Fall 2015

ENMG 6103

Syed Adeel Ahmed
University of New Orleans

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15FALL-ENMG6103–601 – Technology Entrepreneurship
Fall, 2015

Instructor: Dr. Syed Adeel Ahmed
UNO Office: TBA
Office Hours: by email and appointment only
Phone: Email: saahmed1@uno.edu

Appointments can be arranged by contacting me via email.
Classroom: Kirschman Hall Room#227
Class time: Thursdays, 6:00PM-8:40PM

Required Text
Technology Strategy for Managers and Entrepreneurs, 1/e
Shane
©2009 | Prentice Hall | Paper; 432 pp | Available

Course Description and Student learning outcomes:
Established businesses in technology intensive industries, like telecommunications and pharmaceuticals are an important part of the world economy. Moreover, new high growth companies are found in disproportionate numbers in these industries. These businesses are different from those found in other industries. They tend to rely more on intellectual property, manage systematic technical research and development, and launch new-to-the-world products. They are often subject to increasing returns and network externalities.

This course focuses on the strategic management of new and established businesses in technology-intensive industry. It provides frameworks for analyzing key aspects of these industries and teaches students how to apply these frameworks. The course focuses on four themes: (1) the source, discovery, and evaluation of opportunities (2) the provision of products and services that satisfy the needs of customers, (3) the development of mechanisms to appropriate the returns from the exploitation of the opportunity; and (4) the organization of efforts to innovate.

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Class Format

The course will meet once a week and is comprised of both lectures and discussions. On each topic, at least half class session will be a lecture. The other half class session will be a case or an exercise to reinforce the material presented in the lecture and the readings.

It is important that you participate in the non-lecture sessions. To encourage participation, class discussion counts for part of your grade. Students start off with zero participation points (i.e., an “F”) and accumulate points through their contributions to classroom discussions. Attendance does not equate to participation.

Students will be randomly called upon to identify the key issues. Class presentation points are based on the quality (not simply quantity) of the student’s discussion of those issues.

Assignments

There will be three tests in this class. You are also required to hand in the answers to the discussion questions prior to each case discussion, and you will be graded on that. Finally, you will be graded on class participation.

To have an effective discussion of the cases and exercises, everyone in the class needs to do the reading and be prepared to discuss it. To ensure that you do that, you are required to hand in written answers to the discussion questions BEFORE the discussion of each case or exercise. If you hand in the answers after the time that the discussion begins, do not hand in the answers or do not answer the questions, you will be graded with a “0” (not answered).

Grading Criteria

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Test 1  Chapters (1, 2, 3, 4, 5)</td>
<td>100</td>
</tr>
<tr>
<td>Test 2  Chapters (6, 7, 8, 9, 10)</td>
<td>100</td>
</tr>
<tr>
<td>Test 3  Chapters (11, 12, 13, 14, 15)</td>
<td>100</td>
</tr>
<tr>
<td>Research Paper &amp; Presentation (Individual Project)</td>
<td>100</td>
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<tr>
<td>Presentation &amp; Participation in Case Analysis</td>
<td>100</td>
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<tr>
<td>Opportunity Analysis Paper &amp; Presentation (Group Project)</td>
<td>100</td>
</tr>
<tr>
<td>Interview of an Entrepreneur (Individual Project)</td>
<td>100</td>
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Letter Grading will be assigned on the course points attained as follows:

\[ A = 90\%-100\% \]

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B = 80%-89%

C = 70%-79%

D = 60%-69%

F = Below 60%

Material for all assignments, exams and projects will be taken from your text and class lectures.

Please note that I do not curve grades. Effort and, more importantly, performance, are the key ingredients in each person’s grade. Effort alone is not enough. It is important to realize that ‘effort’ is not what is rewarded in life but the performance that results from that effort. In this class you must perform well to succeed. It works the same way in the business world. And just as the business world does not “curve” your performance, neither does your course instructor.

Examination Policy:
The exam dates are listed on the “Tentative Course Outline”. Since the exam dates are known well in advance, ALL students are expected to arrange their schedules accordingly. Students missing an exam will receive a grade of zero for the exam.

All Tests MUST BE TAKEN UNDER the prescribed PROCTORED CONDITIONS.

