

University of Bridgeport
Graduate School of Engineering
Technology Management Program

TCMG 645

New Venture Creation

Fall 2014

August 27 - Dec 3, 2014

Wednesdays, 6:15 pm–8:45

Mandeville XXX Bridgeport

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Office Hours: Wednesday 4:00-5:30 by appointment. Tech 162

Course Description and Approach:

Chinese proverb: *What I hear, I forget. What I see, I remember. What I do, I know.*
Creating a business plan for a new technology venture will provide you with ample ways to learn by doing.

This is a learning-by-doing course -- your agreement to actively participate on a regular basis is a prerequisite for your enrollment in this class.

Course Description:

This course is for graduate students interested in starting a technology venture or as a new initiative in a mid to large size firm, joining a small firm intent upon rapid growth, or pursuing a career in consulting, venture capital, or the management of a technology business or venture for larger companies.

The course will provide an opportunity to identify and analyze new business and technology venture issues and opportunities. Key issues covered include: evaluating market opportunities, designing profitable business models, producing a solid business plan, commercializing a technology product, raising capital (multiple rounds), addressing legal considerations, developing a winning team, protecting intellectual property and reviewing exit strategies such as a merger, or acquisition, conducting a feasibility analysis, the sale of the company or an initial public offerings (IPO).

It integrates an approach to business leadership that involves identifying high-potential, technology-intensive commercial opportunities, gathering resources such as talent and capital, scaling the business and managing rapid growth and significant risks. All functional areas of high potential start-ups or new or corporate ventures are covered.

Through a combination of lectures, case studies, projects and experiential exercises that cover potential high-growth ventures in information technology, software, telecommunications, electronics, life sciences, biotechnology/biomechanics, all engineering and STEM disciplines and other industries.

Course Objectives (Learning Outcomes):

The objectives of the course are to:

- Understand the growing importance of entrepreneurship, intrapreneurship, innovation in identifying new technology growth opportunities.
- Define and analyze different market and technology, regulatory, lifestyle, economic or other trends, opportunities and risks and learn how to capitalize on them.
- Understand the impact of a broad set of technologies on the creation of and transformation of markets, organizations and new business opportunities.
- Review the tools, processes, techniques and competencies required to be effective innovators, change agents and leaders.
- Understand the basics of finance in growing, managing and governing new ventures, raising capital, assessing ROIs and risks of investment alternatives, etc.
- Complete a detailed business plan for a new technology venture, as either a stand-alone business or as part of an existing corporate business venture.
- Develop conceptual and pragmatic decision making and communications skills in establishing a new business enterprise or a new venture within an existing firm.

Course Text and Material:

Text below must be acquired BEFORE class

1. Duening, Thomas N., Hisrich, Robert D., Lechter, Michael A., **Technology Entrepreneurship Creating, Capturing, and Protecting Value**, 1st Edition, Academic Press 2010, ISBN 978-0-12-374502-6

Reference Books

2. Byers, Thomas H., Dorf, Richard, C. and Nelson, Andrew J., **Technology Ventures - From Ideas to Enterprise**, 4th Edition, McGraw Hill, 2015, ISBN 978-0-07-352342-.
3. Connecticut Venture Group and Others, **Entrepreneurship – Capital Resources, the Business Plan and Investor Presentations**, 3rd Edition, Entrepreneurial Foundation, Inc., Fairfield, CT
3. Additional handouts will be provided in class and/or must be downloaded from **Canvas (Blackboard's replacement)** We'll work this out the first day.

