

B7632 DIGITAL PRODUCT MANAGEMENT LAB SPRING 2023, 3 CREDITS

Chris LaSala

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Office Hours

- Wednesday 10:00 to 1:00 (In person)
- Flexible Office Hours: Please email me to request a meeting (either virtual or in person) outside of office hours.

COURSE/TEACHING ASSISTANTS

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

COURSE DESCRIPTION

The ‘digitization’ of business has radically transformed entire industries and created new ones, with speed, force, and in ways that could not be imagined two decades ago. Current foundational changes (web3, crypto/blockchain) are only accelerating the pace of change, putting even more pressure on firms to innovate quickly. The Product Manager has become the central player in leading technology firms to innovate and stay relevant, responsible for identifying, building and delivering products in hyper-fast development cycles.

As the “CEO of the Product” Product Managers must be proficient in a wide range of capabilities which have been introduced in the Introduction to Product Management and Product Management II classes. This class (the Lab) will provide students with the opportunity to put those best practices and frameworks into practice by applying them to real problems and opportunities offered up by member companies. Students will be assigned specific product challenges and be responsible for completing assignments (as noted below) across most stages of the product development cycle, from ideation through commercialization. Although projects will vary based on the needs of the partner company, example possible problem statements that are appropriate for this class might include:

- Develop a new solution for an unaddressed customer need

- Address a new market requirement or react to competitive threats to ensure maintenance of an ever evolving product market fit (e.g. address changes in user behavior, adhere to regulatory requirements) while maintaining business viability
- Explore new technological applications to an existing value proposition

The course culminates in a formal recommendation to company executives with the suggested MVP, commercialization thesis, and business rationale.

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.

PRE & CO-REQUISITE COURSES

This course is offered to students who have completed Introduction to Product Management and Product Management II (previously known as “So, you want to be a PM?”) or the new 3 credit Product Management class offered in the Fall 2022. The pace of the class will be swift, and we will refer to concepts learned in the earlier courses to complete the course work. Students who have not completed Intro to PM and PM II (for example have only completed Intro to PM or PM II) or students who have completed neither but have prior experience as a product manager (e.g., held a role as a product manager in a technology company or have founded a technology start-up) should fill out [this form](#) prior to request approval before registering for the course.

Although not a requirement for registering for the Lab, students who have taken other electives that are relevant to building digital products will have the opportunity to put those frameworks into practice in this class as well. For example, students will have the opportunity to (not an exhaustive list):

- Apply frameworks to drive ideation (as learned in Foundations of Innovation, Innovate Design Thinking)
- Deploy qualitative and quantitative customer research techniques to get customer feedback (as learned in Strategic Customer Insights, Modern Econometrics for Business)
- Recommend commercial strategies that reflect the networked strategic frameworks (as learned in Technology Strategy, Growth Hacking)

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 the Lab, 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 Lab are to:

- Deploy product management frameworks, tools and best practices that were learned in the prerequisites, on a current problem or opportunity faced by a member company.
- Experience the pace and complexity of what it takes to be a product manager in an ecosystem that is rapidly evolving, covering most aspects of the product life cycle (evaluating market needs, ideating on new products that achieve market and company fit, building roadmaps, driving prioritization decisions, developing MVP prototypes, sourcing customer feedback and building commercialization plans and business models).
- Apply strategic thinking to product design that naturally leverages the use of data and technology to build a competitive advantage.
- Influence without authority and negotiate with stakeholders by working in a team setting where team members will play different roles and will be accountable to each other for quick progress and success.
- Communicate effectively via presentation to member company executives

CLASSROOM NORMS AND EXPECTATIONS

Core Culture

Students are expected to adhere to [CBS Core Culture](#) 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 [Inclusion, Accommodations and Support for Students here](#).

Honor Code and Academic Integrity

The [Columbia Business School Honor Code](#) 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 [Dean's Discipline](#). Here you can review [examples of Academic Misconduct](#) which may result in discipline.

Course Attendance Policies

Students from all programs should review and be familiar with the [MBA Core attendance policy here](#). 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	15%
Individual Case Write Ups • Google Glass • Facebook: Hard Questions (A)	20% 10% 10%
Final Course Team Project • Market Requirements Doc • Prototype Plan • Product Requirements Doc • Final Written Project Report or Presentation to Member Company • Individual Project Contribution (via peer evaluation)	65% 15% 5% 20% 20% 5%

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. Thus, grades will be based both on assignments that are turned in and on your performance in the classroom and off-site discussions. I will try to get feedback to you regarding your write ups as quickly as possible, so it is important that these deliverables be submitted on time and late submissions will impact grades.

COURSE ROADMAP/SCHEDULE

The class will be run via a mix of lecture, case discussion, guest speakers and hands on work. 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. Unlike other classes, teams will have the opportunity to make progress on their capstone projects during class, but the expectation is that there will be substantial work outside of class required to satisfactorily complete the member company project.

