

**University of Bridgeport**  
**Graduate School of Engineering**  
**Technology Management Program**

**TCMG 508MKTG565**

**Product Management, Innovation & Commercialization**

**Fall 2014**

**August - Dec 2014**

**Wednesdays, 12:45– 3:15 pm**

**Mandeville 320**

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**Office Hours: Wednesday 3:30-5:00 & by appointment.**

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**Course Description and Approach:**

One of the key strategies for corporate growth is dependent on a steady stream of innovative, high quality new or enhanced or extended technologies and services. As corporations increase the number of products and services offered to address current and emerging customer and market segments, they must deal with such issues as increasingly sophisticated customer demands, funding and investment selection criteria, assigning adequate development and support resources, risk assessment and mitigation, regulations, ethics and competition while trying to achieve a sustaining profit. The challenge facing corporate leaders is to continue to achieve and sustain revenue and profit growth while maintaining high quality standards, high levels of productivity, high customer satisfaction ratings and continue to promote the entrepreneurial and innovative spirit needed to achieve future success, while reducing the product development cycle time and costs.

Many successful corporations have adopted a flexible and phased New Product Development/Product Management Life Cycle Framework to help navigate through the challenges of new product idea generation (ideation), development and commercialization (launch and post launch activities) in a more consistent, repeatable and scalable manner. The Product Management Process is a structured and phased decision-making process used to ensure the realistic and feasible development, management and commercialization of new products and services or extensions of current products. The process spans the full product life cycle, from the concept and planning phase, through product development and market launch, and continuing through the market and product life cycle through product enhancements, decline and/or discontinuity.

The purpose of this course is to introduce students to the principles, concepts and practices of Product Management and teach them how to successfully define, select, develop, deploy, market launch, protect and support new and enhanced technologies and services. The course will require each student to join a team, develop a NEW TECHNOLOGY and business case and take the idea through the product management life cycle processes. The goal of this exercise is for teams to thoroughly analyze the market opportunity for their idea and develop a complete business case from justification needed to receive start-up funding through development and Launch.

The teaching approach consists of lectures, experiential exercises, class readings, team projects, case studies, review of current events relating to NPD/PM, and class participation. There will be one exam.

**Course Learning Objectives:** The course objectives are to:

- Develop conceptual and pragmatic skills for understanding the product development and management life cycle process, its phases, tools and techniques
- Understand the issues, opportunities, risks and uncertainties faced by organizations launching new products and services and planning product extensions and enhancements.
- Learn how to develop a New Product Development and/or Product Extension Business/Market Plan for an organization.
- Analyze the attributes and competencies required for world class technology management leadership, innovation, ethics and team building.
- Study current and emerging world class NPD/PM best practice company case studies

**Required Course Textbook and Material:**

***Text below must be acquired BEFORE class***

1. Merle Crawford and Anthony Di Benedetto, *New Product Management, 10<sup>th</sup> Edition*, McGraw-Hill Irwin, New York, NY, 2008, ISBN # 978-0-07-340480-6

***There is an International edition of this text available online and offshore. This is acceptable!***

**You must have access to a copy of this text for homework assignments, and tests. No online versions nor text sharing will be allowed in any open book tests. It will be your guide to the project. It is required you buy it, new, used!**

. Additional handouts will be downloaded from the course website on Blackboard.

**Reference Book:**

2. Paul Trott, Innovation Management and New Product Development, 4<sup>th</sup> Edition, Prentice Hall (On reserve in library, and selections on Canvas)

**The UB book distribution system is for you to order the books on line at <http://www.bridgeportbookstore.com> or at the UB Bookstore on the main campus.**

**Course Requirements:**

1. **Class Attendance, Participation and Punctuality:** *On time attendance* at each class session is expected. Only if you are here when I take attendance are you marked present. Class lectures complement, and do not duplicate, textbook information. A significant portion of your learning will accrue through the constructive and respectful exchange of each other's ideas. You **must be actively engaged in these discussions** to improve your product development skills. Your grade depends on this.

