

PRODUCT MANAGEMENT COURSE NUMBER Summer 2023, 3 Credits

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TA: TBD

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Communications from professor and teaching assistants about the course will take place through Canvas. Students should make sure they regularly check for announcements and messaging notifications.

COURSE DESCRIPTION

Product management is a fast growing field born out of the need for a single person or small team of people within an organization to own the entirety of the end-to-end product development cycle, while also understanding and reconciling product decisions with business needs. This course focuses specifically on **digital product management** and is intended as a primer for those interested in a product management career or those with a general interest in how **technology products** are made. Those who want to play at the intersection of technology, business, and management are often well-suited for product management, a role that is often referred to as "CEO of the product" but without direct control of most of the resources required to build and launch a successful product. Product managers must be proficient in a broad range of capabilities, and must lead through influence, not authority.

This course is aimed at those without a strong technical background who want to develop the knowledge and skills to get a leg up when joining a technology company. This course is geared toward students that aim to work at medium to large sized companies as a product manager or leader, where firms are expected to innovate and launch new products and features as a means of ensuring they retain market relevance or expand into new markets based on current capabilities. We will cover the product development cycle from ideation to commercialization in that context. This course is not geared toward start-ups or new ventures, even if some of the concepts are applicable.

Students will get a strong understanding of what it means to be a product manager and its role in the organization. For those students who decide to put the skills learned from this class into practice, CBS offers a Digital Product Management Lab, a team based experiential class that partners with member companies to address "Problems to be Solved" that require fresh product development thinking. For those students that decide against moving into PM as a career, many



of the concepts and approaches covered in this class will help students in whatever path they choose.

STUDENT LEARNING OUTCOMES

The discipline of Product Management is evolving, as evidenced by the plethora of blogs, articles, books and opinions from some of the most accomplished product managers and consultancies. The PM curriculum at CBS, including this introductory Product Management course, curates, organizes, and delivers the latest thinking as a foundation for students who aim to pursue careers in Product Management at medium to larger sized established firms. The specific objectives of the course are to:

- Understand what it means to "own the product": Product is something that transcends any given iteration and is more akin to a brand: it is a living, changing thing that evolves over time. We will explore how products are different from brands and also different from features, learn how they are created and maintained, and about how the product manager is the keeper of a product's identity. We will also explore how this role changes as product managers are promoted to lead product teams.
- Learn strategies for leading across all stages of the digital product lifecycle: The product manager manages the process of creating a digital product from front to end, and as any product manager will tell you: there is no end. You will learn how digital products get built from conception to launch (and beyond) and the role of the product manager at each stage of the digital product lifecycle. You will learn frameworks and strategies to understand proven approaches to spotting product opportunities, building and launching successful products, managing a product portfolio and managing the product life cycle, and exploring how the focus and strategies change based on size and maturity of the company and product.
- Explore approaches to leading Product Management teams in complex environments. You will learn the essentials of product management and actionable ways to drive not only a product, but a product team. We will also explore how the PM role functions within a larger organization, how the role differs from company to company, and what sorts of pertinent experience one needs in order to be hired as a product manager. You will learn strategies, frameworks, and tactics for managing cross-functional teams and leading through influence, not authority.

CLASSROOM NORMS AND EXPECTATIONS

Core Culture

Students are expected to adhere to <u>CBS Core Culture</u> in this class by being Present, Prepared, Participating.

Inclusion, Accommodation, and Support for Students

At Columbia Business School we believe diversity strengthens any community or business model and brings it greater success. The School is committed to providing all students with equal opportunity to thrive in the classroom by providing a learning, living, and working environment free from discrimination, harassment, and bias on the basis of gender, sexual orientation, race, ethnicity, socioeconomic status, or ability.

Students with documented disabilities may receive reasonable accommodations. Students are encouraged to contact the Columbia University's Office of Disability Services for information about registration.

Columbia Business School adheres to all community, state, and federal regulations as relate to Title IX and student safety. Read more about CBS' policies to support <u>Inclusion</u>, <u>Accommodations and Support for Students here</u>.

