

BMEN 2980 – Biomedical circuits and data acquisition laboratory
Fall 2015

Instructor:

Dr. Vijay Vaidyanathan

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(940) 565-3268

Office: B131

Office Hours: TR: 10 AM-12 PM or by appointment

Laboratory Schedule: F 183, Discovery Park

Reference:

Virtual Bioinstrumentation

Jon Olansen and Eric Rosow

ISBN-10: 0130652164; ISBN-13: 007-6092012863

Catalog Course Description:

Exploratory Core course in Biomedical Engineering (BMEN) which shapes the BMEN student's first year experience. Topics include experiences of practicing engineers; engineering ethics, professional conduct, and values; and an introduction to the best practices in BMEN industry and research. The project is a major, team-based, competitive engineering design-and-build effort. The laboratory exercises and project teach students to think critically and creatively by applying a range of analysis techniques borrowed from many engineering and science disciplines.

Prerequisite(s): BMEN 1300

Course Objectives:

1. Programming with LabVIEW and MATLAB.
2. Familiarize students with Biopac software and hardware.
3. Build and test circuits relevant to biomedical engineering.
4. Understand data acquisition of biomedical signals using LabVIEW

ABET Criteria:

BMEN 2980 addresses the following ABET program outcomes:

1. Apply knowledge of mathematics, engineering and science
2. Develop project-based learning skills through design and implementation of a system
3. Identify, formulate and solve engineering problems
4. Use techniques, skills and computer-based tools for conducting experiments and carrying out designs

Laboratory Assignments:

Laboratory assignments will be given out using UNT's Blackboard Learn online program. Students will be expected to come prepared to lab, having completed pre-lab assignments.

Grade Evaluation:

Laboratory Assignments	50%
Final Project	50%

A – 90-100%

B – 80-89%

C – 70-79%

D – 60-69%

F - < 60%

Disability Policy:

All reasonable accommodation will be made to facilitate special needs. If special accommodations are required, the student must first meet with the staff of the Office of Disability Accommodation (ODA), Union Suite 322, (940) 565-4323. After meeting with that office, please contact me to discuss what accommodations will be necessary. For more information, see

<http://www.unt.edu/oda>.