

## Environmental Engineering Sample Curriculum

	WU Course	Fall	Spring
<b>Home Institution (3-4 years)</b>			
Calculus II, III	Math 132, 233	3	3
Differential Equations	Math 217	3	
General Chemistry I, II	Chem 111A, 112A	3	3
General Chemistry Laboratory I, II	Chem 151, 152	2	2
General Physics I, II	Physics 191, 192	3	3
General Physics Lab I, II	Physics 191L, 192L	1	1
Organic Chemistry I and Lab	Chem 261	4	
Environmental Engineering Elective*			3
Intro Computer Science (+ MATLAB experience recommended)	CSE 131		3
Principles of Biology I (cellular, molecular & developmental bio)	Bio 2960		4
English Composition	CWP 100	3	
Humanities and social science electives		6	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			
Topics in Energy, Environmental and Chemical Engineering	EECE 103	1	
Process Analysis and Thermodynamics	EECE 205	4	
Green Engineering	EECE 311	3	
Engineering Mathematics A	<b>ESE 318</b>	3	
Engineering Statistics with Probability	<b>ENGR 328</b>	3	
Technical Writing	<b>ENGR 310</b>	3	
Computational Modeling in EECE	EECE 202		3
Introduction to Environmental Engineering	EECE 210		3
Transport Phenomena I: Basics and Fluid Mechanics	EECE 301		3
Physical and Chemical Processes for Water Treatment	EECE 533		3
Environmental humanities and social science elective			3
Natural science elective			3
	<b>Subtotal</b>	<b>17</b>	<b>18</b>
<b>Second Year of Dual Degree Curriculum at WashU</b>			
Water Resources Engineering	EECE 308	3	
Air Quality Engineering with Lab	EECE 314	4	
Environmental Biotechnology	EECE 407	3	
Process Design, Economics, and Simulation	EECE 409	2	
Environmental Organic Chemistry or Aquatic Chemistry	EECE 531 or 505	3	
Environmental Engineering Electives*		3	6
Environmental Engineering Fate and Transport	EECE 309		3
Environmental Engineering Capstone	EECE 404		3
Environmental Engineering Laboratory	EECE 425		3
Engineering Professional Practice (consider ENGR 450F)	<b>ENGR 4501, 4502, 4503</b>		3
	<b>Subtotal</b>	<b>18</b>	<b>18</b>
60 units or more must be taken at Washington Univ.	<b>Total</b>	<b>60+ for WU degree</b>	

\*Of the 12 total required Environmental Engineering Electives units, 3 must be taken in EECE. The remaining 9 units are often transferred in from the home institution; upper division chemistry, mathematics, and physics courses are often acceptable. This sample curriculum assumes that only 3 units are transferred in.

MEng candidates may choose to earn both degrees after the third year, which allows for spreading out the coursework. Consult with EECE faculty advisor regarding a modified undergraduate/graduate course sequence. 84 minimum WashU residency units are required for MEng degree.