Make-up Policy:
NO make-up tests or assignments will be allowed. Exception will be for a “personal bona-fide documented medical emergency” approved by the instructor. When calculating the grade for a make-up exam/quiz, 5 points will be deducted from your total grade on the make-up. Your instructor believes that to be given full credit would not be fair to the students who took the test at the prescribed time and, more importantly, had no additional time to prepare for the test. Any make-up allowed (under the exception above) will not be administered during regular class time, and the date/time decided on will be at the instructor’s discretion.

Extra Credit:
No extra credit is available.

Other Points of Interest:

Moodle:
Moodle will be used for this course. Please check the website periodically for updated course information. Should we have any scheduled interruptions due to
weather or any other reason, I will use the website to disseminate updated course and schedule information. I also answer many questions students email me using Moodle so all can benefit from the question and answer. Any information distributed via Blackboard/Moodle is considered official notification!

For these reasons it is imperative for you to regularly check the email address that Moodle uses for you. It is probably your UNO account. It is the student’s responsibility to make sure they are properly setup to receive emails sent out via Moodle. This includes the student’s responsibility to **clean out his/her email account and email “delete” file REGULARLY.** If your mailbox is full you will not receive my email messages and thus miss very important class information. Also, do not email me and ask me to send you a separate copy of something I emailed via Moodle.

**Attendance Policy:**
Attendance is must to earn participation points and to learn concepts beyond the textbook. Please also note that we will cover a large amount of material each week. With that volume in mind, missing any assignments or self-study time equates to losing a substantial amount of valuable information and can lead to a higher probability of failure. If you must take time away due to being either hospitalized or having had a car accident you are encouraged to call me.

**Cell Phone and Beeper Policy & Disruptions:**
**Cell phones are NOT TO BE USED during testing or in class.**

Students with Disabilities/Americans with Disabilities Act (ADA):
It is the general policy of UNO to assure equal opportunity for all qualified persons. Reasonable accommodations for qualified persons with disabilities will be made provided the students have self-identified with the Office of Disability Services and have provided required documentation. Individual instructors will modify the methods, requirements, and procedures of courses and examinations appropriately to accommodate the special needs of students with disabilities, provided the academic integrity of the course or examination is not violated and the health and welfare of all students are safeguarded.

**Academic Integrity (Cheating):**
Academic integrity is fundamental to the process of learning and evaluating academic performance. Academic dishonesty will **NOT** be tolerated. Academic dishonesty includes, but is not limited to, the following: cheating, plagiarism, tampering with academic records and examinations, falsifying identity, and being an accessory to acts of academic dishonesty. Students are expected to conduct themselves according to the highest standards of honesty. Any student
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**Interview of an Entrepreneur**: an individual assignment in which you will find and interview a technology entrepreneur whom you do not know and provide a written analysis of what you learned.

I will be inviting some Entrepreneur as a guest speaker to share some of his experience with the class and you are encouraged to invite Entrepreneurs. The following link will provide some sample interview questions for Entrepreneur.

http://bitwizards.com/blog/december-2011/20-questions-for-an-entrepreneur

**Class Participation**: You must participate and interact in class discussions to show your knowledge of the material. In evaluating the quality of participation in class discussions and assigned cases, I will consider your preparedness, logical reasoning, and the ability to apply general concepts to the specific situations under discussion. It goes without saying that you must be present to participate, so attendance is expected.

**Case Analysis**: Cases should be selected from the ones found at the end of each chapter. First come first serve. You are to prepare and handout to the class a two page executive summary (not including a reference page or other exhibits etc.) of the case key issues and your teams analysis. The executive summary should follow the outline below as appropriate. This overall assignment is evaluated with five criteria in mind. Each section is evaluated on a 5 point scale (where 1= significantly below expectations, 3=met expectations, and 5 = Wow! greatly exceeded expectations). You are not limited to only information available from the case. Feel free to utilize other information as relevant. The five grading criteria are:

1. **Introduction, key statement of purpose**
   **Rating criteria:**
   
   5 = Succinct and very articulate summary of the main topic. Why this case is interesting. Able to clearly answer the question: what is going on in this case, what’s its relevance to entrepreneurship for scientists and engineers?
   
   3 = Solid identification of the main topic, but may not justify why this is interesting.
   
   1 = Insufficient discussion and little to no justification for investigating this case.

2. **Analysis of issue**
   **Rating criteria:**
   
   5 = Outstanding but succinct description of relevant information; strong critique of the issues and insightful use of additional information.
   
