

**MBA 717: TECHNOLOGY AND INNOVATION**  
**SYLLABUS**  
Spring 2014

**COURSE NUMBER:** MBA 717-51

**COURSE TITLE:** Technology and Innovation

**CREDITS:** 3:3

**PREREQUISITES/COREQUISITES:** Pre-requisite course is the MBA 715 (Integrative Business) course.

**FOR WHOM PLANNED:**

Graduate students in Bryan School programs, and dual degree students in MS Nursing/MBA and MS Gerontology/MBA programs.

**INSTRUCTOR INFORMATION:**

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**CATALOG DESCRIPTION:**

The role of technology (including information technology, business intelligence and data analytics) in innovation. Students will develop a technology-based actionable plan for an organization.

**STUDENT LEARNING OUTCOMES (SLOs):**

Upon completing the course, the student should be able to:

- 1) Distinguish the different sources of innovations and distinguish between these sources.
- 2) Distinguish the relationship between research and development and innovation
- 3) Compare and contrast the appropriateness of internal and external sources of innovations.
- 4) Discuss the role of customers and suppliers in the innovation process.
- 5) Explain the role of innovation in a firm's competitive strategy
- 6) Define the role of technology/information systems and management in effective business processes
- 7) Analyze the organizational fit between strategy and technology.
- 8) Explain principles of data mining as a basic tool of Business Analytics
- 9) Apply suitable analytical methods to address organizational problems

**TEACHING METHODS AND ASSIGNMENTS FOR ACHIEVING LEARNING OUTCOMES:**

Lectures, videos, situation vignettes, guest speaker presentations/organizational visits will be used. The assignments and assessment mechanisms are described as follows:

**In-Class Written (Mid-Term) Exam and Final Take Home Exam (SLOs 1, 2, 3, 4, 5, 6, and 8)**

Each in-class written exam will include essay questions. The exam content will be drawn from the course readings, vignettes, videos, case analyses, visits to organizations, guest speaker presentations,

and class discussions. The in-class exams are closed-book, and closed-notes. Details will be provided in time.

### **Case Analysis and Presentation (SLO 5, 7, 9)**

A team of students (consisting of 3 to 4 students in each team) is to submit a written analysis on a case. The students should take on the role of a top management team who has been assigned to review the strategic concerns and/or opportunities related to technology and innovation for the firm (as presented in the case). Many of the marks beyond a "passing score" depend on the team's ability to go beyond the "average" solution/answer and provide innovative perspectives, approaches, or solutions including incorporation of materials read/discussed in assigned reading materials. If you need to make assumptions to accomplish this, feel free to do so and appropriately incorporate them in your written analysis. The student team will also make a professional presentation to the class. Both the content of the presentation and professional nature of the presentation will be evaluated by both the instructor and the students in the class. Effective analysis and coherent and professional presentation skills are hallmark of effective managers and successful professionals.

### **Business Plan Incorporating Technology and Innovation (SLO 9)**

Each student team (consisting of 3 to 4 students) will be required to develop a detailed and elaborate actionable business plan for a new technology-based business or non-profit entity. This plan should give details of the proposed venture, along with expected needs and results. In the final report, the following sections are suggested, but others can be added or modified as necessary. In addition to written report, student teams will present their business plan to the class.

1. *Executive Summary*: This section must concisely communicate the basics of your entire business plan.
2. *Business Description*: In this section discuss your firm's product or service along with information about the industry. Describe how your product and the technology fit together or complement each other. Include your business model. It may be necessary to divide this section into sub-sections.
3. *Marketing Plan*: With the business described, next you must discuss your target market, identify competitors, describe product advertising, explain product pricing, and discuss delivery and payment mechanisms.
4. *Research & Development*: Address where the project is now, the R&D efforts that will be required to bring it to completion and a forecast of how much the project will cost.
5. *Operations & Manufacturing*: Include major aspects of the business, including daily operations, physical location, locations, and needed equipment, hardware, and software.
6. *Risks*: Define possible risks and strategies to overcome them.
7. *Financial*: Provide investment needs, budget, and projected revenues and profits.
8. *Timeline*: Provide timeline for important milestones.