Honor Code and Academic Integrity

The <u>Columbia Business School Honor Code</u> calls on all members of the School community to adhere to and uphold the notions of truth, integrity, and respect both during their time in school, and throughout their careers as productive, moral, and caring participants in their companies and communities around the world. All students are subject to the Honor Code for all of their academic work. Failure to comply with the Honor Code may result in <u>Dean's Discipline</u>. Here you can review <u>examples of Academic Misconduct</u> which may result in discipline.

Course Attendance Policies

Students from all programs should review and be familiar with the <u>MBA Core attendance policy</u> <u>here</u>. Students are expected to be present in all class sessions, including the Lab Working sessions (typically the second meeting of the class in a given week). Failure to attend class will negatively impact participation grade.

Method of Evaluation

Your overall grade will depend on the mix of individual and team assignments according to the following percentages:

Individual Participation	25%
Individual Assignments	25%
Final Group Project (written and presentation)	50%

Letter grades for the course will be assigned in accordance with Columbia Business School's recommended grade distribution for elective courses. There will be several "deliverables" to be turned in at various points in the course, but the class discussions and activities in the course and in discussion forums are very important aspects of the course and the learning experience. **Coming to class, being attentive, and actively participating are expected. Asking**



questions, challenging assumptions, and inspiring others are all part of the process. An active classroom will simulate what it is like to work on a product team.

Thus, grades will be based both on assignments that are turned in and on your performance in the classroom and off-site discussions.

COURSE ROADMAP/SCHEDULE

Classes will be a combination of lecture, case studies, in-class exercises, and guest speakers, with a group project intended to mimic the team nature of product development work. Throughout the sessions, various case studies, articles, videos, podcasts, and other materials will be assigned as required content to discuss in class. Throughout the course, students are expected to come to class prepared. This typically implies achieving a good understanding of the material covered in previous classes as well as of any assigned readings.

The course will cover the following topics and is subject to change. Readings, cases and assignments are under development.

MODULE 1: Introdu	ction & Defining Product Management	
Welcome to Product	Management! In Module 1 we review the course schedule and align on the definition of a product and what a product manager does.	
+ Course Admin	 + Review schedule, assignments and class expectations + Team project overview 	
+ What is a Product Manager?	 + Defining the role of PM: + CEO of the Product + Product's role in aligning with company vision, mission and translating strategy into goals/objectives/tactics + Product management vs. project management vs. product marketing vs program management 	
This curriculum is org starting with understa star: building product course of the first few	MER & MARKET DISCOVERY anized (roughly) to follow the timeline of the product development cycle, anding your customer. It's critical for PMs not to lose sight of their north as that solve a clear user problem and their willingness to pay. Over the of weeks we will explore frameworks and best practices for finding enerating ideas and making good decisions.	
Assessing Digital Product Opportunities	 + What is a product? How do products differ from features? Or brands? + Finding Product/Market fit (and continually chasing market fit) + Starting with "Why" + Finding Opportunities and Jobs to be Done 	
Customer Centricity & Market Research	 + Building products around user needs + 'Lean" User Research Qualitative & Quantitative Methods (First Principles / Personas / Journey Maps / Empathy Maps / Hypothesis 	

	Statements) + How to use qualitative and quantitative research for getting from 0-1
Ideation & Prioritization	Swift advances in technology create an environment for the need to continually test new product ideas to remain competitive. And as companies increasingly become hyper-connected to their stakeholders, ideas can come from anywhere. + Frameworks for leading teams to think expansively and seek a broad range of potential solutions before coding begins
	If ideation is done well, you will have more good ideas then you have resources to build. We will review how to make tradeoffs in light of constrained engineering resources + Frameworks for making prioritization decisions + Communicating "strategy" internally (e.g., MRDs)

MODULE 3: BUILDING GREAT PRODUCTS

Once you've decided what problem you're solving and what you aim to build, commercial success is often (ok, always) dependent on execution. In most cases, Product Managers need not be computer scientists nor design experts to be effective. However, it is critical to have a baseline understanding for, and appreciation of, how those teams operate, and be able to be a thought partner and leader during the development cycle.

