Master of Science in Applied Statistics and Data Science

About This Program

The Master of Science in Applied Statistics and Data Science (MS ASDS) will train students in statistical methodologies, data science, big data analytics, and machine learning. A primary objective of the MS ASDS is to prepare students for work in industry through an emphasis on cutting-edge methods commonly used to solve real-life problems. The MS ASDS curriculum will focus on applied statistics and data science (contrasted with theoretical statistics) and is designed for hands-on experience through in-class learning and opportunities for research project internships in different settings. Students will increase their breadth of knowledge of statistical research, machine learning, and big data analytics, and will be proficient in various programming languages at a suitable level for data analysis. The MS ASDS program includes a 3-semester credit hour (SCH) capstone project or professional internship that will allow students to experience the entire process of analyzing a given problem starting with problem conception all the way to product delivery. The MS ASDS program is designed for students with a wide range of backgrounds, including STEM degrees and those with non-technical backgrounds such as business majors. The program can be completed in 18 months (full-time students may complete in 12 months).

Competencies

1. Upon completion, students will be able to apply statistical methodologies to real-world data from diverse applications.
2. Upon completion, students will be able to design experiments.
3. Upon completion, students will be able to understand computational aspects of big data analytics.
4. Upon completion, students will be able to apply machine-learning algorithms for various learning tasks.
5. Upon completion, students will be able to work in a variety of disciplines.

Admissions Criteria

All applicants for the Applied Statistics and Data Science MS must meet UT Arlington's graduate admission requirements (https://catalog.uta.edu/academicregulations/admissions/graduate/). The program does not consider GRE scores in evaluating candidates for admission.

To be considered for admission, applicants must demonstrate undergraduate preparation equivalent to a baccalaureate degree in natural, physical, or social sciences, technology, engineering, mathematics, business, or related fields.

Applicants must submit two letters of recommendation from evaluators who can assess the candidate's potential for academic success.

UNCONDITIONAL ADMISSION

Applicants who demonstrate a GPA of 3.0 and strong support from references will be considered for unconditional admission. Applicants with a GPA of 2.7 or higher (but less than 3.0) who demonstrate relevant work experience and/or certification may be offered unconditional admission upon review.

All admitted students must complete the program's self-paced, non-credit online review, "Math Foundation of Machine Learning" prior to enrolling in classes.

Curriculum

Core Courses		
ASDS 5301	STATISTICAL THEORY AND APPLICATIONS	3
ASDS 5302	PRINCIPLE OF DATA SCIENCE	3
ASDS 5303	STATISTICAL AND SCIENTIFIC COMPUTING I	3
ASDS 6301	ADVANCE REGRESSION ANALYSIS	3
ASDS 6302	MACHINE LEARNING WITH APPLICATIONS	3
ASDS 6303	DATA MINING WITH INFORMATION VISUALIZATION	3
ASDS 6306	INTERNSHIP/CAPSTONE RESEARCH PROJECT	3
Electives		**9**
Select three from:		
ASDS 5304	APPLIED MULTIVARIATE STATISTICAL ANALYSIS	
ASDS 5305	DEEP LEARNING AND ARTIFICIAL NEURAL NETWORKS	
ASDS 5306	APPLIED TIME SERIES ANALYSIS IN DATA ANALYTICS	
ASDS 6304	OPTIMIZATION AND BIG DATA ANALYTICS	

ASDS 6305	STATISTICAL AND SCIENTIFIC COMPUTING II	
Total Hours		**30**

Advising Resources

UNDERGRADUATE AND GRADUATE ADVISING

Location:

Life Science Building Room 206A and 206B

Email:

data.advising@uta.edu

Phone:

817-272-1512

Web:

Speak to an advisor in the Division of Data Science or schedule an appointment. (https://www.uta.edu/academics/schools-colleges/science/departments/division-data-science/advising/)