

**ENT-1012: Spring 2024**  
**Technology Product Management**

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**Class: Thursday 6:20 to 9:30pm**  
**Google Classroom Link: TBA**

**Instructor:** [Nikhil Sud](#) (M.S. Harvard University, B.S. Massachusetts Institute of Technology)

**Email:** [nikhilsud@gmail.com](mailto:nikhilsud@gmail.com)

**Office Hours:** TBD or online with prior requests

- **Link to Sheet:** TBD

**Course Overview:**

Product management is one of the most sought-after functions in today's organizations, whether in technology product firms or elsewhere. Technology firms differentiate from their competitors based on how user-centered their products are, and non-tech firms such as banks similarly aim to stay competitive by implementing product-based thinking in their technology offerings.

Digital product managers who can drive product vision and business growth have hence become critical to modern firms. Initially a Silicon Valley phenomenon, the growing importance of product management – a cross functional discipline which comprises of a deep focus on customers and design, emphasizes the centrality of data in making decisions and the importance of keeping abreast of evolving technological and market dynamics, and utilizes business metrics to evaluate the success of technological innovations – now means that product managers can be found in firms across sectors and industries. The product function is hence a critical differentiator that determines whether a technology product satisfies user needs in a seamless way, ensuring rapid adoption by customers, or becomes a hindrance towards achieving business goals.

This product management course will teach important skills necessary to be an effective product manager and build, launch, and grow successful digital products. Key focus areas include assessing customer pain points, designing a compelling product vision, leveraging product analytics, and working effectively across functions, including engineering, UX and senior management. Students will engage in group exercises and case discussions.

**Course Objectives:**

This course does not require any prerequisite of technology or business courses. The course requires an interest in digital technology (such as using smartphone applications, social media, or productivity software) and how these innovations are produced by the companies that develop them. Students from all academic backgrounds with the above mentioned interests would fit in nicely.

Learn the important skills necessary to be an effective product manager and build, launch, and grow successful products.

Develop empathy for customers, identify their pain points, and prioritize accordingly

Learn how to build and communicate a compelling product vision and roadmap

Develop cross functional collaboration skills necessary to motivate and align stakeholders toward success

Understand go-to-market strategies to accelerate customer adoption of products at any growth stage

Learn how to utilize analytical skills and KPIs (such as A/B testing, daily active users or customer churn/retention), and set goals using OKRs, to guide the product management process and achieve product goals

**Target Participants:**

This course is ideal for aspiring product managers and product owners interested in transitioning into a product management role upon graduation or bringing product thinking into their future organization.

Similarly, it is relevant for those looking to work with product managers, or those such as aspiring entrepreneurs looking to deepen their understanding of the discipline.

**Organization of the Class:**

The course is conducted in 6 sessions of 180 mins each. You are expected to contribute to class, to have completed the readings prior to coming to and to be prepared to discuss the readings in class. Your class contributions will be part of your participation grade.

A. Theory Readings: Each session’s readings will include a theoretical component emphasizing product management concepts and frameworks. To prepare for the class, you should write down one or two questions or discussion points that come up for you from the theory readings which will help the other participants of the class.

B. Pop Quiz: There will be 4 pop quizzes covering the theory part of the readings. These will be simple 10 minute, single page quizzes with multiple choice or fill in the blank type questions.

C. Case Discussion: Each sessions’ readings will also include a case study discussing one or more real-world examples of product management. These case studies, including key learnings and conclusions from them, will be discussed in class interactively.

D. Group Presentations: Students will be expected to work in Groups of 2-5 and prepare a group presentation during one session.

Students will be expected to commit at least 2-3 hours per session for out-of-class readings and group projects.

