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

DESCRIPTION
Biology is defined as any one of the branches of science concerned with the structure and behavior of living organisms, such as biology, botany, zoology, physiology, or biochemistry. This curriculum is designed to provide the beginning basics of a two-year transfer program with emphasis on the uniformity and diversity of life. The course requirements fulfill the lower division requirements for Biology.

The Associate in Arts for Transfer (AA-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 (AA-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

PROGRAM LEARNING OUTCOMES
1. Students will demonstrate an understanding of fundamental biological concepts and knowledge of the structure and function of living organisms.
2. Students will display competency with respect to the use of standard laboratory equipment and techniques commonly used in life science labs.
3. Students will understand the process of scientific research and display critical thinking skills related to hypothesis development, experimentation and data interpretation.
4. Students will develop a foundation in biology strong enough to allow the successful completion of any attempted 200-level biology course(s).

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 a minimum of 60 required 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.

CAREER OPPORTUNITIES
Of the career opportunities identified many will usually require the completion of degree requirements at 4-year colleges and universities.

- Agronomist
- Anatomist
- Animal Scientist
- Biochemist
- Biomedical Engineer
- Biophysicist
- Botanist
- Developmental Biologist
- Ecologist
- Medical Laboratory Technician
- Epidemiologist
- Food Scientist
- Forester
- Geneticist
- Horticulturist
- Immunologist
- Marine Biologist
- Medical Illustrator
- Microbiologist
- Nutritionist
- Paleontologist
- Pathologist
- Pharmacologist
- Physiologist
- Science Teacher
- Science Writer
- Zoologist

Gainful Employment: Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: [http://www.imperial.edu/courses-and-programs/programs-of-study/](http://www.imperial.edu/courses-and-programs/programs-of-study/)

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.CSU Mentor.edu – CSU System Information
- www.universityofcalifornia.edu/admissions/index.html - UC System Information
- www.aicuu.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/](http://www.imperial.edu/students/financial-aid-and-scholarships/)
ASSOCIATE DEGREE PROGRAM

BIOLOGY
Associate in Science Degree in Biology for Transfer (AS-T) – 30.0 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 a maximum of 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) for STEM – 33 units minimum
   B. Intersegmental General Education Transfer Curriculum (IGETC) for STEM – 31 units minimum

III. Thirty (30) units required for the major

Required for the Major (13 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL</td>
<td>General Biology: Molecules, Cells, and Genetics</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL</td>
<td>General Biology: Organismal Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM</td>
<td>General Inorganic Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM</td>
<td>General Inorganic Chemistry II</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS</td>
<td>General Physics I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS</td>
<td>General Physics II</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Total Major Units 30.0
CSU-GE or IGETC for STEM Pattern 31.0-33.0
Electives (as needed to reach 60 CSU transferable units)

Total Maximum Units: 60.0