

Biomedical Engineering Sample Curriculum

	WashU Course	Fall	Spring
Home Institution (3-4 years)			
Calculus II, III	Math 132, 233	3	3
Differential Equations	Math 217	3	
General Physics I, II	Physics 191, 192	3	3
General Physics Lab I, II	Physics 191L, 192L	1	1
Introduction to Computer Science	CSE 131	3	
General Chemistry I, II	Chem 111A, 112A	3	3
General Chemistry Laboratory I, II	Chem 151, 152	2	2
Principles of Biology I (cellular, molecular and developmental biology)	Bio 2960		4
English Composition	CWP 100		3
Humanities and social science electives		9	6
Additional home institution degree requirements		varies	varies
90 units or more of transferable college credit	Subtotal	90+ to transfer	
First Year of Dual Degree Curriculum at WashU			
Numbers in bold denote courses typically offered in both fall and spring semesters			
Introduction to Biomedical Engineering	BME 140	3	
Biomechanics	BME 240	3	
Biomechanics Lab	BME 240L	1	
Bioengineering Thermodynamics	BME 320B	3	
Engineering Mathematics A	ESE 318	3	
Engineering Mathematics B	ESE 319	3	
Introduction to Biomedical Circuits	BME 220		4
Quantitative Physiology II	BME 301B		4
Physiological Control Systems	Bio 3058		2
Technical Writing	ENGR 310		3
Engineering Tier II Course from approved list			3
	Subtotal	16	16
Second Year of Dual Degree Curriculum at WashU			
Quantitative Physiology I	BME 301A	4	
Biomedical Engineering Design I	BME 401A	2	
Engineering Statistics with Probability	ENGR 328	3	
BME Tier I Courses from approved list		3	3
Engineering Tier I or II Courses from approved list		3	3
Transport Phenomena in BME	BME 366		3
Biomedical Engineering Design II	BME 401B		2
Engineering Professional Practice (consider ENGR 450F)	ENGR 4501, 4502, 4503		3
	Subtotal	15	14
60 units or more must be taken at Washington Univ.	Total	60+ for WU degree	

Master's degree candidates should consult with their faculty advisor regarding graduate courses taken third year. Note that some graduate courses may be necessary second year. 84 minimum WashU residency units are required for the Master's degree.