

Pre-Optometry

College of Arts & Sciences
McCannel Hall, Room 280
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Grand Forks, ND 58202



The Pre-Optometry Program is not a major or degree-granting program. In order to graduate with a degree from UND, you will need to:

- Choose a [major](#) and complete the specific requirements determined by the department responsible for that major. Optometry schools do not require any particular major.
- Complete the [Essential Studies requirements](#)
- Complete 120 semester credits (36 numbered 300 or above and 30 from UND)

Optometry schools consider the following when reviewing applications:

1. Academics

Optometry schools have varying pre-requisites, all of which have been taken into consideration to inform the UND Pre-Optometry Program curriculum so that you are prepared to apply to any optometry school you ultimately decide to. Admission into optometry school requires anywhere between 90 credits of undergraduate coursework to the completion of an undergraduate degree; most schools prefer a four-year degree. The national average cumulative GPA of matriculants in the 2022 application cycle was 3.52 (cumulative) and 3.41 (science). To be a competitive applicant, you should aim for such a cumulative and science GPA and excel in all your courses.

2. OAT

Plan to take the OAT in May or June of the calendar year before you plan to attend optometry school (third year if on a four year plan). Considerable time needs to go into OAT preparation (20+ hours/week), therefore students are encouraged to take a lighter credit load (12 credits) during the spring semester before taking the OAT. As a Kaplan partner, UND students have access to the Kaplan OAT review courses and materials at a discounted rate. The OAT is scored on a 200 – 400 scale. Here is a break down on how the scores range:

- 299 or below: May still be enough to get accepted but will be below average compared to the testing population.
- 300 – 349 (50th percentile): Considered to be a good range of scores to achieve.
- 350 + (75th percentile): Considered to be a more competitive score to achieve for admissions.

3. Life Experiences

Admissions committees want to know that you have made an informed career decision and are knowledgeable about health-related professions. In addition, they are looking for applicants who have demonstrated a dedication to service. One way that they assess your nonacademic qualities is to look at how you spend your time outside of the classroom, so set yourself apart! Although formal documentation is not needed, be sure to keep track of your experiences and include dates, times, activities, meaningful experiences, and the name and contact information of your supervisor (if applicable).

a. **Shadowing** → 40+ hours

- Get a good feel for the profession by shadowing optometrists in several different practice settings such as hospitals, independent, and corporate retail.

b. **Direct Patient Care Experience** → 200+ hours

- Optometry schools expect you to spend considerable time working in their field. Look for positions such as an Optometric Technician where you get to work directly with patients, an Optometrist, and be a part of a healthcare team.

c. **Community Service/Involvement**

Demonstrate your desire to serve others and give back to your community. These experiences do not necessarily need to be medically-related. Participate in things that are of genuine interest to you (either in a paid position or as a volunteer) and that you can speak passionately about in your application and interview.

- Lifeguards, first responders
- Coaching/teaching sports (for park boards, travelling leagues, Special Olympics, etc.)
- Camp counseling (church camps, day camps, medical camps, music camps, etc.)
- Big Brother/Big Sister, Meals on Wheels, Relay for Life, etc.
- Volunteering at your local city mission, free clinic, humane society, etc.
- College organizations (clubs, honor societies, sororities/fraternities, etc.)
- College tutoring or TA positions
- Medical missions trips (through college organizations, national organizations, or local churches)

d. **Research**

UND has numerous opportunities for undergraduate students. Research experience is expected of students applying to top tier pharmacy schools or OD/PhD programs.

Regardless of where you plan to attend optometry school, research experience can help strengthen your application.

