Pacific Union College

Major in Biomedical Sciences, B.S.

BIOL-08

2026-2027

Major Course Requirements

A minimum of 99 hours (28 upper-division hours)

➤ ***Required Core Courses (69 hours):***

BIOL 101	Human Anatomy	5
BIOL 102	Human Physiology	5
BIOL 121+122+123	Biological Foundations I, II, III	5+5+5
BIOL 223	Medical Terminology	2
BIOL 320	Cellular and Molecular Biology	4
BSCI 110	Intro to Biomedical Sciences	2
BSCI 115	Health Practice I	2-2
BSCI 210	Health Practice II	2-2-2
BSCI 310	Health Practice III	2-2-2
BSCI 410	Health Practice IV	2-2-2
MICR 134	General Microbiology	5
or BIOL 366	Medical Microbiology	
RELT 390	Christian Bioethics	3
SCIE 290	Sophomore Seminar	1

➤ ***Required Core Electives (4-5 hours):***

At least one class from the following:		4-5
BIOL 422	Advanced Human Anatomy (5)	
BIOL 426	Histology (5)	
BIOL 430	Neuroscience (4)	
BIOL 469	Immunology (4)	

➤ ***Required Cognate Courses (26 hours):***

CHEM 111+12+13+L	General Chemistry I, II, III+Lab	5+5+5
EMER 104+105	Emergency Medical Technician I, II	5+6

Recommended Cognate Courses:

CHEM 371+72+73+L	Organic Chemistry I, II, III+Lab (4+4+4)
CHEM 481	Biochemistry I (4)
GLBH 310	Population Health (4)
GLBH 410	Epidemiology for Public Health (4)
SPAN 105	Spanish for Healthcare I (3)
SPAN 215	Spanish for Healthcare II (3)

Certificate in Pre-Physicians Assistant:

The certificate is earned by clocking a minimum of 720 hours of documented healthcare experience (HCE) and patient care experience (PCE). This is completed during Intro to Biomedical Sciences and Health Practice I-IV. With the additional EMT training required by the Biomedical Sciences B.S. the student will meet or exceed the experience required by most Physician Assistant Masters programs.

Student Learning Outcomes

Students will:

- Identify and explain general biological principles.
- Describe and employ the scientific process and techniques, especially as these apply to the biological sciences.
- Successfully communicate in both oral and written scientific format and be information literate.
- Describe and evaluate the historical and current issues relating to the interface of faith and science.

Occupational Information

What can I do with this major?

Physician assistants (PAs) practice medicine under the supervision of physicians or surgeons, performing examinations, diagnosing conditions, and treating patients. The degree of oversight varies by state, and in some settings PAs may also assist in surgical care—one of the key distinctions between PAs and nurse practitioners. Many PAs serve as primary care providers in rural and underserved communities, particularly in emergency medicine, psychiatry, and family medicine (Bureau of Labor Statistics.

Additional Education Required?

Additional training and a graduate degree is required to work as a Physician Assistant.

Job Outlook

Employment prospects for PAs are exceptionally strong. The Bureau of Labor Statistics projects a 20% increase in PA positions from 2024 to 2034, far outpacing the average growth rate for all occupations (Bureau of Labor Statistics). This surge is driven by an aging population, rising rates of chronic disease, and a persistent shortage of physicians—factors that together intensify the demand for highly trained medical professionals.

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General Education Requirements

To view general education requirements for this major, please refer to page A-01, Summary of General Education Requirements: B.S. Degree.

How to Construct Your Own Program

1. Consult with your academic advisor.
2. Consider your aptitudes, interests, and available courses.
3. Schedule major courses and cognates first.
4. Fill the rest of your schedule with G.E. requirements.
5. For the freshman year include English I and II and Religion courses. Also include Basic Algebra I+II unless waived by previous work.

What the Degree Includes

A total of 180 quarter hours including:

1. A minimum of 60 upper division hours.
2. General Education requirements.
3. Major requirements.
4. Minimum 2.0 GPA, overall and major.

For More Information

Biology Department
Pacific Union College
One Angwin Avenue
Angwin, CA 94508
(707) 965-6635

Sample Four-Year Program

This sample curriculum shows you how a program may be constructed, emphasizing the science components. Your program may differ, but be sure to consult your advisor.

First Year	**F**	**W**	**S**
Human Anatomy	5	-	-
Human Physiology	-	5	-
Intro to Biomedical Sciences	2	-	-
Health Practice I	-	2	2
Medical Terminology	-	-	2
College English I,II	4	-	4
Emergency Medical Technician I, II	5	6	-
Intro to Statistics	-	-	4
General Education	-	2	3
	16	15	15

Second Year	**F**	**W**	**S**
Biological Foundations I, II, III	5	5	5
General Chemistry I, II, III	5	5	5
Health Practice II	2	2	2
College Algebra	4	-	-
Intro to Comm	-	4	-
Sophomore Seminar	-	1	-
General Psychology	-	-	4
	16	17	16

Third Year	**F**	**W**	**S**
Systems Physiology	5	-	-
Cell & Molecular Biology	-	4	-
Health Practice III	2	2	2
Sociology or Cultural Anthropology	-	(4)	(4)
Christian Bioethics	-	-	3
General Education/Electives	8	5	10
	15	15	15

Fourth Year	**F**	**W**	**S**
Health Practice IV	2	2	2
Senior Assessment Seminar	-	-	0.2
General Education/Electives	13	13	13
	15	15	15.2