

MKT-438 New Product Development and Design

Cr Hrs: 3.0

Course Description

Organizations have become increasingly dependent on new product development as a source of innovation and profitability. This course facilitates learning of the product development process and the factors that influence success and failure at each stage of the process. Moreover, the course examines the strategic planning, development and launch of new products in companies from a marketing perspective. The course covers strategy, analysis and organizational issues in new product development and innovation. An emphasis is placed on discussion of the NPD process across physical goods and services.

Course Objectives

The course is intended to provide you with the following benefits:

- Develop competence with a set of tools and methods for product design and development.
- Understand the importance of new product development to firm performance.
- Develop familiarity with models of innovation.
- Learn methods of generating, evaluating and testing product ideas.
- Improve your ability to think creatively in the product/service innovation context.
- Teach you concepts, tools and best practices used in the industry.
- Reinforcement of specific knowledge from other courses through practice and reflection in an action-oriented setting.
- Prepare you for a career in new product development, innovation or related functions.

Learning Outcomes

As part of this course you will walk away with a series of skills that will enable you to step into a product development team at a variety of physical goods or service organizations. Moreover, you will be exposed to a number of techniques and approaches for fostering innovation within established organizations. In addition to these general outcomes, you will be armed with a series of specific analytical/consulting tools:

- First mover advantage
- Reasons for new products failure
- New product Adoption & Diffusion
- The lead user approach to new product development
- Product development at IDEO
- Stage-Gate Development Process
- Understanding Customer Needs through Empathic Research
- Running a Brainstorming Session
- New Product Forecasting Models
- Market Testing
- Conjoint Analysis and New Product Pricing
- Customer Lifetime Value Calculations
- Product Portfolio Management Techniques

Required Course Material

The textbooks for this course are:

Crawford, C.M. and DiBenedetto, A. (2008). **New Products Management**. 9th Edition.

Irwin/McGraw-Hill. **ISBN:**0071332650, 9780071332651

Ulrich, K. and Eppinger, S. (2011) **Product Design and Development**. 5Th Edition. McGraw-Hill. ISBN:0073404772 / 978007340477

Journal Articles used for this course are:

Dröge, Cornelia and Richard A. Spreng (1996), “Enhancing Involvement and Skills with a Student Led Method of Case Analysis,” Journal of Marketing Education, Fall, 25-34

The cases used are:

1. Harvard Business School Case: Innovation at 3M Corporation by Stefan Thomke
2. Harvard Business School Case: IDEO Product Development by Stefan Thomke & Ashok Nimgade, M.D.
3. Harvard Business School Case: elBulli The Taste of Innovation by Micheal Norton, Julian Villneuva and Luc Witheau
4. Harvard Business School Case: TrueEarth Healthy Foods by V. Kasturi Rangan & Sunru Yong
5. Harvard Business School Case: Portland Trailblazers by [Ronald T Wilcox](#)
6. Harvard Business School Case: Sweet Water by [H. Kent Bowen](#), [Thomas D. Everett](#)
7. Harvard Business School Case: Metabical by [John A. Quelch](#), [Heather Beckham](#)

Course Content (Weekly)

Week	Session Topic	Student Responsibilities
1	Introduction to the course Types of new products	Course Outline Student Introductions Chapter 1: The Menu Article: “The New Product Development Imperative” Article: New Product Commercialization-common mistakes
	The Product Development Process	Chapter 2 The New Products Process
2	Traditional Product Development Approach	The Stage Gate process Chapter 3 Opportunity Identification & Selection
	Opportunity Identification & Selection Product Innovation Charter	

	New Product Adoption	Note on Innovation Diffusion
3	New Product Adoption	Case: Four products: Predicting diffusion
	Flexibility in the Product Development Process	Article: Developing products on internet time
4	Flexibility in the Product Development Process	Exercise: Developing products on internet time
	Concept Generation Voice of the customer	Chapter 4: Preparation and Alternatives HCD process
5	IDEO Product Development	Case: IDEO Product Development Article: "Design Thinking" by Tim Brown, CEO of IDEO Video of 2013 interview of IDEO founder David Kelley from CBS News 60 minutes
	Empathic Research	Note on Empathic Research Article: "Spark Innovation through Empathic Research" Tactics for Empathic Research
6	Introduction to Empathic Research Activity & Final project	
	Idea Generation & Brainstorming	In-class brainstorming Activity
7	Concept Generation: Lead users	Article: The lead user approach to new product development
	First Mover Advantage	Article: The Half Truth of First Mover Advantage
8	Lead users	Case: Innovation at 3M corporation
	Open Innovation & Crowd sourcing	Article: The rise of crowd sourcing Journal Article: Crowd sourcing and its application in marketing activities
9		
10	New Product Research with STP	Chapter 6: Analytical Attribute Approaches: Introduction and Perceptual Mapping

	New Product Research with STP	
11	Listening to customers with Conjoint Analysis Concept Testing & Forecasting	Article: Conjoint Analysis-A Managers Guide Chapter 7: Trade-off Analysis and Qualitative
	Listening to customers with Conjoint Analysis	
12	Listening to customers with Conjoint Analysis	Case: Portland Trailblazers/Sweetwater Chapter
	Concept Testing & Forecasting	Chapter 11 Sales Forecasting & Financial Analysis
13	Concept Testing & Forecasting	Case: True Earth
	Product Rollout & Launch	Chapter 13: Design Chapter 15: Product Use Testing Chapter 18: Test Marketing
14	Product Rollout & Launch	Case: Metabical
	Developing new services	
15	Developing new services	Case: elbulli
	Product Portfolio Management	
16	Presentations Week	
17	Buffer Week	
18	Final Exam	