Course Catalogue Description: New Products and Services, is designed to answer the manager's question: "What do I need to know and do as a marketer in order to develop a successful new product?" It will provide you with a firm understanding of the exact steps you need to follow in order to bring a new product successfully from an idea to a product that is ready to launch. The course covers fundamental marketing principles that are as valuable in developing and marketing the newest microchip as for the latest chili-flavored tortilla potato chip. The course is case-based and example driven. Illustrations and discussions will encompass consumer packaged goods, high tech and consumer electronics, biotechnology, agribusiness, entertainment, B2B, international, and many other industries - in contexts that range from garage startups to Fortune 100 companies. The course content will help those pursuing careers in brand management, marketing, project management, marketing research, new product & service consulting, venture capital, and entrepreneurial ventures. The emphasis on specific techniques and application settings varies somewhat by instructor. Students are encouraged to request a copy of the course syllabus from the instructor prior to registering. Prerequisite: MKTG-430

Courseinfo Web pages: registered students only.
https://www.courses.northwestern.edu/webapps/portal/frameset.jsp?tab=courses&url=/bin/common/course.pl?course_id=_144590_1

Instructor: James G. Conley, Kellogg MEDS, TIM Program, Center for Research in Tech. & Innovation McCormick School, Faculty Fellow IDEA
Phone: 847-491-4814 Fax: 847-467-5505, Email: j-conleya@northwestern.edu

Office hours: Mondays 3:00 to 3:30 p.m., or by appointment. Jacobs Center room 5249

Pedagogy:

The content of this course will be presented through a variety of teaching formats. These include lecture, case studies, student presentations and guest speakers (4 planned at present, others opportunistically selected), etc. Guest speakers formally slotted to appear include Tom Stat of IDEO, Katie Drucker of Microsoft, Rob Wolcott of the Kellogg Innovation Network, and John Funk of Evergreen IP.

Course Materials

The majority of course case reading materials can be found in the case pack available in the bookstore. These materials come from both the academic research press, trade and professional publications and from the instructors research/case collection. Note that the order of materials in the case pack does not correspond with the assignment/reading order. All slides and or powerpoint materials used in this course are made available to the students via the online Blackboard courseinfo web site.

Cases covered in this course are selected to address product development issues in firms from a breadth of industries/including those listed below. A number were developed by Kellogg students and faculty directly for this type of course.
Terry's Novelty Chocolates: Re-design and Market launch of an indulgence CPG
General Mills Yoplait Case A: Market testing and launch analysis for new custard style
Eli Lilly Drug Development: New Technologies and Pharmaceuticals Development
Astrazeneca and Prilosec: Marketing Challenges of 2nd generation drug launch, generic and OTC options
BMW Seven Series Cases: Alignment of prototyping strategy and corporate strategy/ digital automotive technologies
Ryobi Outdoor Product Case: Platform innovations in a mature business (lawn and garden) KSM
HP Blade Server Case: NPD Process: Do's and Do not's KSM Case
NPD at Dell Computer Corp: Design flexibility and development with unproven technologies
Team New Zealand Cases: Time Critical development challenge of Americas cup yacht racing

There are no required textbooks for this course. However the following books provide considerable, deeper insight into the materials prepared and presented in lecture and may also serve as excellent references going forward. The first three listed books are available in the Evanston bookstore. Please let me know if the bookstore runs out of any of these resources.

- *New Products Management, 8th Edition* by Merle Crawford and Anthony DiBenedetto, published by McGraw Hill Irwin. Very resourceful read that will serve as a general reference throughout this course. Note that the Seventh edition is possibly also available and is rather similar….. Eighth edition is available in the Evanston Norris Center bookstore (847-491-5812) approx. $120 Please let me know if the bookstore runs out.

- *The Art of Innovation*, by Tom Kelley, Interesting read that describes how the most successful product design firm in history (IDEO) plan, executes and otherwise manages its internal innovation processes. Fascinating insight on how to manage VERY creative people. This book is available in the Bookstore for about $14.

- *Setting the PACE in Product Development* by Michael E. McGrath. Published by Butterworth-Heinemann, 1996. A nice overview of product innovation processes from a traditional point of view. Frameworks and planning tools/procedures are discussed at length. This book is available in the Evanston Norris Center bookstore (847-491-5812) for about $26. Please let me know if the bookstore runs out.

Other Recommended/Worthwhile reads from the New Product Development literature.

- *Invention by Design* by Henry Petroski, Published by Harvard University Press, 1996. This is an excellent book examining how innovation occurs and is captured in new products. Commercial innovation of both simple (paper clips) and complex (airplanes, FAX and networks, skyscrapers.. pre 9/11/01 World Trade Center design discussion is very interesting) products is described. Available online paperback for about $20.


