

# BIOLOGY - ASSOCIATE IN SCIENCE FOR TRANSFER

The Associate in Science in Biology for Transfer (AS-T) Degree provides students with a solid foundation in the life sciences, in preparation for a potential transfer to a 4 year institution. Successful completion of the AS-T satisfies lower division requirements and guarantees admission to the California State University (CSU) system (though not to a particular campus or major). The AS-T degree in biology is designed to prepare those students interested in majoring in biology, and/or those considering careers in the life sciences, including research, teaching, medicine and healthcare, biotechnology, and other related disciplines.

To be awarded the Associate in Science in Biology for Transfer degree, students must:

(1) Complete 60 semester units or 90 quarter units which are eligible for transfer to the California State University (CSU) system, including both of the following:

(A) The Intersegmental General Education Transfer Curriculum (IGETC for CSU) for STEM or the California State University General Education - Breadth Requirement (CSU GE) for STEM.

(B) A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.

(2) Obtain a minimum grade point average of 2.0.

While a minimum of 2.0 is required for admission, some majors may require a higher GPA. Please consult with a counselor for more information.

Associate Degrees for Transfer (ADTs) also require that students must earn a "C" or better in all courses required for the major or area of emphasis.

## Program Learning Outcomes

- Formulate and test hypotheses by employing the scientific method, including collecting, interpreting and presenting data.
- Properly use scientific terms and concepts, especially in the context of critically assessing scientific arguments.
- Classify organisms into taxonomic groups and compare and contrast their living functions and organization.
- Apply chemical, physical, and biological principles to explain the significance of fundamental processes and phenomena in biology (including but not limited to photosynthesis, metabolism, DNA replication, and current uses of biotechnology).
- Apply ecological principles to explain the natural histories of organisms, their interconnectedness with the environment, and the importance of conservation.

## Program Requirements

Course	Title	Credits
BIOL 004A	General Principles and Cell Biology	5
BIOL 004B	Biodiversity and Organismal Biology	5
List A		
CHEM 001A	General Chemistry	5
CHEM 001B	General Chemistry	5

MATH 071	Calculus I With Analytic Geometry	5
PHYS 002A	Algebra/Trigonometry-Based Physics I	4
and		
PHYS 002B	Algebra/Trigonometry-Based Physics II	4
or		
PHYS 004A	General Physics	5
and		
PHYS 004B	General Physics	5
<b>Total Units</b>		<b>33-35</b>

## A.S.-T Degree Requirements

Course	Title	Credits
General Education Pattern		31-33
CSU GE for STEM		33
IGETC (CSU) for STEM		31

CSU GE Breadth for STEM and IGETC for CSU for STEM is only applicable to the Biology AS-T degree.

Students pursuing San Jose City College's Biology AS-T must complete one of the following General Education patterns:

CSU GE Breadth for STEM (33 units) - All courses in Areas A, B, and E of the traditional GE curriculum; and one course in Subarea C1 Arts and one course in Subarea C2 Humanities; and two courses in Area D from two different disciplines.

OR

IGETC for CSU for STEM (31 units) - All courses in Area 1, 2, and 5 of the traditional IGETC for CSU curriculum; and one course in 3A Arts and one course in 3B Humanities; and two courses in Area 4 from two different disciplines.