

# PRE-PHYSICIAN ASSISTANT

## Bachelor of Science (BS) – Biomedical Sciences

This degree map is based on the current Academic Catalog and is subject to change. Please note that the degree map is designed to give you a sense of roughly how courses might be distributed over a 4-year degree. Your exact schedule will differ depending on a range of factors though we recommend taking a minimum of 15 credits each fall and spring semester. Regular consultation with your academic advisor is the best way to make sure that you are taking the courses you need in the right order to ensure efficient progress through your degree program.

### Sample 4-Year Plan

First Year			
Fall Courses	Credits	Spring Courses	Credits
BIOL 110 Principles of Biology 1	4	BIOL 180 Anatomy & Physiology 1	4
MATH 120 Math for Health Sci or MATH 140 Pre-Calculus or MATH 150 Calculus	3	CHEM 121 General Chemistry 1	4
FYS 100 First Year Seminar	3	STAT 141 Introduction to Statistics	3
General Education	3	WRIT 103 Foundations in Composition	3
General Education	3		
Semester Total	16	Semester Total	14
Second Year			
Fall Courses	Credits	Spring Courses	Credits
BIOL 181 Anatomy & Physiology 2	4	BIOL 211 Cell Biology	4
CHEM 122 General Chemistry 2	4	BIOL 108 Medical Terminology	3
PSYC 101 Introduction to Psychology	3	PSYC 212 Lifespan Development	3
General Education	3	General Education	3
		Free Elective	3
Semester Total	14	Semester Total	16
Third Year			
Fall Courses	Credits	Spring Courses	Credits
BIOL 340 Microbiology	4	BIOL 474 Human Physiology or other 4XX Physiology course	3
Chem 231 Condensed Organic Chemistry	4	BIOL 310 Biomedical Sciences Seminar	1
BIOL 208 Human Genetics OR BIOL 209 Genetics	3	CHEM 351 Biochemistry	4
General education	3	General Education	3
Free elective	3	General Education	3
		Free Elective	3
Semester Total	17	Semester Total	17
Fourth Year			
Fall Courses	Credits	Spring Courses	Credits
Biomedical Sciences Elective	3	Biomedical Science Elective	3
Biomedical Sciences Elective	3	Biomedical Sciences Elective	3
Biomedical Sciences Elective	3	Biomedical Sciences Elective	3
General Education	3	Free Elective	3
Free Elective	2		
Semester Total	14	Semester Total	12

### Winter/Summer College - Optional

While not required, Winter and Summer sessions are offered each year and may help you stay on track or get ahead. You may take up to seven (7) credits during Winter College and up to 14 credits during Summer College.

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## Curriculum Checklist

### Biology Core Requirements (30 credits)

- \_\_\_ BIOL 110 Principles of Biology 1 (4)
- \_\_\_ BIOL 108 Medical Terminology (3)
- \_\_\_ BIOL 180 Anatomy and Physiology 1 (4)
- \_\_\_ BIOL 181 Anatomy and Physiology 2 (4)
- \_\_\_ BIOL 208 Human Genetics (3) OR BIOL 209 Genetics (3) \*
- \_\_\_ BIOL 211 Cell Biology (4)\*
- \_\_\_ BIOL 310 Biomedical Sci Seminar (1)\*
- \_\_\_ BIOL 340 Microbiology (4)\*
- \_\_\_ BIOL 474 Human Physiology (3)\*

#can substitute: BIOL 475; BIOL 476; BIOL 477; OR BIOL 479

### Related Core Requirements (28 credits)

- \_\_\_ CHEM 121 General Chemistry 1 (4)^
- \_\_\_ CHEM 122 General Chemistry 2 (4)\*
- \_\_\_ CHEM 231 Condensed Organic Chemistry (4)\*
- \_\_\_ CHEM 351 Biochemistry (4)\*
- \_\_\_ MATH 120 Mathematics for Health Sci (3) OR MATH 140 Pre-Calculus (3)^ OR MATH 150 Essentials of Calculus (3)^
- \_\_\_ STAT 141 Intro to Statistics (3)
- \_\_\_ PSYC 101 Introduction to Psychology (3)
- \_\_\_ PSYC 212 Lifespan Development (3)

### Electives (17 credits)

**At least 15 credits must be 300-level or above; BIOL 111 is only 100-level course allowed. If BIOL 474, 475, 476, 477, OR 479 are used to fulfill the core they cannot be used to fulfill an elective. If BIOL 208 is used to fulfill the core, BIOL 209 can be used as an elective**

