

Data Science Sample Curriculum

	WashU Course	Fall	Spring
Home Institution (3-4 years)			
Calculus II, III	Math 132, 233	3	3
General Physics I, II	Physics 191, 192	3	3
General Physics Lab I, II	Physics 191L, 192L	1	1
Intro Computer Science, Computer Science elective	CSE 131, CSE XXX	3	3
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			
Algorithms and Data Structures	CSE 247	3	
Matrix Algebra	Math 309	3	
Introduction to Data Science	CSE 217A	3	
Technical Writing	ENGR 310	3	
Statistics for Data Science I	Math 3211	3	
Statistics for Data Science II	Math 4211		3
Data Manipulation and Management	CSE 314A		3
Data Science Technical Electives*	CSE/Math		6
Ethics and Professional Responsibility **	ENGR 4501, 4502, 4503		3
	Subtotal	15	15
Second Year of Dual Degree Curriculum at WashU			
Linear Statistical Models	Math 439	3	
Introduction to Machine Learning	CSE 417T	3	
Practicum***	CSE 400E	3	
Data Science Technical Electives*	CSE/Math	3	3
Free electives		3	12
	Subtotal	15	15
60 units or more must be taken at Washington Univ.	Total	60+ for WU degree	

*Data Science Technical Electives

Four courses from Mathematics & Statistics or Computer Science & Engineering can be chosen from an approved list, with the following caveats:

- At least one course from Mathematics & Statistics (at the 400 level or above)
- At least one course from CSE (ending in S, T, M, or A)

**Ethics and Professional Responsibility Requirement

- One course (3 units) from an approved list [EN 4501/4502/4503 recommended]

***Practicum Requirement

- 3 units of an approved comprehensive data science project or experience

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.