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 towards 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-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 or summer term is April 15. The application deadline to be considered for spring term is November 15. Applications received after the deadline to be considered 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 application question) 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.

2. The Professional Capstone Certificate Program Supplement form required by the department. It is provided on the program websites (http://www.cs.wisc.edu/academics/graduate-programs/pcp/pcp-application).

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
- At least two courses must be at the 400 level or above

Those totally new to computer sciences will begin with two introductory courses, COMP SCI 200 Programming I OR COMP SCI 301 Introduction to Data Programming 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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP SCI/E C E 354</td>
<td>Machine Organization and Programming</td>
<td>3</td>
</tr>
<tr>
<td>COMP SCI 400</td>
<td>Programming III</td>
<td>3</td>
</tr>
<tr>
<td>COMP SCI/E C E 506</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>COMP SCI/E C E/ M E 532</td>
<td>Matrix Methods in Machine Learning</td>
<td>3</td>
</tr>
<tr>
<td>COMP SCI 536</td>
<td>Introduction to Programming Languages and Compilers</td>
<td>3</td>
</tr>
<tr>
<td>COMP SCI 537</td>
<td>Introduction to Operating Systems</td>
<td>4</td>
</tr>
<tr>
<td>COMP SCI 540</td>
<td>Introduction to Artificial Intelligence</td>
<td>3</td>
</tr>
<tr>
<td>COMP SCI/E C E 552</td>
<td>Introduction to Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>COMP SCI 559</td>
<td>Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>COMP SCI 564</td>
<td>Database Management Systems: Design and Implementation</td>
<td>4</td>
</tr>
<tr>
<td>COMP SCI 570</td>
<td>Introduction to Human-Computer Interaction</td>
<td>4</td>
</tr>
<tr>
<td>COMP SCI 577</td>
<td>Introduction to Algorithms</td>
<td>4</td>
</tr>
<tr>
<td>COMP SCI 640</td>
<td>Introduction to Computer Networks</td>
<td>3</td>
</tr>
</tbody>
</table>

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.
5. Design and implement software.
8. Can solve problems by applying a broad toolbox of knowledge and techniques