



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Extracellular Matrix in Bioengineering

MECHENG 6359

Credit Hours:

3.00 - 3.00

Course Components:

Lecture

Course Description:

Extracellular matrix (ECM) present in mammalian tissue(s) is important for the integrity and tensile strength of the underlying tissue as well as for cell-matrix interactions and matrix mineralization. This course provides an overview of the composition, structure and function of ECM and its application(s) in bioengineering.

Prerequisites and Co-requisites:

Prereq: Grad standing in MechEng or BiomedE, or permission of instructor.

Course Goals / Objectives:

- Describe the ECM components and organization present in various mammalian tissues
- Other ECM components: collagen receptors, proteoglycans and GAGs, elastin, laminin etc.
- Techniques to characterize ECM composition, structure and function
- ECM in health and disease and bioengineering applications