

# PRE-OPTOMETRY

Imagine yourself giving a child or adult their first pair of glasses, able to see things clearly for the first time. And as an eye doctor, or optometrist, you aided them on their path to finally have clear vision. The field of optometry is a challenging yet rewarding career in medicine. You'll be examining patients' eye health, fitting them for glasses or contacts, perhaps performing surgery for permanent clear vision. You can start your path to becoming an optometrist at Wayne State, studying Biology or Chemistry and taking courses in science and math. After receiving your undergraduate degree, you'll be ready to move on to graduate work at a professional optometry school and earn your O.D.

## fast facts

### Recommended majors:

Chemistry/Chemical Sciences (B.A. or B.S.)  
Chemistry/Health Sciences (B.A. or B.S.)  
Life Sciences/Biology (B.A. or B.S.)

**Departments:** Physical Sciences and Mathematics, Life Sciences

**School:** Science, Health, and Criminal Justice

**Suggested minors:** Biology, Chemistry, Physics, Psychology, Public and Global Health, Spanish

## focus on results

### Skills Learned

- Human anatomy and physiology
- Introductory zoology
- Evolutionary processes
- Biological systems and structures
- Experimental plant science
- Molecular genetics
- Microbiology
- Cellular biology
- General chemistry and physics
- Research, data collection, and analysis
- Modern lab techniques
- Critical thinking and problem-solving

### Possible Careers

- Optometrist
- Optometry assistant
- Optician
- Ophthalmologist
- Orthoptist
- Surgical assistant
- Low vision specialist
- Ophthalmic medical tech
- Pharma consultant
- Optometry educator

### Types of Employers

- Private optometry practices
- Vision screening offices
- Hospitals and medical clinics
- Eyeglass manufacturing companies
- Government agencies
- Non-profit organizations
- Medical research facilities
- Pharmaceutical companies
- Schools, colleges, and universities
- Eyeglass prescription stores

## outside the classroom

### Activities/Opportunities

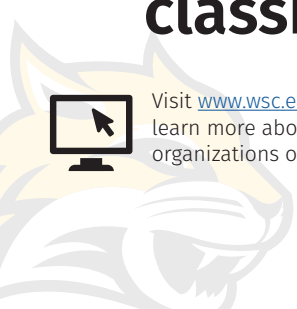
- Peer mentoring and tutoring
- Service-Learning
- Study Abroad

### Clubs/Organizations

- Biology Club
- Exercise is Medicine on Campus (EIM-OC)
- Health Science Club



Visit [www.wsc.edu/clubs](http://www.wsc.edu/clubs) to learn more about clubs and organizations on campus.



The following information is provided to guide you in the pre-professional program described on this sheet. Every effort is made to ensure this information is current, but please be aware that some content may have changed. To develop a plan for choosing a major and registering for courses, please consult the current academic catalog and your advisor.

## Suggested majors for Pre-Optometry

The following majors are recommended for students planning to attend optometry school. Additional electives may be recommended. Participation in the Pre-Optometry program at WSC does not guarantee acceptance to a school of medicine.

**Chemistry/Chemical Sciences (B.A. or B.S.)** — The Chemical Sciences degree program will prepare you for careers in medicine, pharmacy, research, and other clinical or laboratory settings.

**Chemistry/Health Sciences (B.A. or B.S.)** — The Health Sciences major offers a solid foundation in biology and chemistry, and emphasizes how these fields relate to careers in health and medicine.

**Life Sciences/Biology (B.A. or B.S.)** — Our Biology program lays the groundwork needed for students entering medical school and provides plenty of time in our biology and research labs.

## Sample courses

Students may be advised to take the following courses while pursuing one of the recommended majors. Please consult with your advisor to draft a final plan of study, and be sure to check with your intended medical school to make sure you're meeting all prerequisite course requirements.

BIO 220 Human Anatomy.....	4
BIO 320 Molecular Genetics.....	4
BIO 330 Histology.....	3
BIO 340 Human Physiology.....	4
BIO 385 Microbiology.....	4
CHE 314 Organic Chemistry I.....	4
CHE 315 Organic Chemistry II.....	4
CHE 326 Biochemistry I.....	4
PHY 302 University Physics II.....	4
PHY 465 Optics.....	3

## department faculty



Visit [www.wsc.edu/physical-sciences-mathematics-department](http://www.wsc.edu/physical-sciences-mathematics-department) to learn more about the Department Physical Sciences and Mathematics.

Visit [www.wsc.edu/life-sciences-department](http://www.wsc.edu/life-sciences-department) to learn more about the Department of Life Sciences.

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