

# Earning A Master of Science in Data Science Online from SMU

## Program Overview

Southern Methodist University (SMU)'s online Master of Science in Data Science program is designed to train and develop professionals in the ever-evolving data science field. The interdisciplinary program prepares students to analyze and manage large data sets as well as learn strategies for visualizing and communicating results to solve real business problems and make strategic decisions.

Delivered online, the DataScience@SMU program draws from courses from three SMU schools: Dedman College of Humanities and Sciences, Lyle School of Engineering and Meadows School of the Arts.

## Curriculum Overview

DataScience@SMU's project-based, interdisciplinary curriculum aims to develop a comprehensive understanding of computer science, statistics, strategic decision-making and data visualization. The hands-on coursework helps students build technical, analytical and communications skills they can use in their day-to-day jobs for strategic decision-making and problem-solving.

## Key Competencies

The program's curriculum builds a strong foundation in data science through these key competencies:

### Statistical Analysis

Students will learn experimental design and methods, including developing the statistical techniques to form relevant questions; collect and analyze appropriate data; and make informed decisions.

### Technical Skills

Students will cultivate technical skills in programming, data mining, machine learning, database management and data and network security to make sense of complex, unstructured data.

### Visualization and Communication

Students will develop the oral and written communication skills to summarize and present results to non-experts in various industries and learn several approaches to data visualization.

### Applied Data Science

Students will learn the practical application of analytic and mathematical principles in the data science field, bringing together methods, concepts and practices. They will make strategic, informed business decisions while understanding the ethical responsibility and legal requirements of data.

### Global Perspective

Students will benefit from the experiences, knowledge and perspectives of a diverse group of classmates who live and work all over the world.



## Class Profile

**37** AVERAGE AGE

**11** YEARS OF AVERAGE WORK EXPERIENCE

## Employers

Apple, Inc.  
Cisco  
DirecTV  
General Motors  
IBM  
JP Morgan Chase  
Master Card  
Microsoft  
Southwest Airlines  
U.S. Army

## Employment Positions

Business analyst  
Data architect  
Director of project engineering  
IT director  
Marketing director  
Sr. revenue operations analyst  
Sr. solutions architect  
Software developer  
VP of sales

The information reflects enrolled students as of January 2016.

## Program Requirements

**32** TOTAL CREDITS

**2** CREDIT IMMERSION EXPERIENCE AT SMU'S CAMPUS

**18–24** MONTHS TO COMPLETE THE PROGRAM

## Core Coursework

- Experimental Statistics I
- Doing Data Science
- Experimental Statistics II
- File Organization & Database Management
- Data and Network Security
- Visualization of Information
- Data Mining
- Statistical Sampling
- Quantifying the World

## Electives

- New Approaches to Managerial Economics
- Visualization of Information and Creative Coding II

## Student Experience

DataScience@SMU offers data science professionals the opportunity to earn a top master's degree while maintaining their current job responsibilities.

- Our online learning experience allows students to attend live, seminar-style, face-to-face classes from anywhere through a web-based platform. Each week, our experienced faculty drives classes with problem-solving and discussions, and students complete self-paced, interactive coursework for a rich learning experience.
- Students attend an immersion experience at an SMU campus in Texas, where they will participate in seminars and workshops, while building relationships with their classmates and professors.
- Students have superior networking opportunities through the program; the virtual campus and immersion experience fosters collaboration and connection. Many students build relationships in and outside of class through our online platform.
- DataScience@SMU students can also expect top-tier support services throughout the program. They are full members of the SMU community and may access all of the resources available to on-campus students. Dedicated academic advisors work with students to ensure they are meeting their academic goals. Our technical support ensures students stay connected through our online platform.