



# Biology for Transfer Degree

## 18-19

### COUNSELING CENTER ADVISING

### AST-Associate Degree

#### Biology for Transfer

#### Required Core Courses:

* BIOL 110, General Molecular Cell Biology	5
BIOL 120, General Organismal, Ecological and Evolutionary Biology	5

#### Required Electives A

Select 23 units from the following:

*CHEM 110, General Chemistry	5
CHEM 120, General Chemistry	5
*MATH 150, Calculus and Analytic Geometry	5
PHYS 101, Introductory Physics <i>and</i>	
PHYS 102, Introductory Physics	

#### OR

PHYS 110, General Physics <i>and</i>	
PHYS 120, General Physics	8
<b>Units Required for Major</b>	<b>33</b>

*other requirements for degree*

#### General Education:

IGETC for STEM Majors or CSU Breadth: 32-38

**Minimum Units Required 60**

\*Courses denoted with an asterisk will fulfill the completion requirements for both the major and general education.

#### Electives

The remaining number of units (up to a minimum of 60 or beyond 60) are considered electives. Any course that has already been counted toward (1) the general education requirements, or (2) the major, cannot be used as an elective. Any course with a designation of "CSU" at the end of a course description can be used as an elective.

#### Grade Point Average Requirement

An overall grade point average of 2.0 ("C" average) is required.

**Double Counting:** While a course might satisfy more than one general education requirement, it may not be counted more than once for these purposes. A course may be used to satisfy both a general education requirement and a major or area of emphasis requirement.

#### Residence Requirement

Of the required 60 units, "at least 12 semester units must be completed in residence at the college granting the degree." Title 5, Section 54000 et seq. Title 5 of the California Code of Regulations is available at <http://ccr.oal.ca.gov> and in the Antelope Valley College Library.

#### Requirements for Two or More Associate Degrees

To be eligible for multiple associate degrees, a student must have completed all of the graduation requirements for each degree.

#### Transfer

Students planning to continue studies at a four-year college or university after AVC should visit the Transfer Resource Center and consult with a counselor as soon as possible to develop a plan of studies. Additional information on official transfer articulation agreements from AVC to many CSU/UC campuses can be found at the following Web site: [www.assist.org](http://www.assist.org)

Biology is the scientific study of life through the observation of structure, function, reproduction, growth, origin, evolution, and behavior of living organisms and their relation to each other and their environment. Biologists have deepened our understanding of processes and interactions on all levels of biological organization from elucidating cellular processes to fight cancer to assessing interactions in communities that might help prevent the extinction of species. Studying biology provides a background for students to evaluate and understand new discoveries and to make informed decisions about the use of scientific knowledge to benefit all living organisms.

The AS-T in Biology is designed to prepare students for transfer to a baccalaureate degree program in biology, particularly at the California State University. The Associate of Science in Biology for Transfer (AS-T) prepares student for upper division biology courses, including general biology, cell or molecular biology, organism biology, marine biology, botany, zoology, ecology, evolution, genetics, anatomy, physiology, microbiology, and agricultural sciences.

To earn an Associate in Science in Biology for Transfer (AS-T in Biology) degree a student must complete the following:

- (1) Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
  - (A) The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements.
  - (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) Obtainment of a minimum grade point average of 2.0.

ADTs also require that students must earn a C or better in all courses required for the major or area of emphasis.

\*This degree may only be earned by completing the Intersegmental General Education Transfer Curriculum (IGETC) for STEM or the California State University General Education – Breadth Requirements for STEM. Please consult a counselor for additional information.

Transferability of courses to the CSU or UC systems is indicated at the end of a course description by the notation "(UC, CSU)." For the transferability of courses to all other universities, please consult with a counselor or the Transfer Resource Center.

The "Catalog Rights Policy" sets forth the criteria used for determining the degree requirements under which students may graduate. Please refer to the AVC Catalog for a detailed description or consult with a counselor.

#### Prerequisite Completion

If a course is listed as a prerequisite for another course, that prerequisite course must be completed with a satisfactory grade in order to enroll in the next course. According to Title 5, Section 55200(d), a satisfactory grade is a grade of "A," "B," "C" or "P". Students who enroll in classes for which they do not meet the prerequisites will be involuntarily dropped. Students will be notified of this involuntary drop.

