## Academic Degree Program

### Major in: Computer Science

**Major 73 hours, 36 UD**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
<th>Has</th>
<th>Lacks</th>
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<tbody>
<tr>
<td>CS 180 Survey of Computer Science</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS 161 Computer Science I</td>
<td>5</td>
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<tr>
<td>CS 162 Computer Science II</td>
<td>5</td>
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<tr>
<td>CS 260 Data Structures I</td>
<td>3</td>
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<tr>
<td>CS 262 Programming Language</td>
<td>2</td>
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<tr>
<td>CS 271 Computer Organization</td>
<td>4</td>
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<tr>
<td>CS 272 Low Level Programming</td>
<td>3</td>
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<tr>
<td>CS 311 Data Structures II</td>
<td>3</td>
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<td><strong>Choose one: (3)</strong></td>
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<tr>
<td>CS 314 Survey of Programming Lang.</td>
<td>3</td>
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<tr>
<td>CS 315 Theory of Programming Lang.</td>
<td>3</td>
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<tr>
<td>CS 345 Theory of Computation I</td>
<td>3</td>
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<td>CS 350 Network Administration</td>
<td>3</td>
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<td>CS 372 Operating Systems</td>
<td>3</td>
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<td>CS 420 Database Management</td>
<td>3</td>
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<tr>
<td>CS 425 Systems Analysis and Design</td>
<td>3</td>
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<td>CS 430 Software Implementation</td>
<td>3</td>
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<tr>
<td>CS 470 Human Machine Interfaces</td>
<td>3</td>
<td></td>
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<tr>
<td><strong>Computer Science electives:</strong></td>
<td>15</td>
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<td><strong>Choose 9 from one of the following categories and at least 6 additional from any category.</strong></td>
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**A) Computational Theory**

- CS 440 Analysis of Algorithms (3)
- CS 445 Theory of Computation II (3)
- CS 447 Compiler Design (3)
- CS 449 Topics in Computational Theory (4)

**B) Distributed Computing**

- CS 453 Data Mining & Data Warehousing (3)
- CS 454 Distributed Systems (3)
- CS 459 Topics in Systems Management (3)
- CS 472 Operating Systems: Adv Topics (3)
- CS 487 File Forensics (4)

**C) Software engineering**

- CS 471 Metrics and Testing (3)
- CS 474 Concurrent Systems (3)
- CS 475 App. Computational Intelligence (3)
- CS 479 Topics in Software Engineering (3)
- CS 481 Computer Graphics (3)
- CS 488 Secure Software Lifecycle (3)

**D) Computing Systems Engineering**

- CS 450 Network Programming (3)
- CS 472 Operating Systems: Adv. Topics (3)
- CS 490 Physical Computing (3)
- CS 491 Embedded Systems Design (3)

<table>
<thead>
<tr>
<th>Program notes &amp; Additional Degree Requirements</th>
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<tbody>
<tr>
<td><strong>Mathematics Requirements (6)</strong></td>
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<tr>
<td>MTH 231 Elements of Discrete Mathematics</td>
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<tr>
<td>MTH 354 Discrete Mathematics for Computer Sciences</td>
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</table>

**Note:** Computer Science majors must have a grade of C or better in courses that are used to satisfy the major requirements.

Students must also have a C or better in all listed prerequisite courses unless waived by the course instructor and the computer science division chair.

**Minimum degree requirements of at least:**

- 180 or more total credit hours
- 62 Upper Division credit hours
- 45 of last 60 credits earned at WOU campus

**BA Degree Requirements**

- CS 101 or higher
- Math 105 or higher
- Writing Intensive:
- Foreign Language (C- or better):

**BS Degree Requirements**

- CS 121 or higher
- Math 111 or higher
- CS/Math/Stats:
- Diversity:
- Writing Intensive: