Data Science and Analysis BS, Economics 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. 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 or MATH 1100

Statistics Course
The Introduction to Statistics course should align with the student's Discipline Emphasis Area.
Choose one of the following:
- SOC/ANTHRO 3220
- BIOL 4122
- ECON 3100
- CRIMIN 2220
- MATH 1320
- PSYCH 2201
- POL SCI 3000
- SCMA 3300
- MATH 4005
- CMP SCI 1250
- CMP SCI 4200
- CMP SCI 4342

Total Hours: 3

1 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
ECON 1001
ECON 1002
ECON 4110
ECON 4120
or ECON 4130
Choose one of the following: 3-4
- ECON 4040
- ECON 4120

Total Hours: 3-4

Learning Outcomes
Upon completion of the program, graduates will be able to:
- Apply knowledge of statistical data collection, analysis and quantitative modeling techniques
- Demonstrate proficiency in industry-standard programming languages that support data acquisition, retrieval and analysis
- Select, apply and build data-based models and visualizations to devise solutions to data science problems
- Effectively communicate technical results and recommendations in various formats to appropriate audiences
- Use economic reasoning to construct models to analyze economic phenomena and evaluate public policy at the micro and macro levels
- Use mathematical models to construct and analyze economic behavior
- Apply statistical concepts and data science methods to analyze real-world problems in economics