COMPUTER SCIENCE MAJOR (B.S.)

120 credits of coursework is required for the baccalaureate degree with a minimum 2.0 overall GPA, and a minimum 2.0 major GPA.

Program Requirements

Students must complete General Education requirements (http://catalog.montclair.edu/undergraduate-graduate-degree-requirements/general-ed-ba-bs/) and World Languages and Cultures Requirements (http://catalog.montclair.edu/undergraduate-graduate-degree-requirements/world-languages-cultures-requirement/).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td></td>
<td>A. Collateral Courses</td>
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<td>Select one of the following sequences:</td>
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<tr>
<td></td>
<td>PHYS 191 University Physics I</td>
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<tr>
<td></td>
<td>&amp; PHYS 192 University Physics II</td>
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<tr>
<td></td>
<td>CHEM 120 General Chemistry I</td>
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<tr>
<td></td>
<td>&amp; CHEM 121 General Chemistry II</td>
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<tr>
<td></td>
<td>BIOL 112 Principles of Biology I</td>
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<td></td>
<td>&amp; BIOL 113 Principles of Biology II</td>
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<td>B. Required Mathematics Courses</td>
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<tr>
<td></td>
<td>CSIT 270 Discrete Mathematics</td>
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<td>MATH 122 Calculus I</td>
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<tr>
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<td>MATH 221 Calculus II</td>
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<td>AMAT 240 Introduction to Linear Algebra</td>
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<td>STAT 230 Data Science and Statistics</td>
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<td>C. Required Computer Science Courses - Core</td>
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<tr>
<td></td>
<td>CSIT 104 Python Programming I</td>
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<td></td>
<td>CSIT 111 Fundamentals of Programming I</td>
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<td></td>
<td>CSIT 112 Fundamentals of Programming II</td>
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<td></td>
<td>CSIT 212 Data Structures and Algorithms</td>
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<td>CSIT 230 Computer Systems</td>
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<td></td>
<td>CSIT 231 Systems Programming</td>
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<td>CSIT 379 Computer Science Theory</td>
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<td>CSIT 315 Software Engineering I</td>
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<tr>
<td></td>
<td>CSIT 415 Software Engineering II</td>
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<td>CSIT 460 Computer Security</td>
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<td>D. Required Computer Science Advanced Courses</td>
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<td>CSIT 313 Fundamentals of Programming Languages</td>
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<td>CSIT 340 Computer Networks</td>
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<td>CSIT 345 Operating Systems</td>
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<td>CSIT 355 Database Systems</td>
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<td>E. Computer Science Electives</td>
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<td>Complete any two CSIT courses at the 300 or 400 level (except CSIT 416 or 432). See the list below.</td>
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<td>Total Credits</td>
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Major Electives

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<tr>
<td>CSIT 317</td>
<td>System Analysis and Design</td>
<td>3</td>
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<tr>
<td>CSIT 321</td>
<td>Introduction to Numerical Computing</td>
<td>3</td>
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