



# PRE-OPTOMETRY

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It is our goal at UND to prepare students for any of the 22 optometry schools in the country. Indeed, our undergraduates have been accepted at optometry schools from coast to coast. Seats in optometry school entering classes are limited – all together less than 1,800 seats are available across the country each year. The national ratio of qualified applicants per available seat is approximately 1.5:1. Getting accepted into any optometry school is done through a competitive, two stage application process. It is extremely important that you are well prepared and able to present the best possible application to optometry schools when you apply - good planning is key!

The Pre-Optometry Program is not a major or degree granting program at UND. 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
- Complete the **Essential Studies Requirements**
- Complete 125 semester credits (36 of which must be upper divisional credits)

You will be assigned two advisors while pursuing your degree and the Pre-Optometry Program at UND:

- A major advisor (from your major department) to help with the planning of your major curriculum
- The Health Sciences Advisor (from the College of Arts & Sciences) to help with all aspects of optometry school preparation

**Joining** the Pre-Optometry Program is easy!:

1. Incoming freshmen students should plan to attend Summer Orientation - you can declare Pre-Opt at that time
2. Current or transfer students can declare Pre-Opt by stopping by the A&S main office or by calling us at 701-777-2749

**Staying** in the Pre-Optometry Program is hard!:

1. *Incoming Freshmen* must:
  - Attend all freshmen group advising meetings during the fall semester
  - Attend one freshmen group advising meeting during the spring semester
  - Complete the following courses, with a C grade or better, before the start of sophomore year:
    - Bio 150-151, with labs
    - Math 103 (may test out of this with an ACT Math score of 26, or appropriate Math placement test score)
    - Chem 121-122, with labs
  - Maintain a cumulative GPA of 3.0 or higher during freshman year
2. *Transfer students, or current students switching to Pre-Optometry after freshman year*, must:
  - If not already completed at UND or transferred in, complete the following courses with a C grade or better:
    - Bio 150-151, with labs
    - Math 103
    - Chem 121-122, with labs
  - Have a cumulative GPA of 3.0 or higher
3. *All continuing Pre-Optometry students* must:
  - Take Pre-Optometry courses as advised
  - Prepare for and take the OAT
  - Keep cumulative GPA and science GPA competitive

Optometry schools consider a variety of factors when reviewing applications:

## 1. Academics

### a. Undergraduate Preparation

Although not required, most optometry schools prefer a 4 year undergraduate degree (BS, BA, etc.) from an accredited college or university. All optometry schools have specific content or course prerequisites which are included in the UND Pre-Optometry Program. UND accepts AP and post-secondary transfer credits toward the completion of a bachelor's degree in accordance with the NDUS policies of [General Education Requirement Transfer Agreement](#) (GERTA) and [Common Course Numbering](#) (CCN). UND also has numerous articulation agreements and course equivalencies with other academic institutions. You should, however, check with the optometry schools on your wish list regarding the post-UND implications of any AP, IB, CIS, CLEP, on-line, distance learning or community college work you plan to complete prior to your undergraduate matriculation.

### b. Major

Optometry schools do not require any particular major. Pre-Optometry program students have completed such majors as Biology, Business, Chemistry, Classical Studies, Communication, Criminal Justice, Engineering, Entrepreneurship, Foreign Language, Forensic Science, History, Honors, Interdisciplinary Studies, Math, Nutrition, Philosophy, Political Science, Psychology, Sociology.

The choice for a major is entirely up to you! You should pick something you are good at, or enjoy studying, or fits your "plan B" if you don't end up going to optometry school. A list of each major and degree offered at UND may be found at: <http://und.edu/academics/registrar/fields-of-study.cfm>. Click on a particular major to see what you will be studying, as well as opportunities and careers associated with that major. For specific requirements and course descriptions, click on the [Academics – Check out the courses you'll take](#) link on the right side of each major page. Four year plans (i.e., schedule of courses) for each degree are listed by college and are posted online at: <http://und-public.courseleaf.com/4yearplan/>.

The combination of the Pre-Optometry Program with a major in the College of Arts and Sciences can usually be finished in 4 years if both major and Pre-Optometry are started freshmen year. The combination of the Pre-Optometry program with a major in Athletic Training, Aviation, Dietetics, Engineering, Education, Nursing, Nutrition or Medical Laboratory Science will take longer. Because these majors include busy curricula and/or practicums, in most cases if you plan to combine one of them with Pre-Optometry, you will need at least 5 years of undergraduate studies to do so.

### c. GPA

Since optometry school curriculum is considerably more challenging than any undergraduate curricula, you need to leave no doubt of your academic ability by excelling at the undergraduate level. Average cumulative GPA of recent optometry school matriculants: 3.40 - 3.60.

## 2. OAT

### a. Timing

This challenging exam is required by all optometry schools – students planning to finish their undergraduate degrees in 4 years typically take the OAT in May or June after their 3<sup>rd</sup> year (junior year) of college. While retakes are allowed, it is best to "do it right the first time".

### b. Preparation

Since considerable time (20+ hours/week) needs to go into OAT preparation, students are encouraged to take a lighter load (12 credits) during the spring semester of their junior year to give them room to take an online OAT review course, or for reviewing and practice testing on their own.

### c. Scores

Average OAT score for recent optometry school matriculants: 320.