- *Design Rules*, by Baldwin and Clark. An interesting, in depth review of the multiple ways that Modular Design influences the growth and expansion of an industry. Using the example of the computer industry, these authors carefully demonstrate how modular design has sparked rapid growth and enhanced diffusion of innovations. On line for about $50.
### Session Schedule: Note that for 2006, content/speakers will be similar but scheduling will change

<table>
<thead>
<tr>
<th>Course Week #</th>
<th>Session Sec. 81 Date</th>
<th>Content First Five weeks</th>
<th>Cases and Recommended Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3/27</td>
<td>Introductions, Syllabus, Schedule, Deliverables, Expectations Why a course on New Products/Services?</td>
<td>Crawford Text Chapter 1</td>
</tr>
<tr>
<td>1</td>
<td>3/27</td>
<td>Innovation in context of New Product Development (NPD), A taxonomy for product Innovation, the Radar Case Discussion: Ryobi Outdoor Products Case (KSM)</td>
<td>ROP Case Crawford Text Chapters 2,3</td>
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<tr>
<td>2</td>
<td>4/3</td>
<td>Design and the Art of Innovation IDEO Product Development System Guest Speaker: Tom Stat from IDEO</td>
<td>Crawford Text Chapters 4,5 The Art of Innovation</td>
</tr>
<tr>
<td>3</td>
<td>4/10</td>
<td>Concept evaluation and testing A Protocol, QFD and the Voice of the Customer Case Discussion: HP Blade Servers Case (KSM)</td>
<td>HP Powerbar Case Crawford Text Chapters 8, 9, and 12</td>
</tr>
<tr>
<td>3</td>
<td>4/10</td>
<td>NPD and Innovation that is systemic The Innovation Radar as a diagnostic tool Guest Speaker: Rob Wolcott, KSM research fellow.</td>
<td>Innovation Typology Article in case pack</td>
</tr>
<tr>
<td>4</td>
<td>4/17</td>
<td>Design for X: Quality, Manufacturability, Modularity, Service, Assembly, Environment, Service, etc Case Discussion: NPD at Dell Computer</td>
<td>NPD at Dell Case Crawford Text Chapters 13</td>
</tr>
<tr>
<td>4</td>
<td>4/17</td>
<td>Prototyping and Product Realization The Computer Automated Rapid Prototyping System</td>
<td>Crawford Text Chapter 13 The Art of Innovation Chapter 6</td>
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<tr>
<td>5</td>
<td>4/24</td>
<td>Prototyping and Product Strategy Rapid Prototyping for downstream mfg. processes Case Discussion: Team New Zealand Case Series</td>
<td>Team NZ A Case Crawford Text Chapters 16, 18</td>
</tr>
<tr>
<td>5</td>
<td>4/24</td>
<td>Market Testing and Analysis CLASS CANCELLED Scale up and Product Launch</td>
<td>Crawford Text Chapter 19</td>
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<tr>
<td>Course Week #</td>
<td>Session Sec. 61 Date</td>
<td>Content Second Five weeks</td>
<td>Recommended Readings</td>
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<tr>
<td>6</td>
<td>5/1</td>
<td>Challenges of testing and launch in Pharmaceutical and Health care markets.</td>
<td>Eli Lilly and Endius Cases (case pack)</td>
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<tr>
<td>6</td>
<td>5/1</td>
<td>Case Discussion: Astrazeneca, Prilosec &amp; Nexium</td>
<td>Astrazeneca Case, Dipak’s Kellogg World Article, Cannibalization paper, Blackboard site.</td>
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<tr>
<td>7</td>
<td>5/8</td>
<td>Incubation and Intrapraneurship at Microsoft Guest Speaker Katie Drucker from Microsoft Greenhouse</td>
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<tr>
<td>7</td>
<td>5/8</td>
<td>Case Discussion: Terry Chocolates Guest Speaker: Hooman Shahidi, P&amp;G Crest Whitestrips</td>
<td>Terry’s Chocolates Case (hand out)</td>
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<td>8</td>
<td>5/15</td>
<td>A formal process for external NPI that sells into the CPG industry Guest Speaker: John Funk of Evergreen IP</td>
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<tr>
<td>8</td>
<td>5/15</td>
<td>Guest Speakers: Gordon Kane Devine Racing Ulrich Seidel, McKinsey auto interiors consulting</td>
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<tr>
<td>9</td>
<td>5/22</td>
<td>In Class Presentations on Student Projects I</td>
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<tr>
<td>9</td>
<td>5/22</td>
<td>In-Class Presentations on Student Projects II</td>
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<tr>
<td>10</td>
<td>5/29</td>
<td>The Future of New Product/Offering Development In-Class Presentations on Student Projects (if needed)</td>
<td>Developing products on Internet time article, Toyota Hybrid vehicles Case</td>
</tr>
<tr>
<td>10</td>
<td>5/29</td>
<td>Course Summary and Wrap-up Discussion What did we learn?: Peer Group Performance/class participation evaluations and KSM Course Evaluations</td>
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</tbody>
</table>
Study Groups

