MGM 620 Fall 2016

Syllabus & Instructions
MGMT 620

Professor Manuel M. Kakkanattu

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732-896-0665 (Weekends & evenings are best)

Number to call on class days to contact me

ISBN: 978-0-07-338154-1
Authors: Burgelman, R.A., Christensen, C.M. & Wheelwright, S.C.

Please use Moodle to access course notes and handouts.

Cases are assigned from the textbook, or you will be given instructions on how to access or purchase the case material.
Course Objectives

The course focuses on the strategic management of technology and innovation. We take an evolutionary process perspective on technology strategy and innovation in this course. The ideas that underlie this perspective are:

- A firm's technology strategy emerges from its underlying technological competencies and capabilities;
- A firm's technology strategy is shaped by external (environmental) and internal (organizational) forces;
- The enactment of technology strategy within the firm serves to further develop its technological capabilities.
- The nature of capability development is recursive and events in the environment and organizational history can enhance or detract an organization’s technology position.
- Technology and innovation are examined at the firm, industry and at the level of the technology itself.

We use this perspective at various levels of management (corporate, business, project) and study the process of creating change through technological innovation and internal entrepreneurship. We examine key activities at each of these levels of management, analyze how they interlock, and attempt to understand how such complex systems of activity can be effectively managed.

The course is based on research and theory but is practice oriented. Our case discussions of various real life situations will require in-depth analysis to be complemented with specific action recommendations and a willingness to commit oneself to a specific course of action.
Objectives, Expectations, Instructions

Develop, Enhance and Demonstrate skills

- Demonstrated skill will be the determinant of your grade
- I will give credence to demonstrated exemplary effort or improvement throughout the course in the final grading

Analytic and Problem Solving skills

- Have an awareness of the range, scope, and complexity of the phenomena, issues, and problems related to technological innovation and internal entrepreneurship.
- Be able to develop a conceptual framework for assessing and auditing the innovative capabilities of a firm.
- Be able to work out and define strategic management problems related to technological innovation and internal entrepreneurship.

Communication Skills: Oral & Written

- Make oral presentations using visual aids and answer questions pertaining to the presentations.
- Provide opinions & case solutions in an effective manner.
- Write case analyses and submissions in a clear and concise manner.
- Answer questions in class and debate a point while defending or attacking a point of view.
Objectives, Expectations, Instructions

Leadership and Ethics

• Be able to work in groups for case presentations, term papers and in class exercises
• Be able to build relationships with team members that foster cooperation toward group goals
• Be able motivate team members and also have the ability to objectively evaluate the performance of other group members

Technology Skills

• Use PowerPoint / Keynote to make effective presentations
• Use other tools such as Excel or programming languages for analyses

Globalization

• To develop an understanding of technology in global industries
• To understand the impact of globalization and the complexity it brings.
• To have the knowledge to assess the needs of standardization versus local adaptation of products, practices and systems.

NJIT Honor Code

Students are expected to comply with the University Honor Code. Any violations to the Honor code will be brought to the immediate attention to the Dean of Students.
You should come prepared for every class. The quality of class time is considerably enhanced when you come to the class with the assignments already completed. My goal is to stimulate a lively dialogue. During the lectures, discussions, and case analyses, I will call upon students to share their understanding and insights about the readings and cases.

**Attendance and Class Participation**

Absenteeism significantly reduces the learning that can occur in class. Therefore, attendance is considered as a part of the grade. If you must be absent or late to a class, please make arrangements with the instructor ahead of time. However, excused absences will also be noted as part of the attendance grade.

Effective participation includes contributions that reflect preparation through reading the required material. Effective contribution should substantially improve the quality of discussion in the class.

**Case presentation and Report**

Students will be assigned to groups. Each group will be required to make one of each type of case presentation to the class, as explained in class, and submit one written brief on a case being presented by another group. Questions will be provided to guide your analysis. Your answers to the case questions should include the theory covered in the articles assigned to you and the facts and figures provided in the case. In general, do not restate the information in the case, unless specifically instructed to do so. Use ONLY the information in the case to analyze issues and recommend a course of action. Use industry information only as it may have been available in the context of the case.

**Examination / Quizzes**

The exact format of the examination(s) will be decided after discussion in class.
The following criteria will be used for your performance evaluation in this course.

