

Master of Science in Applied Data Science

FULL-TIME PROGRAM

Take the Next Step and Transform Your Career

Earn Your MS in Applied Data Science

This on-campus full-time (FT) Master of Science in Applied Data Science (MS-ADS) program is offered through USD's Shiley- Marcos School of Engineering. The Master of Science in Applied Data Science at University of San Diego is designed to equip graduate students with the technical strategies and skills they will use to apply powerful and modern analytical tools to real-world applications.

Course of Study

This 30-unit program provides full-time coursework and can be completed in one year (three semesters). Program courses will cover technical aspects essential to the field of data science and will prepare graduates to serve as active leaders and managers of multiple functions within various organizations.

Who is the program for?

Bachelor-prepared traditional students and professionals who plan to take responsibilities related to the analysis of business and non-business data in different fields and industries.

Subject to change.

Admission Requirements

- Bachelor's degree from an accredited institution
- Bachelor's GPA of 2.75 or higher
- International students require TOEFL scores of 83 or more, or IELTS of 7 or more, or a minimum total score of 120 on the Duolingo English Test
- Resume or Curriculum Vitae
- Recommendation letters from the candidate's supervisor, manager, and/or former academic professors.

Program Objectives

- PLO (1): Successfully create, apply, and practice the mastery of data science methods, tools, and programming abilities (technical skill sets) for the analysis of structured and/or unstructured datasets.
- PLO (2): Learn, develop, and demonstrate non-technical skill sets, such as problem-solving, statistical thinking, creativity, critical thinking, storytelling, presentation ability (written and oral), and other soft skills in addressing data-driven projects. Build high-performing and compelling data science teams.
- PLO (3): Apply data science and data engineering related to AI, machine learning, and predictive modeling for the development of data-driven products, business strategies, and actionable insights.
- PLO (4): Evaluate ways data science positively impacts enterprise and society. Recommend strategies for partitioning and protecting data based on ethics, regulatory, and other requirements.
- PLO (5): Serve as active leaders and managers of data science multiple functions within organizations.

MS IN APPLIED DATA SCIENCE PROGRAM CURRICULUM DESIGN

The MS-ADS program consists of 10 courses total. Each student will take 2 foundational courses (ADS 501, 502), 7 core courses (ADS 503, 504, 505, 506, 507, 508, 509) and 1 capstone courses (ADS 599). Students will follow the curriculum path as prescribed below.

Semester	Summer		Spring		Fall	
A	ADS 501 (3 Units)	ADS 503 (3 Units)	ADS 504 (3 Units)	ADS 506 (3 Units)	ADS 508 (3 Units)	ADS 599 (3 Units)
B	ADS 502 (3 Units)		ADS 505 (3 Units)	ADS 507 (3 Units)	ADS 509 (3 Units)	
	Total Units	9	Total Units	12	Total Units	9

For this on campus program, courses are taught in 7-week blocks with two blocks (A & B) for each semester (14 Weeks).

Foundational Courses

- ADS 501 – Foundations of Data Science and Data Ethics
- ADS 502 – Applied Data Mining

Core Courses

- ADS 503 – Applied Predictive Modeling
- ADS 504 – Machine Learning and Deep Learning for Data Science
- ADS 505 – Applied Data Science for Business
- ADS 506 – Applied Time Series Analysis
- ADS 507 – Practical Data Engineering
- ADS 508 – Data Science with Cloud Computing
- ADS 509 – Applied Text Mining

Capstone Course

- ADS 599 – Capstone Project

Subject to change.