



Technological Innovation & New Product Development

Preliminary Syllabus
Spring, 2009

Professor Melissa A. Schilling

Contact info: Tisch, 7-16, Phone:

998-0249, email: mschilli@stern.nyu.edu

Office hours: TBD

Required reading: Schilling, M.A. 2008. Strategic Management of Technological Innovation. New York: McGraw-Hill Publishers.
Course packet (available at the NYU Professional Bookstore)

The purpose of this course is to expose you to the dynamics of industries driven by technological innovation, and to train you to think strategically about technological innovation and new product development and deployment. In this course, we will explore such topics as:

- Winner-take-all industries in which firms compete fiercely to have their product chosen as the dominant standard, and where success is determined not only by a product's features and price, but also by the availability of complementary products and well-chosen alliances,
- How firms choose among multiple attractive innovation projects,
- How firms decide whether to "go it alone" or collaborate, and how firms develop a collaboration strategy,
- How firms make difficult choices between protecting their proprietary technologies versus rapidly disseminating them to build installed base and complementary goods,
- How firms can make themselves more flexible so that they can respond to rapid change--and the trade-offs this imposes,
- Techniques for improving new product development processes to maximize the likelihood success.

The course will be lecture, case, and discussion based. Like the industries we will study, the course will be fast-paced, and every effort will be made to make the class both challenging and exciting. We will use a combination of text and cases to explore and apply the topics. Because of the fast-paced nature of the course, it is vitally important that you come to class prepared and ready to discuss the topics. If you stay up on the material you will learn more during the discussions and be successful at the assignments.

Over the course of the semester, you will work in groups to complete your own, original case that you will then analyze. During the course of the semester will be several assigned exercises (some in class, some out-of-class) in which you will turn in portions of your case analysis so that you can receive assistance, and to ensure that you are making progress on this major assignment. Through developing your own case analysis, you will gain a much richer understanding of the process of strategic analysis, including how to identify important issues, how to find the necessary information to complete your analysis, and how to present both your data and your arguments.

GRADE BREAKDOWN

Class Discussion and Exercises	20
Quizzes	30
Case Analysis	35
Case Presentation	15

Total	100

PREPARATION AND PARTICIPATION

Class discussion & exercises. We will use a variety of in-class and out-of-class exercises to give you opportunities to apply and deepen your knowledge of the course content. Many (but not all) of these will be turned in for participation points. I may also adjust your total for this grade based on the quality of your voluntary participation in class.

Quizzes/Exercises. There will be three closed-book quizzes (covering both text and cases) over the course of the semester to evaluate your understanding of the material and give you feedback about where you may need to focus more attention.

CASE ANALYSIS & PRESENTATION

The most important assignment you will be completing this semester is the writing of an original case analysis about a topic of your choosing (though topics must be approved by the instructor). You will work in groups of 3-4 for this assignment. Typical cases will focus on either a company (or a particular product of a company) and a critical strategic issue the company is currently facing. You might not be able to gather enough information on your product/company to analyze every aspect of technological innovation covered in our course, but you must be able to conduct the analysis appropriate to at least six chapters in our text (excluding the introduction chapter), and these chapters must span all three sections of the course (industry dynamics of technological innovation, formulating technological innovations strategy, implementing technological innovation strategy). You must also provide specific and well-reasoned recommendations that integrate tightly with your analysis. To ensure that you are making good progress and provide opportunities for feedback, we will set aside time in class to apply class tools and frameworks to your cases, some of which will be turned in for credit.

Format Guidelines. The case analysis should be typed in **12 point times new roman** font, one-inch margins, and a minimum of **1 1/2 line spacing**. There are no formal requirements regarding

the length of the case analysis, but typical cases analyses (that include the necessary information required to conduct the analysis) range from **10-20 pages (plus exhibits)** when spaced at 1 1/2 lines. At the end of the semester you will be asked to assess your team members' contribution; this assessment may be used to scale your grade on the assignment if necessary.

Presentation. Your team will give a Powerpoint presentation of your analysis (providing enough detail about your case to make it coherent) in class. You will have **15 minutes** to present. Please **bring a copy of the slides** for me (6 per page is fine); handouts for the rest of the class are appreciated but not required.

Class	Topics and Readings
Industry Dynamics of Innovation	
1	Introduction & Sources of Innovation Text, Chapters 1 & 2 Case: Corporate New Ventures at Procter & Gamble
2	Types and Patterns of Innovation Text, Chapter 3 Case: Continuous Casting Investments at USX Corp
3	Standards Battles and Design Dominance Text, Chapter 4 Case: Iridium Satellite Communications Gate 1 Due
4	Timing of Entry Text, Chapter 5 Case: Palm Economy Quiz 1
Formulating Innovation Strategy	
5	Defining the Organization's Strategic Direction Text, Chapter 6 Case: Monsanto
6	Choosing Innovation Projects Text, Chapter 7 Case: Le Petit Chef
7	Collaboration Strategies Text, Chapter 8 Case: Corning Inc: A Network of Alliances Gate 2 Due
8	Protecting Innovation Text, Chapter 9 Case: Browser Wars Quiz 2

Implementing Innovation Strategy	
9	<p>Organizing for Innovation Text, Chapter 10 Case: USA Today: Pursuing the Network Strategy (A)</p>
10	<p>Managing the New Product Development Process & Teams Text, Chapters 11 & 12 Case: Business Teams at Rubbermaid</p> <p>Gate 3 Due</p>
11	<p>Crafting a Deployment Strategy Text, Chapter 13 Case: XM Radio</p> <p>Quiz 3</p>
12	<p>Turn in Case Analysis Presentations</p>