BMED 1000 Introduction to Biomedical Engineering (Required)

Catalog Description: BMED 1000 Intro to Biomedical Engr (1-0-1)
Prerequisite(s): None
An introduction to the field of biomedical engineering, with an emphasis on career preparation

Textbook: None

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Topics Covered:

1. Team formation, peer- and self-evaluation of team work
2. Career portfolios
3. BME jobs in industry
4. Work experience opportunities for BME undergraduates
5. Research experience opportunities for BME undergraduates
6. Ethics in research with human participants

Course outcomes:

Students who complete this course will:

Outcome 1: Understand the range of career opportunities that are available to biomedical engineering graduates (Student Outcomes i and j)

- 1.1 Understand the career opportunities that have been pursued by graduates of Georgia Tech's B.S. BME program.
- 1.2 Understand how to evaluate and align their personal characteristics, experiences, achievements, knowledge, and skills with their chosen career path

Outcome 2: Comprehend the resources that are available at Georgia Tech to help them prepare for their chosen career path (Student Outcome i)

- 2.1 Be able to identify experiential learning opportunities that will enable them to best prepare for their chosen career path
- 2.2 Understand how the selection of appropriate study abroad experiences, and undergraduate research and work experiences, will enhance their career opportunities and prepare them for multiple career paths

Outcome 3: Become a more integral member of the biomedical engineering community (Student Outcome f)

- 3.1 Understand how to conduct, in an ethical manner, human subjects research at Georgia Tech

Correlation between course outcomes and student outcomes:

BMED 1000											
	Biomedical Engineering Student Outcomes										
Course outcomes	a	b	c	d	e	f	g	h	i	j	k
1.1										X	
1.2									X		
2.1									X		
2.2									X		
3.1						X					

The Wallace H. Coulter Department of Biomedical Engineering Student Outcomes:

a. an ability to apply knowledge of mathematics, science, and engineering;
b. an ability to design and conduct experiments, as well as to analyze and interpret data;
c. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, societal, political, ethical, health and safety, manufacturability, and sustainability;
d. an ability to function on multidisciplinary teams;
e. an ability to identify, formulate, and solve engineering problems;
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 for, and an ability to engage in lifelong learning;
j. a knowledge of contemporary issues;
k. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice;