

MIE 310 Tentative Syllabus

Tu Thu 08:30-09:45 Sec 001

Tu Thu 10:15-11:30 Sec 002

Nelson Hall 02210

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Office Hours: After Class or By Appt

Class Reference Website: www.techventuresource.org

Course Objectives

This course gives you a unique understanding of how entrepreneurial firms are created, and provides you with experience on how to commercialize *technologies or services* based on your original ideas. Topics that incorporate some components of technologies, as products or services to satisfy some market needs will be the focus for this class. These topics are typically not discussed in detail in other business or engineering/science classes, yet they are keenly important in new ventures. Topics will include intellectual property, technological convergence, industry creation, standards, modularity, and strategy. You will apply these principles by assessing the commercial potential of your ideas. The final outcome of student group work will be a business plan for commercializing the new technology.

Target Students

This course is designed for students from the College interested in pursuing a minor in entrepreneurship and I will focus on technology ventures in this class. It is ideal for students who have an idea related to a technology based product/service **OR** are interested in working in a team to develop one. This course will be particularly useful to you if you anticipate founding or operating technology ventures. It will also be a lead to the 410 class that will provide you a hands-on experience of working on innovative live projects in the biotechnology industry. Please chat with the instructor for more details.

Course Prerequisites

There are no prerequisites other than having a keen interest in entrepreneurship. This class will be less helpful if you are only looking to add entrepreneurship to attract potential job offers. Class enrollment will be limited to 40 students who will be organized in 4-5 member groups based on ideas. You will need to identify common interests and form groups by the end of the third week or else I will form the groups.

Grading

You will be graded based on both individual and team performance. This is designed to avoid the free rider problem as well as give you an opportunity to work in teams—a prerequisite for entrepreneurs. The two main reports are the industry report and a feasibility/opportunity plan. For the opportunity plan, you will need to present your idea clearly and succinctly at the end of class. I will also give feedback and ask for revisions to the initial draft of your final report so that you can improve on your original writing.

Grading Criteria:

Your final grade will be determined as shown below. The following are the approximate grade ranges so that you will know where you stand in the class.

Percentage Grade Range

89-100 A- to A

79-88 B- to B+

67-78 C- to C+

0-66 Fail

**As the Instructor for this course, I reserve the right to curve grades based solely on my assessment of overall class performance.

Assignments

Class Participation and Quizzes 20% [Based on MCQs and discussions in class]

Group Participation 20% [Decided by your group]

40%

Group Assignments

Industry Report 10%

Opportunity Plan 30% [Final Draft Graded]

Opportunity Plan Pitch 20% [Final Pitch Graded]

60%

Total : 100%

Assignment Details

General instructions:

All assignment due dates shown on the syllabus may shift to accommodate changes in the pace of progress or other unplanned changes. The due dates will be communicated clearly in class. Typically, you will have 1-2 class periods from when the material for the assignment is presented until when the assignment is due. I will give you feedback as well as a grade on each assignment

within 1-2 class periods. This feedback will provide both your score and your location in the distribution of grades.

All assignments are to be submitted as digital documents by e-mail to me (nmbhawe@ncsu.edu). I do not want a paper copy. I will give feedback in the digital documents and return by e-mail. Please email to instructors any material (slides or documents) that you will present at least four hours before class or meeting in which you would like to get feedback.

Each group assignment has both an oral and written component. The written component of each assignment follows the same guidelines: digital submission of a double-spaced document with 12 pitch font, and 1" margins on all sides. The opportunity plan has a presentation which is the idea pitch. I expect that you will incorporate feedback from previous drafts when submitting the final report. I will give much more detailed instruction on these submissions in class.

Individual Assignments (40%)

Class Participation

Focused participation is important to the success of this class. Class participation includes attention in class, feedback to other students, and attention to guest speakers. I seek quality, rather than quantity. You have several ways of participating. First, you can be part of class discussions, ask relevant questions, etc. You can also extend your participation to the course website. You can make blog posts related to ideas from class, or comment on instructors' posts. You can post ideas that you have and provide feedback for other students' ideas. You could also provide information relevant to class discussion that can enrich the learning for other students as well as give **actionable comments and feedback** for your fellow classmates. In some weeks, each team will need to present and conduct a discussion on that week's topic. I will send out more details as we make progress.

Quizzes

I will give a few quizzes based on key concepts covered in class. The quizzes will not be announced in advance, but should not require any additional studying. The quizzes along with your class participation will jointly make up 20% of your grade.