**Be certain that your travel arrangements do NOT conflict with any of your team or individual presentations.**

2. **Plagiarism:** It is the student's responsibility to familiarize himself or herself with and adhere to the standards set forth in the policies on cheating and plagiarism as defined in Chapters 2 and 5 of the Key to UB <http://www.bridgeport.edu/pages/2623.asp> or the appropriate graduate program handbook.

Cheating is unacceptable. If I catch you cheating, you will receive a zero grade for that assignment. **The second offense will result in an "F" for the course.** Cheating means using the work of others as your own. Copying homework, copying sections from the Internet, talking or looking around during exams and allowing others to look at your exam papers are examples of cheating. No electronic devices will be used during tests. Read my "Homework and the Internet" on Canvas.

3. **Preparation, Deadlines and Late Policy:** Homework is due at the start of class. You must use Turnitin. No excuses will be accepted. **Do not email me late homework assignments.**

4. **Homework:**

**As a UB policy, it is expected that each student that attends one hour of classroom instruction will require a minimum of two hours of out of class student work each week for approximately fifteen weeks for one semester.**

The syllabus identifies both the oral and written homework assignments. Each written assignment must be submitted to Turnitin and one or two pages long. Print an extra copy so you can refer to it during class discussions. Check Canvas before you begin, often I update the assignment or the questions from the book. Read my "Do homework that will earn you Great Grades" on Canvas.

5. **Current Events/ News** - Each student will be required to bring in and orally review news articles relating to the **topic assigned for the class meeting**. These will be orally summarized by the students in class. Suggested sources include: *Wall Street Journal, New York Times, Business Week, The Economist, Harvard Business Review, Sloan Management Review, Newsweek, Time, Fortune, Forbes, Financial Times, American Marketing Association Journal, the Journal of New Product Development, Fast Company* and other relevant sources.

6. **Case Analysis** – All students are required to read and submit written cases. Students must be prepared to discuss all cases in class.

**The University requires me to verify that you are meeting the requirement stated above in Homework. I will keep track of students to be certain you are meeting this requirement.**

Each case study will require you to:

- Answer the questions associated with the case (sometimes on Canvas)
- Identify key issues, problems or opportunities
- Summarize the facts and describe alternative solutions
- Make recommendations for a concrete plan of action (what you would do with a clear rationale showing why you prefer the recommended plan of action)
- In an effort to keep this class up to date and fresh I will include new and different case studies as this class develops. Make sure you check Canvas before you start your homework.

**Read my “Instructions Regarding Case Studies” on Canvas.**

7. **Group (Team) Project and Presentation:** During the first class sessions, teams will be formed. Each Team will be responsible for identifying a new **TECHNOLOGY** opportunity and proceeding through the 5 phases of New Product Management. **YOU WILL BE RESPONSIBLE FOR ENSURING THAT YOUR TECHNOLOGY IS NEW!!!!**

Two presentations are required, in Power Point (copies to the instructor).

The first will demonstrate your groups work through the Concept Generation phase, and will cover Phase A & B below. The class will sit as a corporate approval board or investment bank and will approve the further development of your new technology, send it back for more work, or suggest abandonment and send your group back for a new technology.

The final presentation will be a new technology or service business/market/product plan, a summary of your work through the process, including results of evaluation tests done, financing and launch. This will be given to the class again sitting in review of your new technology. **Each team will also be responsible for presenting a complete new technology or service product plan in writing to the instructor.** It must be thoroughly

researched, (not only Internet research) and footnoted. You must submit to Turnitin.

There will be several work sessions where you will be working with your team and the instructor.

Your grade for this project will be based on the instructors judgment of three components

1 The final presentation which must cover all of the Items listed below. All assumptions must be supported by facts that are clearly referenced, and footnoted. A more detailed outline is provided later in the syllabus and select handouts.

