

Dual Degree Program

Systems Science & 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 Physics I, II	Physics 117A, 118A	4	4
General Chemistry I	Chem 111A	3	
General Chemistry Laboratory I	Chem 151	2	
Computer Science Elective	CSE 131		3
Outside concentration (in one science/math area)		6	6
English Composition	ECMP 100		3
Humanities and social science electives		9	9
Additional home institution degree requirements		varies	varies
	Subtotal	60+ to transfer	
First Year of Dual Degree Curriculum at WU			
Intro to Systems Science & Engineering	ESE 251		3
Matrix Algebra	MATH 309	3	
Engineering Mathematics A	ESE 318	3	
Engineering Mathematics B	ESE 319		3
Probability and Statistics for Engineering	ESE 326		3
Signals and Systems	ESE 351	3	
Operations Research	ESE 403	3	
Control Systems	ESE 441		3
SSE elective laboratory	ESE 447		3
Computer Science elective from the approved list	CSE 132, 200 or 241	3	
	Subtotal	15	15
Second (Final) Year of Dual Degree Curriculum at WU			
SSE electives with engineering topics units		6	6
Systems Engineering Laboratory	ESE 448	3	
System Design Project	ESE 499	3	
Engineering course with engineering topics units			6
Engineering Ethics and Sustainability	ENGR 4501		1
Technical Writing	ENGR 310	3	
Engineering Professional Practice* or Free Elective	ENGR 4502, 4503		2
	Subtotal	15	15
60 units or more must be taken at Washington Univ.	Total	60+ for WU degree	

In selecting elective courses, make sure to select enough courses with engineering topics units so that the total engineering topics units exceeds 45.

*Engineering Professional Practice required if student did not complete 300-400 social science course at their home institution