

IENG 474

Course: IENG 474

Instructor: Dr. Jack Byrd Jr PhD
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Semester: Spring 2020

Number of Credit Hours: 3

Description: *This course will present basic concepts and practices that are necessary to convert a technology idea into an entrepreneurial business.*

Learning Outcomes

At the end of the course students will be able to:

1. Develop a plan to develop an entrepreneurial business from a technology idea.
2. Apply the analytical tools they need to develop a realistic business plan.
3. Apply content from various engineering disciplines into the development of a business concept for the student's technology idea.

Course Topics

A. The Basics of Becoming an Entrepreneur (8 lessons)

Lesson 1	Research an Entrepreneur	DUE 1-15-20
Lesson 2	Identify Improvement Characteristics	1-17-20
Lesson 3	Research a Successful Entrepreneur	1-22-20
Lesson 4	Identify the Stages of Business Growth	1-24-20
Lesson 5	Chapter 1 Lesson 5*	1-27-20
Lesson 6	Identify Personal Improvement Areas	1-29-20
Lesson 7	Define the Need for a Business Plan	1-31-20
Lesson 8	Create an Outline for your Business Plan	2-3-20

B. Where Entrepreneurial Ideas Come From (7 lessons)

Lesson 1	Developing an Idea	2-5-20
Lesson 2	Case Study	2-7-20
Lesson 3	Forming a Business Concept*	2-10-20
Lesson 4	Testing Your Idea*	2-12-20
Lesson 5	Protecting Your Idea*	2-14-20

C. Assessing the Market for Your Idea (5 lessons)

Lesson 1	Market Assessment Questions for Your Idea*	2-17-20
Lesson 2	Gathering Information for Your Idea*	2-19-20
Lesson 3	Conducting Focus Groups to Test Interest*	2-21-20
Lesson 4	Case Study Evaluation	2-24-20
Lesson 5	Chapter 3 Lesson 5*	2-26-20
Lesson 6	Assessing your Competition*	2-28-20

D. Developing a Commercialization Plan for Your Idea (4 lessons)

Lesson 1	Commercializing Your Idea*	3-2-20
Lesson 2	Choosing an Option*	3-4-20
Lesson 3	Determining your Commercialization Costs*	3-6-20
Lesson 4	Creating a Commercialization Schedule*	3-9-20

E. Developing a Marketing Plan (6 lessons)

Lesson 1	Basic Marketing for your Idea*	3-11-20
Lesson 2	Identifying your Markets*	3-13-20
Lesson 3	Chapter 5 Lesson 3*	3-23-20
Lesson 4	Branding Your Idea*	3-25-20
Lesson 5	Determining your Marketing Costs*	3-27-20
Lesson 6	Putting Together your Marketing Team*	3-30-20

F. Developing Your Business Organization (6 lessons)

Lesson 1	Recruiting a Team for your Business*	4-1-20
Lesson 2	Organizing your Business Responsibilities*	4-3-20
Lesson 3	Developing your Compensation Plan*	4-6-20
Lesson 4	Chapter 6 Lesson 6*	4-8-20

G. Raising Money for Your Business (9 lessons)

Lesson 1	Operations Plan*	4-13-20
Lesson 2	Annual Cost Estimates*	4-15-20
Lesson 3	Revenues Estimate*	4-17-20
Lesson 4	Estimating your Cash Flow*	4-20-20
Lesson 5	Estimating Your Financial Needs*	4-22-20
Lesson 6	Sources for Financial Support*	4-24-20
Lesson 7	Venture Capital Process*	4-27-20
Lesson 8	Negotiating a Financial Agreement*	4-29-20
	Summary Business Plan*	5-1-20

Course Format

This course will be taught as an internet based course, using the eCampus System.

Student Evaluation

The grade in this course will be based upon three components. The first component will be your response to each assignment. Each assignment is worth 10 points. There will be 45 assignments that will comprise 70% of the final grade in the course. You will be given a schedule to follow to complete the lessons. You will be given a due date for each assignment. You will lose one point out of 10 for every day the assignment is late.

The second component of the grade will be the quality of your business idea. You will be given frequent feedback on your business. These assignments are identified with an * in the above course material. You will receive a grade out of 10 points for each of these. This grade will be based on the quality of the idea presented in the assignment. Part of the grade will be determined by how you used the feedback. At the end of the semester, these assignments will be used to make up 20% of the final grade.

The final component of the grade will be the written business plan. The specific elements of this grade include:

- The overall worthiness of the idea
- The identification of markets that are realistic
- The development of a realistic development plan including marketing, staffing, intellectual property protection, etc.
- The development of a realistic financial plan
- This part of your grade will be 10%

Students will complete on-line readings for each lesson. They will then apply what they read in the lesson to their own technology business idea. I will respond to each written assignment and students will be expected to adjust their plans to my suggestions. Assignments will be due roughly every day according to a schedule shown on eCampus.

Caution

The work in the course is to be your own. In the past some students have had someone else do the work for them. It doesn't take long for me to figure out that this is happening. Using someone else to do your work will result in an unforgivable F.

TextBook

Each lesson contains a text chapter written by Dr. Jack Byrd, Jr. This is the only text used for the course. No other course materials are used in the course.

90-100 = A

80-89 = B

70-79 = C

60-69 = D

< 60 = F

West Virginia University is committed to social justice. Our University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. The instructor of this course concurs with that commitment and expects to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. Any suggestion as to how to further such a positive and open environment in this class will be appreciated and given serious consideration. If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise the instructor and make appropriate arrangements with Disability Services (293-6700).