



Instructor: Ronald S. Elowitz
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Class Time & Location: Asynchronous / NA
Prerequisites: NA

**The Design and Development
of High Technology Products
MRKT 636-851
Fall 2023**

Office Hours: Upon Request. Skype: Anytime between 9:00AM – 8:00PM, M-F; with prior appointment (Skype ID: prof_elowitz). Weekend availability is not set, but requires prior appointment scheduling as well. Students can schedule Webex meetings with the Instructor as needed through the NJIT portal.

Course Overview

Focus on the analysis of needs of buyers and consumers for specific product characteristics and the development of appropriate products to satisfy such needs. The process of identifying new product opportunities, screening new product concepts, product testing and test marketing, product positioning, and the development of the marketing strategy and implementation plans.

Required Course Materials

Text: Iacobucci, Dawn (2017). Marketing Management (5th Ed.). Boston: Cengage Learning. ISBN-13: 978-1337271127

HBR Case Studies- All the required cases are available for purchase at: <https://hbr.org>. Most are between \$8.95 – 14.95 each. A Link to this course pack will be provided in Canvas: “MKTG 636-852 Spring 2023 HBSP Course Pack.” This is the link: <https://hbsp.harvard.edu/import/1089758>

A collection of relevant Web Articles that are integral to Discussion Post assignments have been posted within the Canvas LMS, and are free for students to access.

Recommended Texts for Your Personal Business Library:

Text: Ulrich Karl, Eppinger, Stephen and Yang, Maria C. (2019). Product Design & Development 7th Ed. New York: McGraw-Hill Education. ISBN-13: 978-1260566437

Text: Crawford, C., & Di Benedetto, C. (2014). New Products Management (11th ed.). McGrawHill/Irwin. ISBN 978-0078029042

Text: Christensen, Clayton M. & Raynor, Michael E. (2013). The Innovator's Solution: Creating and Sustaining Successful Growth (1st Ed.). Cambridge: Harvard Business Review Press. ISBN-13: 978-1422196571

Text: Christensen, Clayton C. (2013). The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail (Management of Innovation and Change, 1st Ed.). Cambridge: Harvard Business Review Press. ISBN-13: 978-1422196021

Text: Lidwell, Lillian, Holden, Kristina, & Butler, Jill (2003). Universal Principles of Design - 125 Ways to Enhance the Usability, Influence Perception, Increase Appeal, Make Better Design Decisions, and Teach Through Design. Beverly MA.; Rockport Publishers. ISBN 1-59253-007-9.

Learning Outcomes

Upon successful completion of this course, the student should be able to:

- **Remember & Understand:** Demonstrate knowledge of basic business concepts necessary to inform, organize and promote the commercialization of systemic product development life-cycle inputs, resources and functional requirements into concise, industry-relevant launch plans
- **Understand & Apply:** Employ diverse audience measurement and segmentation analytics, industry practices, marketing tactics and competitive management strategies to appropriately identify white space opportunities, address consumer and buyer pain points, and solve a diverse range of business problems
- **Analyze & Apply:** Choose from both Quantitative and Qualitative methodologies as tools to help understand business, human-centric (consumers) and societal challenges / gaps and expectations
- **Create & Apply:** Deliver effective presentations enhanced by technology (asynchronous/virtual in this course) enhance and improve the student/s presentation delivery, effectiveness and persuasive content to better engage potential business, executive audiences and stakeholders
- **Create & Apply:** Write clear, concise assignments and forum response/case study summaries
- **Evaluate & Understand:** Consider the moral implications and ethical schema of individual and organizational decisions / actions; consider domestic and global business conduct
- **Full-suite Skill Mastery:** Create, develop, showcase and embrace the everyday use of accepted business marketing and technology development languages; the course is designed to help those of you who want careers in - or wish to be prepared to enter the workforce as a product and/or portfolio management professional, NPD expert and/or innovation-focused business architect.

