What is the study of Pre-Optometry?

Twenty-one accredited optometry schools in the U.S. and Puerto Rico offer the Doctor of Optometry (OD). Admission is highly selective and includes evaluation of: Optometry Admission Test (OAT), GPA (cumulative and science), letters of recommendation, exposure to the profession, extracurricular and community activities, and personal interview, as well as legal and social records.

Western offers undergraduate coursework that addresses prerequisites of most optometry programs but **optometry programs vary in admissions requirements.** General requirements include at least one year of Biology, Chemistry (general and organic), General Physics, English, and College Math. Research schools of your choice to confirm a list of all required courses.

Optometry schools emphasize the importance of a liberal arts education and do not recruit students from one specific major or discipline. Thus, you have flexibility in planning your Pre-Optometry educational program. Use your undergraduate years to explore many academic fields, to develop basic skills and knowledge, to demonstrate expertise, and to experience a field of study (major) of your choice. Pick a major in which you excel and enjoy. Majors of recent pre-optometry students include Anthropology, Art, Behavioral Neuroscience, Biology, Geology, Math, Psychology, and Spanish.

**Program Checkpoints:**

**Freshman year:**
- Take Math Placement Test; begin appropriate math sequence to complete Calculus: MATH 124, 125.
- Begin General Chemistry series as soon as possible: CHEM 121, 122, 123.
- Begin General Biology series winter or spring quarter: BIOL 204, 205, 206.
- Work on GUR courses, including ENG 101 and PSY 101.
- Begin prerequisite and co-requisite courses for possible major.
- Meet with Pre-Healthcare Advisors (OM 280) to develop a plan of study.

**Sophomore year:**
- Begin Physics sequence: PHYS 114, 115, 116 or 161, 162, 163 (depending upon major).
- Begin Microbiology sophomore or junior year: BIOL 345, 346 (or BIOL 245).
- Take stats class: MATH 240 (or equivalent in major, if offered).
- Take a second English composition course: ENG 201 or 202.
- Take a second Psychology course: PSY 210 or 220.
- Declare or apply for major.
- Begin shadowing Optometrists sophomore and/or junior year.

**Junior year:**
- Research optometry schools and graduate programs.
- Take Anatomy & Physiology: BIOL 348, 349 (if required; varies by school).
- Begin Biochemistry: CHEM 471, 472.
- Take a third English composition course: select from ENG 201, 202, 301 or 302.
- Take the Optometry Admission Test (OAT) by the summer after junior year.
- Begin primary application to the Optometry Centralized Application Service (OptomCAS).
- Draft personal statement.
- Request letters of recommendation from professors and professionals.

**Senior year:**
- Prepare for possible optometry school interview with a mock interview (or do spring of junior year).
- Complete major, GUR, WP, and other graduation requirements.
- Meet with declared major advisor and apply for graduation two quarters before graduation.

**Additionally:**

**NOTE:** Advanced Placement may not be generally recognized by all professional schools as college-earned credit. Check with each school.
Core Courses

Academic course requirements for optometry schools vary but, regardless of your major, certain prerequisites are expected by most schools and include:

- One year General Chemistry with labs: CHEM 121¹, 122, 123 (5, 5, 4)
- One year General Biology with labs: BIOL 204², 205, 206 (4, 5, 5), and additional courses under advisement
- One year Organic Chemistry with labs: CHEM 351, 352, 353 (4, 4, 3); labs: 354 & 355/[or 356 for non-Chemistry majors] (3, 3/[2])
- At least two quarters of Biochemistry: CHEM 471, 472 (4, 4)
- One year Physics with labs: PHYS 114³, 115, 116 (5, 5, 5) or PHYS 161⁴, 162, 163 (5, 5, 5)
- Microbiology with labs: BIOL 345, 346 (3, 2) or BIOL 245 (5)
- Two quarters Calculus: MATH 124, 125 (5, 5)
- Statistics: MATH 240 (4) or major equivalent
- Two quarters Psychology: PSY 101 (5) and 210 (5) or 220 (5)
- One year of English is highly recommended and required by many schools: select from ENG 101, 201, 202, 301, 302 (5 credits each)

¹Completion of MATH 114 or Math Placement Test score into MATH 115 or higher is a prerequisite for CHEM 121
²CHEM 121 is a prerequisite to General Biology
³MATH 115 is a prerequisite for PHYS 114
⁴MATH 124 is a co-requisite for PHYS 161

NOTE: It is imperative that students begin chemistry as early in their program as possible.

DECLARING A MAJOR*: Refer to the department of your chosen major for prerequisites and GPA requirements for declaring.

*NOTE: To major in Biology requires a grade point average of 2.9 or better for CHEM 121, 122, 123, and BIOL 204, 205, and 206 in order to advance to Phase II of the Biology major. Admission to Phase II is required in order to take upper division Biology classes.

To major in Biochemistry requires a 3.0 grade average in CHEM 121, 122, 123, 351, 352 and BIOL 205 in order to move on to a Phase II Biochemistry major.

To major in Chemistry (BS) requires a grade point average of 3.0 in CHEM 121, 122, 123, 351, 352 and MATH 124 and 125 in order to move on to a Phase II Chemistry major.

ACCESS TO CLASSES: Due to high student demand for many upper-division courses, especially in the sciences, many departments must give enrollment priority to students for whom these courses are required for their major over those who want to take them for electives. Registration details for these and other heavily impacted programs are posted at department websites:

- Biology: https://cse.wwu.edu/biology/registration
- Chemistry: https://cse.wwu.edu/chemistry/registration

REPEATING COURSES: is not viewed favorably by professional schools. An isolated case may be acceptable but may also require an explanation in application. Discuss your options first with a Pre-Healthcare Advisor.

The following courses apply to WWU GUR and may also apply to some pre-optometry requirements of many schools.

ACOM: ENG 101
BCOM: ENG 202
QSR: MATH 124, 240
SSC: PSY 101
LSCI: BIOL 204, 205, 206
CHEM 121, 122, 123
PHYS 115, 116, 161, 162, 163
SCI: PHYS 114

Additional Resources

Join the advisors’ Pre-optometry Listserv: Send an e-mail to Renee.Murray@wwu.edu with this information: Subject: pre-optometry listserv, Last name, First name, student number, and major and concentration (if declared).

WWU Pre-Health Pinterest: www.pinterest.com/wwuprehealth/
Pre-Optometry Club: Join this and other WWU Associated Students clubs at http://as.wwu.edu/clubs/.
Association of Schools & Colleges of Optometry (ASCO): www.opted.org provides links to:
- Optometry Admission Test (OAT)
- Optometry Centralized Application Service (OptomCAS)
OAT—Applicants must take the exam no later than August of the year preceding anticipated admission. OAT information, including registration and preparation guides, is available at www.aoa.org/en/oat.
American Optometric Association (AOA) www.aoa.org
Western Interstate Commission for Higher Education (WICHE): – a reduced tuition/professional exchange program, www.wiche.edu/psep
(Note: WA State funding is currently on hold for optometry programs.)
Explore Health Careers: www.explorehealthcareers.org

Advising for Pre-Healthcare Professions/Career Services Center, a unit of Academic and Career Development Services
Old Main 280 360.650.4240 Careers@wwu.edu

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