IE 496 Lecture and IE 496 Internship, Spring 2008
Dr. Robert E. Barnes
Schedule and Syllabus
including Concepts, Assignments and Forms

Class	Date	Syllabus	Concept	Assignment	Forms/Handouts
1	January 14	Course introduction	Clarify role of multiple course/registration. Present course syllabus and schedule; course description, objectives and grading Hand out required forms. Check work assignments.	For **next time** define project and write objectives, etc. using form. Brief resume **email immediately.**	1. Project description and objectives. 2. Student appraisal by company. 3. Project summary sheet. 4. Team work form.
2	January 28	Review work assignments and IE tools as potential solutions	Expected report information. Project report. Give out faculty advisors for each student. Classify projects by type. Review major IE tools.		
3	February 4	Technical Communications	Written and oral technical communications – Mr. Grunert.		
4	February 11	Research Company, Resume, and Interviewing	Learn important aspects of how to conduct a job search – Mr. Millar.	Write a resume for UB CareerFEST February 28, Alumni Arena, 3 to 6:30 pm.	
5	February 18	Professionalism and Life-long Learning	Introduction and orientation to 1st career job – Ms. Hunter. Learn how professionals keep current.	Interview supervisor asking how he/she keeps his/her knowledge base current – **due next class.**	
6	February 25	Team work	Document multidisciplinary nature of assignment.	Readings will be assigned.	Team work form, **due next class**.
7	March 3	Ethics – Part 1	History of ethical thought, codes of ethics, professional responsibilities.	Chapters 2, 3 & 6, *Engineering Ethics.*	*Engineering Code of Ethics*
8	March 17	Ethics – Part 2	Ethical problem solving techniques.	Chapter 4, *Engineering Ethics.* *Do in teams, **due 4/14.**	
9	March 24	Future of work	What will work look like in the future – Dr. Drury.		
10	March 31	Future of	From the *Engineer of 2020* and Battelle's Technology		

		Engineering	Forecasts.		
11	April 7 – week of with project academic advisor	Project Review	Receive rough drafts and discuss issues that students want clarification on.	Present rough draft of final project	
12	April 14	Ethics	Present ethics case.	Student groups	
13	April 21	Ethics	Present ethics case.	Student groups	
14	April 28	Ethics	Present ethics case.	Student groups	
Exam Week	May 5, May 6	Project	Present projects.	Final Reports due and Oral Reports made; Student Appraisal due; Industry success **due via Internet.**	

*For this assignment, the class will be divided into equal or near equal groups by the instructor.

Each group is to choose one major accident and write a report on it that includes the use of ethical problem solving techniques (line drawing, flowcharting) found in *Engineering Ethics*. Instructor approval of the accident you choose is needed before beginning. The instructor will adjudicate multiple selections of the same project by a first date and time e-mail.

Presentations will be approximately 10 slides explaining the accident and its causes including the two diagrams and conclusions.

All assignments are to be submitted in electronic format (e.g., Word, PowerPoint) AND paper.

For these accident reports in USA, Australia, Canada, and UK go to:

U.S. – http://www.ntsb.gov/ (has an index to go to all modes of transportation); http://www.faa.gov/data_statistics/accident_incident/ (looks like aviation); http://www.ntsb.gov/events/major.htm (one boat, mostly planes)

Australia, Canada and the U.K.— http://www.atsb.gov.au/ Search for: Aviation Safety Accident & Incident Reports Database; http://www.tsb.gc.ca/en/reports/air/2003/index.asp; http://www.aaib.dft.gov.uk/publications/formal_reports.cfm