Expected Learning Outcomes

In addition to content specific course objectives, the course intends to help students develop a wide range of analytical, communication, interpersonal, and technology skills, namely:

MBA Program Learning Outcomes

Competency	Outcome
LC 1 Students will develop technology competency	LO 1.1 Summarize appropriate quantitative methods and technological tools (hardware and software) to resolve business problems
	LO 1.2 Effectively deliver technology driven presentations
LC 2 Students will develop critical thinking skills	LO 2.1 Demonstrate business knowledge to write and develop arguments to produce solutions and develop conclusions
	LO 2.2 Demonstrate information literacy and written communication skills
LC 3 Students will develop an understanding of ethics	LO 3.1 Formulate effective business decisions that are grounded upon moral and ethical decision-making frameworks

MSM Program Learning Outcomes

Competencies	Outcome
LC 1 Students will develop management solutions in an area of specialization	LO 1 Students will be able to critically synthesize appropriate concepts that provide integrated solutions to problems in the selected concentration areas
LC 2 Students will develop knowledge related to applying technology in business	LO 2.1 Demonstrate the ability to analyze and use quantitative methodologies to evaluate financial policies
	LO 2.2 Effectively deliver technology driven presentations
LC 3 Students will develop the ability to write effectively	LO 3.1 Devise detailed cogent reports

Course Website

Please go to CANVAS. The Canvas site is where most course materials are posted. Make sure you have an NJIT UCID and password so that you are able to access Canvas. I will use Canvas to post announcements and supplemental materials throughout the semester. **So, please be sure to check the site (canvas.njit.edu) frequently. Please contact helpdesk (973-596-2900) for problems associated with Canvas.**

Course Deliverables/ Final Grade Components

Your grade for this course will be based on the following components:

Assignment Category	# Assignments	# Point Value (per)	Total Points Possible
Mid-Term and/or Final Exam	N/A	N/A	N/A
Discussion Post Forum Responses	15	2.0	30.00
Individual Share Out's / Introductions	2	1.0	2.0
Group Assignment/s	13	2.0, 4.0 or 6.0	32.00
Final Project Report & Product Launch Plan	1	36.00	36.00
Capstone Project Participation / Peer Reviews	1	N/A	N/A
Total Grading Point Allocation			100.00

COURSE ASSESSMENTS AND GRADING RUBRICS:

- Individual Assignments and “Share outs” through scheduled Discussion Board Forum posts (300 – 500 words, more if desired) and required student interaction/response rates; submissions based on HBR Case Studies and related Web article sources as provided and must be in APA style with all references and source materials properly cited.
- Group Assignments - These are linked to specific deliverables composing elements of the NPD Capstone Product
- Final Group Project Report / NPD Capstone Product Plan (Complete Pitch presentation recorded and delivered)
- Peer Team Member Reviews - Individual assessments of each Group Project team member's performance including project participation appraisal, quality of academic output and overall level of effort observed at the close of the semester.

Final Grades

Grades are a reflection of the level of understanding of course content. Therefore, to achieve the grade of A or B in this class expect to:

- Be prepared. This means actively participating in discussions, exercises, and activities to further understanding.
- Turn in all course deliverables in a timely and professional manner. With less preparation and participation expect the grade of C or lower.

I have had students be very casual in taking a class for the first part of a term. Then, as the class nears the end, the student realizes a bad grade may be in the future and asks for an extra-credit opportunity or extensions to due dates. This is usually done with a **sad face, a soft voice, and a remorseful heart**. Please know now that such opportunities are not fair to the other students. So, the grading system established in this syllabus is final and no other opportunities exist. This means that each student should take this class seriously from the first week.

Final course grades will be based on the following scale (there will be NO curve):

Grading Scale

A	B+	B	C+	C	F
90%	85%	80%	75%	70%	<70%

Late Assignments

Late assignments will not be accepted for grading unless there is a severe illness or an emergency situation. In these cases, legitimate documentation of the emergency must be presented and approved by the office of the Dean of Students before extensions will be granted.

