

BIOL 356: Connective Tissue Biology

Connective tissues such as bone, cartilage, tendons, ligaments, basement membrane, skin, teeth, fat and blood are crucial for providing structural support and contextual cues that sustain proper function of other tissues and organs in the body. The purpose of this course is to provide students with a framework for understanding these tissues, their cellular and extracellular interactions and their roles in organs commonly studied in biomedical research. The course will review pathologies of connective tissues and discuss how biomaterials interact with tissues for use in regenerative medicine. This course incorporates fundamentals of biochemistry and cell biology to understand the structure, function, pathology, and repair mechanisms of connective tissues.

Learning Objectives

- Master basic structure and function of connective tissues and how they relate to other organs
- Appreciate the role of connective tissues in diseases
- Discuss properties of biomaterials required for regenerative medicine applications

Credits: 2

Class Type: Graduate Course

Prerequisites:

college-level cell biology and biochemistry.

Program: Biology, Genetics, and Medicine