

IEE 2010

ENTREPRENEURIAL ENGINEERING I

Course Syllabus

Catalog Data: This course is the first in a series of three courses in entrepreneurial engineering and will introduce students to industrial and entrepreneurial engineering. Topics covered include labor and material analysis for new and existing products, forecasting demand for products, estimation of product cost, and development of corporate financial statements.

Text: The Entrepreneurial Engineer, Timmons, Weiss, Loucks, Callister, Timmons. 2014, Cambridge University Press.

Prerequisites by topic:

Mathematical level equivalent to MATH 1180.

Course Objectives	Performance Criteria (department) ¹ Course
1. An ability to identify, formulate, and solve engineering problems.	(E1) Learning curve assignment.
2. An understanding of the entrepreneurial process, including financial analyses.	(L3) Financial statements assignment.
3. Recognition of the need for life-long learning.	(I2) Career plan assignment.
4. Understand how to compute labor and material components of product cost.	

Topics:

- Week 1-3 Labor and material analysis
- Week 4-7 Forecasting for new and established products
- Week 8-11 Basic accounting concepts, financial and managerial accounting, corporate structure
- Week 12-13 Development and analysis of financial statements, Monte Carlo analysis
- Week 14 Team project presentations

Schedule:	Week	Text Reading
	1-3	1,2,3
	4-6	4,5
	7-9	6
	10-11	7
	12-13	8,9
	14	10,11

This is an approximate schedule. Actual class assignments may vary from this as the class proceeds throughout the semester. When deviations occur, they will be announced in class.

Evaluation:

Exams 2 @ 100 pts each	200	40%
Final Exam	100	20%
Wall Street Journal Quizzes	50	10%
Homework and Computer Assignments	50	10%
Team Project	100	20%
Total	500	100%

Homework Problems: Homework Problems: Recommended homework problems will be given in class. You are encouraged to work these problems to help you learn the course material. A homework notebook containing all the problems assigned will be due at the final exam. Engineering problems paper must be used for homework problems. During the semester, homework will be periodically collected when announced in class. The homework notebook will be turned in only at the final exam for evaluation. All problems, handouts, and case studies assigned during the course must be in the notebook.

Wall Street Journal Quizzes: Quizzes will be given each week over the prior week's Wall Street Journal Papers.

Team Project: Everyone will be required to develop an idea for a company to produce a product. This company will be developed and operated with a team of three or four.

Cell Phone Use: Cell phones are not to be used during class. Please be sure your phone is turned off and put away during class.

Class Attendance: You are expected to be in class on time. Late arrivals are distracting for everyone and will not be permitted.

Grading Scale: The following are the APPROXIMATE points required for the corresponding grades. Actual points required may vary slightly.

A	400	C	320
BA	380	DC	300
B	360	D	280
CB	340		