COMPUTER SCIENCE, MANAGEMENT, BSCS

Bachelor of Science in Computer Science, Management (346003BS)

More on the Computer Science, Management major (https://www.uakron.edu/computer-science/academics/undergraduate-programs/bscs-management.dot)

A variant of the Bachelor of Computer Science program tailored to learning about designing and developing systems for business information management.

The following information has official approval of The Department of Computer Science and The College of Engineering and Polymer Science, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements.

Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others. The transfer process is completed through an appointment with your academic advisor.

Requirements Summary

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Education Requirements</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Preadmission Major Core Requirements</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Computer Science - Management Core</td>
<td>33-35</td>
</tr>
<tr>
<td></td>
<td>Computer Science - Management Electives</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Additional Credits for Graduation</td>
<td>11-9</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>120</td>
</tr>
</tbody>
</table>

* Bachelor’s degrees require a minimum of 120 credit hours for graduation.

Note: A 2.0 GPA is required in all major coursework.

General Education Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students pursuing a bachelor’s degree must complete three tiers of General Education coursework. Tiers I and II provide students with foundational skills and breadth of disciplinary knowledge. Tier III courses require students to integrate knowledge, understand diverse perspectives, and think critically about complex issues. Courses tagged for Tier III may also fulfill major or Disciplinary Area requirements.</td>
<td></td>
</tr>
</tbody>
</table>

Tier I: Academic Foundations

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quantitative Reasoning: 3 credit hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Speaking: 3 credit hours</td>
<td></td>
</tr>
</tbody>
</table>

Tier II: Disciplinary Areas

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Arts/Humanities: 9 credit hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Natural Sciences: 7 credit hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Sciences: 6 credit hours</td>
<td></td>
</tr>
</tbody>
</table>

Tier III: Tagged Courses

Select one class from each of the following subcategories:

- Complex Systems
- Critical Thinking
- Domestic Diversity
- Global Diversity

Review the General Education Requirements page for detailed course listings.

Total Hours 34

Foreign Language and Upper Level Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Degree requirements include the demonstration of ability to use another language by completion of the second year of a foreign language.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foreign Language</td>
<td></td>
</tr>
<tr>
<td></td>
<td>101 Beginning I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>102 Beginning II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>201 Intermediate I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>202 Intermediate II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7700:222 Survey of Deaf Culture in America (American Sign Language option only)</td>
<td></td>
</tr>
</tbody>
</table>

Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:

- Upper-level (300/400) courses both in and outside of the student's major;
- or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

Preadmission Major Core Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3450:208</td>
<td>Introduction to Discrete Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>3460:209</td>
<td>Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>3460:210</td>
<td>Computer Science II</td>
<td>4</td>
</tr>
<tr>
<td>3450:221</td>
<td>Analytic Geometry-Calculus I</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Hours 16

Computer Science - Management Core

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3450:222</td>
<td>Analytic Geometry-Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>3460:316</td>
<td>Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>3460:435</td>
<td>Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>3460:475</td>
<td>Database Management</td>
<td>3</td>
</tr>
<tr>
<td>3460:480</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>3460:490</td>
<td>Senior Seminar in Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>3470:401</td>
<td>Probability and Statistics for Engineers</td>
<td>2-4</td>
</tr>
</tbody>
</table>
### Computer Science - Management Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>6500:301</td>
<td>Management: Principles &amp; Concepts</td>
<td>3</td>
</tr>
<tr>
<td>or 6500:480</td>
<td>Introduction to Health-Care Management</td>
<td></td>
</tr>
<tr>
<td>6500:310</td>
<td>Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td><strong>33-35</strong></td>
</tr>
</tbody>
</table>

1. Counts as a College of Arts & Sciences upper level course.

#### Computer Science - Management Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select a minimum of six credits of 3460 upper level electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>3460:3xx</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>3460:4xx</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Select a minimum of six additional credits of approved 300 and/or 400 electives in Computer Science (3460) or related to Computer Science from the following pre-approved list:</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2440:204</td>
<td>WAN Technologies</td>
<td></td>
</tr>
<tr>
<td>3350:405</td>
<td>Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>3350:407</td>
<td>Advanced Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>3450:312</td>
<td>Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>3450:410</td>
<td>Advanced Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>3450:415</td>
<td>Combinatorics &amp; Graph Theory</td>
<td></td>
</tr>
<tr>
<td>3450:427</td>
<td>Applied Numerical Methods I</td>
<td></td>
</tr>
<tr>
<td>3450:428</td>
<td>Applied Numerical Methods II</td>
<td></td>
</tr>
<tr>
<td>3450:430</td>
<td>Numerical Solutions for Partial Differential Equations</td>
<td></td>
</tr>
<tr>
<td>3450:436</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>3470:480</td>
<td>Statistical Data Management</td>
<td></td>
</tr>
<tr>
<td>4450:410</td>
<td>Embedded Scientific Computing</td>
<td></td>
</tr>
<tr>
<td>4450:415</td>
<td>System Simulation</td>
<td></td>
</tr>
<tr>
<td>4450:420</td>
<td>Computer Systems Design</td>
<td></td>
</tr>
<tr>
<td>4450:422</td>
<td>Embedded Systems Interfacing</td>
<td></td>
</tr>
<tr>
<td>4450:427</td>
<td>Computer Networks</td>
<td></td>
</tr>
<tr>
<td>4450:440</td>
<td>Digital Signal Processing</td>
<td></td>
</tr>
<tr>
<td>4450:462</td>
<td>Analog Integrated Circuit Design</td>
<td></td>
</tr>
<tr>
<td>4450:465</td>
<td>Programmable Logic</td>
<td></td>
</tr>
<tr>
<td>4450:467</td>
<td>VLSI Circuits &amp; Systems</td>
<td></td>
</tr>
<tr>
<td>4800:420</td>
<td>Biomedical Signal &amp; Image Processing</td>
<td></td>
</tr>
<tr>
<td>7100:489</td>
<td>Special Topics in Studio Art (ST: Game Design)</td>
<td></td>
</tr>
<tr>
<td>3460:3xx</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>3460:4xx</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

1. Only 3 credits of 3460:395 Internship in Computer Science may count toward the Computer Science - Management Electives.
2. 3460:489 Topics in Computer Science may be repeated under different topics.