You are required to form study groups of 5-6 students (group size dependent on class size) and notify me of your grouping by end of session 1 or as soon as possible thereafter by e-mail. Teams should discuss and work on cases (both those with individual and group deliverables) and under take the final projects. Please fix and stay in the same study group all quarter. Group pages will be formed for your team on the Blackboard course info site to facilitate collaboration.

TENTATIVE Assignment Schedule: Note needs to be modified for spring quarter 2006

There are seven case assignments as per below. Assignment instructions are or will be posted to the course info blackboard site. Note that Assignment #1 and #5 are both individual assignments whereas the rest are group assignments/deliverables. Instructor reserves right to suspend written deliverable requirement for assignments #6 and #7 depending on how course is progressing.

Assignment #1: Ryobi Outdoor Products case, individual write-ups due in digital drop box at 0130 hours on 4/1/05

Assignment #2: HP Powerbar Case, group write-ups due in digital drop box at 0130 hours on 4/12/05.

Assignment #3: NPD at Dell Computer Case, group write-ups due in digital drop box at 0130 hours on 4/19/05

Assignment #4: Team New Zealand A Case, group write-ups due in digital drop box at 0130 on 4/26/05

Assignment #5: Astrazeneca, Prilosec & Nexium, individual write-ups due in digital drop box at 0130 on 5/6/05.

Assignment #6: Terry’s Chocolates Case, no deliverable preparation necessary, in class discussion on 5/10

Assignment #7: Yoplait Yogurt Case A, no deliverable preparation necessary, in class discussion during make-up class on 5/19, 5:00 to 6:30 p.m., 1246 Jacobs

Final Assignment: Class participation self assessment and peer group evaluation form due in digital drop box by noon on 6/5/05.

Midterm Examination:

The midterm for this course will be a straight forward exam/case analysis covering materials discussed in class and addressed in the assigned readings. The midterm case will be an individual assignment.
Final Project:

This assignment is to be executed and delivered with the members of your study group.

Objectives:

The final project offers an opportunity for student groups to exercise and or integrate the learnings of the course into an in-depth analysis of state-of-the art NPD management (marketing included) processes within a specific firm or industry (healthcare, pharmaceuticals, power generation, automotive, retail, consumer durables, etc.) or technology application domain (perfumes, chemical sweeteners etc.). The manuscript can take the form or either a white paper or a case study. Examples of past deliverables are available on the courseinfo web site and will be discussed in depth during the first day of class.

Deadlines & Deliverables:

- Deliverables include a 12 minute powerpoint presentation to be delivered to the class by your group members during the Ninth week of the quarter. All student groups are expected to have a powerpoint presentation addressing their project completed and submitted to the digital dropbox by 0600 hours on Tuesday, 5/24. Only 4 groups will likely be called on that day but, in fairness, all must be prepared to present.

- Final project manuscript deliverables are due in both hard copy as well as in digital form in the digital dropbox on the courseinfo page by 6/6/05 by 9:30 a.m. If I am not available, manuscripts may be left with Rahi Gurung in the room just across from my Evanston office (5249 Jacobs Center) during regular business hours.

Grading of Final Projects:

Your grade will be determined based on the quality of your presentation and written report. A high quality written deliverable is characterized as follows:

- Sound structure, based on a relevant conceptual framework.
- Comprehensive coverage of the relevant issues.
- Consistency and depth of analysis; specific rather than vague.
- Informative and thought provoking exhibits (figures, graphics and tables). In short, the exhibits should tell the story of your paper.
- Good balance between description, analysis and recommendations. When you draw on other sources, it is important that you not merely ‘cut and paste’ them into your text, but carefully integrate the underlying reasoning into your analysis.
- Clearly written, exhaustively referenced so that each citation can be found quickly (this is very important), and well organized.
- All prepared in MSWord Format and delivered to the digital drop box as per the syllabus date.

A high quality presentation (week #9) will be clear, informative and balanced in the allocation of time to content. Your objective is to brief your classmates efficiently on your findings. All presentations should be prepared in powerpoint format as per a template to be distributed. Examples of past final project deliverables are included in the case pack, (Ryobi Outdoor Products Case, HP Power bar case)

Classroom Etiquette and Class Participation

All students are expected to fully comply with the Kellogg Code of Classroom Etiquette (http://www.kellogg.nwu.edu/stu_aff/honor/etiquette.htm)
Please leave your name plate up for the entire duration of each class and keep the same seat for the duration of the quarter. Not having a name plate will impact class participation grade (monitored during each class by TA).

