

# Data Science and Analysis BS, Supply Chain Analytics Emphasis

## General Education Requirements

Students must satisfy the university general education requirements. Many of the courses for the degree may be used to fulfill math proficiency, information literacy, social science, and math and life/natural sciences requirements. The program recommends students take ENGL 3130, Technical Writing or ENGL 3120, Business Writing, to satisfy the Junior-Level Writing requirement. Emphasis areas may require one of these courses. There is no foreign language requirement for the degree.

## Satisfactory/Unsatisfactory Option

Courses required for the major may not be taken on a satisfactory/unsatisfactory basis.

## Degree Requirements

The BS in Data Science and Analysis consists of a set of core courses along with an emphasis area.

### Core Course

|                           |   |     |
|---------------------------|---|-----|
| MATH 1800<br>or MATH 1100 | Analytic Geometry and Calculus I <sup>1</sup><br>Basic Calculus | 3-5 |
|---------------------------|---|-----|

### Statistics Course **3**

The Introduction to Statistics course should align with the student's Discipline Emphasis Area.

Choose one of the following:

|                 |  |
|-----------------|--|
| SOC/ANTHRO 3220 | Quantitative Data Analysis in Social Science Research    |
| BIOL 4122       | Biostatistics  |
| ECON 3100       | Economic Data and Statistics                             |
| CRIMIN 2220     | Statistical Analysis in Criminology and Criminal Justice |
| MATH 1320       | Introduction to Probability and Statistics               |
| PSYCH 2201      | Psychological Statistics                                 |
| POL SCI 3000    | Political Analysis                                       |
| SCMA 3300       | Business Analytics and Statistics                        |

### Additional Required Courses

|              |  |   |
|--------------|--|---|
| MATH 4005    | Exploratory Data Analysis with R                 | 3 |
| CMP SCI 1250 | Introduction to Computing                        | 3 |
| CMP SCI 4200 | Python for Scientific Computing and Data Science | 3 |
| CMP SCI 4342 | Introduction to Data Mining                      | 3 |

**Total Hours 18-20**

<sup>1</sup>

Students interested in the Computer Science emphasis area, the Mathematics Emphasis Area, or in taking additional mathematics courses should take MATH 1800.

## Emphasis Area Requirements

|                              |   |   |
|------------------------------|---|---|
| SCMA 3301                    | Introduction to Supply Chain Management                       | 3 |
| SCMA 3320                    | Advanced Supply Chain and Operations Management               | 3 |
| SCMA 4330                    | Business Logistics  | 3 |
| SCMA 4331                    | Applied Supply Chain Modeling                                 | 3 |
| SCMA 4350                    | Prescriptive Analytics and Optimization                       | 3 |
| Choose one of the following: |   | 3 |
| SCMA 3345                    | Predictive Analytics and Data Mining                          |   |
| SCMA 3390                    | Internship in Supply Chain and Analytics                      |   |
| SCMA 3398                    | Seminar in Supply Chain Management and Analytics <sup>1</sup> |   |
| SCMA 4389                    | Supply Chain Management Practicum                             |   |
| SCMA 4398                    | Advanced Topics in Supply Chain and Analytics <sup>1</sup>    |   |

**Total Hours 18**

<sup>1</sup>

Students must complete 3 credit hours in order to count the course as an elective.