

Palo Verde College

Program Outline Report

Program Basics

Program Title:	Biological Sciences Associate of Science (Emphasis Health Science)
Program Status:	Active from 2025-2026 Fall (2025FA)
Department:	Biology
Award Type:	A.S. Degree Major (Credit)
Program/Catalog Description	A major in Biological Sciences (Emphasis Health Science) prepares students for further study, certification, and employment in the health field science careers such as nursing, radiologic technologist, respiratory therapy, physical therapy, surgical technologist, dental assistant, dental hygienist and occupation therapy. In addition to these diagnostic and therapeutic fields, students will also be prepared to further pursue education and training in a variety of non-clinical support services, public health, and health administration careers. This program provides all of the pre-requisite's courses needed for entry in RN and BSN programs, and all of the lower division courses needed for transfer to a 4-year college or university. Through the core units of the Biological Sciences (Emphasis Health Science) major, students will gain the scientific background necessary to complete courses in a variety of allied health related professional programs and upper division nursing courses. The laboratory work will provide students with fundamental laboratory skills and the ability to critically evaluate and use scientific information.
Control Number:	No value
Credential ID:	No value
Transferability:	No value
(SP01) Program TOP Code:	0499.00
(SP01) Program TOP Code:	Other Biological Sciences
(SP02) Student Program Award:	Associate of Science (A.S.) degree
Maximum Credits:	70
Minimum Credits:	65
Curriculum Committee Approval Date:	12/12/2024
Board of Trustees Approval Date:	05/13/2025
External Review Approval Date:	05/13/2025

Proposal Details

Proposal Start:	2025-2026 Fall (2025FA)
What changes have been made to the program:	No value
Program Justification:	The Biological Sciences AS (Emphasis health Science) major enables the student to acquire the necessary skills to be able to enter any of the allied health programs, including but not limiting the nursing programs, dental assistant, dental hygienist, surgical technologist, radiologic technologist, ultrasound technicians, physical therapy technician, and many more. It also enables the students to transfer to any 4-year college or university pursuing their medical field careers. The proposed curriculum directly supports students for the entrance for any of the health

programs, as it packages the required prerequisites and makes the transfer streamlined.

Submission Rationale

- New Program

Program Requirements

Biological Sciences Associate of Science (Emphasis Health Science) (Total 65-70)

Complete all of the following

Required Core Courses (Total 21)

Complete the following number of credits: 21

BIO111 - Basic Microbiology	5
BIO210 - Human Anatomy	4
BIO211 - Human Physiology	5
STATC1000 - Introduction to Statistics	4
POLSC1000 - American Government and Politics	3

Choose one of the following (Total 4-5)

Complete the following number of credits: 4-5

CHE101 - Introduction to General Chemistry	4
CHE109 - Chemistry for Health Sciences and Nursing Disciplines	5

Choose one fo the follwoing (Total 3)

Complete the following number of credits: 3

PSYCC1000 - Introduction to Psychology	3
PSY201 - Lifespan Development	3

Choose one of the following (Total 3)

Complete the following number of credits: 3

SPE101 - Introduction to Speech	3
SPE105 - Introduction to Intercultural Communication	3

In addition to the Required Core Courses, students must complete the CalGETC General Education pattern listed in the catalog.

34-38

Recommended Sequences

New Sequence

Term 1 (Total 1-4)

1: English Communication (Total 1-4)

Take one of the following

ENGLC1000 - Academic Reading and Writing	4
ART101 - Introduction to Art	3
HIS120 - World Civilization II	3
ANT101 - Cultural Anthropology	3
BIO100 - Introduction to Biology	4
BIO101 - Introduction to Biology Laboratory	1

Term 2 (Total 7-8)**Required Core Courses (Total 3-4)****Take one of the following**

BIO210 - Human Anatomy 4

POLSC1000 - American Government and Politics 3

Choose one of the following CHE101 - Introduction to General Chemistry 4

Term 3 (Total 8)**Required Core Courses (Total 5)****Take one of the following**

BIO111 - Basic Microbiology 5

BIO211 - Human Physiology 5

Choose one fo the folloiwng PSYCC1000 - Introduction to Psychology 3

Term 4 (Total 7)

Required Core Courses STATC1000 - Introduction to Statistics 4

Choose one of the following SPE101 - Introduction to Speech 3

Program Outcomes**Biological Sciences Associate of Science (Emphasis health Science)**

PSLO

Performance

Articulate the relationship between structure and function in the human body. 70

Describe how disease state modifies normal homeostatic functions. 70

Evaluate social and environmental impacts on human health. 70

Apply basic laboratory skills and analytical methods to scientific study. 70

Critique healthcare related scientific information based on the strength and quality of the supporting evidence. 70

Program Narrative

Narrative Item 1. Program Goals and Objectives

The purpose of the program is to provide the students with solid foundation knowledge and skills, as it is packing all of the required prerequisites, so they can pursue their future careers in any of the allied health programs, including but not limited to nursing degrees (ADN, BSN, and Masters), radiologic technologist, physical therapists, physical therapy assistants, surgical technologist, respiration therapy, and even careers in the medical field administration.

Narrative Item 2. Catalog Description

A major in Biological Sciences (Emphasis Health Science) prepares students for further study, certification, and employment in the health filed science careers such as nursing, radiologic technologist, respiratory therapy, physical therapy, surgical technologist, dental assistant, dental hygienist and occupation therapy. In addition to these diagnostic and therapeutic fields, students will also be prepared to further pursue education and training in a variety of non-clinical support services, public health, and health administration careers. This program provides all of the pre-requisite's courses needed for entry in RN and BSN programs, and all of the lower division courses needed for transfer to a 4-year college or university.

