



21250 Stevens Creek Blvd.  
Cupertino, CA 95014  
408-864-5678  
www.deanza.edu

Academic Year  
**2021 - 2022**

# Biological Sciences

Biological, Health and  
Environmental Sciences Division  
Kirsch Center, Room 228  
408-864-8773

Find your counselor at  
deanza.edu/our-counselors

Please visit the Counseling and Advising Center to apply for degrees and for academic planning assistance.

## A.A./A.S. Degree Requirements

1. Completion of all General Education (GE) requirements (32-43 quarter units) for the A.A./A.S. degree. GE units must be completed with a minimum 2.0 GPA (C average).
2. Completion of all major courses with a C grade or higher. Major courses can also be used to satisfy GE requirements (except for Liberal Arts degrees).  
  
Note: A maximum of 22 quarter units from other academic institutions may be applied toward the major.
3. Completion of a minimum of 90 degree-applicable quarter units (GE and major units included). All De Anza courses must be completed with a minimum 2.0 GPA (C average). All De Anza courses combined with courses transferred from other academic institutions must be completed with a minimum 2.0 GPA (C average).

Note: A minimum of 24 quarter units must be earned at De Anza College.

## Biological Sciences

### A.S. Degree

The purpose of the Biological Sciences A.S. degree is to provide a lower-division science foundation for those interested in pursuing a bachelor's degree in Biology or Biological Sciences. This major prepares students for transfer to any University of California or California State University campus. A major in Biological Sciences prepares students for advanced academic work and for careers in civil service, industry or teaching. It also provides a background for professional training in such fields as biotechnology, public health, nutrition, laboratory and field research, medicine, dentistry, pharmacy and veterinary medicine.

*Program Learning Outcomes: Upon completion, students will be able to*

- Design and complete a biological research project applying scientific methods
- Correlate structure and function in biological systems

1. Meet the A.A./A.S. degree requirements.
2. Complete the following.

BIOL 6A or BIOL 6AH	Form and Function in the Biological World Form and Function in the Biological World - HONORS	6
BIOL 6B	Cell and Molecular Biology	6
BIOL 6C or BIOL 6CH	Ecology and Evolution Ecology and Evolution - HONORS	6
CHEM 1A or CHEM 1AH	General Chemistry General Chemistry - HONORS	5
CHEM 1B or CHEM 1BH	General Chemistry General Chemistry - HONORS	5
CHEM 1C or CHEM 1CH	General Chemistry and Qualitative Analysis General Chemistry and Qualitative Analysis - HONORS	5

### Complete one option:

15-18

#### Option 1: Organic Chemistry

CHEM 12A	Organic Chemistry (5)
CHEM 12B	Organic Chemistry (5)
CHEM 12C	Organic Chemistry (5)

#### Option 2: Physics - General

PHYS 2A	General Introductory Physics (5)
PHYS 2B	General Introductory Physics (5)
PHYS 2C	General Introductory Physics (5)

#### Option 3: Physics - Engineers

PHYS 4A	Physics for Scientists and Engineers: Mechanics (6)
PHYS 4B	Physics for Scientists and Engineers: Electricity and Magnetism (6)
PHYS 4C	Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6)

Major	Biological Sciences	48-51
GE	General Education (32-43 units)	
Electives	Elective courses required when major units plus GE units total is less than 90	
<b>Total Units Required</b> .....		<b>90</b>

*For students planning to transfer to a four-year institution, it may be beneficial to complete both the Organic Chemistry option and either Physics option. Course sequences in chemistry and physics are required in most B.S. Biology programs. For your specific transfer situation, please consult with your counselor and the four-year institution.*

#### Recommended elective courses

BIOL 13, 15, 26, 40A, 40B, 40C  
ES 1  
ESCI 19  
MATH 1A, 1AH, 1B, 1BH, 1C, 1CH, 1D, 1DH, 10, 10H