



Managing Innovation and Technology MGMT480 Syllabus

Spring 2025 7-weeks

Course Modality:

This online course will be conducted fully online, asynchronously, via Canvas. For more information on using Canvas and other supported learning tools, visit the IST Service Desk Knowledgebase.

Instructor Information

Instructor	Email	Office Hours
Michael Okrent, Sc.D., PMP,	mdo8@njit.edu	Online only by <u>appointment</u>
CQM/OE	-	Please do not schedule same-
		day appointments without
		sending an email.

*I will respond to all emails/Inbox messages within 48 hours. Quizzes, homework, and discussions will be graded weekly.

General Information

Course Description

This course focuses on the strategic management of technology and innovation in firms. It will take the perspectives of various levels of management in studying value creation and value capture through technological innovation, intrapreneurship, and entrepreneurship. Students will examine and analyze how firms effectively manage activities involved in value creation and value capture.

Prerequisites/Co-requisites

Junior standing (57 credits)

Prerequisites do not apply to students enrolled in the Online Accelerated BS in Business program.

Course Learning Outcomes

By the end of the course, students will be able to:

- 1. Analyze the impact of technological innovation on consumers, producers, and society at large.
- 2. Demonstrate how organizations use innovation strategy to develop products and enter markets.
- 3. Justify the differences between disruptive technology and sustaining technology.

4. Use New Product Development Processes to exhibit expertise in commonly utilized methods within this field.

5. Explain how to protect innovation using patents, copyrights, and trademarks.

6. Describe the impact of creativity in New Product Development in an established organization and a startup.

Required Materials

- Strategic Management of Technological Innovation, 7th edition, Melissa Schilling, McGraw Hill, 2022. Covering Intrapreneurship and Large company NPD
- The Lean Startup, 1st edition, Eric Ries, Crown Currency, 2011.
- <u>Harvard Simulation</u> (\$16.25 as of 2024)
- Free <u>ChatGPT</u> account
- Free <u>Dalle-3</u> account
- You will need to submit certain assignments as videos of yourself, which you can record using either your webcam or your smartphone's camera.

Grading Policy

NJIT Undergraduate Grades

Final Grade Calculation

Final grades for all assignments will be based on the following percentages:

Quizzes (7)	30%
Discussion Forums (14)	25%
Exercises/ Learning Activities/Reflections	20%
Project/ Simulation	25%

Course Work

Quizzes: (30% of grade) There will be seven multiple-choice quizzes. Each quiz will assess your understanding of the material covered in two modules.

Discussion Forums: (25% of grade) The essence of an asynchronous course is the peer-to-peer interaction in each module. You are expected to participate in each discussion forum in Canvas.

When all students participate in a discussion, it creates an active learning environment that will help you better understand the materials and be more successful in the class.

Exercises/Learning Activities/Reflections: (20% of grade) Assignments will be given in each module to give you an opportunity to apply course concepts. These activities help you practice and prepare for the projects and simulation.

Project/Simulation: (25% of grade) There will be a project with regular milestones. For the project, you will have opportunities to iterate and revise your work based on peer and instructor feedback. The simulation will act as a capstone which will include a 3-4 page paper. Review the rubric that will be used to evaluate your performance.

	Project Timeline				
Milestone	Title	Due			
1	Problem Identification	Module 3			
2	Initial Validation	Module 5			
3	Refining the Product	Module 7			
4	Creating a Pro-Forma Budget	Module 9			
5	Second Validation	Module 11			
6	Revision & Reflection	Module 13			

Feedback

I will deliver feedback weekly on each assignment using the comments feature in Canvas. Late submissions may take longer to provide feedback.

Letter to Number Grade Conversions

А	90-100
B+	85-89
В	80-84
C+	75-79
С	70-74
D	60-69
F	0-59

Exam Information and Policies:

This course has no exams. Per the NJIT <u>Online Course Exam Proctoring Policy</u>, this course will use authentic assessment. You will be assessed and graded on your ability to deliver real-world outputs, participation, and feedback to other students.

