

UNIVERSITY OF RHODE ISLAND
Department of Electrical, Computer and Biomedical Engineering

BME 484

Biomedical Engineering Capstone Design I

Fall 2010

Course description: Applications of engineering skills; team projects in biomedical areas such as neuroengineering, assistive technology, cardiopulmonary measurements, medical imaging, and modeling of physiological systems.

- Instructor: Fred Vetter, Kelley Annex A-209 phone: 401-874-5141
e-mail: vetter@ele.uri.edu office hours: any time
web: www.ele.uri.edu/faculty/vetter/BME484
- Team Meeting: Thursday 3:30 – 4:20 pm, Kelley Hall 216
- Laboratory: Monday 1:00 – 3:45 pm, Kelley Annex A14
- Prerequisites: BME 207 and BME 360, BME senior standing
- Required Books: Clive L. Dym and Patrick Little. *Engineering Design: A Project Based Introduction*, 3rd edition, Wiley (2008).
Log book, e.g. *National Brand* Computation Notebook, model 43-648 (\$14.95 at URI bookstore, \$15.99 at Staples). Pages must be bound and consecutively numbered.
- Attendance: Course meeting times were tailored specifically to your class schedules. If you must miss any class meeting, complete an **Absence Request** form (on the web page), have it signed by all your team members, and submit to Professor Vetter *at least* one week before your absence.

Grade Distribution and Due Dates

I = Individual, **T** = Team

Item	Mid-term (Oct 25)	Term End (Dec 9)	Total	
1. ABET Outcome I Essay	10% (Sep 30)	—	10%	I
2. ABET Outcome F Essay	10% (Oct 28)	—	10%	I
3. Log Book Evaluation	10% (Oct 28)	10% (Dec 9)	20%	I
4. Progress Report	10% (Oct 28)	—	10%	T
5. Progress Report, I Contribution	10% (Oct 28)	—	10%	I
6. Final Report	—	20% (Dec 9)	20%	T
7. Final Report, I Contribution	—	10% (Dec 9)	10%	I
8. Oral Presentation	—	10% (Dec 6)	10%	I
Total	40% I	30% I	70% I	
	10% T	20% T	30% T	
	50%	50%	100%	

Important	September 14	Last day for "Open Add"
Dates:	September 21	Last day to ADD courses via permission number
	October 11	No class, Columbus Day
	October 12	(Tuesday) Monday classes meet
	November 3	Last day to DROP courses
	November 10	(Wednesday) Thursday classes meet
	November 25	No class, Thanksgiving
	December 9	Last class meeting

Accommodations: Any student with a documented disability should contact me early in the semester so that we can make reasonable accommodations to support your success in this course. You should also contact Disability Services for Students, Office of Student Life, 330 Memorial Union, 874-2098.

ABET Program Outcomes covered in this course:

- B. an ability to design and conduct experiments;
- C. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
- D. an ability to function on multi-disciplinary teams;
- F. an understanding of professional and ethical responsibility;
- G. an ability to communicate effectively;
- H. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- I. a recognition of the need to engage in life-long learning;
- J. a knowledge of contemporary issues;
- K. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice;
- L. an ability to critically evaluate alternate assumptions, approaches, procedures, and tradeoffs related to engineering problems.

ABET Professional Component contribution of this course:

Engineering Design: 2 credit hours