4. Moris, Michael H., Kuratko, Donald K. & Covin, Jeffrey G., **Corporate Entrepreneurship and Innovation**, 2nd Edition, Thompson South Western, 2008, ISBN 10: 0-324-25916-6.
5. Timmons, Jeffrey A. and Spinelli, Stephen, **New Venture Creation**, 7th Edition, McGraw Hill, 7th Edition, 2007, ISBN 10: 0-07-328591-9.
6. Hisrich, Robert D., Peters, Michael P. and Shepherd, Dean A., **Entrepreneurship**, 7th Edition, McGraw Hill, 2008, ISBN # 978-0-07-321056-8
7. Osterwalder, Alexander & Pigneur, Yves, **Business Model Generation** John Wiley & Sons 2010 ISBN 978-0470-87641-1
8. Bygrave, William D., Zacharakis, Andrew, **Entrepreneurship** 4rd Edition John Wiley & Sons 2014 ISBN 978-118-58289-3
9. Blank, Steve, & Dorf, Bob, **The Start Up Owners Manual** K&S Ranch Inc 2012 ISBN10-0984999302

The UB book distribution system is for you to order the books on-line at www.bridgeport.bkstr.com or at the UB Book Store in Bridgeport.

Course Requirements:

1. **Class Attendance, Participation and Punctuality:** *On time attendance* at each class session is expected. Only if you are here when I take attendance are you marked present. Class lectures complement, and do not duplicate, textbook information. A significant portion of your learning will accrue through the constructive and respectful exchange of each other's ideas. You **must be actively engaged in these discussions** to improve your new venture skills. Your grade depends on this.

Be certain that your travel arrangements do NOT conflict with any of your team or individual presentations.

2. **Plagiarism:** It is the student's responsibility to familiarize himself or herself with and adhere to the standards set forth in the policies on cheating and plagiarism as defined in Chapters 2 and 5 of the Key to UB <http://www.bridgeport.edu/pages/2623.asp> or the appropriate graduate program handbook.

Cheating is unacceptable. If I catch you cheating, you will receive a zero grade for that assignment. **The second offense will result in an "F" for the course.**

Cheating means using the work of others as your own. Copying homework, copying sections from the Internet, talking or looking around during exams and allowing others to look at your exam papers are examples of cheating. No electronic devices will be used during tests. Read my "Homework and the Internet" on Canvas.

3. **Preparation, Deadlines and Late Policy:** Homework is due at the start of class. You must use Turnitin No excuses will be accepted. **Do not email me late homework assignments.**

4. **Homework:**

As a UB policy, it is expected that each student that attends one hour of classroom instruction will require a minimum of two hours of out of class student work each week for approximately fifteen weeks for one semester.

The syllabus identifies both the oral and written homework assignments. Each written assignment must be submitted to Canvas and one or two pages long. Print an extra copy so you can refer to it during class discussions. Check Canvas before you begin, often I update the assignment or the questions from the book. Read my “Do homework that will earn you Great Grades” on Canvas.

5. **Current Events/ News** - Each student will be required to bring in and orally review news articles relating to the **topic assigned for the class meeting**. These will be orally summarized by the students in class. Suggested sources include: *Wall Street Journal, New York Times, Business Week, The Economist, Harvard Business Review, Sloan Management Review, Newsweek, Time, Fortune, Forbes, Financial Times, American Marketing Association Journal, the Journal of New Product Development, Fast Company* and other relevant sources.

6. **Case Analysis** – All students are required to read and submit written cases. Students must be prepared to discuss all cases in class. **The University requires me to verify that you are meeting the requirement stated above in Homework. I will keep track of students to be certain you are meeting this requirement** Each case study will require you to:

- Answer the questions associated with the case (sometimes on Canvas)
- Identify key issues, problems or opportunities
- Summarize the facts and describe alternative solutions
- Make recommendations for a concrete plan of action (what you would do with a clear rationale showing why you prefer the recommended plan of action)
- In an effort to keep this class up to date and fresh I will include new and different case studies as this class develops. Make sure you check Canvas before you start your homework.

Read my “Instructions Regarding Case Studies” on Canvas.

7. **Term Team Project and Presentation**: During the first class session, teams will be formed. Each team will be responsible for developing a new technology venture business plan (in **PowerPoint**). In addition, the team will orally present this plan to the class and **give a electronic copy of the PowerPoint presentation to the instructor when the students are scheduled to make the oral presentation**. To receive a high grade, **every member of the group must equally participate in the presentation, its preparation and delivery**.

