AS-T Computer Science

Completion of the AS-T in computer science prepares students for transfer to a 4-yr institution to complete their Bachelor’s degree in computer science or computer science engineering. This degree can be completed in either C++ or JAVA programming languages. Students will need to determine which language is preferred by the transfer institution.

Career Opportunities

Students completing this degree will be ready to transfer to a 4-yr institution to complete study in computer science. A basic knowledge of computer structure and programming adds to many jobs - both as a programmer, working with programmers and as a content expert developing programs for projects in that field.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply knowledge of math, science and computer science to identify, formulate, and solve computer science problems.
2. Communicate effectively and work well in situations that require teamwork.
3. Design and perform tests or experiments, analyze and interpret data, and prepare a report summarizing the results of the tests of experiments.
4. Develop a design or system given a set of requirements and specifications
5. Use techniques, skills, and modern engineering and computer tools necessary for engineering or computer science practice.

AS-T Degree Requirements

Major: Core and Selective Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 242</td>
<td>Computer Architecture and Assembly Language</td>
<td>3 units</td>
</tr>
<tr>
<td>CIS 250</td>
<td>Introduction to Object Oriented Programming: C++</td>
<td>3 units</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIS 284</td>
<td>Introduction to Object Oriented Programming: Java</td>
<td>3 units</td>
</tr>
<tr>
<td>CIS 252</td>
<td>Introduction to Data Structures - C++</td>
<td>3 units</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIS 286</td>
<td>Introduction to Data Structures - Java</td>
<td>3 units</td>
</tr>
</tbody>
</table>

CIS 262 Discrete Mathematics for Computer Science 3 units
MATH 251 Analytical Geometry and Calculus I 5 units
MATH 252 Analytical Geometry and Calculus II 5 units
PHYS 250 Physics with Calculus I 4 units
PHYS 260 Physics with Calculus II 4 units

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- OR
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.