   3 = Sufficient description of the topic, but largely described information from the case.
   
   1 = Scarce description of the main topic. No critical thinking demonstrated.

3. **Integration of relevant material**
   **Rating criteria:**
   
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5 = Excellent identification of multiple and relevant sources and integration across those sources to give a realistic picture of how they interrelate. Succinctly but thoroughly applied these to the main case topic.
3 = Identification of a few sources relevant to the problem. Little integration across the case topic, leaving more of a “laundry list” of others ideas.
1 = Lack of sufficient identification of topic; no integration; no connection between case topic and other sources.

4. Summary of main issues
Rating criteria:
5 = Clever summary clearly described and excellent evidence of integration through multiple sources.
3 = Reasonable summary some evidence of integration through multiple sources.
1 = Superficial summary and little evidence of integration through multiple sources

5. Presentation
Rating criteria:
5 = Excellent professional presentation. Exceeded my expectations with clear analytical thinking, and creatively engaged the class, multiple types of learning styles were used.
3 = Met presentation expectations with very few errors. Sufficiently clear to get the point. A couple different learning styles were used.
1 = Did not meet presentation expectations; several errors or little research evident. I was unclear on several occasions what point was being made. Used basically one method of delivery.

Opportunity Analysis: This assignment tests your e-teams ability to gather useful knowledge and creatively apply it to a new business opportunity. I want you to understand the contexts of what is going on in industrial environments: what are the driving forces; who are the key players; how do they get things done; what are likely competitive responses to new threats, etc. This knowledge forms the basis for determining new opportunities that exist in the competitive space.

The major project for this class requires a team (E-team) of students to analyze and identify opportunities within an industry segment or sector. The process for this class differs from a customary feasibility analysis or business planning exercise. A more traditional entrepreneurial exercise is to identify a “great idea” through brainstorming and then write a feasibility analysis or business plan to evaluate that idea and its viability.

However it is my belief that a better approach (assuming you do not have a “great idea already) is to become familiar with screening through an extensive industry analysis. Therefore, you will begin with an industry and search for an opportunity. You are challenged in this assignment to begin with analysis and then move to innovation or creativity. I highly recommend that you and your e-team investigate an industry sector in which you have an interest. I want this assignment to be of value to you as you progress in your chosen careers, not just another project to complete for a class.

Process
The final deliverable for this assignment is a list of potential opportunities and the development of the business model for at least one of these opportunities. You do not need to complete a full feasibility analysis or business plan. However, you should be able to

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conceptualize the steps you would need to undertake in order to capitalize upon this opportunity should you and your e-team decide to do so.

The following is a basic list of steps to undertake in order to “discover” opportunities:

1. Define the boundaries of the industry sector. This is a very important step; do not choose carelessly. The sector may represent an entire industry (e.g. manufacturing) a strategic group within an industry (e.g. organic farming, commercial space flight) or a technology that might impact entire industries (e.g. conversion of salt water to drinking water). Again I strongly encourage your team to focus on a sector that has promise and you find interesting to investigate.

2. Analyze the structure and the value chain of the industry, how is money to be made. Opportunities often exist in streamlining (e.g. reducing middlemen) or improving efficiency in other ways (e.g. faster delivery through technological innovations). You may find that many opportunities lie in taking a look at a broad industry value chain from raw materials to final consumer.

3. Analyze the major players along the way. At each stage of the value chain you will find influential firms and how they got to be that way. What happened to the first movers and why? Are late movers influential?

4. Analyze relevant social trends that are likely to impact the industry and its consumers (political, economic, socio-cultural, technological, and environmental). Remember triple bottom line concept (SEE=Social + economic + environmental).

5. Identify potential opportunities for new ventures. These opportunities may be current or future (as a result of your trend analysis). These opportunities should have some basis or economic viability. A very important criterion is that there should be a logical flow from analysis to opportunity.

6. For at least one opportunity you will need to develop a business model which allows for the capture of this opportunity. I expect to see a strategy of how your team would go about attempting to exploit this idea, if you were so inclined to do so. Again this should make intuitive sense in the context of your analysis and investigation.

7. Your completed paper should start with an executive summary and end with a conclusion and or summary. Proper grammar is important; make sure you cite references appropriately in the text and on a reference page. Readability is important; make sure sections flow from one to another.

