

Statistics & Data Science (BHA Concentration)

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BHA Statistics & Data Science Concentration

(81 units minimum)

In the BHA concentration in Statistics & Data Science, students develop and master a wide array of skills in computing, mathematics, statistical theory, and the interpretation and display of complex data. In addition, students with a BHA concentration in Statistics & Data Science gain experience in applying statistical tools to real problems in other fields and learn the nuances of interdisciplinary collaboration.

Prerequisites

These courses are not counted as part of your DC Concentration. They may be used to satisfy general education or free elective requirements.

		Units
21-120	Differential and Integral Calculus (prerequisite: 21-090)	10
21-256	Multivariate Analysis	9
or 21-259	Calculus in Three Dimensions	
21-240	Matrix Algebra with Applications	10
or 21-241	Matrices and Linear Transformations	
or 21-242	Matrix Theory	
15-110	Principles of Computing	10
or 15-112	Fundamentals of Programming and Computer Science	

Note: 21-240, 21-241, 21-242 must be completed before taking 36-401 Modern Regression. 21-241 and 21-242 are intended only for students with a very strong mathematical background.

Statistics Core (6 courses, 54 units)

36-202	Methods for Statistics & Data Science	9
or 36-290	Introduction to Statistical Research Methodology	
or 36-309	Experimental Design for Behavioral & Social Sciences	
36-235	Probability and Statistical Inference I - (recommended)	9
or 36-225	Introduction to Probability Theory	
36-236	Probability and Statistical Inference II - (recommended)	9
or 36-226	Introduction to Statistical Inference	
36-350	Statistical Computing	9
36-401	Modern Regression	9
36-402	Advanced Methods for Data Analysis	9

Special Topics and Electives (3 courses, 27 units)

Students must take a total of three courses from Special Topics (numbered 36-46x-47x) and Statistics Electives listed below. Students will consult with the concentration advisor to select the Special Topics and Electives courses that best fit for their areas of interest.

36-303	Sampling, Survey and Society	9
36-311	Statistical Analysis of Networks	9
36-313	Statistics of Inequality and Discrimination	9
36-315	Statistical Graphics and Visualization	9
36-318	Introduction to Causal Inference	9
36-319	Statistics and Machine Learning for the Physical Sciences	9
36-4xx	36-46x-47x Special Topics (topics and offerings vary)	9
36-490	Undergraduate Research	9
36-493	Sports Analytics Capstone	9
36-497	Corporate Capstone Project	9