a business scenario relevant to each of the four companies and based on the provided business scenario of the company you choose, you will perform primary and secondary market research to identify target users and size the market opportunity for a new product. Then, you will compile your analysis into a pitch deck and present the vision of your product to business stakeholders.

	LEARNING OUTCOMES	
LESSON ONE	**Intro to Product Management**	• Understand what Product Management involves • Describe why Product Management is important • Understand the history and evolution of Product Management
LESSON TWO	**The Role of a Product Manager**	• Understand the purpose of the Product Manager role in an organization • Understand what a Product Manager does during the different stages of the Product Development Cycle • Identify key cross-functional partners and customize communications based on understanding of their key priorities • Describe various customer discovery techniques for gathering requirements • Learn how to complete each component of a product requirements document (PRD), including documenting requirements

LESSON THREE	**Problem Identification**	• Learn how to identify problems that are worthwhile to solve • Understand the market through qualitative and quantitative research methods • Identify your target user and build user personas based on synthesis of research • Calculate the total addressable market (TAM) for your product • Calculate the return on investment (ROI) for solving a problem • Define hypotheses about your product that need to be validated • Test your hypotheses by putting them in front of users • Understand the components required to build a business case
LESSON FOUR	**Vision & Strategy**	• Define and craft compelling vision for a new product • Identify strategic areas to invest in based on organizational goals and competitive analysis • Build a Business Model Canvas for a product opportunity • Understand the importance of defining a minimum viable product (MVP) • Define key performance indicators (KPIs) that align product strategy to organizational goals
LESSON FIVE	**Communication Skills**	• Understand the importance and various methods to practice active listening • Learn how to craft and deliver compelling stories • Apply persuasion and negotiation when communicating to business stakeholders • Learn how to structure and deliver strong presentations
LESSON SIX	**Project: Pitch a Product Vision**	• Develop and deliver a market-based, insight-driven pitch for a new product that is targeted to executive stakeholders

Course 2: Product Design

Once the problem has been defined and a market opportunity has been identified, it is important to create a solution that is desirable by its users. Bring an idea through concept, design, and user validation, as well as creating a spec to handoff to engineering for development. Use design thinking methodologies to diverge in order to explore ideas, and then ultimately focus in and converge on a single idea. Map out the full concept through creation of a prototype that can be used to validate that you're solving a problem for real users.

Course Project
Run a Design Sprint

The most desirable products have been built iteratively with the user in mind. In this project, you will take a problem/opportunity (using work from the previous course) through a Design Sprint. During the Design Sprint, you will explore multiple ideas, narrow down ideas to the most compelling one, create a storyboard and prototype, conduct user research, refine their ideas, and incorporate findings into a final product spec.

	LEARNING OUTCOMES	
LESSON ONE	**Intro to Design Sprint**	• Describe the purpose and process of a Design Sprint • Identify good candidates for a Design Sprint • Learn how to plan and involve necessary stakeholders in a Design Sprint • Differentiate between the responsibilities of the Product Manager and Designer roles
LESSON TWO	**Understand**	• Describe the Understand phase of the Design Sprint • Describe how lightning talks, interviews, and competitive analysis can be used as an input during the Understand phase • Use the "How Might We" method to identify opportunities • Utilize the "Rose Bud Thorn" method to classify things as positive, negative, or opportunities • Apply Affinity Mapping to identify thematic insights
LESSON THREE	**Define**	• Describe the Define phase of the Design Sprint • Define success metrics using the HEART framework • Explain the difference between goals, signals, and metrics • Craft Design Principles • Write a Future Press Release