Pre-Class Assignment (Jan 3rd) Member company preference survey.		
Jan 3rd	Required reading: - Read the participating Company briefs and rank your preferences. This survey will be used to create teams and assign teams to companies and we will do our best to align students with their preferred companies. Assignment Due by 6:00pm Jan. 3rd (Individual): - Fill out the member company preferences survey. Teams will be assigned by Jan. 5th before the first class.	
Session 1: Course Introduction - Course project assignments & company kick-off meetings - Finding Fit - Understanding Customers, Company and Market Context		
Friday Jan 6	Lecture/Discussion (1.5 hours) - Overview of course objectives, assignments, and trajectory of the class - Refresher of the role of the product manager and product development lifecycle, that will be the basis for this practicum. - What makes a good PM - Assessing product opportunities - Communicating via an MRD - Understanding Product Market Fit	Required reading: Good Product Manager/Bad Product Manager (<i>an oldie but a goody</i>) The Product Manager The Only Thing That Matters Why Design Thinking Works Assessing Product Opportunities Product/Market Fit: What it really means, How to Measure it, and Where to find it

	Lab Working Session (1.5 hours) - For the last hour of this class your team will meet the company you have been assigned to work with for the term. Leverage this guidance to prepare for that meeting. - Research member company and industry (for context) - Form as a team: Determine how you work together over the term. Consider creating norms for communicating, assigning roles (including picking a primary point-of-contact to engage with member company). Document your agreement. This does not have to be shared with the professor.	
Session 2: Customer Discovery		
Saturday Jan 7	Lecture/Discussion (1 hour) - Qualitative research - Quantitative research	Required reading: How to Use Qualitative and Quantitative Customer Research in Product Development Qualitative Customer Research Qualitative vs Quantitative Testing (<i>has some ideas about how to manage testing</i>) How Many Customer Interviews Should You Do? Needfinding (<i>great advice on customer interviews</i>)
	Lab Working Session (2 hours) - Craft surveys and/or interviews for seeking customer input - Plan how you will get ‘customer feedback’ with the goal of starting the process in this and the following week.	Assignment (Team): Create outline of an ‘agile’ Market Requirements Doc (MRD) and assign owners to each section by the end of week. <i>Do not post in Canvas at this time, but be prepared to share with prof on request in the next Lab Working Session.</i>
Session 3: Product-market-fit considerations in multi-sided platforms		
Friday Jan 20	Lecture (2 hours) - Multi-sided platforms - Network effects	Required reading: Strategic Decisions for Multisided Platforms
	Lab Working Session (1 hour) - Determine if your project exhibits platform tendencies and consider the multiple participants in the ecosystem. Determine if they should be in the consideration set as you gather customer input. - Continue customer feedback process.	Assignment (Team): In the MRD, document the “Why.” Explain the problem statement and why the company is in a unique position to solve it. <i>Do not</i>

	• <i>Tip: Outside of this class you should be collecting customer input. Be sure to dedicate sufficient time as ‘homework’ talking to customers or reviewing survey results.</i>	<i>post in Canvas at this time, but be prepared to share with prof on request in the next Lab Working Session.</i>
Session 4: Developing Opportunity Thesis & Generating Ideas		
Saturday Jan 21	Case Discussion (1 hour)	Case Assignment (Individual): • Read: Google Glass • Review the case questions in this document • Submit a pdf document in Canvas that answers the questions by 8:00am on Feb. 3 (before class starts)
	Lecture (1 hour) • Jobs-to-be-done • Methods for ideation	Required reading: • Jobs to be done • Hypothesis Driven Validation
	Lab Working Session (1 hour) • Based on customer research, identify customer ‘Jobs to be Done.’ At this point, be expansive as there are likely several customer personas with varying needs.	
Session 5: Narrowing the solution set		
• Making good decisions - Prioritizing features • Making good decisions - Ethics, Privacy and Regulatory Considerations in Product Management		
Friday Feb 3	Lecture (45 mins) • Frameworks for making prioritization decisions Case Discussion (45 mins) • Framework for ethical product development • The role of regulation in tech	Required reading: • Product Prioritization Frameworks • 20 Product Prioritization Techniques: A Map and Guided Tour Case Assignment (Individual): • Read: Facebook: Hard Questions (A) • Review the case questions in this document • Submit a pdf document in Canvas that answers the questions by 8:00am on March 3rd before the start of class • Supplemental Required reading:

