

Fall 2026 MS Data Science Courses

You can find courses currently listed in the course search and enrollment application for Fall 2026 that are a part of the MS Data Science curriculum in [the Graduate Guide](#). You will find courses that have been recently added to the curriculum but not yet included in Guide, along with topics courses approved for Fall 2026 only, included below as well. Please note that things may change and courses listed may have additional access restrictions, so please review the class notes for additional information.

Statistics Core:

- All second-year students should have completed these courses in their first year

Computer Sciences Core:

- Algorithms:
 - COMP SCI 524 Introduction to Optimization (3 cr)
 - COMP SCI 577 Introduction to Algorithms (4 cr)
 - COMP SCI 726 Nonlinear Optimization I (3 cr)
- Systems:
 - COMP SCI 537 Introduction to Operating Systems (4 cr)
 - COMP SCI 544 Introduction to Big Data Systems (3 cr)
 - COMP SCI 564 Database Management Systems: Design and Implementation (4 cr)
 - COMP SCI 640 Introduction to Computer Networks (3 cr)
 - COMP SCI 642 Introduction to Information Security (3 cr)
 - COMP SCI 764 Topics in Database Management Systems (3 cr)
- Humans and Data:
 - COMP SCI 570 Introduction to Human-Computer Interaction (3 cr)
 - COMP SCI 571 Building User Interfaces (3 cr)
 - COMP SCI 765 Data Visualization (3 cr)
 - COMP SCI 770 Human-Computer Interaction (3 cr)

Machine Learning Core:

- COMP SCI 540 Introduction to Artificial Intelligence (3 cr)
- COMP SCI 760 Machine Learning (3 cr)
- STAT 451 LEC 002 Introduction to Machine Learning and Statistical Pattern Classification (3 cr)*
- STAT 453 LEC 002 Introduction to Deep Learning and Generative Models (3 cr)*
- STAT 615 Statistical Learning (3 cr)

Data Science Electives:

- COMP SCI 524 Introduction to Optimization (3 cr)
- COMP SCI 537 Introduction to Operating Systems (4 cr)
- COMP SCI 544 Introduction to Big Data Systems (3 cr)
- COMP SCI 564 Database Management Systems: Design and Implementation (4 cr)
- COMP SCI 570 Introduction to Human-Computer Interaction (3 cr)

- COMP SCI 571 Building User Interfaces (3 cr)
- COMP SCI 574 Data Management for Data Science (3 cr)
- COMP SCI 576 Introduction to Bioinformatics (3 cr)
- COMP SCI 577 Introduction to Algorithms (4 cr)
- COMP SCI 640 Introduction to Computer Networks (3 cr)
- COMP SCI 642 Introduction to Information Security (3 cr)
- COMP SCI 702 Graduate Cooperative Education (1-2 cr)
 - See “Internships” section below for important information
- COMP SCI 726 Nonlinear Optimization I (3 cr)
- COMP SCI 736 Advanced Operating Systems (3 cr)
- COMP SCI 764 Topics in Database Management Systems (3 cr)
- COMP SCI 765 Data Visualization (3 cr)
- COMP SCI 769 Advanced Natural Language Processing (3 cr)
- COMP SCI 770 Human-Computer Interaction (3 cr)
- COMP SCI 799 (1-3 cr)
 - Students may take a total maximum of 3 credits of COMP SCI 799 and/or STAT 699 research electives
- COMP SCI 839 LEC 001 Advanced Topics in Reinforcement Learning (3 cr)
- COMP SCI 839 LEC 002 Next Generation Data Systems (3 cr)
- COMP SCI 839 LEC 004 AI Agents for Science (3 cr)
- STAT 303 LEC 002 or LEC 004 R for Statistics I (1 cr)*
- STAT 304 LEC 004 R for Statistics II (1 cr)*
- STAT 305 LEC 004 R for Statistics III (1 cr)*
- STAT 349 LEC 002 Introduction to Time Series (3 cr)*
- STAT 351 LEC 002 Introductory Nonparametric Statistics (3 cr)*
- STAT 403 Internship Course in Comp sci and Data Science (1 cr)
 - See “Internships” section below for important information
- STAT 421 LEC 002 Applied Categorical Data Analysis (3 cr)*
- STAT 441 LEC 002 Advanced Sports Analytics (3 cr)*
- STAT 461 LEC 002 Financial Statistics (3 cr)*
- STAT 679 LEC 001 Interpretable Machine Learning (3 cr)
- STAT 679 LEC 004 Bayesian Statistics and Machine Learning (3 cr)
- STAT 699 (1-3 cr)
 - Students may take a total maximum of 3 credits of STAT 699 and/or COMP SCI 799 research electives
- STAT 701 Applied Time Series Analysis, Forecasting and Control I (3 cr)
- STAT 780 Introduction to Quantum Data Science (3 cr)
- I SY E 624 Stochastic Modeling Techniques (3 cr)
- I SY E 723 Dynamic Programming and Associated Topics (3 cr)

*For the starred STAT courses please make sure you enroll in the even-numbered lectures (such as 002 or 004) as those ones are reserved specifically for professional program students.

Note that there is a maximum of 3 total credits of independent study (i.e. STAT 699 or COMP SCI 799) that may be used towards the electives.

If you have questions about what categories you have yet to meet or would like to review course options, you can email msdatascience@stat.wisc.edu.

Internships

If you are planning to participate in a part-time internship while also enrolled in other courses this fall, you should plan to enroll in [STAT 403](#) (1 credit) or [COMP SCI 702](#) (1 credit). If you plan to only enroll in a full-time co-op opportunity this fall, then you would enroll in COMP SCI 702 (2 credits). Note that you **cannot** enroll in any additional coursework while enrolled in 2 credits of COMP SCI 702.

Students may count a total of up to 3 credits of STAT 403 and/or COMP SCI 702 toward degree requirements. Visa-holding students MUST abide by all [CPT rules and regulations](#).