2 Your participation in the review board. You must be prepared and ask appropriate questions of the group presenting

3 Your results on your teams Value Added Evaluation

The New Product Plan must include:

- Executive Summary; 5 Phases including Business Proposition, Market Need Being Met, Product/Service Value Proposition, Financing Being Sought, ROI, etc)

A. Ideation Phase

Company Vision and Product or Service Description

Company New Product Strategy

Product Innovation Charter

B. Concept Generation

Description of the approach chosen for new product selection & development, Problem based, analytical attribute, or other method

Review Major Industry Characteristics and Trends (e.g. Regulated/Deregulated, Consolidations, Mergers/Acquisitions, Technology, etc.)

Review of Competitors and potential response to our product

Market Need, Opportunity and Plan (e.g. Market Segments and Size.

Value Proposition; Customer/Prospect Characteristics (e.g. Number of Customers/Prospects, Market Positioning, Competition, Promotion, Distribution, Alliance Partners, Customer Service.

**Prior to the first presentation your group will report on the new technology chosen, & you must schedule a meeting with the instructor to review the list above for additions or subtractions tailored to your product.**

C. Concept Evaluation

Demonstrate your new technology will meet the requirements set out in your strategy.

Demonstrate through a forecasting model, (ATAR or other) that your new product will meet the company's strategic goals for profitability.

Construct and report on results of surveys, concept testing.

Construct Technical Requirements and screening process

Two fold analysis of Barriers to Entry (1. Obstacles for your company to enter this market. 2. Prevent competitors or makes it more difficult for potential competitors from competing against your new product)

#### D. Development

Manufacturing Process Design; Outsource or build in house.  
Design for manufacturability, continuous improvement

Product Design

Prototyping

Develop Product Use Test protocol and report results

#### E. Launch

Develop Strategic Launch Plan Including Target Market, Brand name analysis, and Packaging

Develop Launch cycle plan

Market Test

Post Launch Analysis, Methods and Expected Results

Projected Financials (4 years of Profit and Loss Statements: Cash Flows and Cum. Cash Flows {Sources and Uses of Funds};

Requested Funding and Uses

Exit Strategy

**Between the two presentations your group must schedule another meeting with the instructor to review your plan. This can be scheduled at your discretion, immediately after the first presentation, to review what your group should be working on, or another time before the final presentation to review your work.**

**8. Exam:** An exam will be given approximately 2/3 of the way through the course covering all materials covered up to that point.

#### **9. Course Grading:**

|  |       |
|--|-------|
| Class participation, News & Attendance | 20 %  |
| Team Project                           | 30 %  |
| Case Homework Assignments              | 30 %  |
| Exam                                   | 20%   |
|  | 100 % |

Assignments will be given letter grades. At the end of the course, a letter grade will be given based on the weighted average of all the assignments. I use the Canvas grade system.

## Criteria for the Evaluation of an Assignment

| Grade Criteria       | C Poor   | B Adequate  | A Exemplary  |
|----------------------|--|---|--|
| Content              | It was unclear as to how the content related to the field being considered.  | The content was generally relevant, but was somewhat unclear or confusing at times.                                     | The content was clear and useful. The writer gave specific answers relevant to the topic.                    |
| Organization         | The presentation was poorly organized. It was hard to follow the sequence of ideas.  | The writer's organization was clear and logically sequenced.  | The writer's organization was clear and logically sequenced. The writer clearly answered the questions.      |
| Critical Analysis    | The writer did little more than restate facts and other people's (authors') opinions.  | The writer was able to reflect on the topic. A Thoughtful assessment was included.                                      | The writer was thought provoking and showed strong insight in applying class materials to the case or topic. |
| Spelling and Grammar | The paper was poorly written – making it difficult to determine the writer's points. Numerous grammatical and spelling errors were present. The text did not follow rules for technical writing. | Although most of the paper was well written, a more than a few grammar, spelling, and/or technical errors were present. | Spelling and grammar rules were followed. Technical writing rules were followed.                             |

I will be preparing a new Rubric. Check Canvas for the latest!