LESSON FOUR	**Sketch**	• Describe the Sketch phase of the Design Sprint • Use the Crazy 8's method to brainstorm ideas through sketching • Facilitate a process for sharing and voting on sketches within the team • Create a more detailed, in-depth Solution Sketch that contains at least 3 frames
LESSON FIVE	**Decide**	• Describe the Decide phase of the Design Sprint • Identify assumptions behind ideas and formulate questions about them • Create a Decision Matrix to narrow down ideas to those worth pursuing • Represent perspectives from a wider audience using Thinking Hats
LESSON SIX	**Prototype**	• Describe the Prototype phase of the Design Sprint • Create a storyboard to map out a plan for your prototype • Learn how to utilize different types of prototyping • Create a high fidelity, interactive prototype • Apply best practices for creating prototypes
LESSON SEVEN	**Validate**	• Describe the Validate phase of the Design Sprint • Create plans and data collection processes for a user study • Run a user study and interview users • Conduct a feasibility discussion with an engineer
LESSON EIGHT	**Next Steps**	• Describe benefits of iteration and identify when iteration is appropriate • Evangelize your idea across cross-functional development teams • Create documentation for the engineering team
LESSON NINE	**Run a Design Sprint**	• Take a problem through a design sprint to develop a concept, create a prototype, bring your concept through user testing, and then prepare to handoff your concept to the engineering team

Course 3: Product Development

A product is only successful if it can be feasibility built according to a dedicated timeline. Learn the critical soft skills needed to manage the development and execution phase of the product. Collaborate with cross-functional teams and business stakeholders to guide the product development team through planning and execution. Manage stakeholder expectations and handle risks that arise, reprioritizing feature and sprint priorities to tackle competing requests.

Course Project
Manage the Product Development Process

Leading the development of a product so it can get shipped within a given timeline requires an adeptness at managing priorities, relationships and expectations. In this project, you will take the work completed in the previous course through the execution and development phase. First, you will compile a sprint backlog with a clearly defined sprint goal that reflects the prioritized user stories and detailed acceptance criteria. Then, you will refine the solution by leveraging API documentation. Then, you will create a coordination activities map and handle competing priorities ranging from production issues reported and resource constraints to stakeholder feedback and requests that come up during product development.

	LEARNING OUTCOMES	
LESSON ONE	**Influencing Without Authority**	• Define social capital and describe its importance in product management within an organization • Become credible by knowing your company, product, and market • Build trust by knowing your peer and development teams • Guide a team by becoming an engaging storyteller • Learn the art of saying 'No' in situations with competing priorities • Learn how to run meetings effectively • Apply communication strategies to negotiate effectively with stakeholders • Understand and define a coordination activities map

LESSON TWO	**Development Methodologies, Processes, and Tools**	• Understand the differences between waterfall methodology and agile methodology in product development • Learn about Kanban and Scrum methodologies and how to apply them as a product manager • Understand the purpose of a workflow management tool and how to utilize it as a product manager • Learn how to manage the process from development to deployment in new feature development
LESSON THREE	**Crafting User Stories and Non-User Requirements**	• Understand the components of a user story and how to define it • Write detailed acceptance criteria for a user story • Identify different types of non-user stories and how to compile them • Understand the contents of API documentation and how to utilize it in product decision-making
LESSON FOUR	**Managing Backlogs and Stakeholder Expectations**	• Understand the purpose of a product backlog and how to manage it • Apply a prioritization framework to organize the backlog for sprint planning • Utilize an effective prioritization framework to evaluate a new feature request or product initiative • Triage bugs using severity and priority as decision-making levers • Learn how to maintain the feedback loop with stakeholders
LESSON FIVE	**Manage the Product Development Process**	• Create a coordination activities map in addition to a prioritized backlog and communicate decisions to various stakeholders amidst competing priorities in order to ensure product delivery in alignment to quality and deadline expectations

Course 4: Product Launch

Once a need has been defined and a product has been designed and developed, it is time to bring that product to the market. Learn all about the launch process and the important partners a Product Manager will need to work with during this phase. Create a plan, identify the launch risks and figure out how to minimize their impact on your launch. Collaborate with Marketing stakeholders to determine how to target your customers and develop a compelling message to increase engagement in your product. Work with Sales, Customer Support and the other teams to prepare them to interface with your customers as the product is launched. Execute the launch and use feedback from your customers to determine the next steps for your product.

