

# 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.