**Evaluation:**

The course is designed to be a) highly practical, b) supremely challenging requiring intellectual application & agility and c) intense class participation. While the course is focused on learning outcomes and not on grades, it follows the Ashoka standard grading rubric as follows:

Percent	Letter Grade	GPA Quality Points
90 – 100	A	4.0
85 – 89	A-	3.7
80 – 84	B+	3.3
75 – 79	B	3.0
70 – 74	B-	2.7
65 – 69	C+	2.3
60 – 64	C	2.0
55 – 59	C-	1.7
50 – 54	D+	1.3
45 – 49	D	1.0
40 – 44	D-	0.7
< 40	F	0

**Proposed Grading:**

1. Class Participation and Attendance: 20 % (absence in more than 1 session without prior TA consent will lead to zero marking). Class doors close on the dot and no entry post start of class. Classes also end on the dot unless with participant consent
2. Group Presentations: 15%
3. Peer rating from group on the participation of individual group members: 15 %
4. In-Class Surprise Quizzes : 20%
5. Individual Final Exam: 30 %

## Assignment Descriptions:

Attendance & Participation (20%): To be marked according to the standard ENT department rubric. (An explanatory paragraph by the TA will be circulated before the course starts)

In class Pop Quizzes (20 %): These will be designed to test if the participant has prepared for the session

Individual Final Exam (30%): This will be held in the final session. Questions will be asked both from the course readings and case studies, as well as open-ended questions pertaining to product management

### Peer Rating (15%):

A Google form will be distributed after each presentation to all group members to peer review their teammates. The peer rating will be the average of the score given by one's fellow group members

### Group Presentation (15%):

A 5-6 slide PowerPoint presentation of any technology product pitch sourced from an existing real-world case study

1. Products chosen should be from everyday technology that the rest of the class can be reasonably expected to be familiar with (e.g. Gmail, Twitter, Instagram, Slack, Dropbox, iPhone/Android apps, Office 365 etc)
2. Each group should obtain prior approval from the professor on the selected product case prior to presenting in class. Presentations should be emailed to the professor at least 3 days before the class (i.e. by 6pm on the Monday preceding the class on Thursday)
3. The rest of the students will ask questions of the presenting group and role play various roles on the team, such as sales, engineering, or senior management / investors
4. Case studies can be sourced from the following case study repository, or externally from the internet:
  - o FirstRound - <https://review.firstround.com/articles/product>
5. Examples of product case studies that can be selected:
  - o [Firstround, The Inside Story on How SurveyMonkey Cracked the International Market](#)
  - o [Firstround, How Dropbox Sources, Scales and Ships Its Best Product Ideas](#)
  - o [Productboard, How Highlights on Medium changed publishing forever](#)

### **Note:**

*Detailed instructions pertaining to the final exam will be made available on Google Classroom.*

## Expectations (from students)

TBA in class

## Course Outline and Tentative Schedule:

**\*\*SYLLABUS IS SUBJECT TO CHANGE BY INSTRUCTOR, W/T ADVANCED NOTICE\*\***

#	Topic	Sub-Topics	Readings
1	Introduction to Product Management	<ol style="list-style-type: none"><li>a. What is product management?</li><li>b. Typical day, personality traits, growth opportunities of PMs</li><li>c. Types of PMs</li><li>d. Analytics, segmentation, targeting</li><li>e. GTM, strategies, macro/micro factors</li><li>f. Customer centricity, design thinking</li><li>g. Business &amp; innovation fundamentals for PMs</li></ol>	<a href="#">Silicon Valley Product Group, Behind Every Great Product - Netflix, Apple iTunes, Google AdWords</a>  (Optional) <a href="#">NASSCOM Product Management 101 Playbook: Product Management Overview &amp; Landscape, pages 3-34</a>
2	Product Roadmapping	<ol style="list-style-type: none"><li>a. What is a product roadmap?</li><li>b. Why is this important?</li><li>c. How to plan what goes in a roadmap</li></ol>	<a href="#">Roadmunk, Product Roadmap – The Ultimate Guide</a>

