

### 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 117A, 118A	4	4
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
Principles of Biology II (genetics)	Bio 2970	4	
Computer Science (some MATLAB preferred)	CSE 131	3	
Engineering/Science electives		3	3
English Composition	CWP 100		3
Humanities and social science electives		9	9
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>			
Introduction to Biomedical Engineering	BME 140	3	
Biomechanics	BME 240		3
Biomechanics Lab	BME 240L		1
Physiological Control Systems	Bio 3058		2
Introduction to Electrical and Electronic Circuits	ESE 230	4	
Technical Writing	ENGR 310		3
Bioengineering Thermodynamics	BME 320B	3	
Engineering Mathematics A	ESE 318	3	
Engineering Mathematics B	ESE 319	3	
Quantitative Physiology II	BME 301B		4
Engineering Leadership and Team Building	ENGR 4502		1
	<b>Subtotal</b>	<b>16</b>	<b>14</b>
<b>Second Year of Dual Degree Curriculum at WashU</b>			
Quantitative Physiology I	BME 301A	4	
Biomedical Engineering Design I	BME 401A	2	
Biomedical Engineering Design II	BME 401B		2
Transport Phenomena in BME	BME 366		3
Engineering Electromagnetics Principles	ESE 330		3
Probability and Statistics for Engineering	ESE 326	3	
BME Tier I Courses from approved list	BME 3XX/4XX/5XX	3	3
Engineering Tier I or II Courses from approved list		3	3
Engineering Practice and Professional Values	ENGR 4501/4503	1	1
	<b>Subtotal</b>	<b>16</b>	<b>15</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 some graduate courses may be necessary second year. 84 minimum WashU residency units are required for the Master's degree.