STATISTICS (B.S.)

Required course work includes the university requirements (see regulation J-3) and:

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<th>Title</th>
<th>Hours</th>
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<tr>
<td>MATH 170</td>
<td>Calculus I</td>
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<td>MATH 175</td>
<td>Calculus II</td>
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<td>MATH 330</td>
<td>Linear Algebra</td>
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Select one of the following options: 39-58

- General (p. 1)
- Actuarial Science and Finance (p. 1)

Total Hours 53-72

A. General Option

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<td>Survey Sampling Methods</td>
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<tr>
<td>STAT 431</td>
<td>Statistical Analysis</td>
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<tr>
<td>STAT 452</td>
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Select two of the following: 6

- CS 120 Computer Science I
- MATH 183 Introduction to Data Science in Python
- STAT 426 SAS Programming
- STAT 427 R Programming

Select 12 credits from the following: 12

- CS 479 Data Science
- MATH 310 Ordinary Differential Equations
- MATH 428 Numerical Methods
- MATH 437 Mathematical Biology
- MATH 438 Mathematical Modeling
- MATH 471 Introduction to Analysis I
- MATH 483 Foundations of Machine Learning
- MIS 455 Data Management for Big Data
- STAT 414/514 Nonparametric Statistics
- STAT 417/517 Statistical Learning and Predictive Modeling
- STAT 418 Multivariate Analysis
- STAT 433 Econometrics
- STAT 435/535 Introduction to Bayesian Statistics
- STAT 456 Enterprise Quality Management

Total Hours 53-72

Courses to total 120 Credits for this degree

B. Actuarial Science and Finance Option

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<tr>
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<th>Hours</th>
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<td>MATH 452</td>
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<tr>
<td>400-level MATH courses: Three additional courses chosen from MATH course numbered 400 and above. May include STAT 422.</td>
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Supporting Courses

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<tr>
<th>Code</th>
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<td>ACCT 201 Introduction to Financial Accounting</td>
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<tr>
<td>ACCT 202 Introduction to Managerial Accounting</td>
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<td>FIN 301 Financial Resources Management</td>
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<td>STAT 251 Statistical Methods</td>
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<td>or STAT 301 Probability and Statistics</td>
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<td>STAT 431 Statistical Analysis</td>
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<td>STAT 433 Econometrics</td>
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<tr>
<td>or STAT 436 Applied Regression Modeling</td>
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Select two course from the following: 6

- CS 120 Computer Science I
- MATH 183 Introduction to Data Science in Python
- STAT 426 SAS Programming
- STAT 427 R Programming

Select one of the following: 4-6

- ECON 201 Principles of Macroeconomics
- ECON 202 Principles of Microeconomics
- ECON 272 Foundations of Economic Analysis

Select three courses from the following: 7-9

- ECON 351 Intermediate Macroeconomic Analysis
- ECON 352 Intermediate Microeconomic Analysis
- FIN 302 Intermediate Financial Management
- FIN 381 International Finance
- FIN 408 Security Analysis
- FIN 463 Portfolio Management
- FIN 464 Derivatives and Risk Management
- FIN 465 Introduction to Market Trading
- FIN 469 Risk and Insurance
- MATH 455 Applied Actuarial Science
- MATH 483 Foundations of Machine Learning

Total Hours 53-57

Courses to total 120 credits for this degree

General Option

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<th>Term</th>
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<td>ENGL 101 Writing and Rhetoric I</td>
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<td>MATH 143 College Algebra</td>
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<td>Scientific Ways of Knowing Course</td>
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### Actuarial Science and Finance Option

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<td>MATH 143 College Algebra</td>
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<td>Social and Behavioral Ways of Knowing Course</td>
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The degree map is a guide for the timely completion of your curricular requirements. Your academic advisor or department may be contacted for assistance in interpreting this map. This map is not reflective of your academic history or transcript and it is not official notification of completion of degree or certificate requirements. Please contact the
Registrar’s Office regarding your official degree/certificate completion status.

**General Option**
1. The student can apply fundamental theory in probability and statistical inference.
2. The student can apply and evaluate statistical models.
3. The student can apply statistical computing skills for data analysis and data science.
4. The student can demonstrate effective communication skills.

**Actuarial Science and Finance Option**
1. The student can apply statistical computing skills for data analysis and data science.