



## 17-619: Product Management Essentials I

Spring 2025, 6 Units

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### Instructor

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### Email

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### Office and Office Hours

300 S. Craig St. Room No. 275  
Office Hours by appointment, virtual

**Course Description.** This course prepares students to understand and use essential product management concepts and practices of product innovation. This 6-unit course emphasizes learning-by-doing to achieve the learning objectives. Students will work individually on a hands-on, course-long project focused on a problem space selected by the student and approved by the instructor for course fit.

Students will acquire customer-centric thinking skills to compose a well-defined, worthwhile customer problem to solve; to generate and specify an innovative product solution concept; to design, price and quantify a compelling and differentiated customer value proposition. These skills are used in the early stage of every new product or service idea.

**Prior Knowledge.** It is beneficial, but not required, for students to have taken an introductory course or have experience in one of the following: business, strategy, marketing, product design, product development, innovation, or entrepreneurship. Most important is a desire to learn product management and to use critical thinking.

**Learning Objectives.** By the end of this course, students will be able to:

- Identify and recognize essential concepts used in conceiving, describing, and planning new product ideas
- Use the whole problem framework to compose a well-defined customer problem.
- Apply solutioning techniques to generate product ideas, define a product concept from multiple viewpoints, and identify product requirements.
- Apply value-centric concepts to design, price and quantify a customer value proposition that customers find compelling and justifiable to buy/use a product idea.
- Use the customer perspective to analyze competition for positioning opportunities.
- Make market and product focus decisions.

**Learning Resources.** You'll be provided with the class slides, examples, papers written by the instructor, and other papers and articles. Each of these published items are accessible within the course assignments on Canvas.

**Technology Resources.** In this course, we will use several technologies:

- Canvas – Our course Canvas site will be the central place for your assignments, learning materials, and the class slides. Make sure you are setup to receive notifications of announcements and of new and changed assignments.
- Slack – Our course's slack channel will be used to communicate and answer questions about the course.
- OLI platform – Specific learning activities have been prepared using CMU's Open Learning Initiative (OLI) software platform. These activities feature low-stake exercises in the form of multiple choice, true/false, multiple answers, and other similar types.
- Google Suite – We'll provide Google Docs and Forms for you to complete various tasks during some course learning activities.

**Assignments and Assessments.** Student's knowledge, comprehension and application skills will be assessed in the following ways:

- **Product Assignments (80%).** There are 7 Product Assignments that students will complete during the course. Each one builds upon the student's work in the previous Product Assignment and culminates in an innovative product idea that offers compelling value to customers. It's an opportunity to apply the product management concepts explained in the course to a student's chosen and approved customer problem space.
  - Students need to submit their work on-time to receive full credit.
  - There is a 1-point late penalty for each "day" an assignment is submitted. A "day" begins one minute after the deadline and ends 24 hours later.
  - All students are given 3 late credits that will be applied automatically when grading. This late credit is NOT usable on the final Product Assignment. There is a separate late policy posted with that assignment.
    - *Example 1:* you submit your Product Assignment No. 2 late by 3 hours. This is your first late Product Assignment submission. One late credit would be applied and No. 2 would not have a late penalty deduction. You'd have 2 more late credits that can be used on subsequent late submissions of Product Assignments.
    - *Example 2:* you submit your Product Assignment No. 3 late, 49 hours after the deadline. Three late credits would be applied at the start of each 24-hour period. Your grade would not be reduced by the late penalty. You would be out of late credits for the remaining assignments.
  - Students do not need to ask for a late credit to be used. The TAs will apply any remaining credits automatically and let you know.
  - There will be no further lateness exceptions on Product Assignments. There is no opportunity to earn extra credit on Product Assignments.

