

PRE-OPTOMETRY

Competency Development: The Guiding Principle

Optometry schools are looking for well-rounded individuals who can demonstrate professional competencies!

Many of the experiences listed below will give you opportunities for growth in the areas discussed on the AAMC website:

<https://www.aamc.org/services/admissions-lifecycle/competencies-entering-medical-students>

Note that although this list is specific to medicine, growing in these competencies will serve you well in your pre-optometry journey.

High-Value Experiences

Your pre-health advisor will be happy to discuss service & leadership opportunities that would connect well with your particular passions and values!

1. *Get involved*

- a. Involvement in on-campus Recognized Student Organizations (RSOs) or work as a teaching assistant, a lab / learning assistant, or a supplemental instructor can provide you with **leadership and communication** experience that optometry schools are looking for.
- b. Developing quality relationships with off-campus, non-profit organizations and the people they serve will give you invaluable **community service** experience. Optometry schools are looking for people with a service orientation, so it is much better to establish longer, qualitative service relationships with a few non-profits than to focus merely on one-off service events or fundraisers with multiple organizations.

2. *Understand what this career entails*

- a. **Shadowing** is a crucial component in your discernment process regarding whether you should pursue this career. Optometry schools want to see that you have demonstrated sustained interest in this career and that you know what you are getting into. Shadow several optometrists in multiple settings. Talk to your pre-health advisor for more info!
- b. **Experience in optometry and/or health care** can take a variety of forms. Optometry schools expect that their applicants have exposure to the health care field. You may find it useful to gain experience as a volunteer or employee at an optometry clinic.
- c. Optometrists need to stay up-to-date about issues related to optometry and health care in the US and the world, including the way the media is discussing their profession. They also need to know what is going on in the world in general. Although pre-optometry students are not expected to have all the answers, you can begin to **read and stay informed in the field** in order to maintain essential knowledge as you move forward in your journey.

3. *Develop your manual dexterity.* In order to perform optometric procedures, an optometrist must be able to work with precision on an extremely small scale, including the precise positioning of a diagnostic instrument on to the surface of the eye. Superior hand-eye coordination is critical to ensuring the safety of patients.

4. *Conduct research.* Research is not a requirement for admission to optometry school, but it may add an extra layer to your application if the institutions you are applying to have a research focus, or if you are particularly interested in research. See the “High-Value Opportunities” page on our website (<http://www.uwyo.edu/preprof/pre-health-preparation/opportunities.html>) and talk to a pre-health advisor to discover possible research opportunities.

5. *Establish a strong academic record.* Most individuals who are accepted to optometry school have a GPA above a 3.4. Optometry schools also place high value on applicants’ math and science grades, so pay attention to this during your time here at UW. Talk to a pre-health advisor about how to keep track of your various GPAs. Typical prerequisite courses for optometry school and OAT prep are listed on the next page.

6. *Develop relationships with professionals.* Optometrists, faculty, and work/volunteer supervisors can help you open doors to exciting new experiences, but they will also hopefully get to know you well enough to speak to your competencies in letters of evaluation for your optometry school application.

Meet Early and Often with a Pre-Health Advisor!

Pre-Health Advising Office

hsadvise@uwyo.edu

307-766-3878

Health Sciences Room 110

To schedule an appointment: <http://www.uwyo.edu/preprof/schedule-an-appointment/index.html>

Stay Informed! Sign up to join our Pre-Professional Health ListServ, so you can stay informed about various opportunities, workshops, and information that our office sends out! <https://lists.uwyo.edu/mailman/listinfo/pre-prof>

USEFUL TIP: Create an e-mail inbox rule to send our ListServ messages into a “pre-health” folder to read at regular intervals.

Academic Preparation

WHICH MAJOR SHOULD I CHOOSE?

You can major in ANYTHING! Optometry schools do not care what you major in as long as you take their prerequisite courses. Most schools require completion of a bachelor's degree before matriculation into their school.

WHAT COURSES ARE TYPICALLY REQUIRED or RECOMMENDED?