Over the course of the next few weeks, we will review the role a Product Manager plays in developing products in partnership with engineering and UX teams.

Prototypes & MVPs	Getting Feedback + Prototyping (e.g. Wireframing, User Flows) + Software tools (low code, no code) + Building minimum viable products (not a prototype)
Agile Product Development	+ What is "agile" and why is that better than (or similar to) the "waterfall" process
Managing X-Functional Product Teams in large organizations	 + Communicating with x-functional teams (e.g. Roadmaps & PRDs): what they are (and aren't) and how to build and manage them + Task (project) management (and tools to help)
UX Primer	More and more, across categories and bleeding into B2B and other categories, the products that delight users gain a competitive advantage over those that don't prioritize that aspect. + Defining UX / UX vs. CX + User-Centered Design Process + Visual Design / Common UI Elements + Principles of Great UX + Application Definition Statements + Fostering Empathy + Personalization
Information Architecture Primer	Data is central to all digital products; how you access it, how you use it and how you store it.

 + Understanding data flow + Data models Designing systems (that the data flows through) is the job of the engineering team, but it is critical that PMs understand the core building blocks and be cognizant of the complexity the engineering team is managing.
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 + Front end/back end + Communication protocol + Scaling + Privacy & Authentication +
 + Software development fundamentals + SDKs + APIs + Web tools + Technical debt +
+ Web 3.0 + ML/AI + VR/AR
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MODULE 4: GO-TO-MARKET FOR TECH PRODUCTS

As the product is being built, "Go-To-Market" teams are responsible for deciding how the product will be priced, which customer segments to focus on and when and how to prepare the sales and marketing teams for readiness, among other things.

Over the course of the next few weeks we will review the strategic considerations when launching (and growing) digital products, prominent business models in tech firms and how to set goals, and manage teams against those goals.

Digital Platforms (Strategic Considerations unique to Digital First Businesses)	 + Components of Digital Platforms + Network Effects + Required decisions
Commercializing Technology	Components of GTM + Product Readiness + Market & customer segmentation + Required participants + Business model & pricing + Legal considerations + Sales & Marketing readiness

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Managing Product	+ Product-led growth:
Growth	+ user growth (increase share of market)
	+ user engagement (increase share of wallet)
	+ increase size of market
	+ Techniques for evaluating customer engagement in existing products to set priorities
	+ Test and learn: culture and practice
	+ Fundamentals of sound experiment design (e.g. AB-Testing)
Setting Goals	+ Defining product success "Outcomes versus Outputs"
	+ Setting KPIs & Goals (for who?)
Managing	Unlike the "CEO" the "CEO of the Product" does not have everyone
Stakeholders	reporting to her. PMs must learn the skill of influencing without authority
	in order to motivate teams to work in unison
	+ Working with engineering
	+ Working with design
	+ Working with marketing
	+ Working with business
	+ Working with legal
	+ Working with finance
	+ Working with leadership
MODULE 5: ETHIC	AL AND POLITICAL CONSIDERATIONS WHEN BUILDING
TECHNOLOGY PRO	
Several prominent te	echnologies have become so intertwined with our day-to-day they are

shaping how society evolves. Misinformation, social-media addiction, access and use of private data are just a few of the challenges faced by society. In these last sessions, we will discuss the unique considerations a PM must consider when building products with so much scale the influence how we evolve as citizens of the world.

Regulatory Considerations in Technology	 + Government regulation + Self-regulation - does it work + Data privacy: data access, collection and use in the context of privacy
Ethics in Tech Product Dev	"Could" vs "Should" when developing products: + Threats to Truth + Ethical AI + Environmental Sustainability + Physical and Mental Health (creating addictive behaviors, influencing them)