- **Learning Activities. (20%)** Each week there are several, low-stake Learning Activities to complete in-class and outside of class. They are intended to help you to recall, understand and use the concepts that are taught in class BEFORE you apply them for your weekly Product Assignments. Ultimately, this approach will lead to stronger knowledge retention and comprehension.
  - There are 3 types of Learning Activities in this course:
    - 11 in-class exercises (1 in each class except the 1st and last class)
    - 12 post-class exercises (online)
    - Studio Events (up to 5 may be scheduled.)
  - Complete each Learning Activity as they are assigned/due, and you will earn you 1 point. You can earn a maximum of 20 points. There will be at least 25 Learning Activities, and potentially 28, to earn these 20 points.
  - There are no other opportunities to get any credit for a late submission or to earn extra credit.

### Grading System.

Activity	Final Grade (Points = %)
Learning Activities (in-class exercises, post-class exercises, Studio events)	20
Product Assignment 1	4
Product Assignment 2	10
Product Assignment 3	14
Product Assignment 4	14
Product Assignment 5	15
Product Assignment 6	10
Product Assignment 7	13
TOTAL	100 points

Grade	Percentage Interval
A+, A, A-	98-100%, 93-97%, 90-92%
B+, B, B-	87-89%, 83-86%, 80-82%
C	70-79%
D	60-69%
R (F)	59% or below
Grades are rounded up or down to the nearest integer. For example, 89.49 rounds down to an 89. An 89.50 rounds up to a 90.	

**Course Schedule at a Glance.** The course schedule including class dates, topics, and assignment is published on the Canvas site. Below is a summary of the schedule. All Product Assignments, except the last one, are due by the start of the class on Monday and cover the classes in the previous week.

Class	Topic
1	Course Overview. Introduction to Product Management.
2	Customer Problem Space – Part 1: Problem Space Framework, the Customer Concept, Job To Be Done
3	Customer Problem Space – Part 2: Outcomes, Problems
4	Customer Problem Space – Part 3: Problem Causes, Customer Journey Mapping, Problem Reframing
5	Customer Problem Space – Part 4: Use Cases, Problem Sizing and Communication
6	Market Space – part 1: Market segmentation
7	Market Space – part 2: Competition and Product Positioning
8	Market Space – part 3: Market and Product Focus Decisions. Solution Space – part 1: Product Idea Generation, Product Idea Description
9	Solution Space – part 2: Functional Requirements and User Views
10	Solution Space – part 3: Non-Functional Requirements and Context Views.
11	Customer Value Space – part 1: Customer Value, Features/Benefits, Differentiated Value
12	Customer Value Space – part 2: Value Proposition Strategy and Value-Based Pricing
13	Customer Value Space – part 3. Customer Purchase Justification, Total Addressable Market size, and Product Narrative.

**Accommodations for Students Disabilities.** If you have a disability and have an accommodations letter form the Disability Resources office, I encourage you to discuss your accommodations and needs with me as early in the semester as possible. I will work with you to ensure that accommodations are provided as appropriate. If you suspect that you may have a disability and would benefit from accommodations but are not yet registered with the Office of Disability Resources, I encourage you to contact them at [access@andrew.cmu.edu](mailto:access@andrew.cmu.edu).

**Academic Integrity.** Honesty and transparency are important to good scholarship. Plagiarism and cheating, however, are serious academic offenses with serious consequences. If you are discovered engaging in either behavior in this course, you will earn a failing grade on the assignment in question, and further disciplinary action may be taken.

For a clear description of what counts as plagiarism, cheating, and/or the use of unauthorized sources, please see the [University's Policy on Academic Integrity](#).

If you have any questions regarding plagiarism or cheating, please ask me as soon as possible to avoid any misunderstandings. For more information about Carnegie Mellon's standards with respect to academic integrity, you can also check out the [Office of Community Standards & Integrity](#) website.

**Student Wellness.** As a student, you may experience a range of challenges that can interfere with learning, such as strained relationships, increased anxiety, substance use, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may diminish your academic performance and/or reduce your ability to participate in daily activities. CMU services are available, and treatment does work. You can learn more about confidential mental health services available on campus at the [Counseling and Psychological Services](#) website. Support is always available (24/7) from Counseling and Psychological Services: 412-268-2922.

**Respect for Diversity.** It is my intent that students from all diverse backgrounds and perspective be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know if any of our class meetings conflict with your religious observations so that I can make alternate arrangements for you.