Prior to the final report, several checkpoints will be established to engage the students in the development of a sound business plan. At a minimum, these include: an initial proposal and its approval, and two interim progress reports.

### **Class Participation and Contribution (SLOs 1, 2, 3, 4, 5, and 6)**

Each student should be prepared for an insightful discussion of all aspects of the material assigned for each class session, be it articles and/or supplementary material. Students should be prepared to answer questions and raise issues when called upon to do so in the class. Students will be evaluated at each session on the quality (not quantity) of their participation/contribution. Class contribution/participation points will be accumulated based on how perceptively a student analyzes the situation being studied, the usefulness of the observations and suggestions made by the student, the depth of a student's understanding, and the student's ability to put across ideas with clarity and conviction. Class attendance alone will not directly count towards the points to be accumulated through class participation/contribution. However, poor attendance will dramatically reflect in a student's participation/contribution grade. That is, a student cannot participate/contribute if absent from the class. As a further consideration, material obtained from class discussions could be used for answering question(s) on the in-class written exams. Class contribution will be assessed on how insightful and integrative the comments are.

### **EVALUATION AND GRADING:**

The course grade is based on the following assessments:

	<u>Points</u>
Class discussion, preparedness, questions, including peer review	30
Case analysis (group work – 20 points presentation and 20 points written case analysis) *	40
Individual Written Case Analysis (5 Cases)	25
Business Plan (group work – incorporating and applying materials learned in this course)*	60
Mid-term exam	25
Final Exam	20
<b>TOTAL</b>	<hr/> 200 <hr/>

\*Group work will contain a group grade and an individual grade. The individual score will be based on a peer evaluation conducted at the completion of each assignment. It will be based on the average of peer assessment score X group score. Final individual score will be taken into account for total points earned for the course.

The grade scale is based upon percent of points earned, and is as follows:

95-100%=A	90-94%=A-	87-89%=B+	83-86%=B	80-82%=B-	77-79%=C+
73-76%=C	Below 73%=F				

**REQUIRED TEXTBOOKS (3):**

1. Title: Strategic Management of Technological Innovation (**SMTI**)  
 Author: Melissa A. Schilling  
 ISBN-13: 978-0-07-802923-3  
 4<sup>th</sup> Edition  
 Year: 2013  
 Publisher: McGraw-Hill
  
2. Title: Making Innovation Work: How to Manage It, Measure It, and Profit From It (Updated Edition) (**MIW**)  
 Authors: Tony Davila, Marc Epstein, Robert Shelton  
 ISBN-13: 978-0-13-309258-5  
 Year: 2013  
 Publisher: Pearson Education, Inc.
  
3. Technology and Innovation Case Book (eBook) – Will be available in time  
 Publisher: Pearson Education, Inc.

**Course Schedule for Spring 2014**

(Tentative and subject to change depending upon class pace)

An updated schedule will be made available with Harvard Business Review (HBR) and Sloan Management Review (SMR) articles. All HBR and SMR articles will be made available through the Canvas eLearning System (with no cost to the students).

**Note: Case Titles will be made available in time based on the Case eBook**

<b>WEEK #</b>	<b>TOPICS</b>	<b>READING ASSIGNMENTS</b>	<b>ASSIGNMENT/CASE DUE DATES</b>
<b>I) Jan 14</b>	<b>Course Overview Introduction Technology and Innovation</b>	SMTI: Chapter 1 Canvass Articles: HBR Porter Five Forces HBR Porter Strategy and Society HBR Sustainability Performance and Innovation SMR 5 Myths of Innovation SMR 4 Ways IT Revolutionizing Innovation HBR The New Economy	<b>In-Class Activities and Discussion A) Form 6 Teams with 3 Members per Team Note: Same Team works on the Case Analysis and Team Business Plan</b>
<b>II) Jan 21</b>	<b>Industry Dynamics And Tech Innovation</b>	SMTI: Chapter 2 –Sources of Innovation SMTI: Chapter 3-Types and Patterns of Innovation HBR SMR Team Business Plan Overview and Discussion	<b>In-Class Activities and Discussion</b>

