Course Syllabus

New Product Development Projects

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Course objectives

In today's world New Product Development (NPD) projects are critical to the success and survival of organizations. This course is aimed at teaching the tools and techniques developed to support the NPD process, to gain insight from real NPD success and failure case studies and to implement the tools, techniques and insights in a simulated environment.

Course schedule

Lectures: Sept 16, 23, 30, October 7, 14, 28; Time: 8 - 10 a.m. (New York time)

Last class student presentations: November 4; Time: 8 - 11 a.m. (New York time)

Course materials

Textbook

Shtub, A. , M. Rosenwein, Project Management: Processes, Methodologies, and Economics, 3/E, Pearson, 2016.

https://www.amazon.com/Project-Management-Processes-Methodologies-Economics/dp/0134478665

Online course material:

Part of the course material is available at

https://www.coursera.org/learn/new-product-development

<mark>Students should take the free version of the course</mark>

Software

The Project Team Builder simulator will be used as a platform for hands on, active learning of the course material. Each student must purchase the software at:

http://www.sandboxmodel.com/content/ptb-training-simulator-coursera-npd-course

Tentative Schedule

Session	Topic	On line course modules
1	Introduction	Modules 1 and 2
2	Starting the NPD Process	Modules 3 and 4
3	Planning the NPD Process part 1	Modules 5 and 6
4	Planning the NPD Process part 2	Modules 6 and 7
5	Planning the NPD Process part 3	Modules 7 and 8
6	Executing the NPD Process	Modules 9, 10 and 11
7	Final Presentations	Team NPD Project Presentation
		Team NPD Project Final Report due

ATTENDANCE

This is a flipped classroom ("an instructional strategy and a type of blended learning that reverses the traditional learning environment by delivering instructional content, often online, outside of the classroom. It moves

activities, including those that may have traditionally been considered homework, into the classroom. In a flipped classroom, students watch online lectures, collaborate in online discussions, or carry out research at home and engage in concepts in the classroom with the guidance of a mentor." – Wikipedia).

Students are expected to attend all classes. Missing a class means missing a part of the course. Necessary absences and tardiness must be discussed with the instructor or the TA and approved in advance. At most one class can be missed with permission.

COURSE DESCRIPTION

The percentage of sales of successful business organizations tied to the successful introduction of new products and services is high. Given the fact that the failure rate of these introductions is also high, there is a need for tools and techniques to manage New Product Development (NPD) projects. This course will focus on the tools, techniques and best practices developed to support the initiation, planning, execution, monitoring and control of projects aimed at developing and marketing new products and services.

The Course Will Cover the Following Issues:

Introduction

The NPD environment, Critical Success Factors (CSF) in NPD.

Starting the NPD process

Front End Loading: Understanding the market and the voice of the customers, mapping the stakeholders, selecting alternatives and deciding when to introduce the new product or service to the market.

Planning the NPD process

Time, cost, value and risk considerations. Team building. Integration of requirements using the Pareto efficient frontier.

Executing the NPD process

Monitoring and control of the NPD process.

GRADING

1. Class participation 10%.
2. Individual assignments 10%.
3. New Product Development project team presentation (week **7**) 20%.

4. New Product Development project final team report (a **week after the last class meeting**) 60%.

Assignments

Class participation:

Each student must take the eLearning course:

https://www.coursera.org/learn/new-product-development

Each student must be ready to discuss the course modules assigned for the lecture. Students will be asked to discuss specific issues based on the online course.

Individual assignments:

Each student must submit the individual assignments assigned each week.

Team Assignment- New Product Development Presentation and Final Project

Each student will be assigned to a New Product Development project team.

Each team will present its final project during the last class meeting. Each team will prepare PowerPoint slides of the presentation that will be handed in to the instructor and TA by **midnight (EST) of the day before the seventh-class meeting.** Each team will have 15 minutes to present the "story" as well as preliminary analysis **based on course material and on any material relevant to the project**.

The team will use the Project Team Builder platform to simulate the NPD process and will submit the following reports **one week after the last class meeting.**

1. NPD Project Description:

A detailed description of your project including:

• Introduction to the product or the service and to the environment

- Stakeholders, Voice of the Customers and requirements

- Economic aspects

- Competition, regulation and the market

- Scope aspects

- Organization aspects

- Scheduling aspects

- Resources aspects

- Budgeting aspects

- Risk aspects

- Monitoring and control aspects

The project description is a Word document of up to 10 pages. You can add an appendix with pictures, videos and links to websites.

2. Scenario file based on the above information.

This is a file created by the Scenario Builder program that comes with the PTB simulator (.scn file).

3. NPD project plan.

A Word document of up to 10 pages that explains the logic you used in planning the NPD project including: the voice of the customer and technology issues, the market, the value to the customer, the efficient frontier and trade-off analysis, how you decided to select dates and modes for each activity, how you decided on the resources used including hiring and firing decisions, your budget and cash flow considerations and your risk analysis and risk mitigation.

4. Results of NPD project execution on PTB (summary reports of ten runs based on the above plan).

The results are summarized and explained in a Word document of up to 10 pages. The focus is on the Pareto efficient frontier of possible NPD approaches and the selected NPD solution. Please add an appendix with PDF reports generated by the PTB.

5. Summary and Lessons Learned

A Word document of up to 5 pages that explains the results you got executing the plan you created. Please explain why your plan is the right one in light of the simulation results and the efficient frontier, what in your opinion are the main lessons learned from the assignment and how in your opinion the assignment could be improved.

Appendix:

Additional information such as videos, Excel files etc.

Presentations will be graded by students in class as well as the instructor and the TA.

Commitment

Students will be assigned to teams. Teamwork is a very important aspect of this course. Team members from different countries will have the opportunity to work together and to get to know each other. It is essential that students registered for the course and assigned to teams will be fully committed and will not drop the course, as every team member counts. **If you are not sure that you can attend all lectures and complete all the assignments please do not register to the course.**

Evaluations:

Each student will submit an evaluation form for each of the team presentations. Evaluation forms will be submitted by midnight of the day after the presentation (EST).

Evaluation form will be available on the course website

Date_____

Presentation title_____

Presenters_____

Evaluator_____

Criterion	Maximum Possible Points	Points awarded	Comments
1. Organization and Clarity	10		-- -- -- -- --
2. New knowledge and insight provided	35		-- -- -- -- --
3. Application of knowledge discussed in the class	15		-- -- -- -- --
4. Significance of conclusions	25		-- -- -- -- --
5. Effective answers to questions	15		-- -- -- -- --
Total score			

Additional comments

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