

# BIOLOGY MAJOR — Pre-Physician Assistant (Pre-Med Option) 2020-21

The Biology major Pre-Medicine option is designed to allow students interested in medicine, pharmacy, physician assistant and some other professional programs to optimally meet the requirement for their professional goal in the context of their Biology major. **This document outlines the requirements for students interested in becoming a physician assistant** (see the other option documents for medicine, pharmacy, and dentistry), and the listed courses will meet the prerequisites for most AAPA accredited physician assistant programs in the U.S. Students should always consult the requirements of all schools to which they plan to apply, and many physician assistant programs will not accept some online pre-requisite science courses (especially those with online labs) or prerequisite classes from study abroad programs.

A 3.0 GPA is required to complete the Pre-Medical option. Courses used to satisfy option requirements also satisfy the Biology and Society, Organismal Biology, Physiology, Writing Intensive Course (WIC), Physics or Computer Science and Quantitative Applications and Experiential Learning or Integrative Biology Elective requirements in the Biology major. **Previous versions of this option are different and are tracked in MyDegrees. All courses and prerequisites are subject to change, and the listing of terms offered is based on projected Corvallis campus offerings.**

<b>Core Coursework:</b>			
<b>Course</b>	<b>Pre(Co)requisites</b>	<b>Term</b>	<b>Credits</b>
PHAR 210 Terminology of the Health Sciences		W, SP	2
PSY 201 <b>AND</b> PSY 202 General Psychology		F, W, SP, SU	4,4
SOC 204 Introduction to Sociology		F, W, SP, SU	3
PHL 205 Ethics <b>OR</b> PHL/REL 444 Biomedical Ethics	Sophomore standing for PHL/REL 444	F, W, SP, SU	4
PH 201, PH 202, PH 203 General Physics	MTH 112 (C-)	F, W, SP, SU	5,5,5
<b>Writing Intensive Course (Select one course from the following):</b>			
BI 319 Theory, Practice and Discourse in the Life Sciences	BI 221, 222, 223 (C-); ST 351	F, W	3
MB 385 Emerging Infectious Diseases & Epidemics	BI 221, 222, 223	W	3
HSTS 417 History of Medicine	Junior standing	F, W, SP	4
<b>Medicine, Health and Society (Select one course from the following):</b>			
ANTH 352 Anthropology, Health, and the Environment		F, W, SP, SU	3
ANTH 383 Introduction to Medical Anthropology		F, SU	3
BB 332 Molecular Medicine	Any biology course	F	3
BI 420 Viruses in Modern Society		Alternate W	3
H 210 Introduction to the Health Care System		F, W, SP	3
H 225 Social and Individual Health Determinants		F, W, SP	4
H 312 HIV/AIDS and STI's in Modern Society		F, W, SP	3
H 333 Global Public Health		F, W, SP	3
HSTS 416 History of Medicine Pre-1800	Online only	W, SU	4
MB 330 Disease and Society	Online only	SU	3
<b>Human Anatomy and Physiology</b>			
BI 331-333 Advanced Human Anatomy and Physiology <b>AND</b> BI 341-343 Human Anatomy and Physiology Lab	BI 221, 222, 223 (C-); CH 233/263 (C-) Junior standing	F, W, SP (taken in order)	3,3,3 2,2,2
<b>Experiential Learning or Biological Science/Psychology Elective Course (select one of two tracks below)</b>			
<b>Track I: Select any combination of 3 credits from the following, or GS 410 Medical Preceptorship credits by approval</b>			
BI 309 Teaching Practicum <b>OR</b> BI 409 Advanced Teaching	By Approval	F,W,SP	1-3
BI 401 Research and Scholarship	By Approval	F,W,SP,SU	1-3
<b>Track II: Biological Science/Psychology Elective (select one course from the following, PSY 350 or PSY 381 preferred)</b>			
BB 460 Advanced Cell Biology	BB 314 or BB 451 or BB 492 (C-)	?	3
BI 451 Functional Anatomy of the Human Muscular System	BI 331, 332, 333, 341, 342, 343	SU (by application only)	4
BI 485 Monster Biology	BI 311, 370 (can be concurrent); JR	W	3
BI 495 Disease Ecology	BI 370 (C-)	Alternate W	3
BHS/VMB 415 One Health in Practice	Junior standing	W?	3
MB 416 Immunology	BB 450 or BB 490	F	3
MB 436 The Human Microbiome	BB 314 or MB 302	SP	3
MB 480 General Parasitology	BI 221, 222, 223 (C-)	W	3
<b>PSY 350 Human Lifespan Development (preferred)</b>	PSY 201, 202, sophomore standing	F, W, SP	4
<b>PSY 381 Abnormal Psychology (preferred)</b>	PSY 201 and PSY 202	F, W, SP	4
PSY 433 Psychopharmacology	Junior standing	?	4
TOX 411 Fundamentals of Toxicology	BB 350 or BB 450 or BB 490	F, SP	3
Z 425 Embryology and Development	BI 311 and BB 314; Junior standing	F?	5
Z 438 Behavioral Neurobiology <b>OR</b> BB 360 Introduction to Neuroscience	BI 221-223 (C-); CH 233/263 (C-) BI 221, 222, 223 (C-), CH 233/263 (C-)	SP F	3 3

