Course Catalog - Spring 2006

Bioengineering

120 ***Introduction to Bioengineering*** Credit: 1 hours.
Lecture and discussion of recent trends in bioengineering; topics typically include the biological interaction with ultrasound and microwave radiation, modeling, instrumentation, biomaterials, biomechanics, biological heat and mass transfer, and medical imaging techniques.

199 ***Undergraduate Open Seminar*** Credit: 1 to 5 hours.
May be repeated.

280 ***Biomedical Imaging*** Credit: 3 hours.
Same as ECE 280. See ECE 280.

297 ***Individual Study*** Credit: 1 to 4 hours.
Special project or reading course for advanced freshman and sophomore level engineering and life science students. May be repeated in the same or separate semesters up to a maximum of 12 hours. Prerequisite: Approved written application to department as specified by department or instructor.

298 ***Special Topics*** Credit: 0 to 4 hours.
Study of selected topics in regular course format; variable content. May be repeated in the same or separate semesters up to a maximum of 8 hours. Prerequisite: As specified for each topic offering; see Class Schedule or departmental course information.

300 ***Seminar*** Credit: 0 hours.
Survey lecture course intended to introduce juniors and seniors to a broad range of Bioengineering topics. Approved for S/U grading only. May be repeated. Prerequisite: Junior or senior standing.

397 ***Individual Study*** Credit: 1 to 4 hours.
Special project or reading course for junior and senior level engineering and life science students. Prerequisite: Approved written application to department as specified by department or instructor.

398 ***Special Topics*** Credit: 1 to 4 hours.
Study of selected topics in regular course format; variable content. May be repeated up to 8 hours. Prerequisite: As specified for each topic offering; see Schedule or departmental course information.

406 ***Veterinary Ortho Biomechanics*** Credit: 3 hours.
Same as VB 406. See VB 406.

414 ***Biomedical Instrumentation*** Credit: 3 hours.
Same as ECE 414. See ECE 414.

415 ***Biomedical Instrumentation Lab*** Credit: 2 hours.
Same as ECE 415. See ECE 415.

417 ***Modeling Neural Systems*** Credit: 4 hours.
Same as BIOP 417, MCB 417, and NEUR 427. See MCB 417.

419 ***Brain, Behavior & Info Process*** Credit: 3 hours.
Same as MCB 419, BIOP 419, and NEUR 419. See MCB 419.

461 ***Cellular Biomechanics*** Credit: 4 hours.

Same as TAM 461. See TAM 461.

471 ***Biomaterials for Engineers*** Credit: 3 hours.
Same as MSE 471. See MSE 471.

472 ***Techniques in Biomolecular Eng*** Credit: 3 or 4 hours.
Same as CHBE 472. See CHBE 472.

475 ***Modeling of Bio-Systems*** Credit: 3 or 4 hours.
Same as ECE 475. See ECE 475.

480 ***Magnetic Resonance Imaging*** Credit: 3 or 4 hours.
Same as ECE 480. See ECE 480.

493 ***Senior Research Project*** Credit: 2 to 4 hours.
Individual research project under the guidance of a faculty member. Intended for students planning to complete BIOE 499 (Senior Thesis) in the following semester. May be repeated to a maximum of 4 hours. Prerequisite: Senior standing; and consent of instructor.

497 ***Individual Study*** Credit: 1 to 4 hours.
Special project or reading course for senior level and graduate engineering and life science students. May be repeated up to 8 hours in a term to a total of 12. Prerequisite: Approved written application to department as specified by department or instructor.

498 ***Special Topics*** Credit: 1 to 4 hours.
Study of selected topics in regular course format; variable content. May be repeated to a maximum of 12 hours, but no more than 8 in any one term. Prerequisite: As specified for each topic offering; see Schedule or departmental course information.

499 ***Senior Thesis*** Credit: 2 hours.
A formal research project in Bioengineering. Preparation and oral presentation of a written thesis that reports the results of the project. Prerequisite: BIOE 493 and consent of instructor.

500 ***Graduate Seminar*** Credit: 1 hours.
Survey lecture course intended to introduce graduate students to a broad range of Bioengineering topics. Approved for S/U grading only. May be repeated up to a total of 2 hours. Prerequisite: Graduate standing in engineering or sciences.

501 ***Seminar Discussion*** Credit: 1 hours.
This course familiarizes graduate students with reading and discussing academic journals in Bioengineering. Approved for S/U grading only. Prerequisite: Graduate student in Bioengineering.

597 ***Individual Study*** Credit: 1 to 8 hours.
Special project or reading course for graduate engineering and life science students. Prerequisite: Approved written application to department as specified by department or instructor.

598 ***Special Topics*** Credit: 1 to 4 hours.
Study of selected topics in regular course format; variable content. May be repeated up to 8 hours a term to a total of 12 hours. Prerequisite: As specified for each topic offering; see Schedule or departmental course information.

599 ***Thesis Research*** Credit: 0 to 16 hours.
Bioengineering graduate thesis research. May be repeated. Approved for S/U grading only.