

BME Minor program – Curriculum Advising Sheet

All students must take 12 credit hours total from the lists below including BME 2000 and 1 additional course from Set A: either physiology or other biological science course. The remainder of the courses – 6 credit hours (i.e., 2 courses) – should be selected from those listed in Set B, starting with at least one 'Domain' course.

*Please note that an **Undergraduate Minor Program Form** must be signed by both your Minor and Major advisors in order to graduate with the Minor.

SET A

Course no.	Title	Cr Hrs	Prerequisites	Offered
Varies	Physiology or biological science course (2000 level or higher)	3+	Varies with course	
Examples: Anatomy 2220, Bio 2100, EEOB 3510, etc.				

AND

BME 2000	Introduction to Biomedical Engineering	3	Pre-reqs: Physics 1250, Math 1172, Chem 1220, Engr 1182 or equiv Concur: ME 2040, Bio 1113, Math 2177 or equivalent courses	Au only
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SET B

Course no.	Title	Cr Hrs	Prerequisites	Offered
BME Domain Courses				
Bioimaging	BME 4110	3	BME 2000, Physics 1251, Math 2177, Anat 2220 or EEOB 2520	Au
Biotransport	BME 4210	3	BME 2000, Math 2177, ME 3500	Sp
Biomaterials	BME 4310	3	BME 2000, MSE 2010, Math 2177, and concur EEOB 3510	Au and Sp
Biomechanics	BME 4410	3	BME 2000, Math 2177, ME 2040 and concur EEOB 3510	Au and Sp
Molecular, Cell & Tissue Engineering	BME 4510	3	BME 2000, Math 2177, Biochem 4511, EEOB 3510	Au and Sp
Biomedical Micro/Nanotechnology	BME 4610	3	BME 2000, MSE 2010, Biochem 4511	Sp
Advanced BME Courses				Typically Offered
Cardiovascular Bioengineering	BME 5001	3	Senior or grad standing in Engineering, Medicine, or Science; or permission of instructor	Au
Biomed Microscopic Imaging	BME 5110	3	BME 4110 or equiv, and senior or grad standing; or permission of instructor	Sp
Biomedical Optics	BME 5120	3	BME 4110 or equiv, and senior or grad standing; or permission of instructor	Sp
Biomedical Ultrasound	BME 5186	3	BME 4110 or equiv, and senior or grad standing; or permission of instructor	Au
Advanced Biomaterials	BME 5310	3	BME 4310 or equiv, and senior or grad standing; or permission of instructor	Sp
Hard Tissue Biomaterials	BME 5353	3	BME 5310; or permission of instructor	Au
Mechanobiology	BME 5420	3	BME 4410 and senior or grad standing; or permission of instructor	Au
Tissue Mechanics	BME 5421	3	BME 4410 or equiv, and senior or grad standing; or permission of instructor	Au
Finite Element Applications in BME	BME 5430	3	Math 2177 or equiv, Anat 2220 or equiv, and senior or grad standing; or permission of instructor	Sp

Cellular Mechanics	BME 5470	3	BME 4410 or equiv, ME 2040 or equiv, and senior or grad standing; or permission of instructor	Au
Advanced Tissue Engineering	BME 5510	3	BME 4510 or equiv, and senior or graduate standing; or permission of instructor	Au
Cell Engineering	BME 5520	3	BME 4510 or equiv, and senior or grad standing; or permission of instructor	Au
Excitable Cell Engineering	BME 5580	3	Math 2177 or equiv., EEOB 3510 or equiv., or grad standing in BME or permission of instructor	Sp
Biomedical Microdevices	BME 5610	3	BME 4610, and senior or grad standing; or permission of instructor	Sp
Cellular Nanotechnology	BME 5635	3	Senior or grad standing in Engineering; or permission of instructor	Sp
Medical Device Design	BME 5639	3	BME 2000, and senior or grad standing; or permission of instructor	Sp
Biomedical Nanotechnology I	BME 5661	3	BME 4610 or equiv, and senior or grad standing; or permission of instructor	Au
Biomedical Nanotechnology II	BME 5662	3	BME 5661; or permission of instructor	Sp
Micro and Nano Fluidics	BME 5663	3	ME 3503 or equiv, or grad standing, or permission of instructor	Sp
BioMEMS Microfabrication	BME 5667	3	BME 5610 or permission of instructor	Varies
Biomedical Transducers	BME 5668	3	Senior or grad standing in engineering; or permission of instructor	Varies
Advanced Medical Device Design	BME 5669	3	BME 5639; or permission of instructor	Sp

Please contact Lindsay Tolchin (tolchin.6@osu.edu) if you have questions. Thank you!