ASSOCIATE IN SCIENCE IN PHYSICS FOR TRANSFER

2017-2018

The study of Physics includes all of the energy interactions in the physical world. This study includes the smallest particles in the atom to the electrical energy flowing through our household appliances to the movements of the planets in our solar system, and even to the heat and light generated from the stars. Much of the course of study at Evergreen Valley College is devoted to the energy relationships of everyday life, such as heat, light, electricity, mechanical energy, sound, and magnetism. The Theory of Relativity and Quantum Mechanics are also discussed.

A graduate with this degree usually will transfer to a four-year college to eventually earn a Bachelor’s Degree. Graduates with this degree may work in technical fields in business and industry. Further work toward a Masters or PhD in Physics or Astronomy is preferable if a student plans to teach or work in research. Earning an Associate in Science in Physics for Transfer will guarantee a student admission to a CSU campus, but not necessary to a particular campus. Please see the Associate Degree for Transfer information in the Evergreen Valley College catalog.

Please Note: High School Preparation: Courses in physics, chemistry, four years of high school mathematics are required. If this preparation is not complete, Evergreen Valley College offers courses to meet this preparation. If the preparation is not complete, it may take more than two years to complete the AS-T degree. No more than 60 units are required for this degree and no additional requirements will be imposed by Evergreen Valley College.

Program Learning Outcomes:

- Identify all of the physical quantities in a problem, and define the steps to model and solve real world problems.
- Use inductive and deductive reasoning to analyze evidence to arrive at logical conclusions.
- Demonstrate proficiency in assembly of experimental apparatuses to conduct and analyze measurements of physical phenomena.
- Assess experimental uncertainty to aid in making meaningful comparisons between experiment and theory.

Required Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 004A</td>
<td>General Physics</td>
<td>5.0</td>
</tr>
<tr>
<td>PHYS 004B</td>
<td>General Physics</td>
<td>5.0</td>
</tr>
<tr>
<td>PHYS 004C</td>
<td>General Physics</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH 071</td>
<td>Calculus with Analytical Geometry</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH 072</td>
<td>Calculus II with Analytical Geometry</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH 073</td>
<td>Multivariable Calculus</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Core Requirements: 30.0

IGETC for CSU 37.0

Total units required for the degree 60.0

Students who complete the AS-T in Physics must have the following:

- Completion of 60 CSU transferrable units
- A minimum of at least 2.0 GPA in CSU transferrable courses. Note that a higher GPA may be required in some institutions
- Completion of at least 18 units in the major with a grade of “C” or better
- Certified completion of the CSU General Education-Breadth (CSU GE-Breadth) requirements, or completion of the Intersegmental General Education Transfer Curriculum (IGETC) requirements

Please Note: No more than 60 units are required for this degree and no additional requirements will be imposed by Evergreen Valley College. Some GE courses may be double-counted within the major and will reduce the number of units. General electives may be needed to reach 60 units. Please consult with a counselor to determine which courses are applicable.

June 2017