

# APPLIED STATISTICS

## BACHELOR OF SCIENCE IN APPLIED STATISTICS DATA SCIENCE OPTION

*Student interested in Mathematics for Teacher Licensure, click here.*

### Curriculum

The matrix below is a sample plan for all coursework required for this program.

#### Freshman

| Fall  | Credits   |
|---|-----------|
| ENGL 1013 Composition I <sup>1</sup>            | 3         |
| USHG 1XXX U S HISTORY & GOVERNMENT <sup>1</sup> | 3         |
| MATH 1001 Orientation to Mathematics            | 1         |
| MATH 2914 Calculus I                            | 4         |
| BUAD 2003 Business Information Systems          | 3         |
| <b>Total Hours</b>                              | <b>14</b> |

| Spring   | Credits   |
|--|-----------|
| ENGL 1023 Composition II <sup>1</sup>                  | 3         |
| FAH 1XXX Fine Arts and Humanities Courses <sup>1</sup> | 3         |
| BDA 2003 Business Problem Solving                      | 3         |
| MATH 2924 Calculus II                                  | 4         |
| STAT 2163 Introduction to Statistical Methods          | 3         |
| <b>Total Hours</b>                                     | <b>16</b> |

#### Sophomore

| Fall   | Credits   |
|--|-----------|
| SS 1XXX Social Science Courses <sup>1</sup>      | 3         |
| MATH 2703 Discrete Mathematics                   | 3         |
| MATH 2934 Calculus III                           | 4         |
| STAT 2304 Programming Languages for Data Science | 4         |
| <b>Total Hours</b>                               | <b>14</b> |

| Spring  | Credits |
|---|---------|
| BDA 3053 Business Data Analysis                         | 3       |
| COMS 1011 Programming I Lab and COMS 1013 Programming I | 3       |
| COMS 1011 Programming I Lab                             | 1       |
| STAT 3113 Regression Analysis                           | 3       |

| Spring                          | Credits   |
|---------------------------------|-----------|
| STAT 3153 Applied Statistics    | 3         |
| Math/STAT Elective <sup>3</sup> | 3         |
| <b>Total Hours</b>              | <b>16</b> |

**Junior**

| Fall   | Credits   |
|--|-----------|
| FAH 1XXX Fine Arts and Humanities Courses <sup>1</sup> | 3         |
| SCIL 1XXX SCIENCE WITH LABORATORY <sup>1</sup>         | 4         |
| COMS 2203 Programming II                               | 3         |
| MATH 4003 Linear Algebra I                             | 3         |
| STAT 4163 Mathematical Statistics                      | 3         |
| <b>Total Hours</b>                                     | <b>16</b> |

| Spring   | Credits   |
|--|-----------|
| COMM 2173 Business and Professional Speaking   | 3         |
| SCIL 1XXX SCIENCE WITH LABORATORY <sup>1</sup> | 4         |
| COMS 2213 Data Structures                      | 3         |
| STAT 4153 Experimental Design and Analysis     | 3         |
| MATH/STAT Elective <sup>3</sup>                | 3         |
| <b>Total Hours</b>                             | <b>16</b> |

**Senior**

| Fall   | Credits   |
|--|-----------|
| SS 1XXX Social Science Courses Social Science <sup>1</sup> | 3         |
| STAT 4113 Categorical Data Analysis                        | 3         |
| STAT 4383 Machine Learning                                 | 3         |
| COMS Elective <sup>4</sup>                                 | 3         |
| Elective <sup>2</sup>                                      | 3         |
| <b>Total Hours</b>   | <b>15</b> |

| Spring                               | Credits |
|--------------------------------------|---------|
| MATH 4971 Mathematics Senior Seminar | 1       |
| COMS Elective <sup>4</sup>           | 3       |
| MATH/STAT Elective <sup>3</sup>      | 6       |
| Elective <sup>2</sup>                | 3       |

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| Spring             | Credits   |
|--------------------|-----------|
| <b>Total Hours</b> | <b>13</b> |

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>A minimum of 40 credit hours of the 120 total hours required for the B.S. degree must be 3000-4000 level courses.

<sup>3</sup>See catalog to assure pre-requisites are met. See advisor to select courses from: STAT 3183 Statistical Process Control, STAT 4393 Statistical Learning, MATH 4123 Mathematical Modeling, or a MATH/STAT course at the 3000-4000 level approved by advisor.

<sup>4</sup>See catalog to assure pre-requisites are met. See advisor to select courses from: COMS 3233 Database Design and Implementation, COMS 3243 Data Mining, COMS 4353 Artificial Intelligence, or a COMS course at the 3000-4000 level approved by advisor.