

BME 411: Tissue Mechanics Biomedical Engineering

This course will delve into the fundamental principles of continuum mechanics and gradually progress to advanced concepts, all within the context of tissues and their behavior. From understanding the continuum kinematics and material symmetry to formulating constitutive equations and exploring specific tissue types such as bone, cartilage, and ligaments, this course will equip students with a profound knowledge of how biological tissues respond to mechanical forces. Practical applications, including modeling poroelastic and electrical effects in soft tissues, will prepare students for real-world challenges in fields such as medical engineering and biomechanics.

3 Credits

Prerequisites

Prerequisite: BME 311 or Engr 312

Instruction Type(s)

• Lecture: Lecture for BME 411

Subject Areas

Bioengineering and Biomedical Engineering

The University of Mississippi is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award certificates and baccalaureate, master's, specialist, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or visit online at www.sacscoc.org for questions about the accreditation.

