UDACITY
FOR ENTERPRISE

THE SCHOOL OF BUSINESS

Product Manager

NANODEGREE SYLLABUS

Overview

Product Manager Nanodegree Program

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.

Product Managers are responsible for designing and delivering a profi table product or feature into the market. In this program, you will learn 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, you will build tests to enhance product features based on market data.

Program Information

TIME
4 months
Study 10 hours/week

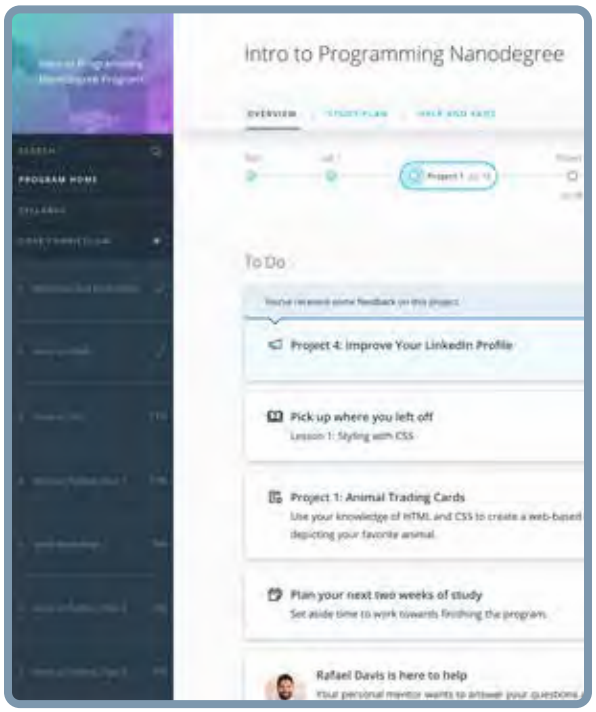
LEVEL
Foundational

PREREQUISITES
Basic computer skills, such as managing files, using third-party online programs, and navigating the Internet through an online browser.

HARDWARE/SOFTWARE REQUIRED
A computer running a 64-bit operating system with at least 8GB of RAM and access to the internet.

LEARN MORE ABOUT THIS NANODEGREE
Contact us at enterpriseNDs@udacity.com.

Our Classroom Experience



REAL-WORLD PROJECTS

Learners build new skills through industry-relevant projects and receive personalized feedback from our network of 900+ project reviewers. Our simple user interface makes it easy to submit projects as often as needed and receive unlimited feedback.

KNOWLEDGE

Answers to most questions can be found with Knowledge, our proprietary wiki. Learners can search questions asked by others and discover in real-time how to solve challenges.

LEARNER HUB

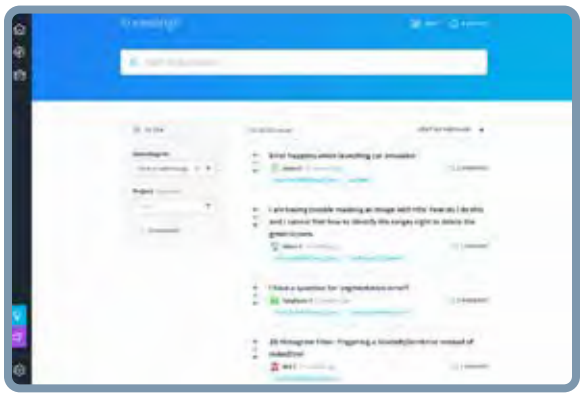
Learners leverage the power of community through a simple, yet powerful chat interface built within the classroom. Learner Hub connects learners with their technical mentor and fellow learners.

WORKSPACES

Learners can check the output and quality of their code by testing it on interactive workspaces that are integrated into the classroom.

QUIZZES

Understanding concepts learned during lessons is made simple with auto-graded quizzes. Learners can easily go back and brush up on concepts at anytime during the course.



CUSTOM STUDY PLANS

Mentors create a custom study plan tailored to learners' needs. This plan keeps track of progress toward learner goals.

PROGRESS TRACKER

Personalized milestone reminders help learners stay on track and focused as they work to complete their Nanodegree program.

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.

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 invested in your ideas.

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.

LESSON TITLE	LEARNING OUTCOME
INTRO TO PRODUCT MANAGEMENT	• Understand what Product Management involves. • Describe why Product Management is important. • Understand the history and evolution of Product Management.
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.

Course 1: Product Strategy, cont.

