

BIOMEDICAL ENGINEERING

BME

College of Engineering

- 425 Biomaterials and Biocompatibility**
 Spring. 3(3-0) Interdepartmental with Materials Science and Engineering. Administered by Materials Science and Engineering. P: MSE 250 RB: PSL 250 R: Open to juniors or seniors in the College of Engineering. SA: BME 424, MSE 324

Materials science of human implants. Design requirements imposed by the human body, and need for bodily protection.

- 490 Independent Study**
 Fall, Spring. 3 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Approval of department.

Individualized reading and research in biomedical engineering or bioengineering.

- 490A Independent Study in Clinical Biomechanics**
 Fall. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.

Individualized reading and research in the application of biomechanics to clinical cases.

- 490B Independent Study in Biomaterials**
 Spring. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.

Individualized reading and research in the application of biomaterials.

- 491 Special Topics**
 Fall, Spring. 3 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course.

Special topics in biomedical engineering or bioengineering.

- 495 Tissue Mechanics**
 Spring. 3(3-0) Interdepartmental with Mechanical Engineering. Administered by Mechanical Engineering. P: (ME 222) R: Open only to students in the College of Engineering. SA: MSM 441

Application of solid mechanics to understanding mechanical responses of biological tissues. Microstructure and biological function for soft and hard connective tissues and muscle.

- 497 Biomechanical Design in Product Development**
 Spring. 3(3-0) Interdepartmental with Mechanical Engineering. Administered by Mechanical Engineering. P: ME 371 or concurrently R: Open to juniors or seniors in the Department of Mechanical Engineering. SA: BME 491A, MSM 445

Biomechanical product design with application to people or animals. Synthesis, prototyping, and analysis of designs. Project management. Market research.