

**ME 517: Product Development**  
**Spring 2013**

<i>Section I: Models of Innovation</i>				
#	Date	Subject	Text	Other Reading
1	1/16	Course Introduction		"The Rise of the Robotic Workforce", <b>Inc.</b> , October 2012.  "How 3M Got Its Creative Juices Flowing Again", <b>Fortune</b> , September 24, 2010.
2	1/23	Innovation Theory	1 -31	"Sputtering R&D Machine", <b>HBS R0208X-PDF-ENG</b> , 2002.
3	1/28	More Innovation Theory and the Lessons for Product Development	61-70	"Difference Engine: Making It: 3D Printing", <b>The Economist</b> , 2011.  "The Ultimate Entrepreneur: How DEC Passed Up the PC Boom", <b>Computerworld</b> , 1988.
<i>Section II: The Process of Product Development</i>				
#	Date	Subject	Text	Other Reading
4	1/30	Overview	416 - 442	"Braun: The Syncro Shaver (A)", <b>HBS DMI017-PDF-017</b> , 2006.
5	2/4	Project Management: Basic Principles	572-577	"Project Management Manual", <b>HBS 697034-PDF-ENG</b> , 2002.  "His Job: Make Boeing's Dream Come True", <b>Crain's Chicago Business</b> , 2006.
6	2/6	Project Management: Going Deeper		"Medisys Corp.: The IntensCare Product Development Team", <b>HBS 4059-PDF-ENG</b> , 2009.
7	2/11	New Product Marketing: Strategy and Positioning	299 – 306** 389 - 406	"Note on Marketing Strategy", <b>HBS 598061-PDF-ENG</b> , 2000.
8	2/13	New Product Marketing: Determining Customer Needs	522 -542	"TruEarth Healthy Foods: Market Research for a New Product Introduction", <b>HBS 4065-PDF-ENG</b> , 2009.  "Cylindrical Solar Cells Give a Whole New

				Meaning to Sunroof”, <b>Scientific American</b> , 2008.
9	2/20	Homework #1 Due		
10	2/25	New Product Manufacturing: Process Migration	118 -145	"The Growth of Intel and the Learning Curve", <b>HBS OIT27</b> , 1999.  “The Insourcing Boom”, <b>Atlantic Monthly</b> , 2012.
11	2/27	New Product Manufacturing: Design for Manufacturing		“AIC Netbooks: Optimizing Product Assembly”, <b>HBS 4245-PDF-ENG</b> , 2011.
12	3/4	New Product Manufacturing: Sustainable Design		“Cradle-to-Cradle Design at Herman Miller: Moving Toward Environmental Sustainability”, <b>HBS 607003-PDF-ENG</b> , 2009.
13	3/6	R&D: Technology Strategy and Management	272 - 298	“Developing a Product Innovation and Technology Strategy for Your Business”, <b>Research Technology Management</b> , 2010.  “Vertex Pharmaceuticals: R&D Portfolio Management (A)”, <b>HBS 604101-PDF-ENG</b> , 2006.
14	3/18	R&D: Technology Road Mapping	310 -330	“Integrating Road Mapping into Technical Planning”, <b>Research Technology Management</b> , 2007.
15	3/20	R&D: Strategic Alliances and Networks	344 - 363	
16	3/25	Quiz		

### *Section III: The Business of Product Development*

#	Date	Subject	Text	Other Reading
17	3/27	Project Economics		<a href="http://www.studyfinance.com/lessons/finstmt/">http://www.studyfinance.com/lessons/finstmt/</a>
18	4/1	Project Economics and Risk Assessment		"Investment Analysis and Lockheed Tri Star", <b>HBS 9-291-031</b> , 1993.
19	4/3	Writing Business Plans		Sahlman, "How to Write a Great Business Plan", <b>Harvard Business Review</b> , 1997.

<i>Section IV: Special Topics</i>				
#	Date	Subject	Text	Other Reading
20	4/8	Intellectual Property	154 - 184	
21	4/10	Homework #2 Due		
22	4/17	Prototypes and Simulation		"Team New Zealand (A)", <b>HBS 9-697-040</b> , 1997.
23	4/18	Reliability and Standards	234 -260 261- 267**	"Strategic Maneuvering and Mass Market Dynamics: The Triumph of VHS over Beta", <b>Business History Review</b> , 1992.  "Dethroning an Established Platform" <b>MIT Sloan Management Review</b> , 2012.
24	4/22	The Role of Organization	82 – 109 110 – 114** 581-586**	
25	4/24	Technology Start-Ups		"Ze-gen: Commercializing Clean Tech", <b>HBS 811014-PDF-ENG</b> , 2010.
26	4/29	"Real World" Case Studies		
27	5/1	Homework #3 Due		

\*\* Case Study. Come prepared to discuss in class.