



## Associate Degree for Transfer<sup>SM</sup>

### BIOLOGY FOR TRANSFER (AS-T)

The Associate in Science in Biology for Transfer presents the diverse, dynamic study of life through a required core of biology and supporting courses. This degree is specifically designed to prepare students for transfer to a California State University, where a baccalaureate degree may be earned in Biological Sciences or a closely related field.

The following is required for the AS-T in Biology for Transfer degree:

1. 60 semester or 90 quarter CSU-transferable units;
2. The Intersegmental General Education Transfer Curriculum (IGETC) for Science, Technology, Engineering and Mathematics (STEM) pattern for the CSU;\*
3. Minimum of 18 semester or 27 quarter units in the major or area of emphasis;
4. Minimum grade point average (GPA) of 2.0;
5. Grade of "C" or better in all courses required for the major or area of emphasis.

#### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Explain the basic structures and fundamental processes of life at the molecular, cellular, and organismal levels.
- Identify the evolutionary processes that lead to adaptation and biological diversity.
- Describe the relationship between life forms and their environment and ecosystems.
- Collect, organize, analyze, interpret and present quantitative and qualitative data and incorporate them into the broader context of biological knowledge.
- Effectively apply current technology and scientific methodologies for problem solving.
- Find, select and evaluate various types of scientific information including primary research articles, mass media sources and World Wide Web information.
- Communicate effectively in written and oral formats.

#### Associate in Science for Transfer Degree Requirements:

Course	Title	Units
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##### Required Core:

BIO 230	Principles of Cellular, Molecular and Evolutionary Biology	4
BIO 240	Principles of Ecology, Evolution and Organismal Biology	5
		<u>9</u>

##### List A:

CHEM 141	General Chemistry I	5
CHEM 142	General Chemistry II	5
MATH 180	Analytic Geometry and Calculus I	5

##### Choose one sequence:

PHYC 130	Fundamentals of Physics	4
PHYC 131	Fundamentals of Physics	4
<b>or</b>		
PHYC 190	Mechanics and Heat	5
PHYC 200	Electricity and Magnetism (emphasis)	5

##### List B:

MATH 160	Elementary Statistics	4
	Total Required	<u>36-38</u>
	Double-Counted Units	10
	General Education Requirements (IGETC-CSU for STEM)*	31
	Electives	<u>1-3</u>
	Total Degree Units	<u>60</u>

\*Completion of IGETC-CSU for STEM allows for completion of 6 units of non-STEM GE work after transfer. One Area 3 course (Fine Arts and Humanities) and one Area 4 course (Social and Behavioral Sciences) may be deferred until after transfer.