# OSU Pre-Physician Assistant Resources and Information

## Applying to Physician Assistant School

**Admission Test:** Most schools require an entrance exam, often the Graduate Record Examination (GRE) <http://www.gre.org/>. Some schools will accept MCAT scores.

**References:** It is important to begin establishing relationships with professors and professionals throughout your education. Applicants will generally need a minimum of three references. References who can speak about you beyond a grade you received and can address your character and professionalism will be particularly strong.

**Medical Experience:** PA schools clinical experience requirements range from 500 to 4000 hours. Some require clinical hours to be complete before applying – check specific schools for details. Some opportunities for medical experience are listed below (research experience is not considered clinical). Typically one can earn 2000 hours working full time in a year.

### Medical Experience:

**Internships, volunteering or working** in health care is important to begin early to gain experience and to clarify your career choice and interests. See the medical sections of the internships & volunteering list: <http://ib.oregonstate.edu/professional/internship-research/intern-volunteer-list>.

**International Medical Internships** through the OSU study abroad office are a great way to prepare you for work in a diverse population, improve language and/or cross-cultural communication skills, and gain clinical experience through clinic rotations: <http://ib.oregonstate.edu/professional/international>.

**Shadowing** and other healthcare experience is a good way to get exposure to the field and to decide if being a PA is for you. To learn more about healthcare experience, see <https://science.oregonstate.edu/premed/healthcare-experience>

### Work experience

Students are encouraged to pursue direct hands-on patient care jobs on their own, and many schools require that medical experience be paid. Examples of how students can gain work experience include becoming certified and working as: a Certified Nursing Assistant (CNA), a Medical Assistant, a Phlebotomist, a Medical Scribe, or an Emergency Medical Technician (EMT). It is important to verify requirements of individual schools when applying, as acceptable experience varies across institutions.

### CPR Certification

Some schools require that students have a current CPR certification at time of application to PA school.

### Health Care Careers Enrichment Programs

See the following links for searchable databases of summer programs to learn what it is like to work in a health care or research field:

<https://services.aamc.org/summerprograms/> and <https://explorehealthcareers.org/enrichment-programs/> and <https://www.naahp.org/student-resources/summer-opportunities>

### Leadership:

Health profession schools value leadership experience as a way to develop interpersonal skills and the ability to lead as part of a team. There are a variety of ways to incorporate leadership experiences as an undergraduate, including: officer roles in a student club, coordinator for an organization (public, private, or non-profit), or being a peer mentor or an ambassador for your college or department. Students may also consider taking leadership courses or completing the OSU Leadership Minor:

[\(http://agsci.oregonstate.edu/leadership\\_minor/\)](http://agsci.oregonstate.edu/leadership_minor/).

### Campus Resources

**Pre-PA Advising:** Contact your assigned advisor.

Go to <http://ib.oregonstate.edu/advising/appointments>.

### Additional Resources

- American Academy of PAs <http://www.aapa.org/>. Click on "What is a PA?" link to learn more details about this career.
- Central Application Service for Physician Assistants <https://caspa.liaisoncas.com/>
- Biology Careers Page - Medical and Health Care <http://ib.oregonstate.edu/professional/careers>
- Explore Health Careers [www.explorehealthcareers.org](http://www.explorehealthcareers.org) - learn more about the PA field as well as explore other health professions careers.
- OHSU PA Program: <http://www.ohsu.edu/pa/>
- Pacific University PA Program: <http://www.pacificu.edu/pa/>
- Oregon Society of Physician Assistants <http://www.oregonpa.org/>
- Physician Assistant Education Association <http://www.paeaonline.org/>

### Study Abroad:

Although specific prerequisite professional courses should not be done abroad, study abroad is a great opportunity and very feasible for Pre-PA students. You can work with your advisor on how to schedule and apply study abroad courses to your degree.

<http://ib.oregonstate.edu/professional/international>

### Research Opportunities:

Although not required for PA school, research provides the opportunity to develop analytical and communication skills, as well as an understanding of research methods and the process of science. For these reasons, it is considered excellent preparation for a career in the health professions. <http://ib.oregonstate.edu/professional/research-internships>