Two presentations are required for this project. Based on the feedback from the instructor and the class participants on the first (preliminary) presentation (**Part 1**), the final presentation (**Part 2**) may propose a totally different marketing/business plan from the one originally presented in Part 1, or may simply revise the material presented in the first presentation.

Part 1 (the first presentation) must address Items 2 – 5 below. Part 2 (the final presentation) must cover all of the Items 1-12 listed below. All assumptions must be supported by facts that are clearly referenced. A more detailed outline is provided later in select handouts.

Required sections of the Business Plan are:

1. Executive Summary
2. Company Vision and Objectives
3. Marketing and Sales: Product or Service Objectives, Description (functions, features) and Value Proposition (Benefits to the Buyer); Major Industry Characteristics, Trends and Regulations; Market Opportunity and Segments (Who is the Targeted Customer? What is the size of the market? Explain how the market will grow. Identify the major competitors and their key attributes. Identify how the product or service will be sold, distributed and serviced. How will the product or service be promoted and advertised?
4. Barriers to Entry (what you do to make it difficult for competitors to enter the market in your space)
5. Risk Analysis – Identify the major risks and mitigation strategies
6. Production/Operations/Development
7. Human Resources
8. Finance - (4 years of Profit and Loss Statements and Initial Start up Sources Uses of Funds; Balance Sheet;
9. Resources Needed to Launch a Business – Space, Equipment, Personnel, Capital, Intangibles such as Licenses, Insurance, Patents, etc.
10. Funding Plan – Source of Capital; Debt versus Equity; Future Expansion Capital and Shareholder Dilution
11. Governance Structure – Board of Directors or Board of Advisors;
12. Exit Strategy & Valuation

8. Written Term Paper & Suggested Topics* - Each student will prepare a written term paper (14 -16 pages) and present an oral summary of it during the last class session. You may select from the suggested term paper topics listed in the syllabus or submit your own topic for approval by the instructor. The written report will be due on the next to last class of the term. **The written report should contain a table of contents, be well written, typed and page numbered, be supported by research, contain references (standard APA reference format is to be used for all references) and be consistent with graduation from a graduate program.** Each student is required to orally summarize his/her term paper in up to 7 minutes. All papers should be based on a two or more real company case study(ies).

Suggested topics for a term paper include:

- Compare two entrepreneurial technology businesses in terms of their focus, successes, failures, similarities, differences and other factors.
- How to Set Up a Successful High Tech Business Incubator – Value Proposition, Operations and Critical Success Factors (with case study examples)

- Compare two new technology ventures in one or more existing businesses in terms of their focus, successes, failures, similarities, differences and other factors.
- Identify the Leadership Attributes of Successful 3 Entrepreneurs or Change Agents as Intrapreneurs in a technology business.
- How to Analyze a Market Opportunity for a New Technology Product
- Identify Sources of Raising Capital for Entrepreneurs or Intrapreneurs in a technology company – Pros, Cons, Cost, Deal Specifics.
- The Risk and Rewards of Intrapreneurship and New Venture Creation in an Existing Technology Company
- The State of Entrepreneurship for Technology Companies in a Foreign Country (not your own)
- Best Practices in Creativity and Innovation in Technology Companies
- Pros and Cons of Franchising in a technology company
- Venture Capital – What, Why and How to get for a Technology Company
- Intellectual Property Protection for Your New Technology Product or Service – The Laws and Enforcement of the Law
- Best Practices for Entrepreneurship in Your Home Country (Pick two businesses started by Entrepreneurs and compare them)
- Pros and Cons of Different Methods for Raising Capital (e.g. sources, advantages and disadvantages of each source and other considerations)
- Conduct a Comparison of Innovation Best Practices of Two Leading Companies (one in consumer; one in industrial/business or two in the high tech market)
- The Prerequisites for Taking a Company Public through an IPO (Initial Public Offering)
- An Analysis of Alternatives for Financing a New Venture – Crowdfunding vs Debt, Equity, other
- Other topics will be considered with the approval of the instructor

***Note: All research papers must include examples of two or more real case study companies.**

8. Course Grading:

Class Atten, News Articles & Class Participation	20%
Team Project	20%
Cases, Homework	20%
Individual Term Paper & Presentation	20%
Exam	20%
	100% *

*One or more exams may be given at the discretion of the instructor.

