M.S. in Statistics and Data Science

Overview
The Statistics and Data Science program accommodates students desiring an applied background for a career in government and industry as well as students desiring a more theoretical background for further graduate studies.

The Master of Science in Statistics and Data Science degree is available in both a thesis (recommended) and a non-thesis option. For students electing the thesis option, the program requires 24 hours of acceptable course work and 6 hours of credit for the thesis. For students not electing to write a thesis, 36 hours of acceptable coursework, including Statistics 5396, are required. Students must enroll in Statistics 5195 each semester of residence. Comprehensive written exams are required of all students. Students who write a thesis may have a portion of the comprehensive examination waived.

Admissions Requirements
• An official transcript, with the four-year baccalaureate degree posted, from the degree-granting institution and copies of transcripts for all other relevant upper-division and graduate work at accredited U.S. institutions or equivalent work and degrees at foreign institutions.
• Statement of Purpose
• 2 Letters of Recommendation
• Applicants from countries where English is not the first language are required to demonstrate English proficiency. Please consult the graduate school (http://catalog.utep.edu/admissions/graduate/graduate-student/) website for required scores

Degree Plan
Required Credits: 31-37

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MS in Statistics and Data Science (All courses require a grade of C or better)</td>
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Required Courses:
- MATH 5321 Principles of Analysis 3
- MATH 5322 Linear Algebra 3
- MATH 5330 or MATH 5330 Comp Methods of Linear Algebra 3
- STAT 5195 Graduate Seminar 1
- STAT 5380 or DS 5380 Mathematical Statistics I 3
- STAT 5381 or DS 5381 Math Found of DS I 3
- STAT 5381 or DS 5381 Mathematical Statistics II 3
- STAT 5385 or DS 5385 Math Found of DS II 3
- STAT 5385 Applied Regression Models 3
- STAT 5388 Multivariate Data Analysis 3

Select a thesis or non-thesis option:
- Thesis Option
  - STAT 5398 Thesis 1
  - STAT 5399 Thesis 2
  Plus 6 more hours from Electives list below.
- Non-Thesis Option
  - STAT 5396 Graduate Research
  Plus 15 additional hours from Electives list below.

Electives:
- DS 5339 Data Visualization
- STAT 5329 Statistical Programming
- STAT 5335 Applied Experimental Design
- STAT 5336 Categorical Data Analysis
- STAT 5354 Post-Genomic Analysis
- STAT 5370 Special Topics
- STAT 5386 Stochastic Processes
- STAT 5391 Time Series Analysis
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<tbody>
<tr>
<td>STAT 5392</td>
<td>Statistical Computing</td>
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<tr>
<td>STAT 5428</td>
<td>Intro to Statistical Analysis</td>
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<tr>
<td>STAT 5474</td>
<td>Statistical Machine Learning I</td>
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<tr>
<td>STAT 5494</td>
<td>Statistical Machine Learn. II</td>
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Total Hours: 31-37