



## ABOUT THIS MAJOR

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 Associate of Science in Biology 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. For more information, visit the [Mathematics, Sciences, and Engineering](#) division.

### TO EARN A DEGREE A STUDENT MUST COMPLETE THE FOLLOWING:

- [1] Completion of 60-semester units
- [2] Completion of General Education Requirements
- [3] Minimum grade point average of 2.0
- [4] A C or better in all courses required for the major

**Residency:** Minimum of 12 units completed at AVC with a minimum of 9 of those units completed from the certificate/major. (credit earned by examination will not be included in these 12 units) Title 5, Section 54000: <http://ccr.oal.ca.gov>

### AS -Biology [Total Units 18-20]

Required Courses (10 units)	
BIOL110 - General Molecular Cell Biology	5
BIOL120 - General Organismal, Ecological and Evolutionary Biology	5

Program Electives- Complete (8-9 units) from the following:	
BIOL201 - General Human Anatomy	4
BIOL202 - General Human Physiology	4
BIOL204 - General Microbiology	5
CHEM110 - General Chemistry	5
CHEM120 - General Chemistry	5

Suggested Courses- (0 units- Not required to complete)	
MATH140 - Precalculus	4
PHYS101 - Introductory Physics	4
PHYS102 - Introductory Physics	4

### Additional Information

Biology major does not need to take BIOL 101 prior to courses in the major

To succeed in CHEM 110, students are required to successfully complete CHEM 101 or one year of High School Chemistry. Algebra is used extensively to solve problems involving quantities.

## RECOMMENDED PATHWAY AS: Biology

The Recommended Plan of Study is determined by the discipline faculty. All **Program Electives** for the Major and **General Education** Courses, Areas A-F, are recommended only. Except for ENGL 101, you can make other selections for this area if you choose (See back page for options).

- [\*] = Courses will fulfill the completion requirements for Major & Gen Ed I
- [#] recommended courses may select other options.
- Electives are courses that count toward your credits for graduation, but not specific to degree of study
- Take classes in Summer or Intersession if needed to complete your degree in a timely manner!
- Fall/Spring: Max 19 units, 12-15 units Recommended.

TERM 1	
Course	Units
AVC Gen-Ed- AREA D1: ENGL 101	3
AVC Gen Ed- AREA B	3
AVC Gen Ed- AREA D2: #MATH 140	3
AVC Gen Ed- AREA E: #COMM 107 or #COMM 219	3
<b>Total Units</b>	<b>14</b>

TERM 2	
Course	Units
BIOL 120	5
PROGRAM ELECTIVE: * #CHEM 110	5
AVC Gen Ed- AREA C: #PHIL 106	3
Elective	3
<b>Total Units</b>	<b>16</b>

TERM 3	
Course	Units
BIOL 110	5
AVC Gen Ed- AREA F	3
Elective: #PHYS 101	4
Elective	4
<b>Total Units</b>	<b>16</b>

TERM 4	
Course	Units
Program Elective: #CHEM 120	5
ELECTIVE: #PHYS 102	4
Elective	3
Elective	3
<b>Total Units</b>	<b>15</b>

## COUNSELING NOTE SECTION

**\*\*If transferring and considering a pre-professional career recommended to consider the Biology AST degree, consult with counselor\*\***

**Prerequisite:** If a course is listed as a prerequisite for another course, that prerequisite course must be completed with a satisfactory grade to enroll in the next course. 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. Title 5, Section 55200(d)

AVC 24-25 CATALOG: [ACADEMIC POLICIES](#)

### INFORMATION and RESOURCES

<a href="#">Tutoring Assistance</a>	<a href="#">Career Center</a>	<a href="#">AVC Student Health Services</a>
<a href="#">Transfer Center</a>	<a href="#">Office of Students with Disabilities</a>	<a href="#">Palmdale Center</a>
<a href="#">Basic Needs</a>	<a href="#">Financial Aid</a>	<a href="#">Counseling Division</a>