WEEK #	TOPICS	READING ASSIGNMENTS	ASSIGNMENT/CASE DUE DATES
III) Jan 28		MIW: Chapter 1-How You Innovate Determines What You Innovate MIW: Chapter 2-Mapping Innovation	<b>In-Class Activities and Discussion</b>
IV) Feb 4		SMTI: Chapter 4 – Standards Battle and Design Dominance SMTI: Chapter 5 – Timing of Entry Case 1: HBR SMR	<b>Case 1: Group Case Presentation, Group Written Case Analysis Individual Written Case Analysis Due</b>
V) Feb 11	<b>Tech Innovation Strategy</b>	SMTI: Chapter 6 – Defining the Organization’s Strategic Direction MIW: Chapter 3- Choosing Your Destiny: How to Design a Winning Innovation Strategy HBR SMR Case 2:	<b>Case 2: Group Case Presentation, Group Written Case Analysis Individual Written Case Analysis Due</b>
VI) Feb 18		SMTI: Chapter 8 – Collaboration Strategies SMTI: Chapter 9- Protecting Innovation HBR SMR  Case 3:	<b>Case 3: Group Case Presentation, Group Written Case Analysis Individual Written Case Analysis Due</b>
VII) Feb 25	<b>Implementing Tech and Innovation Strategy</b>	SMTI: Chapter 10- Organizing for Innovation MIW: Chapter 4- Organizing for Innovation: How to Structure a Company for Innovation  Case 4:	<b>Case 4: Group Case Presentation, Group Written Case Analysis Individual Written Case Analysis Due</b>
VIII) Mar 4	<b>Managing and Measuring Innovation</b>	MIW: Chapter 5- Management Systems: Designing the Process of Innovation MIW: Chapter 6 – Illuminating the Pathway: How to Measure Innovation Review for Midterm Exam	
IX) Mar 11		Spring Break	
X) Mar 18		MIDTERM EXAM (Details will be discussed in time)	

WEEK #	TOPICS	READING ASSIGNMENTS	ASSIGNMENT/CASE DUE DATES
XI) Mar 25	<b>Learning and Cultivating Innovation</b>	MIW: Chapter 8 – Learning Innovation: How Do Organizations Become Better at Innovating? MIW: Chapter 9 – Cultivating Innovation: How to Design a Winning Culture	
XII) Apr 1	<b>Another Look at Implementation</b>	SMTI: Chapter 11 – Managing the New Product Development Process SMTI: Chapter 12 – Managing New Product Development Teams HBR SMR  Case 5:	<b>Case 5: Group Case Presentation, Group Written Case Analysis Individual Written Case Analysis Due</b>
XIII) Apr 8		HBR SMR Case 6:	<b>Case 6: Group Case Presentation, Group Written Case Analysis Individual Written Case Analysis Due</b>
XIV) Apr 15		Team Business Plan Presentations (3 Teams) HBR SMR	
XV) Apr 22		Team Business Plan Presentations ( 3 Teams) Review for Final Exam Last Class before Final Exam/ Project	
XVI) Apr 29		MBA 717 NO CLASS (FRIDAY SCHEDULE)	
XVII) May 6		Final Exam (Take Home – Details will be discussed in time)	<b>Possibly Take Home Exam (Case Analysis Plus Questions)</b>

**ACADEMIC INTEGRITY POLICY:** Each student is required to sign the Academic Integrity Policy on all major work submitted for the course. The Academic Integrity Policy can be found at: <http://sa.uncg.edu/handbook/academic-integrity-policy/>.

**FACULTY AND STUDENT GUIDELINES:** The faculty and students in the course are expected to adhere to the faculty student guidelines stated at the following web page: [http://www.uncg.edu/bae/faculty\\_student\\_guidelines.pdf](http://www.uncg.edu/bae/faculty_student_guidelines.pdf)

**ATTENDANCE POLICY:** All students are expected to attend each class session. If a student misses a specific class session, it is her/his responsibility to cover the topics so missed. Material covered in a previous class will not be repeated in a subsequent class. The schedule of sessions on the syllabus contains a listing of topics and assignments to be covered in the respective sessions. The syllabus is a general plan for the course; deviations may be necessary.

**FINAL EXAMINATION:** There will be a final examination.