

Computer Sciences Core Courses Offered in Fall 2025

A reminder that enrolling in Machine Learning core courses is **not** permitted for first-semester MS Data Science Students. First-semester MS Data Science students should enroll in Statistics core and Computer Sciences core courses in Fall 2025 in order to maintain satisfactory progress and to help ensure success in Machine Learning core and Data Science elective courses in future semesters.

Program requirements and course descriptions can be found in the Graduate Guide:

<https://guide.wisc.edu/graduate/statistics/data-science-ms/#requirementstext>

Computer Sciences Core (One course from each category to meet degree requirements)

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 765 Data Visualization (3 cr)
- COMP SCI 770 Human-Computer Interaction (3 cr)

Important notes on enrolling in Computer Sciences courses

1. We HIGHLY encourage you to enroll as soon as your enrollment opens on June 23
 - a. Courses are first come, first enroll
 - b. Classes will fill
 - c. Get on the waitlist if the class is full
2. Waitlisted for a class?
 - a. You **MUST TAKE ACTION** if you receive enrollment permission
 - b. June 23 – July 3: Check your @wisc.edu email everyday in case you would receive enrollment permission
 - c. Starting July 7: Check your @wisc.edu email Tuesday/Fridays during the summer (and everyday closer to the start of the semester)
 - d. The email will begin: "Enroll from the waitlist for..."
 - e. You will only have 24/48 hours to take action or lose the permission
3. Fill your schedule with open, available classes!
 - a. Comp Sci cannot guarantee enrollment off of a waitlist

- b. Some classes are very popular, and you may not be able to get all the classes you want in your first semester
- 4. **Please do not over-enroll. We suggest picking no more than two Computer Sciences courses (6-7 credits) total in addition to your Statistics courses. If you get off a waiting list, please drop any course you do not intend to take at the time you enroll in the waitlisted case. Over-enrolling causes bottlenecks for everyone!**

Considerations for fall Computer Sciences course selection

- 1. For your first semester in MS Data Science, consider taking a COMP SCI course that you already have a bit of background in. This will ease the transition to graduate study at UW-Madison. For example, if you have some undergraduate systems experience, consider taking a systems course (provided there's not too much overlap in topics covered).
- 2. COMP SCI 577 is a proofs-heavy course and has a lot of value in teaching students to be better programmers. However, it is a very rigorous course and may not be advisable in the first semester. If you would like to take an algorithms course, COMP SCI 524 may be more manageable: it is good for students more interested in the math side of computer sciences.

Please feel free to contact the MS Data Science program coordinator, Jinda Moore, if you have any questions: msdatascience@stat.wisc.edu.