

Dual Degree Program

Chemical 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, II	Chem 111A, 112A	3	3
General Chemistry Laboratory I, II	Chem 151, 152	2	2
Organic Chemistry I and Lab	Chem 261	4	
Computer Science (MATLAB preferred)	CSE 200		3
Principles of Biology I (cellular, molecular & developmental bio)	Bio 2960		4
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 Environmental Engineering	ChE 262		3
Modeling and Computing in Chemical Engineering	ChE 275		3
Thermodynamics	ChE 320	3	
Analysis of Chemical Engineering Systems	ChE 351	3	
Mass Transfer Operations	ChE 357		3
Molecular Transport Properties	ChE 359		3
Transport Phenomena I	ChE 367		3
Engineering Mathematics A	ESE 318	3	
Engineering Mathematics B	ESE 319		3
Probability and Statistics for Engineering	ESE 326	3	
Engineering Professional Practice	EN 4501, 4052, 4503	3	
Chemical Engineering electives		3	
	Subtotal	18	18
Second (Final) Year of Dual Degree Curriculum at WU			
Materials Science	ChE 325	3	
Transport Phenomena II	ChE 368	3	
Heat Transfer	ChE 369		3
Chemical Process Dynamics and Control	ChE 462	3	
Chemical Reaction Engineering	ChE 471	3	
Chemical Engineering Laboratory	ChE 473A	3	
Process and Product Design	ChE 478A		3
Technical Writing	ENGR 310		3
Chemical Engineering electives		3	9*
	Subtotal	18	18
60 units or more must be taken at Washington Univ.	Total	60+ for WU degree	

*18 credits in the spring semester of second year presuming 3 credits of courses taken at home institution will qualify as Chemical Engineering Electives. Upper division chemistry, mathematics, and physics courses are often acceptable. If no courses qualify, then an additional 3 credits of Chemical Engineering Electives will be required.