BIME 181: Introduction to Biomedical Engineering
Fall 2022 (2221)

Instructors: Steven Day (Steven.Day@RIT.edu)
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Faculty Office Hours: Will be posted.

TAs: Kimberly Dobie kad5772@rit.edu (Thursday morning)
Grace Reinartz grk8353@rit.edu (Thursday afternoon)

Course Description: This course will provide an introduction to Biomedical Engineering and the department of Biomedical Engineering at RIT. It will consist of the following components: 1) Introduction of an engineering methodology applicable to biomedical problems. 2) Opportunity to address a simple biomedical engineering related problem that necessitates problem statement, research, solution proposal and summary report and presentation of results. 3) Introduction to team dynamics, organization and interpersonal communication associated with working with a multidisciplinary team.

Course Goals:

- Introduce students to topics within biomedical engineering.
- Introduce students to some fundamental tools engineering, including design processes and methods of data collection and analysis.
- Practice professional principles including teamwork.

Course Outcomes: (By the end of this course, a student should be able to ….)

- Explain an engineering solution so that an engineer will be satisfied with the explanation and that a non-engineer can comprehend.
- Apply strategies and methods for team work, including identifying the stages of team development and give examples of team behaviors that are characteristic of each stage AND function effectively on a team, with effectiveness being determined by instructor observation, peer ratings, and self-assessment.
- Design a system (or component of a system) related to a medical device using a structured design process and quantitative evaluation at each stage of the process.

Attendance and Assignment Expectations:

During typical semesters, attendance to lecture and workshop classes is required. We will not be recording lectures or providing the ability to zoom, although you can keep up through posted slides and notes from classmates. For workshops, attendance is expected as able but many reasons might require someone to stay home including self-isolation or required quarantine as well as symptoms or perceived symptoms that may cause anxiety for others. ***Even if last minute, inform Dr. Bailey or Dr. Day of your plan to work remotely for workshop. Synchronous participation, whether in person or remote, is expected during the scheduled class time as group work is a critical component of this time.***

Absences, for whatever reason, do not relieve students of their responsibility for fulfilling normal requirements in any course. In particular, it is the student's responsibility to make individual arrangements in advance of missing class due to personal obligations such as religious holidays, job interviews, athletic contests, etc., in order that he or she may meet his or her obligations without penalty for missing class." *(RIT Governance Policy D4.0, Section I.B)*

We will use myCourses and GoogleDrive for everything in this course. When in doubt, look to myCourses for messages from instructors and grades. GoogleDrive will also be used for some assignments and feedback.

Generally speaking, work assigned during one workshop will be due at the beginning of your workshop period the following week. We are trying to make these due dates clear so if they are vague, let us know. In many cases, we will build on the assignment during workshop, so it's critical to stick to this deadline. 50% credit may be awarded for late submissions, at the discretion of the workshop instructor.

Grades:

Lecture Attendance and Participation	10%
Workshop Attendance and Participation	10%
Assignments: in-class, in-workshop, take-home	50%
Final Project Demonstration and Presentation	30%

Grading Scale

	+	neutral	-
A		≥93.0	≥90.0
B	≥87.0	≥83.0	≥80.0
C	≥77.0	≥73.0	≥70.0
D		≥60.0	

Academic Dishonesty

Please read the **RIT Academic Honesty** policy in detail. Plagiarism from other students or sources of information will not be tolerated. The following is taken from the RIT Academic Honesty Policy:

Consequences of Academic Dishonesty

Any act of Academic Dishonesty will incur the following possible consequences. After notifying and presenting the student with evidence of such misconduct, the instructor has the full prerogative to assign an "F" for the offense, or to assign an "F" for the entire course. The instructor will inform and, if possible, meet with the student concerning the decision reached on the "F" for the offense, or the "F" for the entire course. A student may be brought before the Academic Conduct Committee of the College in which the alleged offense occurred, and may face academic suspension or dismissal from the Institute. (See D17.0, Academic Conduct and Appeals Procedures," and D18.0, "RIT Student Conduct Process.")

RIT ADA Policy

RIT is committed to providing reasonable accommodations to students with disabilities. If you would like to request accommodations such as special seating due to a disability, please contact the Disability Services Office. It is located in the Student Alumni Union, Room 1150; the Web site is http://www.rit.edu/dso. After you receive accommodation approval, it is imperative that you speak with the instructor so that you can work out whatever arrangement is necessary.

Statement on Title IX

Title IX violations are taken very seriously at RIT. RIT is committed to investigate complaints of sexual discrimination, sexual harassment, sexual assault and other sexual misconduct to ensure that appropriate action is taken to stop the behavior, prevent its recurrence, and remedy its effects. Please view the Title IX Rights and Resources at RIT.