MINOR IN COMPUTER SCIENCE

This minor, offered by the Department of Computer Science, is for students in other GW schools as well as other majors within the School of Engineering and Applied Science. The curriculum consists of two segments: core courses and electives whose purpose is to provide the student with depth in an area of computer science. The total number of credits for the minor is 18.

To be considered for admission to the minor in computer science, a student must satisfy the following criteria:

- A minimum grade of B or above in CSCI 1111 Introduction to Software Development, CSCI 1011 Introduction to Programming with Java, or CSCI 1121 Introduction to C Programming; and a B- or above in MATH 1220 Calculus with Precalculus I and MATH 1221 Calculus with Precalculus II or a B- in MATH 1231 Single-Variable Calculus I;
- A minimum overall grade-point average of 3.0 at the time of application to the minor.
- The application is due no later than the start of the 5th semester of study at GW or completion of the 60th credit, whichever comes first.

Contact the Department of Computer Science (https://www.cs.seas.gwu.edu) for current application deadlines for the minor in computer science.

**Credits in residence requirement:**

- For students pursuing a minor, at least 15 credits in computer science courses must be completed at GW.

**Graduation grade-point average criteria:**

- To satisfactorily complete a minor in computer science, a student must have a minimum grade-point average of 2.2 in all the computer science courses.

### REQUIREMENTS

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<tr>
<th>Code</th>
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<th>Credits</th>
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<td>Required</td>
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<tr>
<td>CSCI 1111</td>
<td>Introduction to Software Development</td>
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<tr>
<td>CSCI 1112</td>
<td>Algorithms and Data Structures</td>
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<tr>
<td>CSCI 1311</td>
<td>Discrete Structures I</td>
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<tr>
<td>CSCI 2113</td>
<td>Software Engineering</td>
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<tr>
<td>Electives</td>
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Choose at least two Computer Science elective courses that either require CSCI 2113 as a prerequisite or have CSCI 2113 in the prerequisite chain. Possible electives include:

CSCI 2441 Database Systems and Team Projects
CSCI 2461 Computer Architecture I
CSCI 3212 Algorithms
CSCI 3221 Programming Languages
CSCI 3313 Foundations of Computing
CSCI 3410 Systems Programming
CSCI 3411 Operating Systems
CSCI 4223 Principles of Programming Languages
CSCI 4235 Development of Open-Source Software
CSCI 4237 Software Design for Handheld Devices
CSCI 4331 Cryptography
CSCI 4341 Continuous Algorithms
CSCI 4342 Computational Linear Algebra and Applications
CSCI 4364 Machine Learning
CSCI 4415 Real-Time and Embedded Systems
CSCI 4431 Computer Networks I
CSCI 4511 Artificial Intelligence Algorithms
CSCI 4525 Autonomous Robotics: Manipulation
CSCI 4527 Introduction to Computer Vision
CSCI 4531 Computer Security
CSCI 4541 Network Security
CSCI 4554 Computer Graphics 1
CSCI 4561 Design of User-Interface Programs
CSCI 4572 Computational Biology
CSCI 4577 Biomedical Computing

Other electives may be substituted with the approval of the minor advisor.