		○ Beyond Good Intentions ○ The New Rules of Data Privacy
	Lab Working Session (1 hour 30 mins) ● Finalize customer discovery process. Identify one or two customer personas and focus the remainder of the course outcomes on that segment. Document your rationale in the MRD. ● Pick a prioritization decision making framework ● <i>Tip: As homework, in preparation for the next Lab working session where you will focus on ideation, develop your own list of solutions before that class.</i>	Assignment (Team): In the MRD, document customer persona(s). <i>Do not post in Canvas at this time, but be prepared to share with prof on request in the next Lab Working Session</i>
Session 6: Ideation & Prioritization Sprint		
Friday Feb 17	Lab Working Session ● Run a 3 hour brainstorming and prioritization session. Nothing else. Be expansive in your thinking (Diverge). ○ <i>TIP: You should have previously identified one or two customer personas. For simplicity, focus the remainder of the course outcomes on that segment</i> ○ <i>TIP: You may need additional time outside of this meeting to finalize the prioritization effort. Plan accordingly, as the remainder of the class will be focused on a specific idea.</i> ● Complete MRD for final submission	Assignment (Team): Make a final prioritization decision and include the full set of ideas and prioritization rationale in the MRD. Assignment (Team): Submit final Market Requirements Doc (MRD) in Canvas as a pdf by Thursday March 2nd 11:59pm.
Session 7: Technology Requirements Part I: Prototypes & Systems Architecture		
Friday March 3	Lecture (1.5 hours) ● Building prototypes for testing without building products ● Minimum Viable Products ● Systems architecture	Required reading: ● Minimum Viable Product (MVP) ● Consider Wireframes, Mockups or Prototypes <i>Additional Resources (Optional)</i> ● 18 best Prototyping tools Required reading: ● Technical Fluency for a Product Management Role ● Primer: Understanding Software and Systems Architecture <i>Additional Tech Primers (Optional)</i> ● A Beginner's Guide to Information Architecture

		• Web computing primer • Choosing the right technology for your mobile app • A Primer on Cloud Computing • Machine Learning: A Primer
	Lab Working Session (1.5 hours) • Work on your prototype. You will likely need time to complete outside of class, so plan accordingly. • Start documenting systems architecture • <i>Tip: Divide and conquer</i>	Assignment (Team): Create outline of an ‘agile’ Product Requirements Doc (PRD) and assign owners to each section. <i>Do not post in Canvas at this time, but be prepared to share with prof on request in the next Lab Working Session.</i> Assignment (Team): In Canvas, submit a final prototype by March 24th 11:59pm. Submission can take whatever form necessary (e.g. document, slides, link to 3rd party tool, etc)
Session 8: Technology Requirements Part II: Emerging Tech		
Saturday March 4	Guest Speaker (1 hour) • Crypto, Decentralization, NFTs, Blockchain - Transformative or Hype?	Required reading: • Why the Web 3.0 Matters and you should know about it • A primer on immersive reality • Blockchain primer
	Lab Working Session (2 hours) • Finalize and document the systems architecture	Assignment (Team): Document (in the PRD) the technology requirements to launch a functioning product or feature including at least, feature(s) description, user flows, system & environment requirements, constraints and dependencies. <i>Do not post in Canvas at this time, but be prepared to share with prof on request in the next Lab Working Session.</i>
Session 9: Go-to-Market Part I: Commercialization		
Saturday March 25	Lecture (1.5 hours) • The role of PRD (Product Requirements Doc) or Roadmaps • Business model considerations • Defining success criteria and what makes for a good KPI	Required reading: • The Importance of Go-To-Market for Tech Companies • John Doerr on OKRs and Measuring What Matters (video) • You Need to Manage Digital Products for Outcomes Not Outputs • Developing a Product Roadmap • How to Write a Painless Product Requirements Doc

	Lab Working Session (1.5 hours) - Determine the product's commercialization needs and what cross-functional team engagement is required. - Define the go-to-market strategy, messaging, and business plan. - Agree on the Key Performance Indicators (KPIs).	Assignment (Team): Document (in the PRD) the Go-To-Market requirements including at least recommended 1st year OKRs and KPIs, business model (if applicable) and recommendation on which functions are required to bring the product to market. <i>Do not post in Canvas at this time, but be prepared to share with prof on request in the next Lab Working Session.</i>
Session 10: Go-to-Market Part II: Aligning and leading teams around a vision		
Friday March 31	Guest Speaker (1.5 hours) Communicating and influencing without authority	How to Influence Without Authority in the Workplace How to Influence Without Authority
	Lab Working Session (1.5 hours) Work on PRD and final presentation flow	
Session 11 & 12: Final Presentation Prep		
Friday April 14	In Class + Lab Working Session (3 hours) - Use in class sessions to do a summary review of the executive review meetings. 8 teams at 20 mins each - Teams work in groups and cycle through the main classroom for final advice.	
Saturday April 15	Lab Working Session (3 hours) Work as a team on final presentation prep.	Assignment (Team): Submit final Product Requirements Doc (PRD) in Canvas as a pdf by Sat. 4/15 11:59pm.
Final Presentation Week (During Make Up Week)		
Week of April 21	Presentations should be during the week of April 21st. We will hold Friday class time for 2 meetings. The remainder need to be scheduled during the week at other times.	Assignment (Team): All final presentations/write-ups should be uploaded to Canvas by 4/22 11:59pm. Complete peer evaluation survey by 4/22 by 11:59pm