Master of Science – Data Science and Analytics
2025-2026

REQUIREMENTS

Admission Requirements

Candidates must satisfy all of the following:

1. **Grade point average of 3.0** (B) from all undergraduate coursework.
2. **Resume** of work experiences and accomplishments.
3. **Personal statement** of career goals and background experiences, including an explanation of how this program will help achieve educational and professional objectives.
4. **Recommendations:** Two professional or academic recommendations received online, addressing the candidate's potential for graduate study completion. You will provide the emails of two references, and they will be sent a link to fill out their online recommendation.
5. Candidates must possess knowledge of **programming**.
6. Candidates must possess a knowledge of **applied statistics**.

Degree Requirements

The Data Science and Analytics (M.S.) program requires a minimum of 36 credits.

Computing Requirements (12 credits)

- CIS 635 Knowledge Discovery and Data Mining
- CIS 660 Data Engineering
- CIS 671 Information Visualization
- One of the following:
  - CIS 677 High-Performance Computing
  - CIS 678 Machine Learning

Statistics Requirements (12 credits)

- STA 518 Statistical Computing and Graphics with R
- STA 631 Statistical Modeling and Regression
- STA 632 Statistical Modeling II
- STA 526 Multivariate Data Analysis

Professional Science Requirements (9 credits)

- PSM 650 Ethics and Professionalism in Applied Science
- PSM 662 Seminar in Professional Sci. Practice (2 credits)
- PSM 691 Internship (4 credits)

Electives Requirements (3 credits)

- Elective must be approved by Data Science and Analytics Graduate Program Director.
  (CIS 661 is NOT allowed as an elective)

PLAN OF STUDY SEQUENCES

First Year – Fall Start

Fall

CIS 660 Data Engineering
CIS 678 Machine Learning or CIS 677
PSM 662 Seminar in Prof. Science Practice
PSM 691 Internship (section 10) (only if needing 9 credits)

Winter

CIS 635 Knowledge Discovery and Data Mining
CIS 671 Information Visualization
STA 518 Statistical Computing and Graphics with R

Second Year

Fall

PSM 650 Ethics and Professionalism in Applied Science
STA 631 Statistical Modeling and Regression
Elective (must be approved)

Winter

PSM 691 Internship
STA 526 Multivariate Data Analysis
STA 632 Statistical Modeling II

First Year – Winter Start

Winter

CIS 660 Data Engineering
CIS 678 Machine Learning or CIS 677
PSM 650 Ethics and Professionalism in Applied Science

Fall

CIS 635 Knowledge Discovery and Data Mining
PSM 662 Seminar in Prof. Science Practice
PSM 691 Internship (section 10) (only if needing 9 credits)
STA 518 Statistical Computing and Graphics with R

Second Year

Winter

CIS 671 Information Visualization
STA 631 Statistical Modeling and Regression
Elective (must be approved)

Fall

PSM 691 Internship
STA 526 Multivariate Data Analysis
STA 632 Statistical Modeling II