State University of New York at Binghamton
Thomas J. Watson School of Engineering and Applied Science
BS in Computer Science International Transfer Program

REQUIRED FIRST TWO YEARS OF STUDY-BASED ON FALL 2009 CATALOG

Courses needed for Junior-Level Transfer Admission for International Students

For admission to computer science at the junior level, you should have completed coursework in the subjects listed next to the bullets below. All transfer credits are awarded on a course-by-course basis. It is important to follow all guidelines as noted. Any missing courses or lack of preparation may result in adding another year of study for degree completion. Years 3 and 4 below can only be completed on time by very able and well prepared students.

- Calculus I and II
- One math elective chosen from linear algebra, differential equations and graph theory
- Two semesters of a science sequence equivalent to the courses taken by Binghamton students in the respective major, chosen from: calculus-based physics, chemistry, or biology.
- One other Science elective satisfying the General Education Lab requirement
- A first course in machine organization including digital logic
- A first course in machine architecture with assembly programming
- One course of written composition in English, equivalent to 4 credits at Binghamton
- Three college courses in humanities/social science (to meet General Education requirements). Students will need to satisfy the foreign language requirement for Computer Science.
- Other courses that can transfer as 12 credits of free elective
- Basic competence in C, C++ and Java

AFTER TRANSFER, A SAMPLE FOR YEARS 3 AND 4 IS AS FOLLOWS:

Year 3

<table>
<thead>
<tr>
<th>Fall</th>
<th>(17 credits)</th>
<th>Spring</th>
<th>(17 credits)</th>
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</thead>
<tbody>
<tr>
<td>CS 101</td>
<td>Topics in Computer Science</td>
<td>CS 333</td>
<td>Algorithms</td>
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<tr>
<td>CS 140</td>
<td>Programming with Objects</td>
<td>CS 373</td>
<td>Automata Theory &amp; Formal Lang.</td>
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<tr>
<td>CS 240</td>
<td>Programming Data Structures</td>
<td>Social Sciences/Humanities Elective*</td>
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<tr>
<td>MATH 314</td>
<td>Discrete Mathematics</td>
<td>MATH 327</td>
<td>Probability and Statistics</td>
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<tr>
<td></td>
<td>Communications elective</td>
<td>Physical Activity/Wellness Elective*</td>
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</tbody>
</table>

Year 4

<table>
<thead>
<tr>
<th>Fall</th>
<th>(17 credits)</th>
<th>Spring</th>
<th>(16 credits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 325</td>
<td>Advanced Computer Organization</td>
<td>CS 471</td>
<td>Programming Languages</td>
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<tr>
<td>CS 350</td>
<td>Operating Systems</td>
<td>Computer Science Elective</td>
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<tr>
<td>CS 495</td>
<td>Prof. Ethics and Communication</td>
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</tbody>
</table>

*General Education
It is important for timely completion that at least five social science and humanities courses count toward the various General Education requirements. Binghamton also offers some distance-learning General Education courses during the winter and summer semesters. The list of requirements is at http://gened.binghamton.edu and Watson Student Services can provide additional help (wtsnadv@binghamton.edu)