MINOR IN BIOMEDICAL ENGINEERING

The Biomedical Engineering Minor (BME) program requires a total of seven subjects selected from a series of categories as outlined below.

Programming and Computational Modeling Core			
6.100A	Introduction to Computer Science Programming in Python	6	
6.100B	Introduction to Computational Thinking and Data Science	6	
Mathematics Co	re		
Select two of the	following options: 1	24	
Option A			
18.03	Differential Equations		
Option B			
18.06	Linear Algebra		
Option C			
Select one of	the following:		
1.010	Probability and Causal Inference		
6.3700	Introduction to Probability		
9.07	Statistics for Brain and Cognitive Science		
Human Physiolo	gy Core		
Select one of the	following:	12	
6.4820[J]	Quantitative and Clinical Physiology		
7.20[J]	Human Physiology ²		
9.01	Introduction to Neuroscience		
Biomedical Engineering and Applications			
Select three of the following: ^{3, 4} 30-30			
2.184	Biomechanics and Neural Control of Movement ²		
2.750[J]	Medical Device Design ²		
3.052	Nanomechanics of Materials and Biomaterials ²		
3.054	Cellular Solids: Structure, Properties, Applications ²		
3.055[J]	Biomaterials Science and Engineering ²		
6.4530[J]	Principles and Practice of Assistive Technology ²		
6.4810[J]	Cellular Neurophysiology and Computing		
7·37[J]	Molecular and Engineering Aspects of Biotechnology ²		
9.17	Systems Neuroscience Laboratory ²		
9.24	Disorders and Diseases of the Nervous System ²		

Total Units		78-84
	Deep Learning in the Life Sciences	
20.390[J]	Computational Systems Biology:	
20.352	Principles of Neuroengineering	
20.345	Bioinstrumentation Project Lab ²	
20.310[J]	Molecular, Cellular, and Tissue Biomechanics ²	
10.495	Molecular Design and Bioprocess Development of Immunotherapies ²	
10.443	Future Medicine: Drug Delivery, Therapeutics, and Diagnostics ²	
10.424	Pharmaceutical Engineering ²	
9.40	Introduction to Neural Computation ²	
9.35	Perception	
9.26[J]	Principles and Applications of Genetic Engineering for Biotechnology and Neuroscience ²	

A maximum of four subjects taken for the biomedical engineering minor can also count toward a major or another minor.

- $Contact\ minor\ advisor\ for\ additional\ 6-12\ unit\ subjects\ that\ satisfy$ requirement.
- Subject has prerequisites that are outside of the program.
- At least one of the subjects must be taken outside the student's major. See the BME Minor website (https://be.mit.edu/academic-programs/ current-undergraduate/minor-programs/minor-program-biomedicalengineering) for potential substitutions.
- Approved biomedical engineering UROPs with sufficient medical focus carried out by students with junior or senior standing with prior approval may be substituted for up to 12 units.

Students should consult with their departmental BME minor advisor, preferably in sophomore year and no later than Add Date of spring term junior year, to choose a course of study, which must be approved in advance by the BME minor advisor. For the list of BME minor advisors and other information, please visit the Biological Engineering website (http://be.mit.edu) or contact the BE Academic Office, Room 16-267, 617-253-1712.