Please take a look at sample project description in the following link:

http://web-app.usc.edu/soc/syllabus/20101/14640.pdf

This project owes special thanks to Dr. Connie Gaglio of San Francisco State University and Dr. Tom Dean of the University of Colorado for their generous assistance.

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ASSIGNMENTS

8/20/2015  Overview of Class

Read: Introduction, Technology Strategy for Entrepreneurs and Managers

8/20/2015  EVOLUTION OF TECHNOLOGY

LECTURE: TECHNOLOGY EVOLUTION

Read: Chapter 2, Technology Strategy for Entrepreneurs and Managers

8/27/2015  CASE: ELECTRIC VEHICLES: PIPE DREAM OR PRODUCT OF THE FUTURE?

Discussion Questions:

Where is the technology headed? Why?

If you were managing a conventional car company, what technology would you invest in to replace the internal combustion engine? Why?

Would you invest in an electric car company start up? Why or why not?

If you were to invest in an electric car company, where would you invest? How would you invest?

8/27/2015  TECHNOLOGY ADOPTION AND DIFFUSION

LECTURE: UNDERSTANDING DEMAND FOR NEW PRODUCTS

Read: Chapter 3, Technology Strategy for Entrepreneurs and Managers

9/3/2015  BASS MODEL

EXERCISE: Satellite Radio

Your boss has several questions for your team about forecasting demand, and she has asked your team to provide him with some answers. Using satellite radio data that we discussed in class, answer the following four questions she has posed:

1. Will cutting the price of the radio to $100 and the price of the service to $2 speed the pace of customer adoption of the product? If yes, how will the pace of adoption change? If not, what effect will it have on adoption of the product?

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2. If you lower the radio price to $100 what will happen to demand for the product? Is the effect of cutting the price on stimulating demand proportionately greater for a reduction in the radio price to $100 than it is for cutting it to $200?

3. To stimulate demand, is it better to cut the price of your radio or your service?

4. Assume that your satellite radio company has one competitor with 50% market share. How does that change adoption patterns? How assume that your satellite radio company has three competitors accounting for 90% share of the market. How does that change adoption patterns?

9/3/2015  CASE:  FORECASTING THE ADOPTION OF E-BOOKS

Discussion Questions:

Assume that you are making a prediction from the time e-books first became available (year 2000). Although early unit sales data for e-books are available, construct your forecast irrespective of these sales?

What do you expect the long-run total adoption of e-books to be?

Do you expect the market for e-books to be guided more by imitators or innovators? Why?

Once you have modeled the first-time adoption of e-books, create a 5-year annual forecast of the overall demand for e-books.

What role will hardware devices play in the adoption of e-books?

1st drafts of Research Paper & Opportunity Analysis are due !! (Send by email attachment)

9/10/2015  SOURCES OF INNOVATION

LECTURE:  IDEA GENERATION

Read: Chapter 4, Technology Strategy for Entrepreneurs and Managers

9/10/2015  CASE:  THREE DIMENSIONAL PRINTING

Discussion Questions:

Why did the entrepreneurs discover opportunities in the 3DP process?

Why did so few people discover opportunities to exploit MIT’s 3DP Process?

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Why did the different entrepreneurs in the case discover such different business opportunities for the 3DP Process?

How are the entrepreneurial opportunities to exploit 3DP different? What effect do those differences have on the evaluation and pursuit of those opportunities?

9/17/2015 TEST 1

9/17/2015 UNDERSTANDING CUSTOMER NEEDS

LECTURE: UNDERSTANDING CUSTOMERS FOR NEW TECHNOLOGY

Read: Chapter 6, Technology Strategy for Entrepreneurs and Managers

9/24/2015 LECTURE: DEVELOPING NEW TECHNOLOGY PRODUCTS

Read: Chapters 5 and 7, Technology Strategy for Entrepreneurs and Managers

9/24/2015 MARKET RESEARCH

EXERCISE: MARKET RESEARCH ERRORS

Your task is to answer the following questions about market research efforts and be prepared to discuss them.

1. A charter school company wants to find the average number of school-age children per family having schoolchildren. It selects a random sample of school age children and asks them how many children are in their family. Is this a good research design? Why or why not?