LESSON TITLE	LEARNING OUTCOME
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.
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.
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.
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 create 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.

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.

LESSON TITLE	LEARNING OUTCOME
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.
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.
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.

Course 2: Product Design, cont.

LESSON TITLE	LEARNING OUTCOME
SKETCH	• Describe the Sketch phase of the Design Sprint. • Use the Crazy 8s 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 three frames.
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.
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.
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.
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.
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 feasibly 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.

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 reported production issues and resource constraints, to stakeholder feedback and requests that come up during product development.

LESSON TITLE	LEARNING OUTCOME
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.
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.

Course 3: Product Development, cont.

LESSON TITLE	LEARNING OUTCOME
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.
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.
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.

Project: Deliver a Product to Market

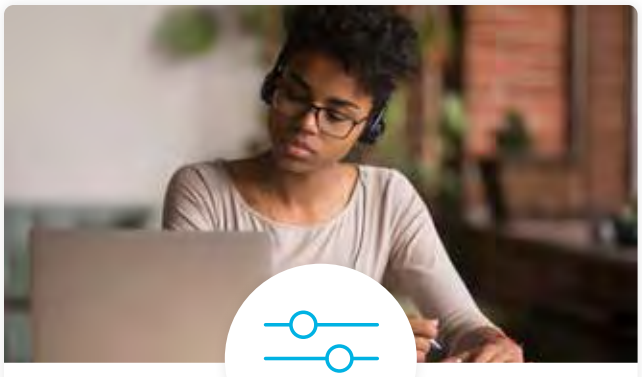
A product finally realizes its impact once it is delivered to customers. In this project, you will take the product you have developed in the earlier courses and bring it to market. First, you will create a pre-launch process, including identification of launch risks and mitigations, to enable launch. 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.

LESSON TITLE	LEARNING OUTCOME
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.
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.

Course 4: Product Launch, cont.

LESSON TITLE	LEARNING OUTCOME
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.
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 Nanodegree Programs Include:



Pre-Assessments

Our in-depth workforce assessments identify your team's current level of knowledge in key areas. Results are used to generate custom learning paths designed to equip your workforce with the most applicable skill sets.

Dashboard & Progress Reports

Our interactive dashboard (enterprise management console) allows administrators to manage employee onboarding, track course progress, perform bulk enrollments and more.

Industry Validation & Reviews

Learners' progress and subject knowledge is tested and validated by industry experts and leaders from our advisory board. These in-depth reviews ensure your teams have achieved competency.

Real World Hands-on Projects

Through a series of rigorous, real-world projects, your employees learn and apply new techniques, analyze results, and produce actionable insights. Project portfolios demonstrate learners' growing proficiency and subject mastery.

Our Review Process

Real-life Reviewers for Real-life Projects

Real-world projects are at the core of our Nanodegree programs because hands-on learning is the best way to master a new skill. Receiving relevant feedback from an industry expert is a critical part of that learning process, and infinitely more useful than that from peers or automated grading systems. Udacity has a network of over 900 experienced project reviewers who provide personalized and timely feedback to help all learners succeed.

Vaibhav
UDACITY LEARNER

"I never felt overwhelmed while pursuing the Nanodegree program due to the valuable support of the reviewers, and now I am more confident in converting my ideas to reality."

now at

CODING VISIONS INFOTECH

All learners benefit from:

- Line-by-line feedback for coding projects
- Industry tips and best practices
- Advice on additional resources to research
- Unlimited submissions and feedback loops

How it Works

Real-world projects are integrated within the classroom experience, making for a seamless review process flow.

- Go through the lessons and work on the projects that follow
- Get help from your technical mentor, if needed
- Submit your project work
- Receive personalized feedback from the reviewer
- If the submission is not satisfactory, resubmit your project
- Continue submitting and receiving feedback from the reviewer until you successfully complete your project

About our Project Reviewers

Our expert project reviewers are evaluated against the highest standards and graded based on learners' progress. **Here's how they measure up to ensure your success.**

900+

Expert Project Reviewers

Are hand-picked to provide detailed feedback on your project submissions.

1.8M

Projects Reviewed

Our reviewers have extensive experience in guiding learners through their course projects.

3

Hours Average Turnaround

You can resubmit your project on the same day for additional feedback.

4.85 /5

Average Reviewer Rating

Our learners love the quality of the feedback they receive from our experienced reviewers.

UDACITY
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For more information visit: www.udacity.com/enterprise