## 2023-2024 AVC General Education Requirements

Advising Form Effective Fall 2023 - Summer 2024

GE AREA	COMPLETED	IN PROGRESS	NEED	<p>The requirements for an AA or AS degree include the following:</p> <ol style="list-style-type: none"> <li>A minimum of <b>60 semester units</b>; with at least <b>12 semester units completed in residence at AVC</b> for an AA/AS degree (credit earned by examination will not be included in these 12 units); <b>maximum of 12 pass/no-pass credit units</b> can be accepted towards an AA/AS degree.</li> <li>Refer to each individual program for major requirements. <b>All major courses</b> as specified in the AVC catalog <b>must be completed with a grade of "C" or better</b>.</li> <li>An overall grade point average (GPA) of <b>2.0 ("C" average) is required</b>.</li> </ol> <p><b>Double counting:</b> While a course may 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.</p> <p><b>Prerequisite:</b> 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. 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. <i>Title 5, Section 55200(d)</i></p> <p><b>At least 3 units from each of the following areas below: A, B, C, D1, D2, E, and F. Minimum Total GE Units Required 21</b></p>
<b>AREA A: NATURAL SCIENCES - Select at least 3 units</b>				
A			ANTH 101, 101L; ASTR 101, 101L; BIOL 100, 101, 101L, 102, 103, 104, 110, 120, 201, 202, 204, 205; CHEM 101, 102, 110, 120, 210, 220; ELTE 101; ERSC 101; GEOG 101, 101L, 102, 102L; GEOL 101, 101L, 102, 102L; PHYS 101, 102, 110, 120, 211; PSCI 101	
<b>AREA B: SOCIAL &amp; BEHAVIORAL SCIENCES- Select at least 3 units</b>				
B			AJ 201, 204, 206; ANTH 102, 103, 110, 112, 140; BUS 101, 212; CFE 102, 103; COMM 217; DFST 105, 106, 110; ECON 100, 101, 102, 110; GEOG 105, 106, 110; HIST 101, 102, 104, 105, 107, 108, 110, 111, 113, 114, 116, 118, 119 ; POLS 101, 103, 200, 201, 202, 203; PSY 101, 200, 201, 212, 230, 232, 233, 234, 235, 236; SOC 101, 105, 110, 111, 112, 115, 116, 120, 200; THA 240	
<b>AREA C: HUMANITIES- Select at least 3 units</b>				
C			ART 100, 101, 102, 103, 104, 106, 110, 113, 120, 132, 135, 136, 137, 140, 145, 150, 163, 170, 210, 213; CHIN 101, 102, 201, 202; COMM 112, 114, 214, 217, 219; DA 101; DFST 101, 102, 105, 106, 201, 202; ENGL 102, 111, 112, 221, 222, 225, 227, 230, 231, 235, 242, 253, 256, 257, 259, 265, 279 ; FREN 101, 102, 201, 202, 203; FTV 101, 103, 107, 108, 201, 203, 241, 251, 261; GER 101, 102, 201, 202 ; HIST 101, 102, 104, 105, 107, 108, 110, 111, 113, 115, 118, 119; LATN 101, 102, 201; MUS 101, 105, 111, 121, 131, 132, 151, 153, 185, 231, 232, 251A, 251B, 253A, 253B; MUSC 102, 103, 107, 108, 109; NF 150; PHIL 105, 106, 108, 109; PHOT 107; PHTC 101, 150, 201; SPAN 101, 110SS, 102, 201, 202, 210SS, 220SS; THA 101, 102, 103, 110, 115A, 115B, 116A, 116B, 117A, 117B, 118A, 118B, 121A, 121B, 130, 133, 225, 239	
<b>AREA D: LANGUAGE AND RATIONALITY</b>				
Select 3 units from (1) and 3 units from (2). <b>Grade of "C" or better required in Area D1</b>				
D1			D1 Academic Composition: ENGL 101	
D2			D2 Communication and Analytical Thinking: BUS 113; CA 103; CS 120, 121, 122, 123; COMM 101, 107, 109, 112, 114, 115, 201, 217, 219; ENGL 102, 103; GEOG 201, 205; MATH 103, 110, 115, 116, 120, 124, 128, 131, 135, 140, 148, 150, 160, 220, 230, 250; NF 150; PHIL 101, 106, 110, 201	
<b>AREA E: ADDITIONAL BREADTH</b>				
Select 3 units from Areas A, B, C, D2, or E *Courses must be taken from a discipline not previously selected				
E			DA 111; HD 100, 101, 102, 103, 105; HE 101, 120, 201; KINT 100; LIB 107, 110; NF 100, 102, 103, 110 Any DA activity course(s) from DA 102-205, <b>except</b> DA 107A-C, 108, 109, and 111 Any Kinesiology Fitness (KINF) activity course, Intercollegiate Athletics (IATH) activity course, or <b>up to 4 units for military experience</b>	
<b>AREA F: DIVERSITY STUDIES- Select 3 units</b>				
F			ANTH 102, 112; BUS 212; CFE 116; COMM 114, 217, 219; DFST 105, 106 ; ECON 110 ; ENGL 250, 253, 256, 257, 259; FTV 201, 203; HE 201; HIST 110, 111, 113 ; MUSC 107, 108; POLS 202; SOC 105, 110, 116; THA 239	