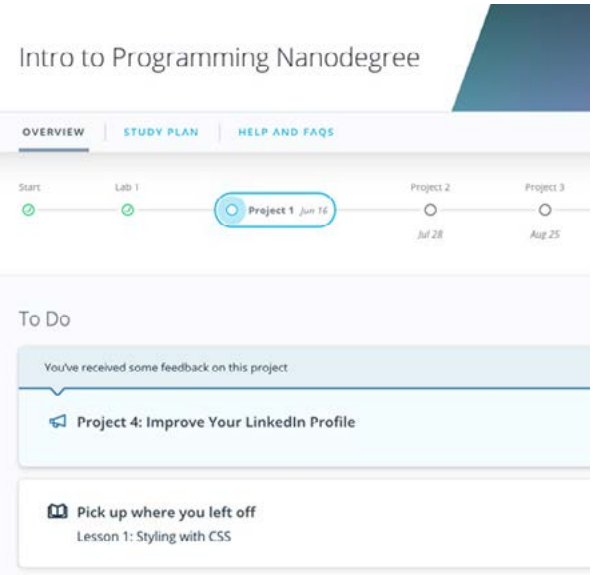
Course Project
Deliver a Product to Market

A product finally realizes its impact once it is delivered to customers. In this project, you will take the product you have developed in the earlier courses and bring it to market. First, you will create a pre-launch process, including identification of launch risks and mitigations, to enable launch. Then, you will develop a marketing and pricing strategy to communicate the value proposition of your product to customers. Then, you will write a user guide and other create other communications collateral to prepare the Sales and Customer Support teams to evangelize the product. Finally, you will use customer feedback to design an A/B test for a new product feature.

	LEARNING OUTCOMES	
LESSON ONE	**Set Up the Process**	• Develop a step-by-step product launch process • Understand the importance of scaling • Create a scaling plan • Identify risks in a product launch and create a plan to mitigate them
LESSON TWO	**Marketing Strategy**	• Understand the roles of the Product Manager and Product Marketing Manager and how they collaborate with each other • Research competitors to formulate product positioning • Learn how to collaborate with Marketing to develop a marketing message, acquisition channel strategy and a pricing strategy for a product

LESSON THREE	**Prepare Your Partner Teams for Launch**	• Understand the other teams and stakeholders that need to be brought into the process as it gets closer to product launch • Prepare Sales and Customer Support with appropriate communications collateral for a product launch • Create a User Guide to educate users
LESSON FOUR	**Launch and Post-Launch Feedback**	• Develop a product rollout timeline • Learn how to execute the launch of a product to include announcement to internal stakeholders • Use customer feedback to determine priorities for the next iteration of a product • Create an A/B test to test a new feature for a product

Our Classroom Experience

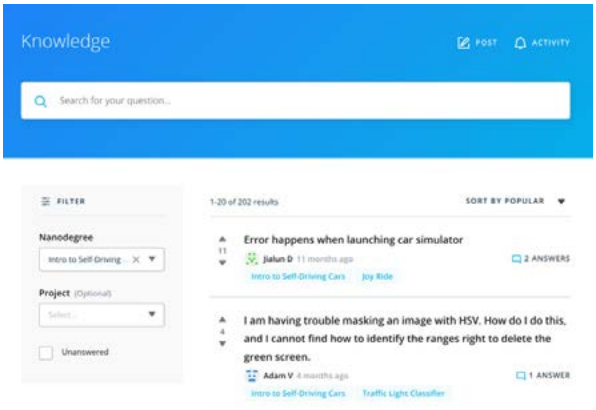


REAL-WORLD PROJECTS

Build your skills through industry-relevant projects. Get personalized feedback from our network of 900+ project reviewers. Our simple interface makes it easy to submit your projects as often as you need and receive unlimited feedback on your work.