Through the core units of the Biological Sciences (Emphasis Health Science) major, students will gain the scientific background necessary to complete courses in a variety of allied health related professional programs and upper division nursing courses. The laboratory work will provide students with fundamental laboratory skills and the ability to critically evaluate and use scientific information.

Narrative Item 3. Program Requirements

Required Core (31-32 units)

- BIO 111 Basic Microbiology (5 units)
- BIO 210 Human Anatomy (4 units)
- BIO 211 Human Physiology (5 units)
- STATC1000 Introduction to Statistics (3 units)
- POLSC1000 American Government and Politics (3 units)

and

- CHE 101 Introduction to General Chemistry (4 units)
- OR
- CHE 109 Chemistry for Health Science and Nursing Disciplines (4 units)

and

- PSYCC1000 Introduction to Psychology (3 units)
- OR
- PSY201 Lifespan Development (3 units)

and

- SPE 101 Introduction to Speech (3 units)
- OR
- SPE 105 Introduction to Intercultural Communication (3 units)

GE Requirements (34-38 units)

- 1 ENGLISH COMMUNICATION (9 UNITS MINIMUM)

A: ENGLISH COMPOSITION:

ENGL C1000

B: CRITICAL THINKING AND COMPOSITION

ENGL C1001

C: ORAL COMMUNICATION

COMM C1000

2 MATHEMATIC CONCEPTS & QUANTITATIVE REASONING

(3 UNITS MINIMUM)

STAT C1000, MAT 108, MAT 110, MAT 130 PSY 155

3 ARTS & HUMANITIES (6 UNITS MINIMUM) 1 COURSE IN ARTS AND 1 COURSE IN HUMANITIES

A: ARTS: ART 101, ART 110, ART 111, ENG 125, MUS 121, MUS 137, THA 110, THA 151

B: HUMANITIES: ENG 102, ENG 122, ENG 125, ENG 140, ENG 222, HIS 110 HIS 120, HIS 125, HIS 130, HIS 140, PHI 100, PHI 120

4 SOCIAL & BEHAVIORAL SCIENCES (6 UNITS MINIMUM) MUST BE IN 2 DIFFERENT DISCIPLINES

ANT 101, 102, 107, 201, CHD 101, ECO 105, ECO 106, GGR 103, HIS 110, HIS 120, HIS 125, HIS 130, HIS 140, POLS C1000, SOC 101,

SOC 115, SOC 120, SOC 160, SPE 105, PSYC C1000, PSY 115, PSY 150, PSY 201, PSY 205, PSY 210, PSY 215

5 PHYSICAL AND BIOLOGICAL SCIENCES (7 UNITS MINIMUM) COURSES MUST BE IN 2 DIFFERENT DISCIPLINES, 1 MUST BE A LAB COURSE

A: PHYSICAL SCIENCES: AST 101, AST 105, AST 110, GGR 101, GEL 101, GEL 103, GEL 105, PHY 100, CHE 101, CHE 109, CHE 210, CHE 211

B: BIOLOGICAL SCIENCES: ANT 100, BIO 100, 111, 190, 191, 210, 211

C: LAB BIO 101, GEL 102, 104, 106, GGR 102 or any underlined course

6 ETHNIC STUDIES (3 UNITS MINIMUM) ETH 101, ETH 210

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Proposed Course Sequence

- Semester 1

o	Course #	Course Title	Units	Area
	ENG 100	English Composition	3	1A
	BIO 100	General Biology	4	5
	BIO 101	General Biology Lab	1	5
	PSYCC1000 or PSY201	General Psychology or Lifespan Development	3	4
	STATC1000	Statistics	3	2

- Semester 2

o	Course #	Course Title	Units	Area
	BIO 210	Human anatomy	4	5
	CHE 101 or CHE 109	General Chemistry or Chemistry for Health majors	4-5	5
	SPE101 or SPE102 or SPE 103 or SPE 105	Intro to Speech or Public Speaking or Argument and Debate	3	1C
	POLSC145 or HIS 110 or any of the Area 3	American Government or World Civilization 1 or any course from Area 4	3	3

- Semester 3

Course #	Course Title	Units	Area
BIO211	Human physiology	5	5
SOC101 or any course from Area 4	Intro to Sociology or any course form Area 4	3	4
ENG 103 (Area 1B)	Critical Thinking and English Composition	3	1B
ETH 110 or ETH 210	Intro to Ethnic Studies or Intro to Mexican American Studies	3	6

- Semester 4

Course #	Course Title	Units	Area
BIO 111	Basic Microbiology	5	5
NSC 128	Medical Terminology	3	7
CHD 101 or any class from Area 4B	Child Growth and Development or any class from Are 4A	3	4B
ART101 or any class from Area 3A	Intro to Art or any class from Area 3A	3	3

Narrative Item 4. Master Planning

- This is a high-quality educational program that will give the students the necessary knowledge and critical thinking abilities so they can pursue their future careers in the allied health

Narrative Item 5. Enrollment and Completer Projections

The program allows for at least 40 students per year, as it will prepare all students wanting to further their careers in allied health programs both locally, in-state, and out-of-state.

Narrative Item 6. Place of Program in Curriculum/Similar Programs

This program will help sustain the local allied health programs (Associate of Nursing and Vocational Nursing programs) and help students transfer easily to other 4-year colleges or universities in pursue of any allied health careers.

Narrative Item 7. Similar Programs at Other Colleges in Service Area

There are no similar programs in the area of Blythe and Needles.