MASTER OF SCIENCE IN THE FIELD OF COMPUTER SCIENCE

Program Overview

The Department of Computer Science offers a graduate degree program leading to the master of science in the field of computer science. After completing core requirements, students select electives in subject areas such as computer security and information assurance, database and information retrieval systems, software engineering and systems, biomedical computing, digital media and computer graphics, networking and mobile computing, computer architecture, pervasive computing and embedded systems, machine intelligence, robotics, and algorithms and theory. Students are not required to take elective courses in a particular subject area or across subject areas. Both thesis and non-thesis options are available.

Specific admission requirements are shown on the Graduate Program Finder. Visit the program website (http://www.cs.seas.gwu.edu/master-science-computer-science) for additional information.

Prerequisites:

In addition to the entrance requirements, students are expected to be adequately prepared in the basic physical sciences and in mathematics (one year each of university laboratory science and of math beyond precalculus). Students are also expected to have taken a course in computer programming using a structured language, as well as CSCI 1112 Algorithms and Data Structures, CSCI 1311 Discrete Structures I, and CSCI 2461 Computer Architecture I, or their equivalents.

Educational Planner:

In consultation with an academic advisor, each student must develop an Educational Planner through DegreeMAP that governs the student's degree requirements. The Educational Planner should be established soon after matriculation and must be completed before the end of the student's first semester. The Educational Planner must be approved by the advisor.

REQUIREMENTS

Credit Requirements:

• Thesis option: 30 credits are required for graduation; 6 of these credits are thesis credits
• Non-thesis option: 30 credits are required for graduation
• With department approval, students who complete the Masters of Science in computer science and then enroll in the Master of Science in the field of cybersecurity in computer science degree or vice versa can count the following core courses towards both degrees: CSCI 6212 Design and Analysis of Algorithms, CSCI 6221 Advanced Software Paradigms, and CSCI 6461 Computer System Architecture.

Graduation and Scholarship Requirements:

Students are responsible for knowing the university’s minimum GPA requirement for graduation and scholarships. Please visit the Graduation and Scholarship Requirements (http://bulletin.gwu.edu/engineering-applied-science/graduation_requirements_ms) section on this site to read the requirements.

Students should contact the department for additional information and requirements.

Program Restrictions:

- Student's whose admission letters state that they are required to take CSCI 6010 and CSCI 6011 are not allowed to take any non-CS courses.
- Students required to take CSCI 6010 and CSCI 6011 must take these courses in their first semester.
- Students not required to take CSCI 6010 and CSCI 6011 may take up to two non-CS courses (6 credits) towards their degree with prior written approval from their faculty advisor.
- At least 24 of the 30 credits required for the degree must be at the 6000 level or above. As a general rule, any course taken below the 6000 level must be a Computer Science course and must be eligible to be taken for graduate credit according to the course description. Exceptions may be chosen to enhance an aspect of the student’s degree program. Any course taken that is below the 6000 level must receive prior written approval from the student’s faculty advisor.

Electives

21 credits in elective courses selected from among computer science courses offered for graduate credit. Students may take up to two non-CS courses (6 credits) towards their MS degree with prior written approval from their advisor, unless they are required to take CSCI 6010 and CSCI 6011 in their admissions letter. If a student is required to take CSCI 6010 and CSCI 6011 then they are not permitted to take any non-CS courses as part of their degree program. Students required to take CSCI 6010 and CSCI 6011 are strongly encouraged to take these courses in their first semester.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 6212</td>
<td>Design and Analysis of Algorithms</td>
<td></td>
</tr>
<tr>
<td>CSCI 6221</td>
<td>Advanced Software Paradigms</td>
<td></td>
</tr>
<tr>
<td>CSCI 6461</td>
<td>Computer System Architecture</td>
<td></td>
</tr>
</tbody>
</table>
At least 24 of the 30 credits required for this program must be at the 6000 level or above. As a general rule, these must be Computer Science courses taken for graduate credit. Exceptions may be made in order to enhance an aspect of the student’s degree program, but any exception would require prior written approval from the student’s advisor.