KNOWLEDGE

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

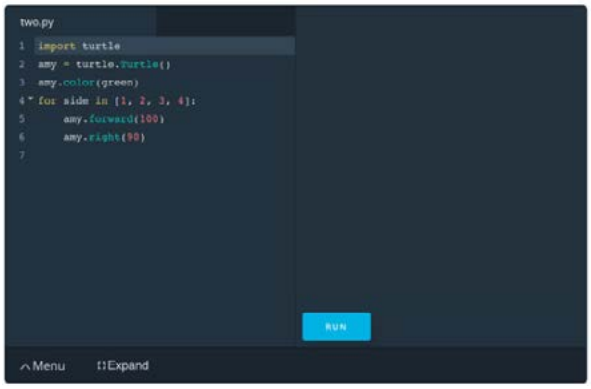


WORKSPACES

See your code in action. Check the output and quality of your code by running them on workspaces that are a part of our classroom.

QUIZZES

Check your understanding of concepts learned in the program by answering simple and auto-graded quizzes. Easily go back to the lessons to brush up on concepts anytime you get an answer wrong.



CUSTOM STUDY PLANS

Create a custom study plan to suit your personal needs and use this plan to keep track of your progress toward your goal.

PROGRESS TRACKER

Stay on track to complete your Nanodegree program with useful milestone reminders.

Learn with the Best

Anastasia Root

PRODUCT MANAGER AT GOOGLE

Anastasia is a Growth Product Manager at Google, leading growth for the Google iOS Search app. Prior to Google, Anastasia has worked on products in Real Estate, FinTech, dating, navigation, and enterprise software.

Alex King

PRODUCT MANAGER AT UBER

Alex is passionate about simplifying complex user problems. He leads Rider Experience for JUMP Bikes & Scooters, and previously Setup Experiences for smart home devices like Google Wifi, Google Home, and Chromecast.

Yuva Murugan

PRODUCT CONSULTANT

Yuva has led SaaS products across various-stage startups and Fortune 10 companies. She is dedicated to evolving a company's vision into a product with a strong market fit, while creating delightful user experiences.

All Our Nanodegree Programs Include:

EXPERIENCED PROJECT REVIEWERS

REVIEWER SERVICES

- Personalized feedback & line by line code reviews
- 1600+ Reviewers with a 4.85/5 average rating
- 3 hour average project review turnaround time
- Unlimited submissions and feedback loops
- Practical tips and industry best practices
- Additional suggested resources to improve

TECHNICAL MENTOR SUPPORT

MENTORSHIP SERVICES

- Questions answered quickly by our team of technical mentors
- 1000+ Mentors with a 4.7/5 average rating
- Support for all your technical questions

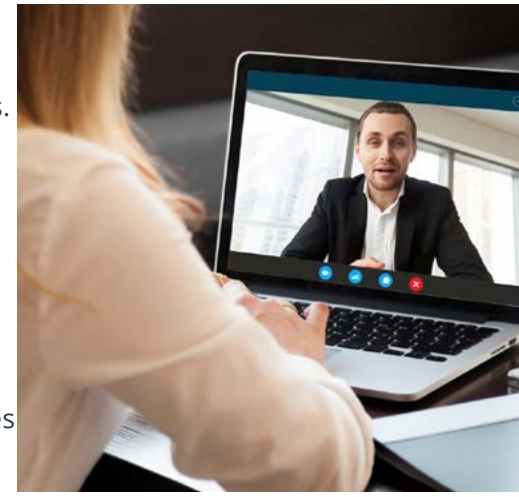
PERSONAL CAREER SERVICES

CAREER SUPPORT

- Resume support
- Github portfolio review
- LinkedIn profile optimization

Frequently Asked Questions

PROGRAM OVERVIEW



WHY SHOULD I ENROLL?

Product Managers are highly coveted roles in both large enterprises and startups. It's a role that commands considerable influence, and involves working closely with many cross-functional teams to develop new products and features from scratch, and bring them to market.

