



Carnegie Mellon University
Master of
Software Engineering

17-612: Business and Marketing Strategy

Fall 2024, 6 Units

Class Sessions

Tuesdays and Thursdays

Section A1	11:00 a.m. to 12:20 p.m. Eastern Time.	Room 265 at 300 South Craig St.
Section B1	3:30 p.m. to 4:50 p.m. Eastern Time.	Room 265 at 300 South Craig St.
Section D1	3:30 p.m. to 4:50 p.m. Eastern Time.	Room 265 at 300 South Craig St.

Instructor

Jim Berardone

Email

jberardone@cmu.edu

Office and Office Hours

Room 275 at 300 SCR or Zoom, by appointment.

Teaching Assistants

Email

- Yarra Abozead, MSE Scalable Systems, School of Computer Science, yabozaed@andrew.cmu.edu
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This course prepares technically minded students to understand, use and communicate essential business concepts in their careers. With this competency, students will be able to make use of, contribute to, and influence the business and marketing decisions that affect engineering and technology decisions, quality, and performance. Students will be better equipped to make business arguments for supporting their ideas in their future, too.

This 6-unit course emphasizes learning-by-doing to achieve the learning objectives. Each student will work on a course-long individual project where they'll conceive, plan, propose and justify creating new technology product idea for an existing company. Using the class lessons and assigned readings and videos, students will learn to align a product idea and plans with the company's mission and strategy. They'll make product, marketing, sales, pricing, and competitive positioning decisions and create a financial model with assumptions. They will examine the interplay between these decisions. The students' work will culminate with the creation of a compelling business case, with financial projections, to persuade the company to invest in the product idea.

Prior Knowledge. There are no pre-requisites for this course.

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

- Use key business concepts and terms that apply to technology product development and commercialization.
- Create a business case for investing in a new technology product idea.
- Apply a company mission and strategy in forming a new technology product idea.
- Understand the interplay of company, product, commercial decisions and product financials.

Participation.

Students are expected to attend the class session for their section of the course. Permission to attend a different class section will be given once in exceptional circumstances only.

Students in Sections A1 and B1 are expected to attend in-person, are given access to the recordings of the classes of Sections B1/D1.

Students in Section D1 are part of a CMU distance degree program (e.g., MSE Online). They are provided with remote access to class via Zoom, access to recordings of classes for Section D1.

Learning Resources. We will use several learning resources in this course.

1. Learning Materials

a. There are required (and optional) articles and videos assigned to you during this course. These resources will be accessible from the course site on Canvas at no cost to you.

b. A collection of 10 required articles has been created for your use in this course. It is available from Harvard Business Publishing as a “coursepack.”

- You can purchase and download the coursepack from here: <https://hbsp.harvard.edu/import/1085323>
- The cost is: \$46.35 (US) for 10 required articles

2. Course Library page

A collection of selected, specialized business resources has been made available for your use at no cost by the CMU Libraries. You will need to use these resources in this course.

- Bookmark this page, and if you have time, explore the resources to know what is available. <https://guides.library.cmu.edu/17-612>

3. Class Slides and Recordings

The slides of each class session and the video-recorded class sessions of Section D1 will be made available on Canvas, usually within a few hours after the end of a class session. The recordings will be accessible by every student in any section of the course.

- The recordings are not a substitute for attending class. Each class session involves hands-on application of the course material and instructor feedback. Each student is expected to attend every class. Please note that you are not allowed to share these recordings. This is to protect your FERPA (Family Educational Rights and Privacy Act) rights and those of your fellow students.

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

- Canvas
 - Our course site will be available on Canvas. It 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
 - Students should use the Slack channel to ask questions outside of class sessions. As many students often have the same or similar questions, it's most helpful to everyone to post these as public questions on Slack.
 - The Instructor and TAs will use the Slack channel to make announcements.
- Zoom
 - We use Zoom ONLY for students enrolled in a CMU Distance degree program. The Zoom room access is available on the home page of the Canvas site.

Grading. There are 2 parts of the evaluation and grading system for this course.

- **Product Assignments. (90%).** There are 6 Product Assignments with one due each week, except the last one. Students will apply what they are learning to their own new product idea for a publicly-traded company they've chosen. Each Product Assignment builds upon the previous assignment. At the end, students will have developed a business case (i.e., justification) for investing in the new product idea that considers the aspects of business strategy, market, competition, technology, marketing, sales and financial.

Lateness. The deadlines for most product assignments are set at the start time of your section's class session on Tuesdays. Since each class session builds upon the previous lessons and assignments, it's important to stay current with these assignment deadlines. ***A 5% lateness penalty will be applied for each day that it is late, measured from the deadline time.*** For the final assignment, there will be no acceptance of a late submission.

- **Peer Learning Activities (10%).** There are 2 opportunities outside of the class sessions for students to learn from collaborating with their peers. Small peer groups of students will be formed. For each Activity, student will get ideas from their peer group that they can

consider using prior to completing their next product assignment. These exchanges can be done synchronously and/or asynchronously.

Lateness. The lateness penalties for each of these 2 Peer Learning Assignments are included in the grading rubric on Canvas for each. The deadlines for each are set so that your peers in your group have sufficient time to use your work for their next assignment.

Grading Item	Final Grade (Points)
Product Assignment 1	100
Product Assignment 2	100
Product Assignment 3	150
Product Assignment 4	200
Product Assignment 5	150
Product Assignment 6	200
Peer Learning Activity 1	50
Peer Learning Activity 2	50
TOTAL	1000 points

Grade	Percentage Interval
A+, A, A-	97-100%, 93-96%, 90-92%
B+, B, B-	87-89%, 83-86%, 80-82%
C	70-79%
D	60-69%
R (F)	59% or below

Course Schedule. The following schedule provides a general overview of topics and assignments. Please refer to the Canvas site for all the latest lecture topics, assignments, and due dates.

Week	Date	Class	Topic & Pre-Class Assignments	Product Assignments
1	Aug. 27	1	Course Overview and Introduction to Business	No. 1 – Due Tuesday Sep 3 The Business and Product Line Context
	Aug. 29	2	Business Models and Financials	
2	Sep. 3	3	Business and Product Line Strategies	No. 2 – Due Tuesday Sep 10 The Strategy Context and New Product Idea
	Sep. 4	4	New Product Ideas	
3	Sep. 10	5	Target Markets and Customers	No. 3 – Due Tuesday Sep 17 Markets and Competitive Position
	Sep. 12	6	Competition and Positioning	
4	Sep. 17	7	Product Strategy	No. 4 - Due Tuesday Sep 24 Product
	Sep. 19	8	Product Design	
5	Sep. 24	9	Pricing	No. 5 - Due Tuesday Oct 1 Go To Market
	Sep. 26	10	Marketing, Sales, and Customer Success	

Week	Date	Class	Topic & Pre-Class Assignments	Product Assignments
6	Oct. 1	11	Product Revenue	No. 6 - Due Saturday Oct 12 Financials and Business Case
	Oct. 3	12	Product Expenses – part 1	
7	Oct. 8	13	Product Expenses – part 2	
	Oct. 10	14	Financial Analysis and Justification	

Accommodations for Students Disabilities. If you have a disability and have an accommodations letter from 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.

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.

In this course, there are parts of assignments that will ask you to find and capture certain information, as is. In these cases, you can “copy” this information but must cite the source. If you do this, there will not be any academic integrity issue.

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.