

DATA SCIENCE - GRADUATE CERTIFICATE

Online (Code 181-601)

The multidisciplinary field of data science is one of the fastest growing professions and academic disciplines in the 21st century. The curriculum of this fully online, graduate certificate program is designed primarily for working adults and nontraditional students who desire to continue their education, primarily to expand their knowledge and specialized skills in this area for career advancement.

This program provides the student those fundamental data science tools required to analyze real-world datasets and to communicate effectively about data science findings. The program features a multidisciplinary curriculum that draws primarily from computer science, statistics, and communication.

Students completing the program will have expertise in data warehousing, database infrastructures, data mining, machine learning, and analytics-based decision making.

15 credits required:

Code	Title	Credits
DS 700	Foundations of Data Science	3
DS 710	Programming for Data Science	3
DS 715	Data Warehousing	3
DS 735	Communicating about Data	3
DS 740	Data Mining & Machine Learning	3

Students must successfully complete all five courses to earn the certificate. Completion of the certificate will require a GPA of 3.0.

Requirements for Admission to the Graduate Certificate in Data Science Program:

1. A bachelor's degree from a regionally accredited college or university;
2. 3.0 undergraduate GPA;
3. Program prerequisites will include coursework in elementary statistics, introductory computer programming, and introduction to databases. Relevant work experience may be considered in lieu of this coursework.

Program Learning Outcomes

Students completing this program will be expected to meet the following learning outcomes:

- Collect, prepare, store and manage data to devise solutions to data science tasks.
- Manage and use data in various forms, from traditional databases to big data.
- Design and implement algorithms to translate data into actionable insights.
- Create, write, and orally communicate technical materials for diverse audiences
- Help technical and non-technical professionals visualize, explore, interpret, and act on data science findings.