Bioengineering Minor

https://bioengineering.uoregon.edu/undergraduate-programs (https://bioengineering.uoregon.edu/undergraduate-programs/)

Jenni Van Wyk, Student Recruiter & Advisor

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To complete the bioengineering minor, you must complete 12 required credits and 12 elective credits. At least 4 elective credits must be from the BIOE subject-code and up to 8 credits from the requirements tab may be applied towards the upper-division bioengineering minor requirement. Courses used to complete a student's major core requirements may not be applied towards the bioengineering minor elective requirement.

Bioengineering resides at the interface of engineering and the natural sciences, and a thorough knowledge of both is essential for innovation and problem solving in the discipline. The courses below provide an opportunity for students to strengthen their knowledge within their primary discipline in several areas particularly relevant to bioengineering, including: genetics, microbiology, physiology, chemistry, neuroscience, physics and electronics.

Admissions Process:

Contact the Bioengineering Recruiter and Advisor at **bioengineering@uoregon.edu**.

Minor in Bioengineering

Courses used to fulfill the minor requirements must be taken for a letter grade and passed with a grade of C- or better.

Code	Title	Credits
Core Courses		
BIOE 251 & BIOE 252 & BIOE 253	Fundamentals of Bioengineering I and Fundamentals of Bioengineering II and Fundamentals of Bioengineering III	12
Upper-Division Courses		
300-/400-level BIOE Course		4
300-/400-level BIOE or Approved Courses		8
Total Credits		**24**

BIOE minor interdisciplinary electives

Up to eight credits from this list may be applied towards the upper-division bioengineering minor requirement. Courses used to complete a student's major core requirements may not be applied towards the bioengineering minor elective requirement.

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Approved Courses

Code	Title	Credits
Biology		
BI 320	Molecular Genetics	4
BI 322	Cell Biology	4
BI 326	Immunology and Infectious Disease	4
BI 328	Developmental Biology	4
BI 330	Microbiology	3
BI 331	Microbiology Laboratory	3
BI 353	Sensory Physiology	4
BI 358	Investigations in Medical Physiology	4
BI 360	Neurobiology	4
BI 423	Human Molecular Genetics	4
BI 426	Genetics of Cancer	4
BI 427		4
BI 428	Developmental Genetics	4
BI 461	Systems Neuroscience	4
BI 466	Developmental Neurobiology	4
Chemistry and Biochemistry		
CH 360	Physiological Biochemistry	4
CH 461	Biochemistry	4
CH 462	Biochemistry	4
CH 463	Biochemistry	4
CH 464	RNA Biochemistry	4
CH 465	Physical Biochemistry	4
CH 466	Structural Biochemistry	4
CH 467	Biochemistry Laboratory	4
Physics		
PHYS 351	Foundations of Physics II	4
PHYS 352	Thermal Physics and Statistical Mechanics I	4
PHYS 353	Thermal Physics and Statistical Mechanics II	4
PHYS 411	Mechanics	4
PHYS 412	Electricity and Magnetism I	4
PHYS 413	Electricity and Magnetism II	4
PHYS 421M	Partial Differential Equations: Fourier Analysis I	4
PHYS 431	Analog Electronics	4
PHYS 432	Digital Electronics	4
PHYS 481	Design of Experiments	4
Human Physiology		
HPHY 321	Human Anatomy I	5
HPHY 322	Human Physiology I	5
HPHY 323	Human Anatomy II	5
HPHY 324	Human Physiology II	5
HPHY 325	Human Anatomy and Physiology III	5
HPHY 362	Tissue Injury and Repair	4
HPHY 381	Biomechanics	4
HPHY 432	Neural Development	4
HPHY 436	Clinical Neuroscience	4

At least 12 upper-division credits must be completed in residence.