Group Participation

The major component of this class requires group-work. This class is not a class in teamwork, but you will need to work as a team outside of the designated group meeting times that I will provide. I suggest that with each assignment you determine responsibilities, and that you communicate. You will be given the chance at the end of the semester to allocate 1-10 points to each

of your teammates, based on the impact that they provided to the team in relation to your expectation from a typical teammate. You will receive an average of the allocation from all your team members.

Group Assignments (60%)

Industry Report (6-7 pages, appendices if needed; 10 minute presentation).

You will research and present about an industry that has emerged in the last 30 years. We may have some mentors come in and present on important problems and opportunities within industries. Industry creation is often linked to shifts in technology, thus it is important for you to think about how sectors and industries are created. You will provide information about first entrants, industry structure, standards, and technology strategies, among other topics.

Opportunity Plan and Idea Pitch (10-12 pages, appendices limited to 2 pages, 15 minute presentation)

Ideas take time and work to develop to a point at which they might be feasible. Due to the developmental nature of this class, you will submit an opportunity plan early on in the course. The opportunity plan report has sections that are similar to the business plan (product/service description, industry analysis, marketing plan, intellectual property analysis, and financial plan). The opportunity report helps to clarify the broad picture so I can see if commercializing the venture is attractive. The opportunity pitch should be professional and accompanied by slide presentations.

Teaching Philosophy

Entrepreneurship is both an art and a science. Thus, I will try to teach abstract principles and bring experience gained by real people to the classroom. Entrepreneurs, venture capitalists, and other relevant practitioners will add to your learning, so you should take full advantage of classroom discussion to interact with visiting speakers when they are scheduled. You should also take advantage of the website www.techventuresource.org to find additional resources (there are tons of resources on entrepreneurship). Students should be proactive, yet respectful of their time in any requests for help. I expect you to be resourceful and be able to work independently and in teams.

The class is divided into 5 core modules that address distinctive topics of relevance for aspiring entrepreneurs. There is no prescribed text book for this class. Each module has a consistent set of learning concepts and allows us to customize the class as per the needs of the class. I plan to create an environment where ideas can be discussed and developed in a structured setting.

I expect students to come prepared for the class by going through the tutorials and readings. This class and the content herein as with any sustainable activity are a work-in-progress. As such, the material is subject to revision throughout the semester. A significant part of the learning process is to wrestle with the material through the various course activities in order to learn something new!

The following “key success factors” will help you accomplish these objectives.

Prepare before participation. Professionals prepare before attending a meeting: they do not just walk in cold. Similarly, students are expected to have read the assigned material and completed any assignments before coming to class. Only if you are adequately prepared can you actively engage yourself in class activities. This is an aspect of professionalism students need discipline to develop. Old habits die hard: establish good ones from the start!

Engage yourself in the class discussions/chat. Listening, taking effective notes, and learning are all skills that take conscious effort to develop. Many times it requires concerted self-discipline to remain engaged in a meeting or presentation. These are skills you will need in the workplace: begin developing them now. Take organized notes, participate in exercises, and focus on the discussion!

Take responsibility for course requirements and communications. The vast majority of our correspondence this semester will be via announcements supplemented by occasional emails. The office of Registration & Records (R&R) maintains an electronic distribution list to facilitate faculty-student communication. It is that distribution list that I will use. All university communications – including those in this course – will be sent to your Unity account (xxxxxxx@ncsu.edu). It is your responsibility to check your Unity account regularly.

Take responsibility for your own education. Don’t waste your time learning material simply for the exam. I do not have a textbook and have chosen material encompassing a broad array of both cutting edge and established perspectives on key aspects of entrepreneurship. Studying the material simply to pass an exam or to do a shoddy report is a complete waste of your time. Engage yourself with these materials and I guarantee you that you will learn more than you ever bargained for!

Academic integrity

Academic integrity is essential to the educational process. Academic dishonesty in any form will not be tolerated in this course – whether on exercises, assignments, tests, extra credit, appeals, etc. Any form of academic dishonesty will result in an F on the assignment and automatic referral to the Office of Student Conduct. (If you are unsure about NC State policies concerning academic integrity, consult the NCSU Code of Student Conduct, or see the instructor.)