If at any time during the semester you have a concern for your grade progress, please contact me to set up an appointment for review. My objective is to achieve a fair grade. That is a building process based on your performance as evidenced by the aforementioned factors **PLUS** your efforts, accomplishments, and improvements towards the course objectives.

**TCMG 508 Product Management & Innovation – Class Schedule**

| Session # | Date | Topic  | Reading:<br>Crawford | Reading:<br>Trott | Reading:<br>Handouts                                | Homework &<br>Project  |
|-----------|------|--|----------------------|-------------------|---|--|
| 1         | 8/27 | Introduction and Overview<br>Explanation of the Project  | Chapter 1            | Chapter 1         | Blackboard  |  |
| 2         | 9/3  | The New Products Process   | Chapter 2            | Chapter 16        | Articles in 2 <sup>nd</sup> class folder<br>3,4,7,9 | <b>Case 1: Levacor</b><br>Use TurnItIn<br>News<br>Teams<br>Announced               |
| 3         | 9/10 | Strategic Planning   | Chapter 3            | Chapter 12        | Blackboard  | <b>Case 2: Honda Element p 87</b><br><br>News item                                 |
| 4         | 9/17 | Concept Generation   | Chapters 4, 5        | Chapters 3        | Blackboard  | <b>Case 3: W.L. Gore (Trott)</b><br>News item<br>Review Items for New Product Plan |
| 5         | 9/24 | Analytical Attributes<br><br>Group work session  | Chapters 6,7         |                   | Blackboard  | <b>Case 4: Organization Respect Canvas discussion</b><br>News item                 |
| 6         | 10/1 | Concept/Project Evaluation   | Chapters 8,9,10,12   |                   | Blackboard  | <b>Case 5: Chipolte Mexican Grill</b><br>See Canvas for quest.<br>News item        |
| 7         | 10/8 | <b>Part 1 - Interim Team Product/Business Plan Presentations. See Section 7 of the syllabus.</b> |                      |                   |   |  |

|   |       |   |                      |              |            |  |
|---|-------|---|----------------------|--------------|------------|--|
| 8 | 10/15 | Forecasting & Development<br><br>Group work session | Chapters 11,13,15    | Chapters 7,9 | Blackboard | <b>Case 6: The Mini p.331</b><br><br>News item |
| 9 | 10/22 | Launch;   | Chapters 16,17,18,19 | Chapter 11   | Blackboard | <b>Case 7: Wii P425</b><br>News Item           |

| <b>Session #</b> | <b>Date</b> | <b>Topic</b>                                     | <b>Reading:<br/>Crawford</b> | <b>Reading:<br/>Trott</b> | <b>Reading:<br/>Handouts</b> | <b>Due Today</b>  |
|------------------|-------------|--|------------------------------|---------------------------|------------------------------|---|
| 10               | 10/29       |  | <b>Exam</b>                  |                           |                              |   |
| 11               | 11/5        | Financial<br>Analysis<br><br>Teams,<br>Six Sigma |                              | Chapter 4, 16             | 17                           | <b>Case 8:<br/>Harry Potter<br/><br/>Presentation</b>                       |
| 12               | 11/12       | Global,<br>Alliances,<br>Technology<br>Transfer  |                              | Chapters 7,<br>10         |                              | <b>Case 9: Sony<br/>Ericsson<br/>(Trott)<br/>News item<br/>Presentation</b> |
| 13               | 11/19       | Ethics,<br>Legal, &<br>Policy                    | Chapter 20                   | Chapters 5,6              |                              | <b>Case 10:<br/>Hybrid or H2<br/>Vehicles at<br/>GM<br/>Presentation</b>    |
| 14               | 12/3        | Wrap-up  |                              |                           |                              | <i>Team<br/>Presentations</i>   |