For an educational plan, please consult with a counselor. To obtain counseling services please call: (661) 722-6338

Antelope Valley College's website: [www.avc.edu](http://www.avc.edu)

To contact the Mathematics, Science, & Engineering Division, please call: 661-722-6300 ext. 6415

MATH 065 BASIC MATH  
*Advisory:* Eligibility for ENGL 100A.

MATH 070 ELEMENTARY ALGEBRA  
**Prerequisite:** Eligibility for MATH 070 (AVC assessment) or Completion of MATH 065.  
*Advisory:* Eligibility for READ 099.

MATH 102 \*INTERMEDIATE ALGEBRA  
**Prerequisite:** Eligibility for MATH 102 (AVC assessment) or Completion of MATH 070.  
*Advisory:* Eligibility for READ 099. (AVC)

MATH 105 METHODS OF PROOF FOR PRECALCULUS. **Prerequisite:** Eligibility for MATH 105 (AVC assessment) or Completion for MATH 102.  
*Advisory:* Eligibility for READ 099. (CSU, AVC)

MATH 135 \*PLANE TRIGONOMETRY  
**Prerequisite:** Completion of MATH 102, or Eligibility for MATH 135 (AVC Assessment). *Advisory:*

MATH 140 \*PRECALCULUS  
**Prerequisite:** Completion of MATH 105 and 135 or Eligibility for MATH 140 (AVC Assessment).  
*Advisory:* Eligibility for College Level Reading. (CSU, UC, AVC)

MATH 150 CALCULUS AND ANALYTIC GEOMETRY. **Prerequisite:** Completion of MATH 140 or Eligibility of Math 150 (*AVC Assessment test*).  
*Advisory:* Eligibility for College Level Reading. (CSU, UC, AVC)

MATH 160 CALCULUS AND ANALYTIC GEOMETRY. **Prerequisite:** Completion of MATH 150. *Advisory:* Eligibility for College Level Reading. (CSU, UC, AVC)

BIOL 110, GENERAL MOLECULAR CELL BIOLOGY. **Prerequisite:** Completion of MATH 102 and CHEM 110. *Advisory:* Completion of a general biology course is recommended, and Eligibility for College Level Reading and ENGL 101. (CSU, UC, AVC)

BIOL 120, GENERAL ORGANISMAL, ECOLOGICAL AND EVOLUTIONARY BIOLOGY  
**Prerequisite:** Completion of MATH 102.  
*Advisory:* Completion of a general biology course and/or BIOL 110, and Eligibility for College Level Reading and ENGL 101. (CSU, UC, AVC)

CHEM 110, GENERAL CHEMISTRY  
**Prerequisite:** Completion of MATH 102.  
*Advisory:* Completion of CHEM 101, and Eligibility for College Level Reading and ENGL 100A. (CSU, UC, AVC)

CHEM 120, GENERAL CHEMISTRY  
**Prerequisite:** Completion of CHEM 110 and MATH 140. *Advisory:* Eligibility for College Level Reading and ENGL 101. (CSU, UC, AVC)

PHYS 101, INTRODUCTORY PHYSICS  
*Advisory:* Completion of MATH 135 or MATH 140, and Eligibility for College Level Reading and ENGL 101. (CSU, UC, AVC)

PHYS 102, INTRODUCTORY PHYSICS  
**Prerequisite:** Completion of PHYS 101. (CSU, UC, AVC)

PHYS 110 GENERAL PHYSICS  
**Prerequisite:** Completion of or concurrent enrollment in MATH 150. *Advisory:* Completion of ENGL 101 and PSCI 101. (CSU, UC, AVC)

PHYS 120 GENERAL PHYSICS  
**Prerequisite:** Completion of PHYS 110, and Completion of or concurrent enrollment in MATH 160. *Advisory:* Eligibility for College Level Reading and ENGL 101. (CSU, UC, AVC)

Advisory:

A condition of enrollment that a student is advised, but not required, to meet before or in conjunction with enrollment in a course or educational program.

**Prerequisite:**

A condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program. Prerequisites are enforced and a student will be blocked from enrolling or involuntarily dropped after enrolling if the student does not meet the stated prerequisite. A student must complete a course prerequisite with a satisfactory grade of A, B, C or P (pass).

Corequisite:

A condition of enrollment consisting of a course that a student is required to simultaneously take in order to enroll in another course. Corequisites are enforced and a student will be blocked from enrolling if the student does not meet the stated requisite.