STATISTICS: DATA SCIENCE, M.S.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (http://guide.wisc.edu/graduate/#policiesandrequirements), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

<table>
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<tr>
<th>Mode of Instruction Definitions</th>
<th>Yes</th>
<th>No</th>
<th>No</th>
<th>No</th>
<th>Yes</th>
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<td>Accelerated: Accelerated programs are offered at a fast pace that condenses the time to completion</td>
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<td>Students are able to complete a program with minimal disruptions to careers and other commitments.</td>
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<td>Evening/Weekend: Courses meet on the UW–Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.</td>
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<td>Face-to-Face: Courses typically meet during weekdays on the UW-Madison Campus.</td>
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<td>Hybrid: These programs combine face-to-face and online learning formats. Contact the program for more specific information.</td>
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<td>Online: These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.</td>
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CURRICULAR REQUIREMENTS

Requirements Detail

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<tr>
<th>Minimum Credit Requirement</th>
<th>Minimum 30 credits</th>
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<td>Minimum Residence Credit Requirement</td>
<td>Minimum 16 credits</td>
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<tr>
<td>Minimum Graduate Coursework Requirement</td>
<td>Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<a href="https://registrar.wisc.edu/course-guide/https://registrar.wisc.edu/course-guide/)/">https://registrar.wisc.edu/course-guide/https://registrar.wisc.edu/course-guide/)/</a>.</td>
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Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Students may only have one core course (STAT 601, Requirements STAT 602, STAT 610, or STAT 615) with a grade below B.

Assessments None.

Examinations No language requirements.

Professional Skills Courses (6 credits minimum from the following courses):

- STAT 605 Data Science Computing Project
- STAT 627 Professional Skills in Data Science
- STAT 628 Data Science Practicum

Students may substitute a required course (STAT 601, STAT 602, STAT 605, STAT 610, STAT 615, STAT 628) with a Statistics taught 600+ level course with advisor approval.

9 elective credits:

Students may count up to 3 credits of Statistics undergraduate electives including:

- STAT 303 R for Statistics I
- STAT 304 R for Statistics II
- STAT 305 R for Statistics III
- STAT 349 Introduction to Time Series
- STAT 351 Introductory Nonparametric Statistics
- STAT 411 An Introduction to Sample Survey Theory and Methods
- STAT 421 Applied Categorical Data Analysis
- STAT 443 Classification and Regression Trees
- STAT 451 Introduction to Machine Learning and Statistical Pattern Classification
- STAT 453 Introduction to Deep Learning and Generative Models
- STAT 456 Applied Multivariate Analysis
- STAT 461 Financial Statistics
- STAT/COMPSCI 471 Introduction to Computational Statistics
- STAT 479 Special Topics in Statistics
- STAT 575 Statistical Methods for Spatial Data

Students may count up to 3 credits of 500-level or above coursework taught outside of Statistics with advisor approval.

Student must have at least 3 credits of coursework at the 600-level or above taught within Statistics including the following:

- STAT 609 Mathematical Statistics I
- STAT/BMIB 641 Statistical Methods for Clinical Trials
GRADUATE AND UNDERGRADUATE COURSES WITH SIMILAR TOPICS

Courses that cover the same or similar topic at the undergraduate- and graduate-level may both be used towards the MSDS requirements, but if both courses are to be used, the undergraduate level course must be completed first. Please note that this policy does not preclude students from taking just the undergraduate or just the graduate version of a topic. These combinations would include STAT 349 Introduction to Time Series and STAT 701 Applied Time Series Analysis, Forecasting and Control I, STAT 351 Introductory Nonparametric Statistics and STAT 809 Non Parametric Statistics, STAT 411 An Introduction to Sample Survey Theory and Method and STAT 732 Large Sample Theory of Statistical Inference, STAT 456 Applied Multivariate Analysis and STAT 760 Multivariate Analysis I, STAT 443 Classification and Regression Trees and STAT 761 Decision Trees for Multivariate Analysis, STAT 451 Introduction to Machine Learning and Statistical Pattern Classification and STAT 615 Statistical Learning, and STAT/COMP SCI 471 Introduction to Computational Statistics and STAT 771 Statistical Computing. This will also apply to special topics courses that have similar topics between the undergraduate and graduate level.