## **BHA-Statistics**

## Bachelor of Humanities and Arts (BHA)

## **Dietrich College (DC) Concentration in Statistics**

81 units (minimum)

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In the BHA concentration in Statistics, 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 gain experience in applying statistical tools to real problems in other fields and learn the nuances of interdisciplinary collaboration.

BHA students take at least 9 courses in their DC concentration, for a minimum of 81 units. A completed DC Concentration Declaration Sheet must be approved by the concentration advisor and submitted to the BXA office by spring mid-semester break of the student's sophomore year. BHA students who are admitted through internal transfer must have chosen a DC concentration at the time of their application, which serves as declaration.

## **Prerequisites**

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

21-120 21-256 or 21-250	Differential and Integral Calculus Multivariate Analysis Calculus in Three Dimensions (10)	10 9
or 21-239 21-240 or 21-241	Matrix Algebra with Applications Matrices and Linear Transformations (11)	10
or 21-242 15-110 or 15-112	Matrix Theory (11) Principles of Computing Fundamentals of Programming and Computer Science (12)	10

Note: 21-240/241/242 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 or 26-200	Methods for Statistical & Data Science	9
36-235	Probability and Statistical Inference I (recommended)	9
or 36-225 36-236	Introduction to Probability Theory Probability and Statistical Inference II (recommended)	9
or 36-226 36-350	Introduction to Statistical Inference Statistical Computing	9
36-401 36-402	Modern Regression Advanced Methods for Data Analysis	9 9
Special To	ppics and Electives	(3 courses, 27 units)

**Special Topics and Electives** 

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 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
36-46x-47x	Special Topics (topics and offerings vary)	9
36-490	Undergraduate Research	9
36-497	Corporate Capstone Project	9