COMPUTER SCIENCES FOR PROFESSIONALS, CAPSTONE CERTIFICATE

The Professional Capstone Certificate Program offered by the University of Wisconsin–Madison Department of Computer Sciences is designed to help students transition toward a career as a qualified software developer. Students must possess a bachelor's degree prior to admission. Depending on background, the program can be completed in four to six semesters. Designed for the working professional, several courses are offered in the evening, off campus, each semester. Students also have the option to apply for the Professional Master's Program (http://guide.wisc.edu/graduate/computer-sciences/computer-sciences-ms/computer-sciences-professional-program-ms/), after completing the capstone certificate program, to obtain an M.S. degree in computer sciences in another one to one-and-a-half years.

Further detail, including tuition and other cost, is available at the program website (http://www.cs.wisc.edu/academics/graduate-programs/pcp/) or by contacting the department:

Professional Programs Coordinator
Department of Computer Sciences
University of Wisconsin–Madison
1210 West Dayton Street , Room 5378
Madison, WI 53706-1613
608-262-5601
pcp-admissions@cs.wisc.edu

HOW TO GET IN

ADMISSION

Applicants must possess a baccalaureate degree. The application deadline to be considered for fall is June 1, for spring is October 15 and for summer is February 15. Applications received after the deadline will be reviewed on a rolling basis. Adult Career and Special Student Services (ACSSS) 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. Please contact pcp-admissions@cs.wisc.edu (pcp-admissions@cs.wisc.edu?subject=PCP%20application%20question) for assistance with applying.

Application steps

A complete application includes the following information:

1. An online application for admission (http://continuingstudies.wisc.edu/advising/apply.htm) as a University Special student, selecting UNCS Capstone Certificate and the program: Computer Science for Professionals.

ENROLLMENT

Admitted students receive a formal letter of admission to UW–Madison from Adult Career and Special Student Services along with general enrollment information.

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

Additional detail about the enrollment process is provided on the ACSSS enrollment page (http://continuingstudies.wisc.edu/advising/enroll-special.htm).

REQUIREMENTS

- Must have a minimum GPA of 2.000
- Courses must have a grade of C or better to be accepted

Those totally new to computer sciences will begin with two introductory courses, COMP SCI 200 Programming I OR COMP SCI 220 Data Science Programming I AND COMP SCI 300 Programming II, followed by four fundamental courses to complete the program. Those with a basic background to computer sciences will skip the introductory courses. Designed for the working professional, several courses are offered in the evening, off campus, each semester.

FUNDAMENTAL COURSES

Take **four** from the following list, for a total of **12 credits**:

Code	Title	Credits
COMP SCI/ E C E 354	Machine Organization and Programming	3
COMP SCI 400	Programming III	3
COMP SCI 407	Foundations of Mobile Systems and Applications	3
COMP SCI/ E C E 506	Software Engineering	3
COMP SCI/E C E/ M E 532	Matrix Methods in Machine Learning	3
COMP SCI 536	Introduction to Programming Languages and Compilers	3
COMP SCI 537	Introduction to Operating Systems	4
COMP SCI 540	Introduction to Artificial Intelligence	3
COMP SCI 542	Introduction to Software Security	3
COMP SCI/ E C E 552	Introduction to Computer Architecture	3
COMP SCI 559	Computer Graphics	3
COMP SCI 564	Database Management Systems: Design and Implementation	4
COMP SCI 570	Introduction to Human-Computer Interaction	4
COMP SCI 571	Building User Interfaces	3
COMP SCI 577	Introduction to Algorithms	4
COMP SCI 640	Introduction to Computer Networks	3
COMP SCI 642	Introduction to Information Security	3

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

1. Recognize and apply the core principles of Computing (abstractions and algorithms) to solve real-world problems.
2. Use fundamental and detailed knowledge, skills, and tools (e.g., specific algorithms, techniques methods, etc.) of computer science and develop the ability to acquire new knowledge, skills, and tools.
3. Design and implement software.
4. Can solve problems by applying a broad toolbox of knowledge and techniques