Bioengineering Courses

Courses

BI0E 196. Field Studies: [Topic]. 1-12 Credits.
Repeatable.

BI0E 198. Laboratory Projects: [Topic]. 1-12 Credits.
Repeatable.

BI0E 199. Special Studies: [Topic]. 1-5 Credits.
Repeatable.

BI0E 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.

BI0E 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.

BI0E 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.

BI0E 299. Special Studies: [Topic]. 1-5 Credits.
Repeatable.

BI0E 399. Special Studies: [Topic]. 1-5 Credits.
Repeatable.

BI0E 401. Research: [Topic]. 1-12 Credits.
Repeatable.

BI0E 402. Supervised College Teaching. 1-5 Credits.
Repeatable.

BI0E 403. Thesis. 1-12 Credits.
Repeatable.

BI0E 404. Internship: [Topic]. 1-12 Credits.
Repeatable.

BI0E 405. Reading and Conference: [Topic]. 1-5 Credits.
Repeatable.

BI0E 406. Field Studies: [Topic]. 1-12 Credits.
Repeatable.

BI0E 407. Seminar: [Topic]. 1-5 Credits.
Repeatable.

BI0E 408. Laboratory Projects: [Topic]. 1-12 Credits.
Repeatable.

BI0E 409. Terminal Project. 1-12 Credits.
Repeatable.

BI0E 410. Experimental Course: [Topic]. 1-5 Credits.
Repeatable.

BI0E 410L. Experimental Course: [Topic]. 4 Credits.
Repeatable.

BI0E 510. Experimental Course: [Topic]. 1-5 Credits.
Repeatable.

BI0E 510L. Experimental Course: [Topic]. 4 Credits.
Repeatable.

BI0E 601. Research: (Topic). 1-16 Credits.
Repeatable.

BI0E 603. Dissertation. 1-16 Credits.
Repeatable.

BI0E 607. Experimental Course: [Topic]. 1-5 Credits.
Repeatable.

BI0E 610. Experimental Course: [Topic]. 1-5 Credits.
Repeatable.

BI0E 610L. Experimental Course: [Topic]. 4 Credits.
Repeatable.