While you are welcome to use your computers for note taking and other class specific tasks such as accessing the Blackboard site, web surfing and e-mailing are expressly prohibited as requested by the GMA.

You are expected to attend all classes. *Attendance is mandatory for the midterm case discussion, for guest speakers and for the in-class final project presentations.* If you have to miss class for any reason, you must notify both me and the TA by e-mail before the scheduled start of the session. An unexcused absence will result in a reduction in class participation grade.

Much of the learning in this course comes from class discussion. Your classroom participation grade will be based on attendance, preparation, familiarity with the reading materials, and the quality of your contribution. Some of the key characteristics of *valuable contributions* are as follows:

- Relevance: Are your comments timely and linked to the comments of others?
- Advancement: Do your comments take the discussion farther or deeper than previous comments?
- Fact-based: Have you used specific data from the case, from readings, or from personal experience to support the assertions that you are making?
- Logic: Is your reasoning consistent and logical? Do you use concepts from the readings or lectures correctly?
- Originality: Do your comments merely restate the facts or do they provide new insights?

Generally, an important indicator of participation is your contribution to the creation of a positive learning environment. For example, correcting me when I make a mistake or asking what appear to be "dumb questions" about what is being covered both *do* help.

To increase opportunities for effective participation, I will cold call students either to open the class or during the course of a discussion. If you feel that you are preparing well but that I am not calling on you often enough, please let me and the TA know so that we can adjust.

**Feedback on your Performance in this Course**

I am very willing to help each student group develop and polish the course deliverables. I welcome the opportunity to comment and edit drafts of student work, provided that I am given ample time. Teams or individual students can arrange meetings with me, schedule permitting.

A "draft review" schedule will be posted to the courseinfo web site once the teams are formed.

**Grading**

<table>
<thead>
<tr>
<th>Grade Component</th>
<th>Individual / Group</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>Class Participation</td>
<td>Individual</td>
<td>20 %</td>
</tr>
<tr>
<td>Case Write-ups/Assignments</td>
<td>Individual/Study Group</td>
<td>20 %</td>
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<tr>
<td>Midterm Case Write-up</td>
<td>Individual</td>
<td>20 %</td>
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<tr>
<td>White Paper/Project: Presentation &amp; Paper</td>
<td>Study Group</td>
<td>40 %</td>
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</tbody>
</table>

Peer evaluation forms posted to the web will be used to assess individual contributions to group projects. It is required that all individual students fill out a peer evaluation form. More details on this during class #1.
Kellogg Honor Code

All students are expected to abide by the Kellogg Honor Code in undertaking and completing deliverables for the assignments in this course. See Below URL for link to the Kellogg Honor Code:

http://www.kellogg.nwu.edu/stu_aff/honor/hcode12.htm

Acknowledgements

Some of the ideas for this course have come from many past students (see the case study researchers) and other individuals, including Mohan Sawhney, Mark Jeffery, Sunil Chopra, Holger Ernst, Rob Wolcott and others. The author acknowledges all contributions and appreciates solicited/unsolicited suggestions for improvement.
MRKT 465: Introduction of New Products and Services

Sections 61w/ Professor James G. Conley, Spring Quarter 2005
 e-mail: j-conleya@kellogg.northwestern.edu

Meeting Time/Location: Section 81: Mondays 18:30-21:30, Room TBD Jacobs Center

Courseinfo URL’s:

Section 61:
https://www.courses.northwestern.edu/webapps/portal/frameset.jsp?tab=courses&url=/bin/common/course.pl?course_id=_144590_1

Note that syllabus for this course will be a living syllabus (i.e. schedule may change a bit), posted to the above website.

CASE PACK CONTENTS:

1. Ryobi Outdoor Products: Kellogg/MMM Case Study
2. Innovating for Cash Article
4. Product Development at Dell Computer Case Study
5. Hewlett Packard PowerBar Server Development Case Kellogg Case Study
6. BMW: The 7-Series Project (A) Case Study
7. BMW AG: The Digital Car Project Case Study
8. Team New Zealand (A) Case Study
9. BancZero New Product Development Case Study
10. Maxis Software Part A Kellogg Case Study
11. Eli Lilly and Company: Drug Development Strategy Case Study
12. Endius Inc., Alternatives for Dev. a New Medical Device DMI Case Study
13. Toyota and Hybrid Vehicles Case Study
14. Developing Products on Internet Time Article