2. A greeting card company is considering a development of a new type of card, called “alternative cards”, designed to appeal to young, urban consumers. They want to know what changes they need to make to their standard card line. They change the artwork, the text of the message, the price, and the materials used to make the card. They test the new cards on a random sample of young, urban consumers by making the cards available for sale alongside their old cards in a store frequented by the target market. They obtain sales information on the old and new cards. Does this market research effort tell them what changes to make to their old cards?

3. A company is in the on-line music download business. Its management thinks that the price of music downloads affects the decisions of teenagers to download music. From their operations from 2000-2003, they know the likelihood that teenagers will download songs at their price of $2.99 per download. In 2004, they are considering reducing the download price to $0.99 per download. They test the effect of their new price by reducing the cost of a song download to $0.99 for the first 3 months of

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They find that the download rate is no higher for the first 3 months of 2004 than it was for the average of the first three months of the year in 2000, 2001, 2002 and 2003. What can they conclude about the effect of the price reduction on the downloading of their music?

4. A company producing valves for use in many types of industrial machinery is considering a new product which they believe will be 50 percent less expensive to produce than their current valves. They believe that introducing this product will increase their sales dramatically, but they would like to test the product concept out on potential customers first. They send a survey to their customers describing the new product and its benefits and ask the customers if they will increase their valve purchases if they could have the new valve. The results come back, indicating that none of the customers will increase valve purchases if the new product were introduced. The company decides not to go ahead with the development of the product based on this market research. Was this a wise decision? Why or why not?

5. McDonald’s is interested in knowing what consumers think of its brand to determine whether it should launch a new restaurant concept under its brand name. The company identifies a random sample of the population aged 18-70 and sends them a survey. The survey asks the respondents to rank order five fast food brand names: Wendy’s, Burger King, McDonald’s, Pizza Hut, and KFC. The results show that McDonald’s has the highest ranking of the five brand names. McDonald’s interprets the results of this market research to mean that it has the strongest brand name of all fast food chains and that it should launch a new restaurant concept under its brand name. Was this a good interpretation of the market research results? Why or why not?

6. An auto insurer is considering offering a new insurance product that cuts auto insurance rates by 25 percent if the customer agrees to install a speed monitor in his or her vehicle that records the speed of the vehicle at all times. The company wants to know if customers would be interested in the product. In particular, it is important to know if customers who tend to speed, and so have more accidents, would purchase the product. If they cannot attract customers who speed, the product won’t be profitable because it won’t do anything to reduce accident claims. The company sends out a survey to a random sample of people with driver’s licenses that they obtained from the departments of motor vehicles in all 50 states. They receive responses from 26 percent of those surveyed. Is there anything that they should be concerned about when they analyze their market research data?

7. A company that makes toy airplanes is considering introducing a new version of its toy airplane product. The company has a limited budget for product improvements and is considering whether to improve the propeller, fuselage, or wheels. During the two years that the product has been on the market, fully 80 percent of all the products returned for repair had wheel problems. For this reason, the company is considering putting its money into improving the wheels. Is this a good idea? Why or why not?

8. A company that makes remote sensing devices wants to develop a device that works at very long distances, which no one has been able to do before. They find out that a bunch of customers who need remote sensing have been frustrated by the lack of such devices and are working on their own solutions. The company decides to hold
a lead user seminar to get the customers together with their engineers and marketing staff to develop a new product that meets the customers’ needs. Did the company take the right approach? Why or why not?

9. A company developing a new device for playing music downloaded off of the Internet conducts some focus groups with teenagers to find out what features they think are important in a portable music player. The focus group participants tell them what features they want and the company goes back and designs the product to provide those features. Is this a good approach to market research? Why or why not?

10. A computer company has developed a new technology to do computing at the level of individual atoms. While the company has made the technology work, it does not know what applications to develop for it. So the company conducts a survey of computer users to ask them about their needs for an atomic computer. The company then uses the results of this survey to develop a new product. Did the company take the right approach to market research? Why or why not?

2nd drafts of Research Paper & Opportunity Analysis are due!! (Send by email attachment)

10/1/2015 CONJOINT ANALYSIS

Download Sawtooth Software’s SMRT v4.7 Demonstration Software at: http://www.sawtoothsoftware.com/downloads.shtml#ssiweb

EXERCISE: MOUNTAIN BIKE TIRES

Your task is to conduct conjoint analysis as a team at Michelin responsible for the development of a new mountain bike tire. Michelin competes with two other producers of mountain bike tires — Tioga and Electra. Obviously, you would like to introduce a product that competes effectively with your competitors’ products. You have conducted a survey of 30 customers to gather information about their preferences for different mountain bike tires. In addition to the effect of brand name on customer preferences, you have sought to examine the effect of (1) tire type (very firm puncture proof solid foam core; somewhat firm puncture proof solid foam core, less firm puncture proof solid foam core, and standard inner tube tire), (2) tread type (off road tread, on-road tread, and off/on road tread), (3) tire weight (2, 3, or 4 lbs), and (4) tread wear (tire lasts for 1000, 2000, or 3000 miles).

