

College of Business, San Jose State University
BUS 284: MANAGING PRODUCT DEVELOPMENT
MBA-One 2007-2008

Instructor: Dr. Gita Mathur
Class Time: (12:00-16:00): 4/30, 5/7, 5/9, 5/14, 5/21, 5/23, 5/28, 6/4, 6/11, 6/18
Class meetings on 5/9 & 5/23 are on Friday; all other meetings are on Wednesday
Office Hours: On class days from 10:00-12:00 by appointment at Rose Orchard
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Course Description

Views product development as a cross-functional business process. Examines concepts used and management challenges faced in structuring product development activity and in strategically managing a portfolio of product development projects.

<http://info.sjsu.edu/web-dbgen/catalog/courses/BUS284.html>

Course Objectives

The primary objectives of the course are to:

- Provide students with a general management perspective of the product development process
- Expose students to typical challenges faced in the management of product development activity within a portfolio of product development projects
- Familiarize students with the management concepts that underlie best practices in product development
- Give students practice with decision making and action planning in the management of product development

Evaluation

- **Individual class contribution** will contribute to **30%** of the grade. Evaluation of class contribution will be based on a demonstrated understanding of the materials assigned, the willingness to contribute to group learning through preparation for and participation in the group discussion and exercises, quality of contribution to the group discussion, and the ability to accept and critique the contribution of others in a constructive way.
- **Short, written memos** will contribute to **30%** of the grade. These will be based on the materials assigned for the meeting and will test the ability to analyze assigned cases and the ability to apply theoretical concepts and knowledge of best practices for problem solving and decision making in these contexts. These will be assigned for completion during the meeting time.
- **A final submission** will contribute to **40%** of the grade. Students will study and analyze an assigned case and prepare and submit a final report. Evaluation will be based on understanding of the issues in a product development context and the ability to apply theoretical concepts and knowledge of best practices to make a decision and to develop an action-plan.

A- 90-93.3%	A 93.4-96.6%	A+ 96.7-100%
B- 80-83.3%	B 83.4-86.6%	B+ 86.7-89.9%
C- 70-73.3%	C 73.4-76.6%	C+ 76.7-79.9%
D- 60-63.3%	D 63.4-66.6%	D+ 66.7-69.9%
F <60%		

There will be only 9 class meetings. Consistent preparation and participation will affect your final grade. Analysis of cases and other readings are required to be completed in advance of the meeting for which they are assigned, in preparation for the class discussion and exercises. Recommended study questions will be provided prior to each meeting. Missing a class will result in zero points for the memo assignment and class contribution for that day.

Meeting Logistics

Meetings will typically include several of the following with two short breaks:

- Group discussion of case assigned for the meeting
- Group exercise related to the assigned case
- Memo writing to address questions on the assigned case or readings for the meeting
- Discussion of assigned readings related to challenges in the management of product development and product development best practices
- Video related to the topic under discussion
- Guest presentation

Other Expectations

Students are required to turn off cell phones and laptops during the class meetings and are expected to be professional in their arrival, departure, and classroom conduct.

If a student misses a class meeting, the student is responsible for keeping up with the course materials and for finding out about announcements made during the meeting.

Office Hours

Students are encouraged to make use of office hours. Appointments outside posted office hours may be scheduled by e-mail or voice-mail.

Required Reading Materials

There is no required textbook. Required reading materials include cases, articles, and readings from two books. The cases and some articles are available for purchase from Harvard Business School Press www.hbsp.com. The journal articles are available free, online through San Jose Library www.sjlibrary.org. Multiple copies of the two books will be on reserve in the MBA Office at Rose Orchard for overnight and weekend checkout. Purchase of these two books is not recommended for this course. The books are available on-line for students who desire to purchase copies.

It is suggested that students access/purchase the required reading materials in time to allow for resolution of any technical difficulties with the technical services provided by the Harvard Business School Press or with online access to the San Jose Library.

Syllabus and Required Reading Materials

Meeting 1: Introduction to the Product Development Process

Books: Schwalbe, K., **An Introduction to Project Management**, second edition, Course Technology Cengage Learning, 2008. (Chapter 1)

McGrath, M.E., editor, **Setting the PACE in Product Development: A Guide to Product and Cycle Time Excellence**, revised edition, Butterworth-Heinemann, 1996. (Chapters 1-5 and Chapter 10)

Meeting 2: Structuring and Managing Product Development Projects

Case: **Product Development at Dell Computer Corporation**, 9-699-010 (Rev. February 22, 1999).

Articles: Thomke, Stefan and Donald Reinertsen, “**Agile Product Development: Managing Development Flexibility in Uncertain Environments**,” California Management Review, Vol. 41, No. 1, Fall 1998.

Handfield, R.B., G.L. Ragatz, K.J. Petersen and R.M. Monczka, “**Involving Suppliers in New Product Development**,” California Management Review, Vol. 42, No. 1, Fall 1999

Meeting 3: Experimentation and Learning in Product Development FRIDAY MEETING

Case: **IDEO Product Development**, 600143 (Rev. April 26, 2007).

Articles: Thomke, Stefan, “**Enlightened Experimentation: The New Imperative for Innovation**,” Harvard Business Review, Vol. 79, No. 2, February 2001.

Thomke, Stefan, “**R&D Comes to Services: Bank of America’s Pathbreaking Experiments**,” Harvard Business Review, Vol. 81, No. 4, April 2003.

Meeting 4: Adapting Process Structure to Product Development Environment

Case: **Bank of America (A)**, 603022 (Rev. October 28, 2002).

