



THE UNIVERSITY OF ARIZONA
College of
Information Science

DATA SCIENCE

Master of Science in Data Science

4

Fortune Best Master's in
Data Science Program

2

ways to study:
on campus and online

\$133K

average salary for data science
master's graduates*

TRANSFORM YOUR FUTURE IN DATA SCIENCE.

Offered on campus and online, the top-ranked University of Arizona Master of Science in Data Science (MSDS) prepares students for robust careers in one of the world's fastest-growing professions.

WHAT YOU'LL LEARN

- Computational thinking, including decomposition, pattern recognition, abstraction and algorithms
- Data collection, manipulation, analysis and interpretation at different scales
- Interdisciplinary teamwork
- Multimedia and other information communications
- Information and data ethics
- The value of information fields to serve diverse user groups

SPECIALTIES

- Database Management & Architecture
- Data Mining & Statistical Analysis
- Machine Learning & AI
- Managerial & Applied Data Science
- Natural Language Processing
- Web Technologies & Cloud Computing

CAREER POSSIBILITIES

MSDS graduates are ready to excel in a wide variety of in-demand positions, including:

- Data analyst
- Data architect or engineer
- Data mining analyst
- Data modeler or visualization designer
- Data scientist
- Artificial intelligence engineer
- Big data engineer
- Business intelligence analyst
- Business intelligence developer
- Machine learning engineer
- Quality specialist
- Market research analyst
- Statistician

Ready to transform your future in data science?

infosci.arizona.edu/msds

infosci-grad@arizona.edu

Revised 8/11/26



* Average salary for information science master's degree graduates according to Lightcast, November 2023.

MASTER OF SCIENCE IN DATA SCIENCE

CURRICULUM

30 units are required for graduation.

CORE COURSES

INFO 502: Data Ethics	3 units
INFO 511: Foundations of Data Science	3 units
INFO 523: Data Mining and Recovery	3 units
INFO 526: Data Analysis and Visualization	3 units
TOTAL	12 units

ELECTIVE COURSES

Students have the choice of completing the MSDS alone or using sets of courses in order to attain one or more graduate certificates at the same time, such as the college's Graduate Certificate in Foundations of Data Science. Any non-core courses with the INFO prefix or out-of-department courses are also considered electives.

Choose 6 elective courses from these and other options (visit infosci.arizona.edu/msds for a more complete list of elective courses).

INFO 514: Computational Social Science	3 units
INFO 521: Introduction to Machine Learning	3 units
INFO 529: Applied Cyberinfrastructure Concepts	3 units
INFO 531: Data Warehousing and Analytics in the Cloud	3 units
INFO 536: Data Science and Public Interests	3 units
INFO 555: Applied Natural Language Processing	3 units
INFO 556: Text Retrieval and Web Search	3 units
INFO 557: Neural Networks	3 units
INFO 570: Database Development and Management	3 units
INFO 578: Science Information and Its Presentation	3 units
INFO 579: SQL/NoSQL Databases for Data and Information Science	3 units
INFO 580: Data Standards for the Semantic Web	3 units
TOTAL	15 units

EXPERIENTIAL COURSES

Complete a total of 3 units of either an internship or capstone project:

INFO 693: Internship	3 units
INFO 698: Capstone Project	3 units
TOTAL	3 units
DEGREE TOTAL	30 units

The MSDS curriculum is subject to change based on catalog year, transfer work, etc. The official degree requirements may be found in the University General Catalog and all University of Arizona students should refer to the Academic Advising Report for specific graduation requirements.

In addition to linear math and computer science courses, we recommend that students applying to the MSDS have programming experience in one or more of the following computer languages and/or areas: C, C++ (Object Oriented), Java, Python, Data Structures, HTML, CSS, SQL, Web Programming, R, Julia, MATLAB, TensorFlow, JavaScript, Scala, Git/GitHub, SAS. We offer undergraduate courses that can help remediate deficiencies or you may pursue other courses from UArizona or other institutions. Undergraduate courses taken for remediation purposes may not be applied for graduate credit.