You should first look at the questionnaire that has been presented to customers so that you can get a sense of the types of information that you have collected. In the Sawtooth software package, this means that you need to select the “Tires1.smt” simulation, and then go to “compose”, and pull down on “run questionnaire”. Answer the questions as they come up to get a feeling for the market research information that you have gathered.

Once you are done with that, you need to answer 4 questions for your boss:

1. The engineers at your company have launched a product with very firm puncture proof solid foam core tires with off road tread and less than 2 pound tires that last for

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1000 miles. Your boss wants to know what the customers purchase likelihood is for a product of this type from Michelin in comparison to the same product from its two major competitors Tioga and Electra. Please tell her the purchase likelihoods for the products launched by the three companies. (Hint: Go to market simulator in the Sawtooth software. Add a scenario. Put in three products, each with the product features that your product will have. For the first product put in the Michelin brand name. For the second product put in the Tioga brand name. For the third product put in the Electra brand name. Under simulation method, select purchase likelihood).

2. Your boss also wants to know how the purchase likelihood of the product will change if you keep all other things the same, but you change each of the other dimensions of the product. Which tread type will give you the highest purchase likelihood for a Michelin tire with very firm puncture proof solid foam core tires and less than 2 pound tires that last for 1000 miles? Which weight will give you the highest purchase likelihood for a Michelin tire with very firm puncture proof solid foam core tires with off road tread tires that last for 1000 miles? Which tread wear will give you the highest purchase likelihood for a Michelin tire with very firm puncture proof solid foam core tires with less than two pound off road tread tires? Which tire type will give you the highest purchase likelihood for a Michelin tire with less than two pound off road tires that last for 1000 miles? (Hint: Go to market simulator in the Sawtooth software. Add a scenario. For the first scenario vary the tread type across the three products and hold the other dimensions constant. For the second scenario, vary the tire weight and hold all of the other dimensions constant. For the third scenario, vary the tread wear and hold the other dimensions constant. For the fourth scenario, vary the tire type and hold the other dimensions constant. Under simulation method, select purchase likelihood).

3. Your boss has asked the engineers to design a product with the highest purchase likelihood for a Michelin tire on all four other dimensions. What is the purchase likelihood of that tire? If that purchase likelihood is not higher than the purchase likelihood for other tire combinations, why is that the case? (Hint: Go to market simulator in the Sawtooth software. Add a scenario. For each product feature, put in the value with the highest purchase likelihood your analysis under point two. Under simulation method, select purchase likelihood).

4. Your boss wants to know the purchase likelihood of your mountain bike tire (a very firm puncture proof solid foam core tires with off road tread and less than 2 pound tires that last for 1000 miles) in comparison to the purchase likelihoods of competitor products. Tioga’s product is a somewhat firm puncture proof solid foam core tire with on road tread that weighs three pounds and lasts for 2000 miles. Electra’s product is a less firm puncture proof solid foam core tire with on/off road tread that weighs four pounds and lasts for 3000 miles. What is the purchase likelihood of different competitive products? (Hint: Go to market simulator in the Sawtooth software. Add a scenario. Put in three products, each with the product features described above. Under simulation method, select purchase likelihood).

10/1/2015 CASE: SWEET WATER

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Discussion Questions:

What are the most important user needs in the water purifier market?

How should Platter gather information about user need?

How can you structure this user needs data to assist Platter in creating his product concept?

How does Sweetwater’s product compare to competitors’ products in meeting customer needs?

10/8/2015  PROTECTING INTELLECTUAL PROPERTY

LECTURE: PATENTS, TRADE SECRETS, TRADEMARKS, COPYRIGHTS AND DOMAIN NAMES

Read: Chapters 8 and 9, Technology Strategy for Entrepreneurs and Managers

10/8/2015  CASE: CVD VS. A.S. MARKHAM CORPORATION

Discussion Questions:

What are the critical legal issues in this case?

