

Welcome to
IE496 – Lecture – 1 cr. hr.
and IE496 Internship – 3 cr. hrs.
Spring 2008

Dr. Robert E. Barnes
Associate Dean, UB Engineering

What I'd like to accomplish today

- Concept of Courses
- Description, Objectives, Grading
- Schedule and Syllabus
- Points of Communications
- Status of Projects –
 - Who has one?
 - Who needs one?

Concept of Courses



- A bridge between your engineering education and your first career job
 - Your orientation to the workplace
 - An employer's opportunity to select new engineers
 - Your opportunity to develop a portfolio of accomplishments
 - Students with preparation and experience do better

Concept - continued

- Information

- IE496 - Lecture 1 cr. hr.

- Work Experience

- IE496 Internship 3 cr. hrs.

Description, Objectives, Grading

- Instructor: Dr. Robert E. Barnes
- Time: Mondays: Noon to 12:50 pm
- Place: 213 O'Brian Hall, North Campus
- Office: 412 Bonner Hall
- Phone: 645-2768, x-1111
- Contact: Deanie @ 645-2768, x-1110
- Email: rebarnes@eng.buffalo.edu
- Web: www.eng.buffalo.edu/~rebarnes

Description

The IE Industrial Internship and Lecture are your transition from trainee engineer to practicing engineer.

- A one-day per week field experience working on an industrial engineering project in a manufacturing plant, hospital, library, police department, or similar location under the joint direction of a mentor from industry and a faculty advisor. Projects are selected which integrate the material learned in academic courses.
- A weekly one-hour seminar covering important aspects of Industrial Engineering such as professionalism, ethics, teamwork, engineering organizational structures, technical report writing and presentations, and resume writing and interviewing.

A final written report and oral presentation of the industrial project are required at the end of the semester. Oral presentations will be scheduled during final's week.

Objectives

After this course you will be able to:

- Perform a project to meet industrial and professional expectations, in terms of conduct, presentation and reports.
- Apply ethical standards to your conduct in the profession, understand teamwork and appreciate the need for life-long, professional learning.
- Perform the functions associated with professional work, e.g., analyze an industrial situation and provide appropriate design/redesign, function within an organizational structure, show competent written and oral technical communication skills including how to write a resume and participate in an interview.

Grading

Final grades will be determined in the following manner:

- **Evaluation of class work – IE496- Lecture - 1 cr. hr.**
 - **Student Professionalism (scored by course instructor) 100%**
 - Class assignments including those on resume, ethics, life-long learning and teamwork
 - Timely submission of forms, outline and reports
 - Class participation and attendance

- **Evaluation of project – IE496 – Internship - 3 cr. hrs.**
 - **Academic Advisor Evaluation (scored by faculty member) 50%**
 - **Instructor Evaluation (Dr. Barnes) 25%**
 - **Sponsor Evaluation (scored by company supervisor) 25%**

Note: Students will not receive a final grade until all required assignments and forms have been submitted.

Schedule and Syllabus

Class	Date	Syllabus and Concept
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.
2	January 28	Review work assignments and IE tools as potential solutions. Expected report information. Project report vs. poster. Give out faculty advisors for each student. Classify projects by type. Review major IE tools.
3	February 4	Technical Communications - written and oral – Mr. Grunert.

Schedule and Syllabus - continued

Class	Date	Syllabus and Concept
4	February 11	Research Company, Resume, and Interviewing. Learn important aspects of how to conduct a job search – Mr. Millar.
5	February 18	Professionalism and Life-long Learning. Introduction and orientation to 1st career job – Ms. Hunter. Learn how professionals keep current.
6	February 25	Teamwork. Document multidisciplinary nature of assignment.
7	March 3	Ethics. History of ethical thought, codes of ethics, professional responsibilities.

Schedule and Syllabus - continued

Class	Date	Syllabus and Concept
8	March 17	Ethics. Ethical problem solving techniques.
9	March 24	Future of work.
10	March 31	Project Review. Receive rough drafts and discuss issues that students want clarification on.
11	April 7	Future of Engineering. From the <i>Engineer of 2020</i> and Battelle's Technology Forecasts.

Schedule and Syllabus - continued

Class	Date	Syllabus and Concept
12	April 14	Ethics - Present ethics case. Part 1.
13	April 21	Ethics - Present ethics case. Part 2.
14	April 28	Ethics - Present ethics case. Part 3.
Exam Week	Project	- Present projects. Final Reports due and Oral Reports made; Student Appraisal due; Project Summary Sheet due.

Required Forms

- Project description and objectives.
- Student appraisal by company.
- Project summary sheet.
- Team and design experience form.

Points of Communication

- By e-mail: I'll use your listed UB account
- Web posting –
<http://www.eng.buffalo.edu/~rebarnes>

Status of Projects

- Who has one?
- Who needs one?

Current Project Status

Have Project

- Bednowitz – Buff Airport
- Brown – ITT
- Chang – BOC Edwards
- Henchey – USPS
- Jackson – Buff Airport
- Markin - ?
- Myers – USPS
- Piecuch – GM Powertrain
- Snyder – General Mills
- Stange – Nanodynamics
- Szalkowski – Danaher
Motion
- Worthy – GM Powertrain

Need Project

- Anipindi – Greatbatch
- Awad – Reichert
- Chandra – We Care
- Cheng – Greatbatch
- Chung – VA Hospital
- Davis – VA Hospital
- Devendorf – Greatbatch
- Dooling – Mr. Snacks
- Frank – SAMCO
- Hyde – Catholic Health
- Indraputra – SAMCO
- Luo – Greatbatch
- Lyke – Fisher Price
- Mohd – Curbell
- Pedicone – Mr. Snacks
- Prok - Corbell
- Strovers – SAMCO
- Willis – We Care