Email Etiquette

This is a business course, and the expectation is that you will conform to appropriate business letter writing practice in all of your email to me. The following are the basics.

- Put the course name (e.g. course name or course number) in the subject line
- Identify the subject of the e-mail with a brief but descriptive summary of the topic: include a proper salutation and the assignment details such as the title, homework, or test.
- Proofread your e-mail for proper sentence structure, capitalization, spelling and punctuation.
- Conclude the e-mail message with a proper closing (e.g. Regards, Sincerely) and your full name.

(Note: Do not e-mail requests for additional grade points unless there is an error in the grading. Please note that any grade discrepancies must be addressed within 2 weeks of the assignment due date. Grades are not 'given out' by the professor; they are 'earned' by the student. So, make sure that you 'earn' a grade that you can live with.)

Academic Integrity

Learning is both an individual and a cooperative experience. Asking for and giving help freely in appropriate settings helps you learn. However, you should present only YOUR work as your own. University rules and standards define and prohibit “academic misconduct” by all members of the academic community including students. You are asked and expected to be familiar with these standards and abide by them.

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 that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found

at: <http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf>.

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 dos@njit.edu.

Accommodations

Educational access is the provision of classroom accommodations, auxiliary aids and services to ensure equal educational opportunities for all students regardless of their disability. If you are in need of accommodations due to a disability please contact Scott Janz (oars@njit.edu), Associate Director of the Office of Accessibility Resources & Services (OARS), Kupfrian Hall 201, to discuss your specific needs. A Letter of Accommodation Eligibility from the OARS authorizing your accommodations will be required. Accommodations need to be requested in advance and will not be granted retroactively.

Classroom Policies

I will submit your assignments to Turnitin to check for plagiarism.

Final Comments

I reserve the right to change any aspect of this syllabus or the course schedule at any time, as the need arises. Students registered for this course assume full responsibility for reading and understanding the course policies as stated above.

The topics are tentative. Updates will be provided.

WEEKLY COURSE MODULES -ASSIGNMENTS AND GRADING POINTS:

Due Date: By Week	Topic	Course Structure & Competencies: Learning Outcome Alignment	Points*
Prework: 9/5 -9/9	<ul style="list-style-type: none"> Review Course Introduction & Welcome (Instructor) 	Course Expectations	N/A
	<ul style="list-style-type: none"> Review Course Syllabus Review (Instructor); Canvas Navigation 	Course Expectations	N/A
Week #1			
9/10	<ul style="list-style-type: none"> Discussion Post Individual Share-Out: Personal Introduction 	Customer Centricity	1.0
9/10	<ul style="list-style-type: none"> Discussion Post Individual Share-Out: A Favorite (Personally Relevant) High- Tech Product & Brand Experience 	Customer Centricity	1.0
9/10	<ul style="list-style-type: none"> Group Assignment: Capstone Project - High-Tech Product / Brand / Service / Experience Innovation Product Launch: Capstone Project - Team Sign-up Sheet 	Business Planning	2.0
Week #2			
9/17	<ul style="list-style-type: none"> Discussion Post: Creating Your Professional Brand Statement 	Customer Centricity	2.0
9/17	<ul style="list-style-type: none"> Group Assignment: Capstone Project - High-Tech Product / Brand / Service / Experience Innovation Product Launch: Capstone Project - Student Team Contract 	Business Planning	2.0
Week #3			
9/24	<ul style="list-style-type: none"> Group Assignment: Capstone Project - High-Tech Product / Brand / Service / Experience Innovation Product Launch: Capstone Project Description Statement - Selection 	Business Planning	2.0
9/24	<ul style="list-style-type: none"> Group Assignment: Industries, Brands, Industry Classifications & Product Category Morphology Mapping 	Business Planning	2.0
9/24	<ul style="list-style-type: none"> Discussion Post: Customer Empathy - How Others See the World 	Customer Centricity	2.0
9/24	<ul style="list-style-type: none"> Discussion Post: Customer Behaviors and Motivations 	Customer Centricity	2.0
Week #4			
10/1	<ul style="list-style-type: none"> Discussion Post: Global Companies & Value Propositions: An Introduction to the Business Model Canvas (BMC) 	Business Planning & Innovation	2.0
10/1	<ul style="list-style-type: none"> Group Assignment: Pitching Your Capstone Project Concept Using the BMC 	Business Planning & Innovation	2.0
Week 5			
10/8	<ul style="list-style-type: none"> Discussion Post: How Customers & Consumers Reinvent Brands 	Customer Centricity & Innovation	2.0
10/8	<ul style="list-style-type: none"> Group Assignment: Brand Association Networks & Personalities Diagrams 	Business Planning; Quantitative & Qualitative Analytics	2.0
Week #6			
10/15	<ul style="list-style-type: none"> Discussion Post: Design Thinking and Customer Empathy in Initiating the Design Process 	Problem Solving & Innovation	2.0
10/15	<ul style="list-style-type: none"> Discussion Post: Customer Journey Mapping & 360-degree Customer Experience (CX) 	Problem Solving & Innovation	2.0
Week #7			
10/22	<ul style="list-style-type: none"> Group Assignment: Customer Journey Map 	Customer Centricity & Business Planning	2.0
10/22	<ul style="list-style-type: none"> Group Assignment: Semester Mid-Point: Capstone Project Presentation Checklist / Current WIP 	Business Planning	2.0
Week #8			
10/29	<ul style="list-style-type: none"> Group Assignment: Predictive Customer Personas (3) for Your Product Launch Concept 	Customer Centricity & Business Planning	2.0
10/29	<ul style="list-style-type: none"> Mid-Point Semester Feedback 	Academic Excellence & Quality	0

