MASTER OF SCIENCE IN THE FIELD OF QUANTITATIVE SOCIAL SCIENCES

The interdisciplinary master of science (MS) in quantitative social sciences (QSS) focuses on quantitative research techniques and strategies. The program integrates the perspectives and research methods of four social science disciplines: economics, political science, sociology, and statistics. The MS in QSS provides students with rigorous training in quantitative research with an emphasis on written and oral communication about research techniques and findings applicable to problems relevant to a range of fields and industries.

ADMISSIONS

Standardized test scores: GRE general test (institutional code 5246)

Language:	The Test of English as a Foreign Language (TOEFL), the academic International English Language Testing System (IELTS), or the PTE Academic is required of all applicants except those who hold a bachelor's, master's, or doctoral degree from a college or university in the United States or from an institution located in a country in which English is the official language, provided English was the language of instruction. Minimum scores: Academic IELTS: an overall band score of 7.0 with no individual score below 6.0; or TOEFL: 600 on paper-based or 100 on Internet-based; or PTE Academic: 53
	Two (2) letters of recommendation
	Degree of BA or BS in Political Science, Statistics, Economics, Sociology, or a related field
	Successful completion of an undergraduate course in statistics
Statement of purpose:	In an essay of 250-500 words, state your purpose in undertaking graduate study in your chosen field. Include your academic objectives, research interests, and career plans. Also, please discuss your related qualifications, including collegiate, professional, and community activities, and any other substantial accomplishments not already mentioned on the application.

REQUIREMENTS

The following requirements must be fulfilled:

The general requirements stated under Columbian College of Arts and Sciences, Graduate Programs (https://bulletin.gwu.edu/arts-sciences/#degreeregulationstext).

30 credits, including 12 credits in required core courses, 9 credits in selected quantitative courses, 3 credits in required skills courses, and 6 credits in elective courses.

Code	Title	Credits
Required		
Core courses		
QSS 6000	Seminar in Quantitative Social Science	
QSS 6001	Data Visualization	
QSS 6002	Probability and Statistical Modeling	
QSS 6500	Capstone Research	
Quantitative courses		
Three courses (9 credits) selected from the following:		
ECON 6335	Applied Financial Derivatives	
ECON 6378	Machine Learning for Economics	
PSC 8121	Causal Inference	
or ECON 6379	Causal Inference and Research Design	
or STAT 6230	Causal Inference	
PSC 8124	Multilevel Modeling	
PSC 8128	Surveys and Experiments	
PSC 8185	Topics in Empirical and Formal Political Analysis	
SOC 6291	Methods of Demographic Analysis	
STAT 6217	Design of Experiments	
STAT 6225	Longitudinal Data Analysis	
STAT 6231	Categorical Data Analysis	
STAT 6240	Statistical Data Mining	
STAT 6250	A/B Testing (Design and Analysis)	
STAT 6260	Statistical Deep Learning	
STAT 6287	Sample Surveys	
Skills courses		
QSS 6005	Topics in QSS Technical Skills (taken twice for a total of 3 credits) [*]	
Electives		
Two courses (6 credits) selected from graduate courses in political science, sociology, statistics, or another program or department with the permission of the program's director of graduate studies.		

*Technical skills courses are six-week modules for 1.5 credits per module. Students must take two technical skills courses, focused on different skills, in the same semester. Options might include Python, SQL & Databases, Machine Learning, Bayesian Statistics, and More in R. A fourth quantitative course may be substituted for the skills requirement with the approval of the program's director of graduate studies.