

BME/ME 550 : Tissue Engineering

This biomaterials course focuses on the selection, processing, testing and performance of materials used in biomedical applications with special emphasis upon tissue engineering. Topics include material selection and processing, mechanisms and kinetics of material degradation, cell-material interactions and interfaces; effect of construct architecture on tissue growth; and transport through engineered tissues. Examples of engineering tissues for replacing cartilage, bone, tendons, ligaments, skin and liver will be presented.

Department

Biomedical Engineering

Mechanical Engineering

Credits 3.0**Prerequisites**

A first course in biomaterials equivalent to BME/ME 4814 and a basic understanding of cell biology and physiology. Admission of undergraduate students requires the permission of the instructor