Due Date	Topic	Course Structure & Competencies: Learning Outcome Alignment	Points*
Week #9			
11/5	• Group Assignment: Product Line, SWOT Analysis and Perception Mapping Tools	Business Planning; Global Business Constructs	6.0
11/5	• Group Assignment: Determining Customer Needs & Applying the Jobs to Be Done Framework	Business Planning & Problem Solving	2.0
Week #10			
11/12	• Discussion Post: Creative Brand Aesthetics & Design Theory	Innovation & Problem Solving	2.0
11/12	• Discussion Post: Sustainable Design Innovation	Innovation & Problem Solving; Global Business Constructs	2.0
Week #11			
11/19	• Discussion Post: New Product Development (NPD) Methodologies	Business Planning; Global Business Constructs; Problem Solving	2.0
11/19	• Discussion Post: Concept Evaluation and Testing Practices	Quantitative and Qualitative Evaluation; Business Planning	2.0
Week #12			
11/26	• Group Assignment: Explaining Technology Visually: Capstone Project / NPD Concept Technical Ecosystem & Functionality Map/s	Innovation & Problem Solving	4.0
Week #13			
12/5	• Discussion Post: Pricing Strategies and Tactics	Business Planning; Quantitative & Qualitative Analysis	2.0
12/5	• Group Assignment: Pricing Matrix and Rationale	Business Planning; Quantitative & Qualitative Analysis & Global Business Constructs	2.0
Week #14			
12/12	• Discussion Post: Digital and Content Marketing	Business Planning; Global Business Constructs & Problem Solving	2.0
12/12	• Discussion Post: Maximizing Brand Loyalty and Retention Via Corporate Social Responsibility (CSR)	Business Planning; Customer Centricity & Global Business Constructs	2.0
Week #15			
12/17	• Group Present Final Project Presentation (Video / Webex Presentation Date TBD w/student input)	All Prescribed Course & Student Competencies	36.0
12/17	• Final Project Peer Review Form	Academic Quality Assessment	2.0
11/15-12/17	• Student Course Evaluations (2 periods)	Academic Quality Assessment	0.0
N/A	• Total Cumulative Course Grade	N/A	100.00