

Bioengineering Courses

Courses

BIOE 196. Field Studies: [Topic]. 1-12 Credits.
Repeatable.

BIOE 198. Laboratory Projects: [Topic]. 1-12 Credits.
Repeatable.

BIOE 199. Special Studies: [Topic]. 1-5 Credits.
Repeatable.

BIOE 251. Fundamentals of Bioengineering I. 4 Credits.
This course introduces students to foundational principles in bioengineering. Topics include units, dimensional analysis, energy balances, conservation of mass, energy, and momentum, and introductory biomechanics.
Prereq: MATH 246 or MATH 251; co-req: MATH 247 or MATH 252; recommend co-req: PHYS 201 or PHYS 251.

BIOE 252. Fundamentals of Bioengineering II. 4 Credits.
This course introduces students to foundational principles in bioengineering. Topics include linear circuits, Fourier transforms, fluid pressure, the Bernoulli Equation, conservation principles in fluid control volumes, and laminar fluid flow.
Prereq: MATH 247 or MATH 252; recommend co-req: PHYS 202 or PHYS 252.

BIOE 253. Fundamentals of Bioengineering III. 4 Credits.
This course introduces students to foundational principles in bioengineering. Students will learn basic concepts and experimental approaches across a variety of bioengineering topics and applications, including mass and energy balances, biomass conversion, fluid flow, spectrophotometry, and diffusion.
Prereq: MATH 247 or MATH 252; PHYS 202 or PHYS 252 recommended.

BIOE 299. Special Studies: [Topic]. 1-5 Credits.
Repeatable.

BIOE 399. Special Studies: [Topic]. 1-5 Credits.
Repeatable.

BIOE 401. Research: [Topic]. 1-12 Credits.
Repeatable.

BIOE 402. Supervised College Teaching. 1-5 Credits.
Repeatable.

BIOE 403. Thesis. 1-12 Credits.
Repeatable.

BIOE 404. Internship: [Topic]. 1-12 Credits.
Repeatable.

BIOE 405. Reading and Conference: [Topic]. 1-5 Credits.
Repeatable.

BIOE 406. Field Studies: [Topic]. 1-12 Credits.
Repeatable.

BIOE 407. Seminar: [Topic]. 1-5 Credits.
Repeatable.

BIOE 408. Laboratory Projects: [Topic]. 1-12 Credits.
Repeatable.

BIOE 409. Terminal Project. 1-12 Credits.
Repeatable.

BIOE 410. Experimental Course: [Topic]. 1-5 Credits.
Repeatable.

BIOE 410L. Experimental Course: [Topic]. 4 Credits.
Repeatable.

BIOE 510. Experimental Course: [Topic]. 1-5 Credits.
Repeatable.

BIOE 510L. Experimental Course: [Topic]. 4 Credits.
Repeatable.

BIOE 601. Research: (Topic). 1-16 Credits.
Repeatable.

BIOE 603. Dissertation. 1-16 Credits.
Repeatable.

BIOE 607. Experimental Course: [Topic]. 1-5 Credits.
Repeatable.

BIOE 610. Experimental Course: [Topic]. 1-5 Credits.
Repeatable.

BIOE 610L. Experimental Course: [Topic]. 4 Credits.
Repeatable.