- \_\_\_ BIOL 111 Principles of Biology 2 (4)
- \_\_\_ BIOL 206 Botany (3)\*
- \_\_\_ BIOL 207 Zoology (3)
- \_\_\_ BIOL 209 Human Genetics (3)\*
- \_\_\_ BIOL 210 Genetics Laboratory (1)\*
- \_\_\_ BIOL 213 Intro to Parasitology (3)
- \_\_\_ BIOL 215 Investigations in Genetics and Molecular Biology (2)
- \_\_\_ BIOL 301 Ecology (4)\*
- \_\_\_ BIOL 314 Comparative Bio of Inverts (3)\*
- \_\_\_ BIOL 315 Comparative Vert. Anat. (3)\*
- \_\_\_ BIOL 316 Vertebrate Histology (3)\*
- \_\_\_ BIOL 337 Basic Virology (3)\*
- \_\_\_ BIOL 354 Medical Microbiology (3)\*
- \_\_\_ BIOL 350 Plant Pathology (3)\*
- \_\_\_ BIOL 400 Dendrology (3)\*
- \_\_\_ BIOL 401 Entomology (3)\*
- \_\_\_ BIOL 430 Evolution (3)\*
- \_\_\_ BIOL 431 Mycology (3)\*
- \_\_\_ BIOL 432 Ornithology (3)\*
- \_\_\_ BIOL 433 Ichthyology (3)\*
- \_\_\_ BIOL 434 Herpetology (3)\*
- \_\_\_ BIOL 435 Conservation Genetics (3)\*
- \_\_\_ BIOL 442 Advanced Virology (3)\*
- \_\_\_ BIOL 443 Molecular Biology (3)\*
- \_\_\_ BIOL 444 Molecular Biology lab (1)\*
- \_\_\_ BIOL 445 Pharmacology (3)\*
- \_\_\_ BIOL 446 Immunology (3)\*
- \_\_\_ BIOL 447 Immunology lab (1)\*
- \_\_\_ BIOL 448 Advanced Parasitology (3)\*
- \_\_\_ BIOL 450 Developmental Biology (3)\*
- \_\_\_ BIOL 451 Conservation Biology (3)\*
- \_\_\_ BIOL 452 Freshwater Ecology (3)\*
- \_\_\_ BIOL 453 Freshwater Entomology (3)\*
- \_\_\_ BIOL 454 Algae of Freshwater Eco (3)\*
- \_\_\_ BIOL 455 Community Ecology (3)\*
- \_\_\_ BIOL 456 Enviro Toxicology (3)\*
- \_\_\_ BIOL 461 Animal Behavior (3)\*
- \_\_\_ BIOL 462 Cancer Biology (3)\*
- \_\_\_ BIOL 465 Medical Genomics (3)\*
- \_\_\_ BIOL 466 Bioinformatics (3)\*
- \_\_\_ BIOL 470 Tissue Culture (1)\*
- \_\_\_ BIOL 474 Human Physiology (3)\*
- \_\_\_ BIOL 476 Neurophysiology (3)\*
- \_\_\_ BIOL 477 Plant Physiology (3)\*

### Electives cont. (17 credits)

- \_\_\_ BIOL 479 Comparative Animal Physio (3)\*
- \_\_\_ BIOL 480 Integrated Physiology lab (1)\*
- \_\_\_ BIOL 485 Senior Seminar (1)\*
- \_\_\_ BIOL 486 Analysis & Comm of Bio Data (3)\*
- \_\_\_ BIOL 489 Special Topics in Biology (3)\*
- \_\_\_ BIOL 493 Independent Research (1-6 crs) (3)\*
- \_\_\_ BIOL 498 Internship in Biology (3-6 crs) (3)\*

^ Enrollment in course is contingent on an ALEKS math placement score >61 or successful completion of MATH118 College Algebra with a grade of C or better.

Note: Progression through the sequence of all chemistry courses requires achievement of a minimum grade of C in pre-requisite

## General Education Requirements

### (45 credits)

**Note: Some requirements may be fulfilled by coursework in your major program including directed Gen Ed courses noted below**

- Foundations (15 credits)
  - STAT Introduction to Statistics 141 (3)
- Interconnections (9 credits)
- Citizenship & Responsibility (6 credits from at least two goals)
- Natural World & Technologies (9 credits)
  - BIOL 110 Principles of Biology 1 (4)
  - BIOL 180 Anatomy and Physiology 1 (4)
  - CHEM 121 General Chemistry 1 (4)
- Creativity & Expression (6 credits)

## Degree Requirements

All students must obtain a minimum of 120 credits (A minimum of 42 credits must be advanced course work), complete all General Education requirements, and all requirements for the selected major. Meet with your advisor and consult Degree Works to monitor your progress and for all graduation requirements.

A minimum GPA of 2.0 in the major and overall are required.

\*Denotes advanced coursework

Students must take a minimum of 42 credits of advanced coursework. Advanced coursework can be met in major courses, minor courses, free elective courses, and general education courses. Courses that meet this requirement are designated in Banner.