

UNDERGRADUATE COURSES

The following courses are available to undergraduates who wish to complete a biomedical engineering minor while pursuing a major in their chosen engineering discipline. Admittance to the minor program is by application only. See Dr. Pamela VandeVord (pvord@vt.edu) for further information.

BMES 2104 *Intro to Biomedical Engineering*

Methods of mathematical modeling and engineering analyses related to human physiology. Emphasis placed on fundamental concepts such as biomaterials, biomechanics, tissue engineering, biomedical imaging and nanomedicine. Broad spectrum of current biomedical engineering research areas. Pre: (ENGE 1104 or ENGE 1114), PHYS 2305. Co: MATH 2214. (3H,3C)

BMES 2984 *Special Study*

Variable credit course.

BMES 4064 (BMVS 4064) *Intro to Medical Physiology*

An introduction to the principles of medical physiology. Designed primarily for undergraduate students minoring in biomedical engineering, and other related engineering and physical sciences majors with little or no formal background in biological sciences. Basic principles and concepts of human physiology. Special emphasis on the interactions of human systems biology in their entirety rather than individual genes and pathways. Pre: Junior standing or permission of the instructor. (3H, 3C)

BMES 4984 *Special Study*

Variable credit course.

BMES 4994 *Undergraduate Research*

Provides students an opportunity to work individually with a professor on a biomedical engineering application or research project. In order to enroll the student and professor must work together to fill out [undergraduate research/independent study form](#) which must be signed by the Instructor, Instructor's Department Head, Student's Department Head (if different from Instructor's), and the Associate Dean for Academic Affairs. Variable credit course.