

Biological Science Courses for MS/PhD in Bioengineering

*Please note that not all courses will be offered every year/semester and it is up to the student to confirm they have the appropriate background/prerequisites for the course.

*Please also note that there may be alternative courses that will meet the requirement, they should be 500-level or greater and should generally be taught outside of SEAS. You should review the available courses found on the Registrar's website:
<http://www.upenn.edu/registrar/>

BE 530	Theoretical and Computational Neuroscience
BE 555	Nanoscale Systems Biology
BIOL 404	Immunobiology
BIOL 526	Experimental Principles in Cell and Molecular Biology
BIOL 527	Genetics for Computational Biology
BIOL 540	Genetic Analysis
BIOM 501	Mechanisms of Disease and Therapeutics
BIOM 600	Cell Biology
BIOM 502	Mechanisms of Disease
BIOM 510	Case Studies in Translational Research
BMB 508	Molecular Biophysics I
BMB 509	Macromolecular Biophysics II
BMB 567	Bioinorganic Chemistry
BMB 585	Macromolecular Biophysics: Principles and Methods
BMB 590	Biological Physics
BMB 614	Membrane Structural Biology
BMB 616	Medical Problems in Modern Biochemistry
BMB 622	Physical Principles of Mechano-Enzymes
BMB 624	Ion Channels and Pumps
BMB 625	Optical Methods in Cell Physiology
BMB 626	Mass Spectrometry and Proteomics
BSTA 509	Introduction to Epidemiology
BSTA 510	Introduction to Anatomy and Physiology
CAMB 511	Principles of Development
CAMB 526	Experimental Principles in Cell and Molecular Biology
CAMB 532	Human Physiology
CAMB 550	Genetic Principles
CAMB 597	Developmental Neuroscience
CAMB 609	Vaccines and Immunization Therapy
CAMB 610	Molecular Basis of Gene Therapy
CAMB 638	Advanced Seminar in Cell Death and Survival
CAMB 752	Genomics
CAMB 609	Vaccines and Immune Therapeutics
CIS 535	Introduction to Bioinformatics
GCB 527	Genetics for Computational Biology

IMUN 506	Immune Mechanisms
IMUN 508	Immune Responses
IMUN 609	Vaccines and Immune Therapeutics
INSC 575	Neurobiology of Learning and Memory
MEAM 555	Nanoscale Systems Biology
MMP 511	Image- Based Anatomy
MMP 512	Radiation Biology
NGG 572	Neuroscience Core Ii
NGG 573	Neuroscience Core III
NGG 575	Neurobiology of Learning and Memory
NGG 587	Neurobiology of Disease
NGG 592	Cognitive Neuroscience of Memory
NGG 593	Structural Neurobiology
NGG 594	Theoretical and Computational Neuroscience
NGG 598	Advanced Systems Neuroscience
NGG 618	Recovery after Neural Injury
NGG 631	Cognitive Neuroscience Affect
NGG 632	Cognitive Neuroscience Vision
PHRM 531	Intro to Genome Science
PHRM 570	Principles of Cardiovascular Biology
PHRM 600	Medical Pharmacology
PHRM 623	Fundamentals of Pharmacology