TCMG 645 – Technology New Venture Creation - Fall 2014 - Schedule & Assignments

Session	Date	Topic/Assignments
1	8/27/14	Introduction and Overview to Technology New Venture Creation: R. 1 – Chap. 1; Read Handouts # 2 & 13; Formation of New Venture Teams
2	9/3/14	Technology Ventures in a Global Context: R. 1 – Chapt. 2 & 3; Written Homework – Case – Image Café (Canvas); News
3	9/10/14	Opportunity Analysis & Business Model: Byers Chapt. 2&3; Read Handouts # 3, & 4 – Module 1; # 4 – Module 2; # 10; Written Homework – Case – Yahoo (Canvas); News
4	9/17/14	The Business Plan, Types of Ventures: R. 1 – Chapt. 10: Read Handouts # 4 – Module 3; Written Homework – Case – Newland Medical (Canvas); News;
5	9/24/14	Individual Paper Summary; The Marketing & Sales Plan: R. 1 – Chats. 11; # 7 - Modules 2 & 3; Written Homework – Case – Biodesel, Inc. (Canvas);
6	10/1/14	Presenting a Company Concept as an Investment, Crowdfunding: R. 1 – Chapt. 5; Read Handouts # 14, 18; New Venture Teams Work Session; Written Homework – Case – Solidworks (Canvas)
7	10/8/14	Group Project Interim Presentation; Risk & Return: R. 1 Chapt. 14; Written Homework Case – Sirtris (Canvas)
8	10/15/14	Types of Ventures, Knowledge, Start-up Legal and Intellectual Property Considerations: R. 1 – Chapt. 4, 6, & 7; Read Handouts # 8; Written Homework Case Optitech (Canvas) ; Individual Term Papers - Oral Presentations
9	10/22/14	The Financial Plan; Financing & Sources of Capital: R. 1 – Chapt. 8,9,& 12; Read Handouts # 4 – Module 4; # 6 & 14; Written Homework – Case – Lightwave Technology(Canvas); News; Individual Term Papers - Oral Presentations
10	10/29/14	Exam
11	11/5/14	Measuring and Controlling Venture Performance; The Management of Operations; R. 2 12&13; Read Handout # 7 – Module 3; # 11 Written Homework Case Coolris (Canvas); News; Individual Term Papers - Oral Presentations
12	11/12/14	Leading a New Technology Venture to Success and Sustaining Its Performance: R. 1 – Chapt. 13; Read Handouts # 4 – Module 4; # 6 & 14,19; Written Homework – Case – Artemis (Canvas); News;
13	11/19/14	<u>The New Enterprise Organization;</u> R. 1 Chap 15 Homework; Case Study Method (Canvas)
14	12/3/14	Final Team Business Plan Presentations

SUGGESTED BUSINESS PLAN FORMAT FOR STARTING YOUR OWN VENTURE

I. Title Page: The title page of your business plan provides the name, address, date and phone number of the company and the CEO.

II. Table of Contents: The Table of Contents includes a sequential listing and page numbers of the sections of your business plan. Put “Supporting Documents/Appendix” last.

III. Executive Summary: The Executive Summary summarizes the highlights of the business plan (sections IV-X below). Write this section in a way that would convince a potential investor to lend you money. After reading this summary, the investor should be excited about the possibility of getting a good return on his/her investment. If poorly written, the investor will not read the rest of your plan. Length – one page.