<table>
<thead>
<tr>
<th>Category</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Attendance &amp; Class Participation</td>
<td>100</td>
</tr>
<tr>
<td>Case Presentation</td>
<td>400</td>
</tr>
<tr>
<td>Mid Term</td>
<td>100</td>
</tr>
<tr>
<td>Term: Final Presentation – Final</td>
<td>400</td>
</tr>
<tr>
<td>Intermediate Quizzes on Material and Cases</td>
<td>400</td>
</tr>
<tr>
<td>Total</td>
<td>1400</td>
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</tbody>
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There will be at least 6 (80 points each) in class quizzes. If time permits, we may have additional quizzes, and you will be allowed to keep your best 5 scores. The maximum score possible will be 400.

Grading Policy

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>&gt;1199</td>
<td>A</td>
</tr>
<tr>
<td>1050-1199</td>
<td>B+</td>
</tr>
<tr>
<td>900-1049</td>
<td>B</td>
</tr>
<tr>
<td>800-899</td>
<td>C+</td>
</tr>
<tr>
<td>749-799</td>
<td>C</td>
</tr>
<tr>
<td>&lt;749</td>
<td>D</td>
</tr>
</tbody>
</table>

The grading is very generous and please remember, ONE bad quiz will have no impact on your grade as you get to keep only your 5 best scores!
Schedule and Syllabus Details
Introduction and course overview
Class Organization
Ice Breaker Exercises

Introduction to management of change and idea generation
In Class Discussion: Article Link to be posted in Moodle

Technology & Strategy: A General Management Perspective: Text 1-12
MGMT 620: 09/14/2016

- Reading: The Five Forces Model (Moodle Links)
- Reading: What is Strategy? (Moodle Links)
- Discuss these articles amongst yourselves and be prepared for a quiz at the end of class on 9/21
Review readings from last week

In Class Quiz on material covered so far
- The quiz will be online via moodle
- Bring your Laptops or tablets so you can access and complete the quiz in class

Reading: The Core Competence of the organization pg.66-77
Review readings from moodle

- Reading: Design and Implementation of Technology Strategy: Text 237-251
- Reading: The Art of High-Technology Management: Text 226-236

In class exercise
## Appendix: Tentative Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
</tr>
</thead>
</table>
| Sep 7, 2016| Ice Breaker Exercises  
Introduction and course overview  
Class Organization, Introduction to management of change and idea generation |
| Sep 14, 2016| Reading: What is Strategy? (Moodle Links)  
Reading: The Five Forces Model (Moodle Links)  
In Class Exercise: Article Link to be posted in Moodle |
The Art of of High-Technology Management: Text 226-236 |
| Sep 28, 2016| Reading: The Core Competence of the organization pg.66-77  
Read Case I - 2: Advent Corporation 49 - 62  
Quiz on Case Study reading  
Introduction to Case Analysis  
In class discussion on Case Reading Assignment |
| Oct 5, 2016| Term Research Proposals with reference list due before class: Discussion after class if required  
Reading 9: Profiting from Technological innovation: Implications for integration, collaboration, licensing and public policy. Pg. 32-48  
Reading: Exploring the limits of the Technology S-Curve: Component technologies. Pg. 259-277  
Reading: Exploring the limits of the Technology S-Curve: Architectural technologies. Pg. 278-283 |
| Oct 12, 2016| Examination online on all topics discussed to date |
| Oct 19, 2016| Reading 8: Patterns of industrial innovation pg. 253-258  
Case Presentation from Group 1  
Quiz on Case Study reading |
| Oct 26, 2016| Reading 14: Note on Lead User Research. Pg. 799-804  
Case Presentation from Group 2  
Quiz on Case Study reading |
| Nov 2, 2016| At 3M, a struggle between efficiency and creativity. Pg. 949-954  
Case Presentation from Group 3  
Quiz on Case Study reading |
| Nov 9, 2016| Reading 17: The Standard Wars (Handout)  
Case Presentation from Group 4  
Quiz on Case Study reading |
| Nov 16, 2016| Reading 12: Crossing the Chasm - and Beyond. Pg. 429-434  
Case Presentation from Group 5  
Quiz on Case Study reading |
| Nov 23, 2016| Reading 10: Strategic dissonance Pg. 563-576 |
| Nov 30, 2016| Thanksgiving |
| Dec 7, 2016| Final Presentations: Introduction from each group - 20 minute maximum |
| Dec 14, 2016| Final presentations: 25 minutes per group + Q & A from the class |

This schedule will be overridden by the class announcement and changes in the mainline of the document to cater to unexpected events.