Course Web site

I use the site www.techventuresource.org as a reference site. The advantage of having this website allows us to access materials even after the class is over. I will use the official channels from NCSU to communicate important class announcements. It is your responsibility to keep track of the assignment due dates. There is no prescribed Text book for the class, however, I recommend you read books on entrepreneurship (ask for suggestions), listen to elevator pitches, analyze business plans to develop a well rounded idea of what it entails.

Accommodations for students with disabilities

The Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990 mandate that faculty provide reasonable accommodations to students with documented disabilities. Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services for Students at 1900 Student Health Center, Campus Box 7509, 515-7653. Students who believe that they have a covered disability should contact the Office of Disability Services for Students located in the Student Health Center and schedule an appointment with the instructor within the first week of the semester. Students who fail to initiate a meeting with the instructor in advance may forfeit opportunities for accommodation. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG02.20.1)

Date	Module: Key Concepts	In-Class A=Activity, S=Submissions, P=Presentation	Student Readings (to be read prior to session – C=Case, H=handout, T=tutorial, W=web search, V=video)
1/10	Course Outline, Introductions, Expectations		
1/12	Introduction to Entrepreneurship	A: Fun Facts quiz (not graded)	H: “Five Myths about Entrepreneurs: by the National Com. on Entrepreneurship.
1/17	[1] Industry/Strategy: Value Creation	A: Class Exercise	H: Brandenburger and Stuart Article Excerpt
1/19	[1] Industry/Strategy: Tools Ind. Analysis	A: Bus Ref Library Search	H: The Five Competitive Forces that Shape Strategy V: Porter’s 5 Forces
1/24	[1] Industry/Strategy: Strategy for entrepreneurs		
1/26	[2] Knowledge: Prior Knowledge	A: Group Formation/Idea Presentation	H: Education of Tech Entrepreneurs in US
1/31	[2] Knowledge : Opportunity and IP		T: www.libraries.psu.edu/instruction/business/Patents/model/parts.html
2/2	[2] Knowledge: IP 2	S: Team Formation	
2/7	[2] Knowledge: IP 3		
2/9	[3] Tech & Market: Tech Adoption and Modularity		H: Technological Leapfrogging: H: Video Game Industry Report
2/14	[3] Tech & Market: Tech Standards	A: Group 1 and 2 Lead Discussion on Video Game Case	
2/16	[3] Tech & Market: Power of Pull	Guest Entrepreneur: Dr. Dick Kouri	
2/21	Group Work: Industry Creation Presentations		
2/23	Industry Creation Presentations	P: Industry Creation	
2/28	[4] Organizing: Firm	A: Paper Tower	
3/1	[4] Organizing: Make or Buy	A: Group 3 and 4 Lead Discussion on paper tower activity S: Industry Report	
3/6	Spring Break		
3/8	Spring Break		
3/13	[5] Communication:	A: Preliminary	H: Making an argument

	Arguments/Opportunity Plan	Elevator Idea Pitch S: Elevator Pitch Idea Summary (2-3 pages)	V: http://www.mootcorp.org/utopia-mootcorp/utopia-moot/module1.html
3/15	Common Problems and Elevator Pitch Feedback	A: Groups give each other feedback	
3/20	Group Work: Opportunity Plan Approval		
3/22	[4] Special Topic: Social Entrepreneurship	A: Groups 5 and 6 Lead Discussion	H: http://ehis.ebscohost.com.proxy.lib.ncsu.edu/ehost/pdfviewer/pdfviewer?sid=2f52d3a9-0576-41a0-aa30-9d87e6bd7aaa%40sessionmgr111&vid=2&hid=121 V: http://www.youtube.com/watch?v=6UCuWxWiMaQ
3/27	[4] Organizing: Stakeholders	A: Groups 7 and 8 will Lead Discussion on Stakeholders	http://www.caseatduke.org/news/1207/Dees_Bloom_Ecosystem.html#cultivateecosystem
3/29	[4] Organizing: Basic Finances		T: www.mootcorp.org/utopia-mootcorp/utopia-moot/module4.html
4/3	[5] Communication: Making a successful pitch	V: David Rose: 10 things to know before you pitch a VC P: First Opportunity Plan Pitch	
4/5	Spring Holiday		
4/10	Common Problems and Opportunity Pitch Feedback	A: Groups give each other feedback S: First Draft of Opportunity Plan	
4/12	Feedback Day	A: Instructor feedback (optional) before final presentations	
4/17	Open Topic		
4/19	Communication - Final Presentations	P: Final Presentations of Opportunity Pitch	
4/23		S: Opportunity Plan Final Draft S: Group Participation	