Policy for Late Work

Discussions are not accepted late. Assignments, project milestones, and other activities can be submitted up to 2 days past the due date. A penalty of 10% will be assigned for submissions on the 3rd day and beyond.

Academic Integrity

"Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree to which you are working. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the <u>NJIT academic code of integrity policy</u>.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing, or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at <u>dos@njit.edu</u>"

Generative AI

- Al usage is fully permitted in this course. The usage of artificial intelligence (AI) is permitted in this course. If and when students use artificial intelligence in this course, the AI must be cited as is shown within the <u>NJIT Library AI</u> <u>citation page</u> for AI.
- Students will be asked to use artificial intelligence (AI) in this course. As such, when using the AI, avoid sharing any personal information (e.g., full name, email address, or location). It is recommended to turn off features that may collect any unnecessary data and delete personal data if possible.

Netiquette

Throughout this course, you are expected to be courteous and respectful to classmates by being polite and active participants. You should respond to discussion forum assignments in a timely manner so that your classmates have adequate time to respond to your posts. Please respect opinions, even those that differ from yours, and avoid using profanity or offensive language.

Module Expectations

This course is organized by modules. In this accelerated course, you will complete two modules per week for seven weeks. For each module, you will watch lecture videos, complete a reading assignment, listen to a podcast, and participate in a class discussion forum. Modules may contain optional videos or other content for enrichment that will not be assessed. All assignments are due at 11:59PM on the specified due date.

Week	Module	Торіс	Tasks	Sι	Ibmission Due Dates
1	1		 Read: Shilling Chapter 1 (12 pages) Ries Introduction & Chapter 1 Start (23 short pages) New Product Development Project Overview Watch: Meet your instructor Lecture Videos Submit: M1 Discussion: Introduce Yourself M1 Assignment: Create a Canva Account 	1. 2.	Initial post due Wednesday, Response to two classmates due Friday Sunday
1		Innovation	Read: Shilling Chapter 2 (28 pp) Ries Chapter 2 Define (10 pp) Listen: Podcast How I built this OpenAI Sam Altman Watch: Lecture Videos Submit: 1. M2 Peer Review Discussion: Open AI	1. 2. 3.	Discussion Part A by Thursday, Part B by Saturday, Part C by Sunday Sunday Sunday

Course Schedule

Week	Module	Торіс	Tasks		Submission Due Dates	
			 M2 Assignment: Create a Work of Art M2 Quiz 			
2	3	of innovation	Read Schilling Chapter 3 (24 pp) Ries Chapter 3 Learn (17 pp) Listen: Podcast How I built this Honest Tea Watch: Lecture Videos Submit: 1. M3 Discussion: Honest Tea 2. M3 Milestone 1 Problem Identification 3. M3 Reflection	2.	Discussion Part A by Thursday, Part B by Sunday Sunday Sunday	
2		Standards and Design Performance	 Read: Shilling Chapter 4 (22 pp) Ries Chapter 4 Experiment (15 pp) Listen: Podcast How I built this Method Podcast Tesla vs. The Competition (5:30-10:07) Watch: Lecture Videos YouTube: Battle for Standards and Dominant Design Submit: M4 Peer Review Discussion: Method M4 Assignment - Dominant Design M4 Quiz 		Discussion Part A by Thursday, Part B by Saturday, Part C by Sunday Sunday Sunday	
3	5		Read: Schilling Chapter 5 (18 pp) Ries Chapter 5 (4 pp) Listen: Podcast How I built this Door Dash Watch: Lecture Videos Submit: 1. M5 Discussion: DoorDash 2. M5 Milestone 2 Initial Validation	1.	Discussion Part A by Thursday, Part B by Sunday Sunday	
3	6	Organization's Strategic Direction	Read: Schilling Chapter 6 (20 pp) Ries, Chapter 6 Test (20 pp) Listen: Podcast How I build this Captcha/Duolingo Watch: Lecture Videos Submit: 1. M6 Peer Review Discussion: Captcha/Duolingo 2. M6 Assignment 3. M6 Quiz	2.	Discussion Part A by Thursday, Part B by Saturday, Part C by Sunday Sunday Sunday	
4	7	Innovation Projects	Read: Schilling Chapter 7 (24 pp) Ries, Chapter 7 Measure (32 pp) Listen: Podcast: Clif Bar: Gary Erickson Watch: Lecture Videos		Discussion Part A by Thursday, Part B by Sunday Sunday Sunday	