As a juror, what decision would you reach on each of these issues? On what facts do your decisions hinge?

With the benefit of hindsight, what could A.S. Markham have done to prevent this case from occurring?

10/15/2015  Mid-semester break

10/22/2015  Test 2  INNOVATION STRATEGY

LECTURE: INDUSTRY ANALYSIS, COMPETITIVE ADVANTAGE, AND APPROPRIABILITY

Read: Chapters 10 and 11, Technology Strategy for Entrepreneurs and Managers

10/22/15  CASE: CONTINUOUS CASTING INVESTMENTS AT USX CORPORATION

Discussion Questions:

Do you think Kappmeyer should sign the proposal? Why or why not?

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ENMG 6103  Dr. Syed Adeel Ahmed
What position should USX take with respect to CSP technology?

How did Nucor and the other minimills exploit USX’s strategy to their advantage?

10/22/15  TECHNICAL STANDARDS AND NETWORK EXTERNALITIES

LECTURE: STRATEGIES IN INDUSTRIES BASED ON TECHNICAL STANDARDS AND NETWORK EFFECTS

Read: Chapters 12 and 13, Technology Strategy for Entrepreneurs and Managers

10/29/15  CASE: FACEBOOK

Discussion Questions:

Why is the speed of growth important to Facebook’s success?

Do you think that Facebook and MySpace can co-exist in equilibrium in the same community (such as a university)? Why or Why not? What are the implications of your answer for Facebook’s strategy?

What should Zuckerberg do in the next six months to develop Facebook’s organization? Why? Be specific, elaborating on how you would manage each function in the company (marketing, sales, product development) if you were Zuckerberg.

Would growth in other countries make sense for Facebook? If so, what would need to be done organizationally to make this work?

11/5/15  ORGANIZATIONAL FORM

LECTURE: LICENSING, STRATEGIC ALLIANCES AND ACQUISITIONS

Read: Chapter 14, Technology Strategy for Entrepreneurs and Managers

11/12/15  CASE: BETA GOLF

Discussion Questions:

Which business model should Beta Golf adopt?

What factors should Zider and Krumme consider in selecting between the alternative business models?

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Research Papers & *Opportunity Analysis are due* are due!! (Send by email attachment)

11/19/15  Group Presentations & MANAGING INNOVATION

**LECTURE: CULTURE, PEOPLE, STRUCTURE, AND TOOLS**

Read: Chapter 15, *Technology Strategy for Entrepreneurs and Managers*

11/26/15  **Thanksgiving**

12/3/15  CASE: CORPORATE NEW VENTURES AT PROCTOR AND GAMBLE

**Discussion Questions:**

How does Proctor and Gamble encourage creativity? What do they do that is effective and ineffective?

Is it possible to encourage entrepreneurial activity within a large, established company? Why or why not? If yes, how do you do it? If not, what should you do instead?

Is CNV the right model for Proctor and Gamble? Why or why not? What are the costs and benefits of the model?

Evaluate the CNV processes. What would you keep? What would you change? Can they be scaled up to the level of the entire organization?

12/3/15  Individual Presentations & ORGANIZING FOR INNOVATION

**LECTURE: CORPORATE VENTURING AND OTHER MODELS OF ORGANIZING**

Read: Chapter 16, *Technology Strategy for Entrepreneurs and Managers*

**CASE: INTEL CAPITAL: THE BERKELEY NETWORKS INVESTMENT**

**Discussion Questions:**

How does Intel engage in corporate venturing? What alternative models could it have adopted? What are the advantages and disadvantages of the approach Intel took?

Why did Intel decide to invest in Berkeley networks? Why did Berkeley networks invite Intel to invest? If you were a founder of a start-up, would you want Intel as an investor in your company? Why or why not?

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ENMG 6103  Dr. Syed Adeel Ahmed
How does Intel Capital’s investment process differ from that of a private venture capitalist?

Is external investment in R&D a complement or a substitute to internal investment in R&D?

What, if anything, is Intel learning from its investment in Berkeley Networks?