UND Pre-Optometry Course Planner

UND courses required by most optometry schools (*needed for OAT prep)

- BIOL 150/L: General Biology I *
- BIOL 151/L: General Biology II *
- CHEM 121/L: General Chemistry I *
- CHEM 122/L: General Chemistry II *
- Organic Chemistry (choose one) *¹
 - CHEM 341/L & 342/L: OChem I & II
 - CHEM 340/L Survey of OChem
- BIMD 301: Biochemistry
- BIMD 302/L: General Microbiology
- BIMD 220/L: Anatomy and Physiology I
- BIMD 221/L: Anatomy and Physiology II
- Physics (choose one) *
 - PHYS 211 & 212: College Physics I & II
 - PHYS 251 & 252: University Physics I & II
- Math (choose one)
 - MATH 146: Applied Calculus
 - MATH 165: Calculus I
 - AP credit for Calculus
- A Statistics course (choose one) *
 - PSYC 241: Introduction to Statistics
 - SOC 326: Sociological Statistics
 - ECON 210: Business/Economic Statistics
 - MATH 321: Applied Statistical Methods
 - BIOL 470: Biometry
 - PHE 306: Epidemiology and Biostatistics
 - Other statistics course
- PSYC 111: Introduction to Psychology
- ENGL 110: College Composition I
- ENGL 130: College Composition II

¹Level of Organic Chemistry needed will vary based on UND major and optometry school

UND electives good for optometry school preparation (+recommended for OAT prep)

Some may be required by certain optometry schools; check individual requirements for schools of interest.

- BIMD 328: Introduction to Immunology
- BIOL 315: Genetics +
- BIOL 341: Cell Biology +
- BIOL 369/L: Histology
- BIOL 378: Developmental Biology
- BIOL 390: Endocrinology
- BIOL 420: Neuroscience
- BIOL 442: Physiology of Organs/Systems
- PPT 315: Human Pharmacology
- COMM 212: Interpersonal Communication
- COMM 380: Health Communication
- MED 205: Medical Terminology
- N&D 240: Fundamentals of Nutrition
- PHIL 245: Death and Dying
- SOC 110: Introduction to Sociology
- Business courses
 - ECON 201: Microeconomics
 - ENTR 101: Intro to Entrepreneurship
 - ENTR 386: Financials for Entrepreneurs
 - MGMT 300: Principles of Management
 - MGMT 310: Organizational Behavior
- Public Health courses
 - PHE 101: Introduction to Public Health
 - PHE 102: Epidemiology in Public Health
 - PHE 103: Introduction to Global Health
- Ethics courses
 - PHIL 120: Introduction to Ethics
 - PHIL 251: Ethics in Healthcare

Sample Four Year Plan

This is just an example to aid in your academic planning. Consult with your assigned advisor on how best to combine the pre-optometry curriculum with your major requirements.

| | Fall | Spring | Summer |
|--------------------|---|--|--|
| First Year | BIOL 150/L CHEM 121/L MATH 103 ¹ Courses from Group 1 | BIOL 151/L CHEM 122/L Courses from Group 1 | Life Experiences Direct patient care Shadowing Volunteering Research |
| Second Year | CHEM 341/L ² BIMD 220/L BIOL 315 Courses from Group 1 or 2 | CHEM 342/L or CHEM 340/L ² BIMD 221/L BIOL 341 Courses from Group 1 or 2 | Life Experiences Direct patient care Shadowing Volunteering Research |
| Third Year | PHYS 211 Courses from Group 1, 2, or 3 | PHYS 212 BIMD 301 Courses from Group 1, 2, or 3 ~12 credits for OAT prep | WICHE Forms (Complete over Spring Break) OAT (take by Jun 15 th) 1^o Apps Due (Submit ~Jun 15 th) |
| Fourth Year | Courses from Group 2 or 3 2^o Apps Due (Submit ASAP) Interviews Begin (~ Oct-Feb) | BIMD 302/L Courses from Group 2 or 3 | |

¹ MATH 103 waived if ACT Math > 26 or AP Calc > 3 or equivalent college level math course

² Level of Organic Chemistry needed will vary based on UND major and optometry school

Group 1 courses are **required**: COMM 110, ENGL 110, ENGL 130, MATH 146, PSYC 111, a statistics class

Group 2 courses are good **electives**: COMM 212, COMM 380, MED 205, SOC 110, N&D 240, a business course, a public health course, an ethics course

Groups 3 courses are **upper level science electives**:

Fall courses: BIMD 328, BIOL 390, BIOL 420, BIOL 442, PPT 315

Spring courses: BIOL 369/L, PPT 315