

DATA SCIENCE, ADVANCED GRADUATE CERTIFICATE

Prior to applying to this program, students must have completed MSDS 420-DL Database Systems and Data Preparation and MSDS 422-DL Practical Machine Learning or are expected to possess equivalent knowledge and skills.

Curriculum

To earn a certificate, students must complete any four of the MSDS electives:

Course	Title
MSDS 410-DL	Supervised Learning Methods
MSDS 411-DL	Unsupervised Learning Methods
MSDS 432-DL	Foundations for Data Engineering
MSDS 434-DL	Analytics Application Engineering
MSDS 436-DL	Analytics Systems Engineering
MSDS 440-DL	Real-Time Interactive Processing and Analytics
MSDS 450-DL	Marketing Analytics
MSDS 451-DL	Financial and Risk Analytics
MSDS 452-DL	Web and Network Data Science
MSDS 453-DL	Natural Language Processing
MSDS 454-DL	Advanced Modeling Techniques
MSDS 455-DL	Data Visualization
MSDS 456-DL	Sports Performance Analytics
MSDS 457-DL	Sports Management Analytics
MSDS 458-DL	Artificial Intelligence and Deep Learning
MSDS 459-DL	Knowledge Engineering
MSDS 460-DL	Decision Analytics
MSDS 462-DL	Computer Vision
MSDS 464-DL	Intelligent Systems and Robotics
MSDS 470-DL	Analytics Entrepreneurship
MSDS 472-DL	Analytics Consulting
MSDS 474-DL	Accounting and Finance for Analytics Managers
MSDS 475-DL	Project Management
MSDS 480-DL	Business Leadership and Communications

In some cases, students who have completed equivalent coursework previously may be allowed to replace the required course with another course in the field.

Please note that courses completed in the certificate program cannot be transferred to the corresponding graduate degree.