This program is designed for students who want to assume key leadership roles in product development in their company. You will learn how to define product strategy and KPIs based on market analysis, pitch a product vision to get stakeholder buy-in, and design a user-centered prototype that adheres to engineering constraints. Then, you will develop an execution timeline that handles competing priorities, communicate a product roadmap that builds consensus amongst internal stakeholders, and create a comprehensive go-to-market plan based on product KPIs. Finally, once launching a product into the market, you'll learn how to build tests to enhance product features based on market data.

WHAT JOBS WILL THIS PROGRAM PREPARE ME FOR?

This program will equip you with the foundational skills to assume entry-level product manager roles. You'll learn directly from experienced Product Managers at Uber and Google, who have constructed this Nanodegree program to equip you with the most in-demand and relevant industry skills.

HOW DO I KNOW IF THIS PROGRAM IS RIGHT FOR ME?

This program is intended for anyone who wants to be equipped to become a Product Manager. If you want to learn the core skill set required in all Product Manager roles, which is the foundation for more specialized roles like Growth Product Manager, Data Product Manager, AI Product Manager, and more, this program is for you.

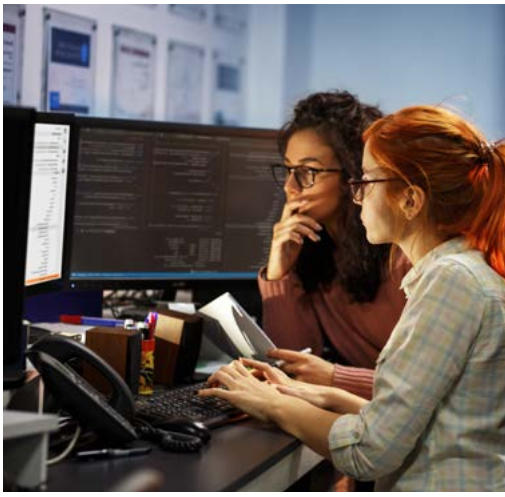
WHY SHOULD YOU WANT TO BECOME A PRODUCT MANAGER?

Product Manager is a top 5 job on **LinkedIn's Most Promising Jobs for 2019**, and one of the most coveted roles in large tech enterprises, as well as entrepreneurial startups. Glassdoor lists Product Manager in the Top 4 in their list for the Best 50 Best Jobs in America for 2020.

With **a starting base salary of $125,000,** Product Management roles in the US have grown an **astounding 32% over just a two year period**, from August 2017 to June 2019, higher than software engineering job growth (21%) and overall US job growth (6%) during that same time span.

FAQs Continued

ENROLLMENT AND ADMISSION



DO I NEED TO APPLY? WHAT ARE THE ADMISSION CRITERIA?

No. This Nanodegree program accepts all applicants regardless of experience and specific background.

WHAT ARE THE PREREQUISITES FOR ENROLLMENT?

No prior experience with Product Management is required. You will need to be comfortable with basic computer skills, such as managing files, using third-party online programs, and navigating the Internet through an online browser.

TUITION AND TERM OF PROGRAM

HOW IS THIS NANODEGREE PROGRAM STRUCTURED?

The Product Manager Nanodegree program is comprised of content and curriculum to support four projects. Once you subscribe to a Nanodegree program, you will have access to the content and services for the length of time specified by your subscription. We estimate that students can complete the program in four (4) months, working 10 hours per week.

Each project will be reviewed by the Udacity reviewer network. Feedback will be provided and if you do not pass the project, you will be asked to resubmit the project until it passes.

HOW LONG IS THIS NANODEGREE PROGRAM?

Access to this Nanodegree program runs for the length of time specified in the payment card above. If you do not graduate within that time period, you will continue learning with month to month payments. See the **Terms of Use** and **FAQs** for other policies regarding the terms of access to our Nanodegree programs.

SOFTWARE AND HARDWARE

WHAT SOFTWARE AND VERSIONS WILL I NEED IN THIS PROGRAM?

You will need to use Google Slides or Microsoft PowerPoint, and Google Docs or Microsoft Word, access to a video camera (phone or computer camera work well), as well as access to the internet and a 64-bit computer.