

### Biomedical Engineering Sample Curriculum

	WashU Course	Fall	Spring
<b>Home Institution (3-4 years)</b>			
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
Engineering/Science electives		3	3
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	<b>Subtotal</b>	<b>90+ to transfer</b>	
<b>First Year of Dual Degree Curriculum at WashU</b>			
Numbers in <b>bold</b> denote courses typically offered in both fall and spring semesters			
Introduction to Biomedical Engineering	BME 140	3	
Biomechanics	<b>BME 240</b>	3	
Biomechanics Lab	<b>BME 240L</b>	1	
Bioengineering Thermodynamics	BME 320B	3	
Engineering Mathematics A	<b>ESE 318</b>	3	
Engineering Mathematics B	<b>ESE 319</b>	3	
Physiological Control Systems	Bio 3058		2
Introduction to Biomedical Circuits or Introduction to Electrical and Electronic Circuits	<b>BME 220</b> or <b>ESE 230</b>		4
Technical Writing	<b>ENGR 310</b>		3
Quantitative Physiology II	BME 301B		4
Engineering Tier II Course from approved list			3
	<b>Subtotal</b>	<b>16</b>	<b>16</b>
<b>Second Year of Dual Degree Curriculum at WashU</b>			
Quantitative Physiology I	BME 301A	4	
Biomedical Engineering Design I	BME 401A	2	
Engineering Statistics with Probability	<b>ENGR 328</b>	3	
BME Tier I Courses from approved list		3	3
Engineering Tier I or II Courses from approved list		3	3
Biomedical Engineering Design II	BME 401B		2
Transport Phenomena in BME	<b>BME 366</b>		3
Engineering Professional Practice (consider ENGR 450F)	<b>ENGR 4501, 4502, 4503</b>		3
	<b>Subtotal</b>	<b>15</b>	<b>14</b>
60 units or more must be taken at Washington Univ.	<b>Total</b>	<b>60+ for WU degree</b>	

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.