Articles: Iansiti, Marco and Alan MacCormack, “**Developing Products on Internet Time**,” Harvard Business Review, Vol. 75, No. 5, September-October 1997.

Tonkens, Ross, “**An Overview of the Drug Development Process**,” The Physician Executive, Vol. 31, No. 3, May/June 2005.

Meeting 5: Addressing User Needs in the Product Development Process

Case: **Bush Boake Allen**, 601061 (Rev. June 26, 2001).

Articles: Stein, Ellen and Marco Iansiti, “**Understanding User Needs**,” Harvard Business School, 9-695-051, January 30, 1995.

Von Hippel, Eric, Thomke, Stefan and Mary Sonnack, “**Creating Breakthroughs at 3M**,” Harvard Business Review, Vol. 77, No. 5, September-October 1999.

Thomke, Stefan and Eric von Hippel, “**Customers as Innovators: A New Way to Create Value**,” Harvard Business Review, Vol. 80, No. 4, April 2002.

Meeting 6: Strategic Management of Product Development **FRIDAY MEETING**

Case: **We’ve Got Rhythm! Medtronic Corporation’s Cardiac Pacemaker Business**, 9-698-004 (Rev. July 8, 1997).

Articles: Eisenhardt, Kathleen and Shona Brown, “**Time Pacing: Competing in Markets that Won’t Stand Still**,” Harvard Business Review, Vol. 76, No. 2, March 1998.

Smith, Edward and Steven Wheelwright, “**The New Product Development Imperative**,” Harvard Business School, 9-699-152 (Rev. February 1, 2001).

Meeting 7: Aggregate Project Planning

Case: **Le Petit Chef**, 602080 (Rev. November 13, 2002).

Article: Wheelwright, Steven C., and K.B. Clark, “**Creating Project Plans to Focus Product Development**,” Harvard Business Review, Vol. 70, No. 2, March-April 1992.

Meeting 8: New Technology Development and Deployment

Case: **Hewlett-Packard: The Flight of the Kittyhawk**, 606088 (Rev. October 23, 2006).

Articles: Bower, Joseph L., and Clayton M. Christensen, “**Disruptive Technologies: Catching the Wave**,” Harvard Business Review, Vol. 73, No. 1, January-February 1995.

Christensen, Clayton M., and Michael Overdorf, “**Meeting the Challenge of Disruptive Change**,” Harvard Business Review, Vol. 78, No. 2, April-March 2000.

Book: McGrath: Chapter 8

Meeting 9: Assessing and Evolving Product Development Capability

Case: **BMW AG: The Digital Auto Project (A)**, 9-699-044 (Rev. Nov. 1, 2001).

Article: Sinofsky, Steven and Stefan Thomke, “**Learning From Projects: Note on Conducting a Postmortem Analysis**,” Harvard Business School, 600-021 (Rev. September 3, 1999).

Final Submission: Due by 4 pm on Wednesday, June 18th

Case: **Activision: The Kelly Slater’s Pro Surfer Project**, 605020 (Rev. July 18, 2005).

Recommended Books (NOT Required)

Other recommended books for those of you who are interested in exploring more material on the topics covered in this course:

Belliveau, P. (editor), *The PDMA Toolbook 2 for New Product Development*, Wiley, 2004.

Belliveau, P. (editor), *The PDMA Toolbook 1 for New Product Development*, Wiley, 2002.

Christensen, C.M., and M.E. Raynor, *The Innovator's Solution*, Harvard Business School Press, 2003.

Christensen, C.M., *The Innovator's Dilemma*, HarperBusiness, 2003.

Cooper, *Winning at New Products*, third edition, Perseus Publishing, 2001.

Kahn, K.B. (editor), *The PDMA Handbook of New Product Development*, second edition, Wiley, 2004.

Katzenbach, J.R., and D.K. Smith, *The Wisdom of Teams*, Harvard Business School Press, 1993.

McGrath, M.E., *Next Generation Product Development*, McGraw-Hill, 2004.

McGrath, M.E., *Product Strategy for High Technology Companies*, McGraw-Hill, 2001.

Robbins, H.A., and M. Finley, *Why Teams Don't Work*, Peterson's/Pacesetter Books, 1995.

Thomke, S.H., *Experimentation Matters*, Harvard Business School Press, 2003.

Ulrich, K.T., and S.D. Eppinger, *Product Design and Development*, third edition, McGraw-Hill, 2004.

von Hippel, E., *The Sources of Innovation*, Oxford University Press, 1994.

Wheelwright, S.C., and K.B. Clark, *Revolutionizing Product Development*, The Free Press, 1992.

Recommended Websites

This Product Development Management Association website is recommended for those of you with a strong interest in a career in product development, product management, or high-technology companies: www.pdma.org. This Project Management Institute website is recommended for those of you with a strong interest in a career in project or program management: www.pmi.org.

University Policy Information

- a) Academic integrity statement from Office of Judicial Affairs:
Your own commitment to learning, as evidenced by your enrollment at San Jose State University, and the University's Academic Integrity Policy require you to be honest in all your academic course work. Faculty members are required to report all infractions to the Office of Judicial Affairs. The policy on academic integrity can be found at http://sa.sjsu.edu/judicial_affairs/students/index.html

- b) Campus policy in compliance with the Americans with Disabilities Act:
If you need course adaptations or accommodations because of a disability, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the DRC to establish a record of their disability. Information for the Disability Resource Center (DRC) can be found at <http://www.drc.sjsu.edu> and the Presidential Directive 97-03 for Accommodations for Students with Disabilities can be found at <http://www.sjsu.edu/president/directives>