Note 1: Specific optometry schools may or may not require all of these courses before application or matriculation. Schools may also require additional courses as entry requirements. **You are responsible for making sure that you are on track to fulfill any specific school's requirements prior to application.** Talk to a pre-health advisor about things to keep in mind for school selection.

OAT section: Quantitative Reasoning

- Many students begin with MATH 1400 (College Algebra); **MATH 1405** (Trigonometry) **AND** **MATH 2200** (Calculus I) are required.
- A statistics course (**STAT 2050 OR STAT 2070**) is strongly recommended (& required by many UW departments).
- Additional recommendations: Any other course that requires problem-solving skills.

OAT section: Survey of Natural Sciences

- At least 2.5 years (5 semesters) of chemistry
 - Inorganic Chemistry: **CHEM 1020 & CHEM 1030**
(or CHEM 1050 & CHEM 1060)
 - Organic Chemistry: **CHEM 2420 & CHEM 2440***
 - Biochemistry / Biological Chemistry*: **MOLB 3610 OR CHEM 4400**
 - Molecular biology majors will also take MOLB 4600.
 - Taking MOLB 4100 (Clinical Biochemistry) could be useful before the OAT/optometry school, if you have time.

** You will likely see information online that neither CHEM 2440 nor a biochemistry course are necessary for the OAT, but if you choose not to take one or both of these courses, you will likely be limiting the number of optometry schools to which you can apply.*
- Biological Science courses
 - **LIFE 1010**
 - **MICR 2021** (Microbiology)
 - **LIFE 2022** (Animal Biology)
 - **KIN 2040 & 2041** (Human Anatomy)
 - **ZOO 3115** (Human Systems Physiology)

LAB REQUIREMENT (Chemistry/Biology/Physics)

Optometry schools require on-campus, lab-based courses for all science courses listed here (except MOLB 3610 / CHEM 4400, which most optometry schools allow to be taken online). Optometry schools DO NOT usually accept AP credit for these sciences!

UW Course Prerequisites: To understand the prerequisites for any UW courses listed on this page, consult [the University Catalog](#). You can find prerequisites either by clicking on a specific course on your "Degree Programs" page or using the search box on the "Course Offerings" page.

OAT section: Physics

- One full year of physics - **PHYS 1110 & PHYS 1120** (or PHYS 1210 & 1220 or PHYS 1310 & 1320)
 - NOTE: Fall-Spring sequence or intensive Summer sequence suggested at UW, since Spring-Fall sequence is online only!

OAT section: Reading Comprehension

- High-level reading: Regularly read a variety of challenging material (beyond the material required in your courses).
- Any course that requires extensive and challenging reading.

ADDITIONAL COURSEWORK TO PREPARE WELL FOR OPTOMETRY SCHOOL

- Optometry schools also require a psychology course (**PSYC 1000**).
- To fulfill Pacific University's requirement of a **biochemistry lab course**, you can take one of the 4000-level biochemistry courses listed above.
- Students who take coursework in upper-division sciences tend to do better in the rigorous coursework they encounter at optometry school. Examples include:

Cell Biology (LIFE 3600)

Genetics (LIFE 3050)

How do I prepare for the OAT?

Step # 1: Master the content in the required courses listed on this page!

Talk to a pre-health advisor for other ideas!

Growth Mindset: Taking additional challenging courses that interest you will reinforce your knowledge. Selecting a course based on how "easy" it is will not result in the intellectual growth needed to do well on the OAT or to become an optometrist.

American Optometric Association

<https://www.aoa.org/about-the-aoa/what-is-a-doctor-of-optometry>

Association of Schools and Colleges of Optometry

Application service: <https://www.optomcas.org/>

School information:

<https://optometriceducation.org/students-future-students/member-schools-and-colleges/>

Questions about funding optometry school?

Find more information at our website:

<http://www.uwyo.edu/preprof/funding-your-education/>

Wyoming Resident? Check out WICHE PSEP at this site! <http://www.uwyo.edu/certwy>