PHYSICS (For Transfer)

DEGREES, CERTIFICATES AND AWARDS
Associate in Science Degree in Physics for Transfer (AS-T)

DESCRIPTION
Physics, a natural science, is the scientific study of matter and energy and of the interaction between the two. The Associate Degree in Physics for Transfer provides students with an understanding of the physical world, both conceptually and in the language of mathematics. The degree prepares students for preprofessional careers and for curriculum at four-year institutions leading to a baccalaureate degree in areas such as physics, astrophysics, geophysics, mathematics, and engineering. Physics majors develop strong mathematical, analytical, and laboratory skills, and a solid understanding of the fundamental physical laws that govern the universe.

The Associate in Science for Transfer (AS-T) is intended for students who plan to complete a Bachelor’s Degree in a similar major at a CSU campus. Students completing this degree (AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

PROGRAM LEARNING OUTCOMES
1. Apply the principles of mechanics, electromagnetism, thermodynamics, waves, optic, and modern physics to theoretical problems as well as to experimental applications.
2. Demonstrate laboratory skills including how to take and analyze data, keep an organized lab book, and write a lab report.
3. Apply mathematics through multivariable calculus to solve physics problems.

ASSOCIATE DEGREE PROGRAM (For Transfer)
The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) degree is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn one of these degrees, students must complete 60 semester units of CSU transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that does accept the AA-T or AS-T will be required to complete no more than 60 units after transfer to earn a bachelor’s degree (unless the major is a designated “high-unit” major). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete this degree for more information on university admission and transfer requirements.

TRANSFER PREPARATION
Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

Transfer Resources:
www.ASSIST.org – CSU and UC Articulation Agreements and Majors Search Engine
www.CSUMentor.edu – CSU System Information
www.universityofcalifornia.edu/admissions/index.html - UC System Information
www.aiccu.edu – California Independent Colleges and Universities, Association of
http://wiche.edu/wue - Western Undergraduate Exchange Programs

FINANCIAL AID
Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: www.imperial.edu/students/financial-aid-and-scholarships/
ASSOCIATE DEGREE PROGRAM

PHYSICS
Associate in Science Degree in Physics for Transfer (AS-T) – 24.0 units

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF “C” OR BETTER.

REQUIREMENTS FOR THE DEGREE

I. Units/GPA – Must complete 60 CSU transferable semester units with a minimum grade point average (GPA) of at least 2.0 in all CSU transferable coursework. NOTE: While a minimum of 2.0 is required for admission, some institutions and majors may require a higher GPA. Please consult with a counselor for more information.

II. General Education – Must complete one of the following general education transfer patterns:
   A. California State University General Education Breadth Pattern (CSU GE-B) – 39 units minimum
   B. Intersegmental General Education Transfer Curriculum (IGETC) – 37 units minimum

III. Twenty-four (24) units required for the major

<table>
<thead>
<tr>
<th>Required for the Major (24.0 units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 200  General Physics I</td>
</tr>
<tr>
<td>PHYS 202  General Physics II</td>
</tr>
<tr>
<td>PHYS 204  General Physics III</td>
</tr>
<tr>
<td>MATH 192  Analytic Geometry and Calculus I</td>
</tr>
<tr>
<td>MATH 194  Analytic Geometry and Calculus II</td>
</tr>
<tr>
<td>MATH 210  Multivariable Calculus</td>
</tr>
</tbody>
</table>

Total Major Units: 24.0
CSU GE-B or IGETC Pattern: 37.0-39.0
Electives (as needed to reach 60 CSU transferable units): ______
Total Maximum Units: 60.0