

Environmental Engineering Sample Curriculum

	WU Course	Fall	Spring
Home Institution (3-4 years)			
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	
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	9
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			
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	ESE 318	3	
Engineering Statistics with Probability	ENGR 328	3	
Technical Writing	ENGR 310	3	
Computational Modeling in EECE	EECE 202		3
Thermodynamics II in EECE	EECE 204		3
Transport Phenomena I: Basics and Fluid Mechanics	EECE 301		3
Introduction to Environmental Engineering	EECE 210		3
Physical and Chemical Processes for Water Treatment	EECE 533		3
Natural Science Elective**			3
	Subtotal	17	18
Second Year of Dual Degree Curriculum at WashU			
Environmental Fate and Transport	EECE 309	3	
Environmental Organic Chemistry or Aquatic Chemistry	EECE 531 or 505	3	
Air Quality Engineering with Lab	EECE 314	4	
Environmental Biotechnology	EECE 407	3	
Process Design, Economics, and Simulation	EECE 409	2	
Environmental Engineering Electives***		3	9
Environmental Engineering Laboratory	EECE 425		3
Environmental Engineering Capstone	EECE 404		3
Engineering Professional Practice (consider ENGR 450F)	ENGR 4501, 4502, 4503		3
	Subtotal	18	18
60 units or more must be taken at Washington Univ.	Total	60+ for WU degree	

*One of the humanities/social science courses should focus on an issue such as environmental justice or environmental policy; otherwise, a suitable course can be taken at WashU to satisfy the EnvE major requirement for 3 units of an Environmental Humanities/Social Science Elective.

**Credit for the Natural Science Elective could be transferred in; potentially eligible course topics include ecology, geochemistry, hydrology, and soil science.

***Up to 3 units of upper division chemistry, mathematics, and physics courses are often accepted as transfer credit for the Environmental Engineering Electives. At least 9 Environmental Engineering Electives units must be taken in the EECE department.

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.

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