

Statistics and Data Science MS

FOX SCHOOL OF BUSINESS AND MANAGEMENT

Learn more about the Master of Science in Statistics and Data Science.

About the Program

The Department of Statistical Science offers the Statistics and Data Science MS program to allow students to acquire in-depth knowledge of data science and statistics. The program prepares “super analysts” who have stronger and deeper skills in predictive analytics. Students learn to:

- differentiate descriptive, predictive and prescriptive analytics and recognize when each is appropriate, as well as understand the fundamental methods and techniques used in each;
- understand the applications, assumptions and limitations of data science models and techniques at a deep level; and
- develop expertise in the use and application of cutting-edge analytical tools and software.

Time Limit for Degree Completion: 6 years

Campus Location: Main and Center City, with some courses offered online

Full-Time/Part-Time Status: The degree program can be completed on a full- or part-time basis.

Job Prospects: Graduates of the master’s program are trained to serve as professional statisticians in industry, research organizations or government.

Non-Matriculated Student Policy: This program requires the student to be matriculated in the degree program.

Financing Opportunities: Assistantships are typically reserved for those engaged in doctoral study.

Admission Requirements and Deadlines

Application Deadline:

This program is not accepting applications for the 2023-2024 academic year.

Letters of Reference:

Number Required: 2

From Whom: Academic or professional references are acceptable.

Coursework Required for Admission Consideration: Students must have completed a minimum of two semesters of university-level Calculus or its equivalent. Adequate preparation in Linear Algebra and in Programming are also required. Prerequisites include:

Code	Title	Credit Hours
CIS 5011	Programming and Data Structure (or equivalent)	3
MATH 5001	Linear Algebra (or equivalent)	3

Bachelor’s Degree in Discipline/Related Discipline: The equivalent of a four-year U.S. baccalaureate degree from an accredited university or college is required. For three-year degrees, mark sheets must be evaluated by WES or another NACES organization.

Statement of Goals: Essay prompts can be found in the online application portal.

Standardized Test Scores:

GRE/GMAT: Required. Consult an admissions advisor with any questions.

Applicants who earned their baccalaureate degree from an institution where the language of instruction was other than English, with the exception of those who subsequently earned a master’s degree in a country where the language of instruction is English, must report scores for a standardized test of English that meet these minimums:

- TOEFL iBT: 90
- IELTS Academic: 6.5
- Duolingo: 110
- PTE Academic: 68

Any student admitted with a TOEFL score below 100 iBT must pass an English skills course during the first term of enrollment at Temple University.

Resume: Current resume or CV is required.

Transfer Credit: Upper-level graduate credits from an accredited graduate program, but not previously applied to a conferred degree, may be transferred into the MS program. The credits must be part of the required degree program at Temple University. To be transferred, the grade must be a "B" or better. The Admissions Committee makes recommendations with regard to transfer credits to the Director of the Graduate Program in Statistical Science. The maximum number of credits a student may transfer is 6.

Program Requirements

General Program Requirements:

Number of Credits Required Beyond the Baccalaureate: 30

Required Courses:

Code	Title	Credit Hours
Core Courses		
STAT 5602	Visualization: The Art of Numbers and the Psychology of Persuasion	3
STAT 8003	Statistical Methods and Concepts	3
STAT 8004	Statistical Modeling and Inference	3
STAT 8109	Applied Statistics and Data Science	3
STAT 8121	Statistical Computing and Optimization	3
Electives		
Select four from the following: ¹		12
AS 5102	Long-Term Actuarial Modeling	
AS 5103	Advanced Long-Term Actuarial Modeling	
AS 5104	Short-Term Actuarial Modeling	
AS 5105	Actuarial Economics	
CIS 5523	Knowledge Discovery and Data Mining	
CIS 5525	Neural Computation	
CIS 5526	Machine Learning	
CIS 5538	Text Mining and Language Processing	
GUS 5162	Advanced Statistics for Urban Applications	
STAT 8102	High Dimensional Inference	
STAT 8111	Survey Techniques for Business Applications	
STAT 8115	Nonparametric Methods	
STAT 8116	Categorical Data Analysis	
STAT 8123	Time Series Analysis and Forecasting	
STAT 8207	Design and Analysis of Complex Experiments	
STAT 8217		
STAT 8515	Data Wrangling and Curation	
or CIS 5516	Principles of Data Management	
STAT 8982	Independent Study	
Capstone Course		
Select one of the following:		3
BA 5651	Business Analytics Capstone	
BA 5685	Internship or Externship in Business ²	
STAT 5651	Capstone in Analytics	
Total Credit Hours		30

¹ Other electives may be selected with the approval of the program's Academic Director.

² Selection of BA 5685 requires approval from the program's Academic Director.

Culminating Event: Satisfactory completion of coursework is required to earn the Statistics and Data Science MS.

Contacts

Program Web Address:

<https://www.temple.edu/academics/degree-programs/statistics-and-data-science-ms-bu-sdsc-ms>

Department Information:

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Submission Address for Application Materials:

https://foxgraduate.force.com/ERx_Forms__Portal_Register?type=fox

Department Contacts:

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