

ENGR 102: Engineering Freshman Academy

FALL 2008

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<u>Coaches</u>	T, David Bailey (dabailey@usc.edu) & Yakshita Desai (ydesai@usc.edu) Th, Penny Ishizuka (pishizuk@usc.edu) & Kimberly Wong (kimbermw@usc.edu)
<u>Sections</u>	T, 12-1:50p in RTH 115 Th, 1-2:50p in RTH 109
<u>Website</u>	https://blackboard.usc.edu, (follow link to ENGR 102) Be sure to <u>change your email</u> to the one you use most frequently as we will send out email messages during the semester using your Blackboard listed email address

Course Goals & Objectives:

The main goal is to introduce freshman engineering students to various aspects of engineering, including the technical, political, ethical and societal impacts of the field. There will be a focus on the following themes:

1. **Thinking like an engineer:** development of problem-solving and teamwork skills
2. **Social and historical context:** understand social and historical reach of engineering
3. **Potential of engineering:** understand vast potential of engineering and rewards of engineering profession compared to others
4. **Ethics component:** understand ethical issues and concepts related to engineering through discussion of real events and other related activities
5. **Transition to college:** peer mentoring to achieve successful transition from high school to college

Textbook None. Reading material will be posted to Blackboard or handed out in class.

Class Requirements & Grading Policy

The course will include readings, films, discussions, team activities, and guest lectures. The course will be graded CR/NC (credit/no credit), according to the following criteria:

(1) Homework + Project (50%)

Homework assignments are due in class at the beginning of class. Please follow the USC guidelines on academic integrity when preparing your homework. There will be approximately 6 assignments and a class project.

(2) Participation (25%)

Attendance, in-class presentations, and participation in discussions are required.

(3) Out of class activities (25%)

Students are required to participate in 3 of 4 large (All Academy) lectures. Also, students are required to attend 2 of the out of class activities planned by the coaches.

(4) Replacement for 1 Homework

You may substitute one homework assignment with participation in the Fall 2008 Engineering Career Conference on Sept 27th (8:30a-3p). Visit RTH 218 to register for the event. Submit a paper saying that you attended and signed off by Kristen Todd or Lilian Rivera. Also, turn in at least one business card from a recruiter. *Note: You may not substitute this event for the resume homework. This is a must!*

Statement for Students with Disabilities

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to the TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m. – 5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

Course Topics and Outline

This following is a tentative course outline.

Week 1 (8/26 or 8/28):

Lecture: Introduction to course and coaches. Why did I choose engineering? Tips on how to survive your 1st year as an engineering student.

In-class activity: Student interviews another student and presents them in class.

Assignment #1: Interview upperclass engineer to find out why they chose engineering (1/2 page – don't forget to include your name, upperclassman name, and major!) (due 9/16 or 9/18).

Week 2 (9/2 or 9/4):

Lecture: Activity day, please show up on time!

In-class activity: Engineering Team building activity – Engineering Challenge #1

Assignment #2: Complete homework assignment at end of Engineering Challenge #1 description (due 9/16 or 9/18)

Assignment #3: Create or update your resume (due 9/16 or 9/18)

Week 3 (9/9 or 9/11):

Lecture: Library orientation and resources (Jean Crampon)

In-class activity: N/A

Assignment: N/A

Week 4 (9/16 or 9/18):

Lecture: Career Services Overview and Writing Effective Resumes

In-class activity: N/A

Assignment #4: (a) Revise your resume and (b) jot down a few sentences on what you learned about resume writing (due 9/23 or 9/25)

Week 5 (9/23 or 9/25):

Lecture: USC Stevens on intellectual property, entrepreneurial activities

In-class activity: Ice Breaker

Assignment: N/A

Week 6 (9/30 or 10/2):

Lecture: Registration & Scheduling; final project announcement

In-class activity: Design activity and presentation

Assignment: Final project

Week 7 (10/7 or 10/9):

Lecture: no class, attend the Career Fair & work on Final Project

In-class activity: N/A

Assignment: N/A

*All Academy Lecture #1 (10/8, Wednesday, at 6pm, SGM 123): Mark Stevens

Week 8 (10/14 or 10/16):

Lecture: Graduate school & research

In-class activity: N/A

Assignment: N/A

Week 9 (10/21 or 10/23):

Lecture: Design, invention, and creativity

In-class activity: Design activity and presentation

Assignment: N/A

Week 10 (10/28 or 10/30):

Lecture: Activity with Coaches (it's a surprise), time to work on final projects

In-class activity:
Assignment: N/A

Week 11 (11/4 or 11/6):
Lecture: Engineering failures video & discussion
In-class activity: N/A
Assignment: N/A

*All Academy Lecture #2 (11/6, Thursday, at 5:30pm, SGM 123): Warner Williams

Week 12 (11/11 or 11/13):
Lecture: N/A
In-class activity: Team building (favorites & group juggle); Time to work on final projects
Assignment: N/A

Week 13 (11/18 or 11/20):
Lecture: Final project presentations
In-class activity: Groups present projects
Assignment: N/A

*All Academy Lab Tours (11/21)

Week 14 (11/25 or 11/27): No Class – Thanksgiving

*All Academy Lecture #4 (12/5 or 6, at 6pm, SGM 123): John Shea

Week 15 (12/2 or 12/4):
Lecture: Final project presentations
In-class activity: Groups present projects
Assignment: N/A