Week	Module	Торіс	Tasks	Submission Due I	Dates
			Submit: 1. M7 Discussion: Clif Bar: Gary Erickson 2. M7 Milestone 3 Refining the Product 3. M7 Reflection		
4	8	Strategies	Read: Schilling Chapter 8 (30 pp) Ries Chapter 8 Pivot (28 pp) Listen: Podcast: Taylor Ryan Watch: Lecture Videos YouTube: The Skill of Humor Submit: 1. M8 Peer Discussion: Taylor Ryan 2. M8 Assignment: Project Humor 3. M8 Quiz	 Discussion Pa Thursday, Par Saturday, Part Sunday Sunday Sunday Sunday 	t B by
5	9	Innovation	 Read: Schilling Chapter 9 (26 pp) Ries Chapter 9 Batch (20 pp) Listen: Podcast S2 Ep7: Protecting Ideas Drives Innovation Watch: Lecture Videos Submit: M9 Discussion: Protecting Innovation M9 Project Milestone 4 Creating a Pro-Forma Budget M9 Reflection 	 Discussion Pa Thursday, Par Sunday Sunday Sunday 	
5	10	Innovation	 Read: Schilling Chapter 10 (26 pp) Ries Chapter 10 Grow (17 pp) Listen: Podcast Organizational Structure: When Waiting is a Nightmare! (Duration: 53 minutes) Watch: Lecture Videos YouTube: Innovation Strategy Submit: M10 Peer Review Discussion: Organizational Structure M10 Assignment: M10 Quiz 	 Discussion Pa Thursday, Par Saturday, Part Sunday Sunday Sunday Sunday 	t B by
6		Product Development Process	Read: Schilling Chapter 11 (30 pp) Ries Chapter 11 Adapt (27 pp) Listen: Podcast Amazon Watch: Lecture Videos	 Discussion Pa Thursday, Par Sunday Sunday 	

Week	Module	Торіс	Tasks	Submission Due Dates
			Submit: 1. M11 Discussion: Amazon 2. M11 Project Milestone 5 Second Validation 3. M11 Discussion: ChatGPT Negotiation	
6	12	Managing New Product Development Teams	Ries Chapter 12 Innovate (18 pp) Listen: Podcast Freakonomics Entrepreneurial	 Discussion Part A by Thursday, Part B by Saturday, Part C by Sunday Sunday Sunday
7	13	Crafting a Deployment Strategy	 Read: Schilling Chapter 13 (28 pp) Ries Chapter 13 Epilogue (12 pp) Watch: Lecture Videos Listen: Podcast Freakonomics No New Ideas Submit: M13 Discussion: Creativity Drain Project Milestone 6 Revision & Reflection 	 Discussion Part A by Thursday, Part B by Sunday Sunday
7	14	Capstone	Watch: Lecture Videos Submit: 1. Project Simulation 2. M14 Reflection	1. Sunday 2. Sunday

Additional Information and Resources

Accessibility:

This course is offered through an accessible learning management system. For more information, please refer to Canvas's <u>Accessibility Statement</u>.

Requesting Accommodations:

The Office of Accessibility Resources and Services works in partnership with administrators, faculty, and staff to provide reasonable accommodations and support services for students with disabilities who have provided their office with medical documentation to receive services.

If you are in need of accommodations due to a disability, please contact the <u>Office of Accessibility</u> <u>Resources and Services</u> to discuss your specific needs.

Resources for NJIT Online Students

NJIT is committed to student excellence. To ensure your success in this course and your program, the university offers a range of academic support centers and services. To learn more, please review these <u>Resources for NJIT Online Students</u>, which include information related to technical support.