



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Design and Professional Practice I, Biomedical

MATSCEN 4381.02

Credit Hours:

3.00 - 3.00

Course Levels:

Undergraduate (1000-5000 level)

Course Components:

Lecture

Course Description:

First course in a two-course MSE Senior Design sequence with a biomedical engineering emphasis. Introduction to design principles; challenges of biomedical device design; projects focus on helping persons with disabilities.

Prerequisites and Co-requisites:

Prereq: 3141, 3151, 3331, and enrollment as MatSEng-BS major. Prereq or concur: 3261, 3271, or 3331.

Course Goals / Objectives:

- Students will be able to abstract engineering specifications from clinical needs by applying various design analysis methods
 - Students will be able to demonstrate engineering design and optimization by building a small medical device in a team environment;
 - Students will be able to make a professional presentation and write a technical team report
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Course Topics:

- Design Process
 - Design Projects
 - Physiology, team-building, device needs finding and specifications
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Designation:

Required