

COMPUTER SCIENCES KICKSTART PROGRAM FOR PROFESSIONALS, CAPSTONE CERTIFICATE

The Capstone Certificate in Computer Sciences Online Kickstart Program for Professionals, offered by the University of Wisconsin–Madison Department of Computer Sciences, is designed for students seeking to learn the fundamentals of computer science, including the basics of artificial intelligence (AI) and its modern use. Students can use this kickstart certificate to build basic programming skills, enhanced further by AI, that open up more technical opportunities. The program can be completed in four terms. The largely asynchronous, online format of the coursework provides maximum flexibility for students to complete the certificate effectively within the context of work and/or family responsibilities.

HOW TO GET IN

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University Special Student Services is the admitting office for all University Special students. However, the Department of Computer Sciences (<http://www.cs.wisc.edu/academics/graduate-programs/>) makes the final admission decision upon review of all applicant materials.

- Deadline: July 1

Applications received after the deadline will be reviewed on a rolling basis.

Please contact kickstart@cs.wisc.edu for assistance with applying.

ADMISSION REQUIREMENTS

- Have a bachelor's degree from an accredited institution in a non-Computer Sciences related area.
- Preferred minimum bachelor's degree GPA of 3.0 on a 4.0 scale.
- Have mathematical reasoning and logical thinking proficiency.
- GRE is not required.
- International applicants must demonstrate English proficiency by submitting evidence of English language proficiency through one of the following options:
 - Minimum TOEFL internet (iBT), on or after January 21, 2026: 5.0 out of 6.0
 - Minimum TOEFL (before January 21, 2026): 92 out of 120
 - Minimum IELTS: 7.0
 - Duolingo English Test: 125
 - Earned a bachelor's degree from an institution taught entirely in English

APPLICATION STEPS

Submit an online application for admission (<https://specialstudents.wisc.edu/apply/>) as a University Special student, selecting

UNCS Capstone Certificate and the program: Computer Science Kickstart Program.

Submit the following materials with the application:

1. Resume/CV that includes educational history and professional experience.
2. Transcripts of all previous college work.
3. If English is not your primary language, you must submit evidence of English language proficiency through one of the following options:
 - Minimum TOEFL internet (iBT), on or after January 21, 2026: 5.0 out of 6.0
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After a decision has been made, the Program Coordinator will contact you by email to inform you of the decision and inform you of the next steps.

ENROLLMENT

Admitted applicants receive a formal letter of admission to UW–Madison from University Special Student Services along with general enrollment information.

The Department of Computer Sciences will send an email to admitted applicants with specific information pertaining to enrollment in courses and completion of the capstone program.

Additional detail about the enrollment process is provided on the University Special Student Services enrollment page (<https://specialstudents.wisc.edu/enrollment/>).

REQUIREMENTS

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GRADE REQUIREMENTS

Students must earn a minimum GPA of 2.000 for all coursework completed during the certificate.

REQUIRED COURSES

Code	Title	Credits
COMP SCI 303	Introduction to Java Programming	3
COMP SCI 370	Introduction to Data Structures and Software Development	3
COMP SCI 440	Artificial Intelligence (AI) Paradigms to Practice	3
COMP SCI 477	Algorithmic Thinking	3
Total Credits		12

MINIMUM REQUIREMENTS FOR CAPSTONE CERTIFICATE COMPLETION

- Students must earn a minimum grade of C in each course used to meet Capstone Certificate requirements.

- Courses in which a student elects the pass/fail or audit option will not count toward completion of Capstone Certificate requirements.
- All of the Capstone Certificate credits must be earned "in residence" (which includes on campus and distance-delivered courses) at UW-Madison.
- All of the Capstone Certificate credits must be earned while enrolled in the Capstone Certificate program.

Individual Capstone Certificate programs may have additional requirements for completion, which will be listed above as/if applicable.

LEARNING OUTCOMES

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1. Apply foundational programming principles including variables, control flow, data structures, and modular design—to write, test, and debug simple software programs.
2. Use computational thinking techniques such as decomposition, abstraction, and algorithmic reasoning to break down real-world problems into implementable steps.
3. Interpret and evaluate common algorithms and data-handling approaches, understanding their basic efficiency trade-offs and appropriate use cases.
4. Explain core concepts of artificial intelligence and machine learning, including how modern models learn from data and how they are incorporated into software systems.
5. Integrate API-based or off-the-shelf AI tools into small software applications while understanding their capabilities and limitations.
6. Demonstrate best practices in software development, including version control, documentation, testing, and collaborative workflows relevant to professional environments.