IV. Vision and Mission: This is a snapshot of where your business is going, and the goals and objectives on how to get there. Subsections: (1) *Vision* [broad statement] and *Mission* [concise description of how business will accomplish vision] (i.e., UB will be a Global Village that emphasizes academic and moral excellence, as well as respect for people from all cultures); and (2) *Goals and Objectives* [specific expected outcomes regarding product/market/sales/finance (]. Length – one to two paragraphs.

V. Company Overview: This section provides basic information about your company: its structure, management, staffing and strategic alliances. Subsections: (1) *Legal Business Description* [Company Name, Legal Form (i.e., sole proprietorship, partnership, corporation), Probable Address], (2) *Management Team* [Who will be the managers? What roles will they assume? What are your staffing needs?]; (3) *Strategic Alliances* [Other firms you may be working or partnering with]. Length – one to two pages.

VI. Product/Service Strategy: This section reviews your product or service, what makes it unique and competitive, and how it will be produced and distributed. Subsections: (1) *Product/Service* [Description of product and its useful features/benefits]; (2) *Production* [Production costs, facilities, packaging]; (3) *Distribution* [How will product get from your firm to the customer? What are the distribution costs?]. Length – one to three pages.

VII. Market Analysis: This section helps you define your market, the demographics and demands of your target customers, and business and environmental factors and risks. Subsections: (1) *External Environment* [Customer demographics, economic trends in industry, political/legal trends, socio-cultural trends, country analysis, technological trends, global trends, regulatory trends, etc.], (2) *Industry Analysis* [barriers to entry, bargaining power of suppliers,

bargaining power of buyers, threat of substitute products, intensity of rivalry among competitors]; (3) *SWOT Summary* [This should include information from Company Overview and Product Strategy]. Length – two to three pages.

VIII. Competitor Analysis: This section helps you define your competition. Who are your major competitors? How much market share do they have? What are they doing in the market? Length – one to two pages.

IX. Marketing Plan: This section describes your sales strategy, advertising, promotion and public relations. Subsections: (1) *Marketing/Sales Strategy* [Positioning, Pricing, Profit/Sales Goals, Selling (Distribution) Methods]; (2) *Advertising & Promotion* [Strategy, Costs, Budget]; (3) *Public Relations* [Publicity Efforts]. Length – two to three pages.

X. Operations Plan: This section covers how the business will operate and how it will be organized. In addition, it should include human resources, information technology, business functions and processes and governance, metrics and controls.

X. Financial Plan: This section describes and analyzes your company's capital requirements and profit potential. Subsections: (1) *Projected (next 4 years) Financial Statements* [Sales, Gross Profit (Operating Income), Net Income (EBITDA), etc.]; (2) *Break-Even Analysis* [when expected?]; (3) *Capital Requirements* [How much money is needed to do what?]; (4) Cash Flow and Cum. Cash Flow. Length – one to two pages.

XI. Appendices or Exhibits: Supporting Documentation, tables, assumptions and calculations.

Criteria for the Evaluation of an Assignment

Grade Criteria	C Poor	B Adequate	A Exemplary
Content	It was unclear as to how the content related to the field being considered.	The content was generally relevant, but was somewhat unclear or confusing at times.	The content was clear and useful. The writer gave specific answers relevant to the topic.
Organization	The presentation was poorly organized. It was hard to follow the sequence of ideas.	The writer's organization was clear and logically sequenced.	The writer's organization was clear and logically sequenced. The writer clearly answered the questions.
Critical Analysis	The writer did little more than restate facts and other people's (authors') opinions.	The writer was able to reflect on the topic. A Thoughtful assessment was included.	The writer was thought provoking and showed strong insight in applying class materials to the case or topic.
Spelling and Grammar	The paper was poorly written – making it difficult to determine the writer's points. Numerous grammatical and spelling errors were present. The text did not follow rules for technical writing.	Although most of the paper was well written, a more than a few grammar, spelling, and/or technical errors were present.	Spelling and grammar rules were followed. Technical writing rules were followed.

I will have a new and improved version of this Rubric for class. Be sure and check Canvas!