TEST 3

The Paper
Understand that any information you use MUST be cited in your paper. For this assignment you are to use the APA format. If you are not familiar with this format, please see visit the following website for details and links: http://apastyle.apa.org

At this point discussion warrants review of my policy on Academic Integrity found in this class syllabus. **Academic dishonesty will NOT be tolerated.** Academic dishonesty includes, but is not limited to, the following: cheating, plagiarism, tampering with academic records and examinations, falsifying identity, and being an accessory to acts of academic dishonesty. **This is a research paper. Make sure to completely cite all information lifted, quoted or paraphrased.**

The paper must be typed in 12 point, Arial font, single spaced, and one inch margins. Be sure to number the pages. There is no page limit. However, do not ramble-on with unimportant information. The paper is expected to be complete and concise similar to sample research paper on posted on Moodle.

<table>
<thead>
<tr>
<th>Research Paper guidelines and grade breakdown</th>
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<tr>
<td><strong>Students are free to pick a topic that is connected to the course or any closely related field of their expertise. The topic has to be approved by me before you start your research.</strong> The paper should follow the format shown in this link (<a href="http://www.hrpub.org/resources.php">http://www.hrpub.org/resources.php</a>). For example please follow this link (<a href="http://cluteinstitute.com/ojs/index.php/index/search/advancedResults">http://cluteinstitute.com/ojs/index.php/index/search/advancedResults</a>) to translate any of these Quality Management papers into your company/business where you work or have some experience. Here is the link (<a href="http://www.xula.edu/business/documents/cv/Ahmed.pdf">http://www.xula.edu/business/documents/cv/Ahmed.pdf</a>) of some sample papers done by my previous students.</td>
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ENMG 6103  
Dr. Syed Adeel Ahmed
| Advantage & Disadvantage | For example my suggestions will be:  
|                          | The paper deals with an interesting subject  
|                          | The paper doesn’t use statistical data to support conclusions |
| How to improve           | Professor will suggest |

Please rate the following: (1 = Excellent) (2 = Good) (3 = Fair) (4 = Poor)

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<td>Contribution to the</td>
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<td>Depth of Research:</td>
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**FINAL EXAM:** As per the University schedule.  
**Do not take this class if you cannot take the Final Exam at the scheduled time!!!**

**I have read this Syllabus and understand the class policies as stated.**

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ENMG 6103 Dr. Syed Adeel Ahmed
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<th>Important Dates*</th>
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<tr>
<td>Last day to adjust schedule w/out fee</td>
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<td>Last day to adjust schedule w/fee, or withdraw with 100% refund</td>
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<tr>
<td>Last day to apply for December commencement</td>
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<td>Final day to drop a course or resign</td>
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<td>Mid-semester examinations</td>
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<td>Final examinations</td>
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<td>Commencement</td>
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*Note: check Registrar’s website for Saturday and A/B sessions, and for items not listed here: [http://www.registrar.uno.edu](http://www.registrar.uno.edu)*

**Fall Semester Holidays**

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<tr>
<td>Labor Day</td>
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<td>Mid-semester break</td>
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<td>Thanksgiving</td>
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<tr>
<td>09/07/2015</td>
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<td>10/15-10/16/2015</td>
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<td>11/26-11/27/2015</td>
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**Withdrawal Policy – Undergraduate only**

Students are responsible for initiating action to resign from the University (withdraw from all courses) or from a course on or before dates indicated in the current Important dates calendar. Students who fail to resign by the published final date for such action will be retained on the class rolls even though they may be absent for the remainder of the semester and be graded as if they were in attendance. Failure to attend classes does not constitute a resignation. Check the dates on the Registrar’s website, [http://www.registrar.uno.edu](http://www.registrar.uno.edu). Please consult The Bulletin for charges associated with dropping and adding courses.

**Incomplete Policy – Undergraduate only**

The grade of I means *incomplete* and is given for work of passing quality but which, because of circumstances beyond the student's control, is not complete. The issuance of the grade of I is at the discretion of the faculty member teaching the course. For all graduate and undergraduate students, a grade of I becomes a grade of F if it is not
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ENMG 6103

Dr. Syed Adeel Ahmed
Learning and Support Services
Help is within reach in the form of learning support services, including tutoring in writing and math and other supplemental instruction. Visit the Learning Resource Center in LA 334, or learn more at http://www.uno.edu/lrc/.

Affirmative Action and Equal Opportunity
UNO is an equal opportunity employer. The Human Resource Management department has more information on UNO’s compliance with federal and state regulations regarding EEOC in its Policies and Resources website: http://www.uno.edu/human-resource-management/policies.aspx