

### What is a Physician Assistant? What's the job outlook?

Physician assistants, also referred to as PAs, are licensed to practice medicine under the supervision of a physician. Their specific duties and the extent to which they are supervised by physicians differ from state to state and depend on the practice setting and the specialty of the supervising physician.

Employment for PAs is expected to grow 31 percent from 2020 to 2030. PAs are expected to continue to have a growing role in healthcare because they can be trained more quickly than physicians and team-based treatment models continue to become more commonly used. The annual mean wage for PAs in the Denver Metro area is \$110,170.\*



\*U.S. Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Physician assistants, on the Internet at <https://www.bls.gov/ooh/healthcare/physician-assistants.htm#tab-1>

### How do I become a Physician Assistant?

PAs receive a Master of Physician Assistant Studies (MPAS) which is typically a 2-3 year post-baccalaureate program. Each program will have their own course prerequisite and GPA requirements, as well as preferred entrance exams (CASPer, GRE or PA-CAT). Depending on the program, applicants may also be required to have a minimum number of hours of paid healthcare experience prior to applying. PA's are required to be licensed in every state; candidates must pass the Physician Assistant National Certifying Exam (PANCE) upon completion of their graduate program. A PA who passes this exam may then use the credential PA-C, Physician Assistant-Certified.

PA programs in Colorado can currently be found at four institutions: University of Colorado Health Sciences Center (UCHSC), Red Rocks Community College, Rocky Vista University, and Colorado Mesa University. For more information on the admissions process for each of these programs, please refer to the following websites.

- University of Colorado Health Sciences Center - <https://medschool.cuanschutz.edu/physician-assistant-program/>
- Red Rocks Community College - <https://www.rrcc.edu/physician-assistant>
- Rocky Vista University - <https://www.rvu.edu/admissions/mpas/>
- Colorado Mesa University - <https://www.coloradomesa.edu/kinesiology/graduate/pa-program/index.html>

**Biology Faculty Advisor who can guide you on this path is:**

**Dr. Anil Rao - [raoa@msudenver.edu](mailto:raoa@msudenver.edu)**

## MSU Denver - Department of Biology

### **REQUIREMENTS FOR B.S. IN BIOLOGY**

(2024-2025 or future catalogs ONLY)

#### ***Major Requirements:***

- Total of 46 total credit hours approved by the Biology Faculty must be completed in the BIO prefix
- C- or better must be earned for any BIO course to apply to your major requirements.
- 27 upper division credit hours in BIO courses must be completed
- Non-biology courses in math, chemistry and other STEM disciplines are required

**Start Smart!** Have you met with a Biology Academic Advisor at least once a semester to ensure timely progression toward your degree and to avoid taking unnecessary courses.

#### **Required Introductory Courses:**

- BIO 1080 & 1090: General Biology I w/ Lab
- BIO 1081 & 1091: General Biology II w/ Lab

*Choose one of the following chemistry sequences:*

- CHE 1800 & 1801: General Chemistry I w/ Lab
- CHE 1810 & 1811: General Chemistry II w/ Lab

\*\*\* **OR** \*\*\*

*Two semesters of math:*

- MTH 1109/ 1110: College Algebra, or higher
- Another semester of Math > MTH 1110
- CHE 1110 & 1150: Principles of Chemistry w/ Lab
- CHE 2100 & 2150: Into to Organic & Biol Chem w/ Lab

**Pro Tip!** Biology students do not need additional General Studies coursework for Natural & Physical Sciences or Quantitative Literacy. Your required Biology, Chemistry, and Math courses will fulfill these.

#### **Additional Required Biology courses:**

*Choose one of the following:*

- BIO 2100: General Botany (5cr.)
- BIO 2310: Human Anatomy & Physiology I (4cr.)
- BIO 2400: General Microbiology (5cr.)
- BIO 3200: Invertebrate Zoology (4cr.)
- BIO 3260: Vertebrate Zoology (4cr.)

*Take General Ecology and a Genetics course:*

- BIO 3520: General Ecology (3cr.)

*Choose one of the following:*

- BIO 3600: General Genetics (4cr.)
- BIO 3610: Genetics: Principles & Analysis (4cr.)

**Professionalize!** Have you met with a Faculty Advisor to personalize your path and ensure you select courses and extracurricular experiences that will best serve you?

## MSU Denver - Department of Biology

### Biology Elective Course Requirement:

- At least 46 total credit hours must be completed in BIO courses.
- At least 27 total credit hours must be upper division BIO courses (3000/4000 level).
  - Includes any upper division Zoology, General Ecology, Genetics, and BIO Senior Experience

Lower Division BIO Courses (1000/2000 level)	Credit Hours	Upper Division BIO Courses (3000/4000 level)	Credit Hours
<input type="checkbox"/> BIO 1080/1090 – General Biology I w/Lab	4	<input type="checkbox"/> BIO 3520: General Ecology	3
<input type="checkbox"/> BIO 1081/1091 – General Biology II w/Lab	4	<input type="checkbox"/> BIO 36XX: Genetics	4
<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/> BIO Senior Experience (recommended)	
<b>Total lower division BIO credit hours:</b>		<b>Total upper division BIO credit hours:</b> <i>AT LEAST 27 UPPER DIVISION BIO CREDIT HOURS REQUIRED</i>	
<b>Total BIO prefix credit hours:</b> <i>LOWER DIVISION + UPPER DIVISION (AT LEAST 46 TOTAL BIO CREDIT HOURS REQUIRED)</i>			

### Required Non-Biology Science Electives:

- 9 credits total, at least 6 of which must be upper division (3000 /4000 level).
- Any Math course selected would be in addition to the two semesters required above.

Non-Biology Science Elective Courses	Credit Hours
<input type="checkbox"/>	
<input type="checkbox"/>	(upper division)
<input type="checkbox"/>	(upper division)
<b>Total Non-Biology Science Elective credit hours:</b> <i>At least 6 credit hours must be upper division (3000/4000 level)</i>	

## MSU Denver - Department of Biology

### **Senior Experience Requirement:**

- A capstone course is required to graduate.
- A Biology Senior Experience is recommended.
- Courses outside Biology marked (SE) fulfill the Senior Experience requirement but would **not** count toward your BIO hours.

BIO 4050: Advanced Cell & Molecular Biology

BIO 4230: Issues in Conservation Biology

BIO 4271: Parasitology

BIO 4300: Neurobiology

BIO 4510: Microbial Ecology

BIO 4540: Animal Ecology

BIO 4820: Developmental Biology

BIO 4850: Evolution

### **Are you ready for graduation?**

→ Please see your Degree Progress Report for General Studies and MSU Denver graduation requirements. ←

- Have you completed a total of 46 credit hours of BIO courses approved by the Biology Department?
- Have you completed at least 27 upper division BIO coursework (3000/ 4000 level)?
- Have you completed at least 39 total upper division credit hours?
- Have you completed a Senior Experience course?
- Have you had a final advising appointment?
- Have you submitted an application for graduation?