		<ul style="list-style-type: none"> <li>d. How to build a roadmap</li> <li>e. How to present a roadmap to get buy-in</li> <li>f. Product roadmap examples</li> </ul>	<a href="#">Silicon Valley Product Group, Behind Every Great Product – Word for Mac, BBC Mobile, Adobe Creative Cloud</a>
3	Designing features - User stories, agile planning and estimation	<ul style="list-style-type: none"> <li>a. What is a good user story?</li> <li>b. How to write good user stories</li> <li>c. User story templates, examples &amp; details</li> <li>d. Who writes user stories? When?</li> <li>e. Agile planning – sprint, milestone, release planning</li> <li>f. Agile estimation – why?</li> <li>g. Relative estimations &amp; backlogs</li> <li>h. Estimating with story points</li> <li>i. Who, when and how to estimate stories</li> </ul>	<p>Mountain Goat Software:  <a href="#">Agile User Stories</a>  <a href="#">Agile Planning</a>  <a href="#">Agile Estimation with Story Points</a></p> <p>Case Study:  <a href="#">Growth.design, Airbnb – Reducing Customer Churn</a></p>
4	Design thinking & customer centricity	<ul style="list-style-type: none"> <li>a. What is design thinking?</li> <li>b. Understanding &amp; empathizing with customers</li> <li>c. Design thinking process</li> <li>d. Design thinking case studies</li> </ul>	<p><a href="#">Harvard Business School – 5 Examples of Design Thinking in Business</a></p> <p>Case Study:  <a href="#">Growth.design, How LinkedIn Increased Notification Opt-in Rates by 500%</a></p>
5	Product analytics & success metrics	<ul style="list-style-type: none"> <li>a. Benefits of analytics/metrics</li> <li>b. Why these matter</li> <li>c. Key success metrics</li> </ul>	<p><a href="#">The Product Manager, A Guide To Product Analytics: Benefits, Metrics &amp; Why It Matters</a></p> <p><a href="#">The Product Manager, 12 Key Product Success Metrics (+Examples)</a></p> <p>Case Study:  <a href="#">Growth.design, Tinder - How Tinder Converts 8% Of Singles Into Customers In Less Than 15 Minutes</a></p>
6	Getting real-world ready and working with stakeholders	<ul style="list-style-type: none"> <li>a. Product management skillset</li> <li>b. OKRs vs KPIs</li> </ul>	<p><a href="#">Product School, The Difference: OKRs vs KPIs</a></p> <p>(From session 1):  <a href="#">NASSCOM Product Management 101 Playbook: Product Management Overview &amp; Landscape, pages 3-34</a></p>

### **Faculty Details:**

Nikhil Sud is a technology professional with 10 years of work experience at diverse firms, from startups to multinationals, across sectors and geographies.

He holds a BS in Management (with IT) from the Massachusetts Institute of Technology, and an MS in Computational Science & Engineering from Harvard University. While at MIT he was able to teach in schools in Italy, China and Israel, spent a semester studying abroad in Paris, and was involved with a biotech startup in Germany.

He began his career in the US with GE's Information Technology Leadership Program (ITLP), and later moved to the Bay Area as an early member of the product team at ad-tech startup LiveRamp, which was acquired during his tenure. Following this, he was a founding team member at Bangalore-based CoWrks, where he set up and led technology product development and IT services teams, and scaled them to support 25 coworking centres pan-India. CoWrks was acquired by Brookfield.

During the pandemic he joined ThoughtWorks in Singapore as a consultant to the Singapore Government on a healthcare mobile app with 2.5 million users. Most recently he was a Vice President at Goldman Sachs in Bangalore, where he was the product leader for a proprietary internal platform that was selected as a flagship project of the firmwide Digital Strategy Office.

### **STANDARD COURSE POLICIES**

#### ***Academic Honesty and Plagiarism:***

The best learning communities are characterized by a commitment to integrity in academic standards and professional conduct. Students are expected to understand and abide by the campus Code of Academic Integrity. I will be using the Turn-it-in software provided by the university to detect plagiarism. If the software detects plagiarism in your work, you will lose the entire grade component for that assignment and depending on whether this is the first time or a repeat offense, the citation of plagiarism (that includes copying in an examination) will be reported to the Office of Academic Affairs. Please make sure you are well versed with what constitutes plagiarism and how to avoid it. For example, copying verbatim and including the citation in the references is still plagiarism. Similarly, circulating the same essay for different courses is plagiarism. There are no acceptable excuses for failure to maintain academic honesty. **You can use ChatGPT and other LML engines, however please give due credit be prepared to explain the learning outcome in class when asked**

#### ***Academic Accommodations:***

Students requiring specific academic accommodations should contact me with the appropriate documentation from OAA and/or OLS during the first week of the semester. If you need accommodations, I **strongly** encourage you to not wait till the week of the assessment/exam. Please reach out to the OLS as soon as possible and we will do our best to support you. I will not be able to offer accommodations if I do not have the required documentation. I will also not be able to support any last-minute requests for extensions, exceptions and/or other accommodations.