### **3. Relevant Life Experiences**

- a. Shadowing = 40+ hours
  - Get a good feel for the profession by shadowing optometrists in several different settings
  - Be sure to include both rural and city experiences
- b. Direct Patient Care Experience => 200+ hours
  - Optometry schools expect you to spend considerable time working in their field. You need to work in an eye care setting (clinic, store, etc.) where you give direct care to patients, and have a supervisor observing you
  - This will come in handy when you apply to optometry schools since most of them require a letter of recommendation from an optometrist and a health care work supervisor
- c. Community Service => These activities will set you apart!
  - Do things that you love, have a passion for, demonstrate your desire to serve others and give back, show your love of learning, let your leadership skills shine, etc.
  - These volunteer activities/paid jobs include, but are not limited to:
    - 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 organization participation or leadership (clubs, honor societies, sororities/fraternities, etc.)
    - College tutoring or TA positions
    - Medical missions trips (through college organizations, national organizations, or local churches)
    - Church work/sponsored activities (Sunday school teacher, youth worker, mission trips, etc.)
    - American Red Cross, Peace Corps
- d. Keep a log of all hours

Although formal documentation is not needed, you should keep a simple personal log for all experiences/work in a notebook – be sure to include dates, times, activities, impressions, and note any meaningful patients or experiences. You will also need to provide contact information for someone who witnessed you in each experience or circumstance, so make note of that as well!

### **4. Letters of Recommendation**

- a. You will need 3-4 letters of recommendation or evaluation for most optometry schools.
- b. Letters need to address the personal attributes and academic abilities that make you a good fit for optometry school and the profession of optometry.
- c. Letter authors will have to include professors, work supervisors and peers who know the you very well.

### **5. Legal Record**

- a. Keep legal records clean. All minors and felonies will need to be disclosed on applications.
- b. Keep university records clean. Any institutional actions for code of student conduct violations (behavioral, academic, legal, etc.) will need to be disclosed on applications.
- c. Keep personal social media sites clean (Facebook, Twitter, etc.). Be sure to demonstrate integrity, maturity, wholesomeness and good taste in all postings (verbal, photos, pictures, etc.).

### **6. Home State Residency**

Optometry schools consider your home state of residency to be where you graduated high school and/or where your parents live. You do not become a resident of a state by just attending college there!

Courses included in the **UND Pre-Optometry Program** fall into one (or more) of three categories. These categories are:

1. Requirements for most optometry schools
2. Good preparation for the OAT
3. Good, additional preparation for most optometry schools

The checklist below will help you keep track of your progress in the Pre-Optometry Program:

**UND Courses required by most optometry schools** (all but Calc, English and Psych are needed for OAT preparation):

- |   |  |
|---|--|
| <input type="checkbox"/> Biol 150, 150L General Biology I                     | <input type="checkbox"/> Math (choose one)                   |
| <input type="checkbox"/> Biol 151, 151L General Biology II                    | Math 146 Applied Calculus                                    |
| <input type="checkbox"/> Chem 121, 121L General Chemistry I                   | Math 165 Calculus I  |
| <input type="checkbox"/> Chem 122, 122L General Chemistry II                  | Math 165-166 Calculus I and II                               |
| <input type="checkbox"/> Organic Chemistry (choose one)                       | AP credit for Calculus                                       |
| <input type="checkbox"/> Chem 341+L & 342+L Organic Chemistry I and II        | <input type="checkbox"/> Statistics (choose one)             |
| <input type="checkbox"/> Chem 340, 340L Survey of Organic Chem                | <input type="checkbox"/> Psyc 241 Psychological Statistics   |
| <input type="checkbox"/> BMB 301 Biochemistry                                 | <input type="checkbox"/> Soc 326 Sociological Statistics     |
| <input type="checkbox"/> Phys 211, 211L College Physics I                     | <input type="checkbox"/> Engl 110 Composition I              |
| <input type="checkbox"/> Phys 212, 212L College Physics II                    | <input type="checkbox"/> Engl 130 Composition II             |
| <input type="checkbox"/> Anat 204, 204L Anatomy for Paramed Personnel         | <input type="checkbox"/> Psyc 111 Introduction to Psychology |
| <input type="checkbox"/> A Physiology course (choose one)                     |  |
| <input type="checkbox"/> Biol 442 Physiology of Organs/Systs (for Bio majors) |  |
| <input type="checkbox"/> PPT 301 Human Physiology (for other majors)          |  |
| <input type="checkbox"/> Mbio 302, 302L General Microbiology                  |  |

**UND electives good for optometry school preparation (take as many as desired – all are optional):**

- |  |  |
|--|--|
| <input type="checkbox"/> Biol 315 Genetics             | <input type="checkbox"/> A Business course (your choice) |
| <input type="checkbox"/> Biol 315R Genetics Recitation | Badm 101   |
| <input type="checkbox"/> Biol 341 Cell Biology         | Econ 201   |
| <input type="checkbox"/> Bio 369, 369L Histology       | Econ 202   |
| <input type="checkbox"/> Bio 420 Neuroscience          | Mgmt 300   |
| <input type="checkbox"/> MBio 328 Immunology           |  |

Your course schedule at UND will vary depending on your major. Ultimately, all students, regardless of major, will be able to take the courses covering the content they need for the OAT and optometry school. The chart below shows complete major and Pre-Optometry **science and math** course schedules for both **Biology** and **Chem/Biochem** majors. For students pursuing **other majors**, only the **science and math** Pre-Optometry courses are listed so they will need to “pencil in” their major requirements as well. Also, all UND students will need to add any additional major requirements, Essential Studies requirements, and other electives to each semester in the schedules below as needed or desired:

	Freshman	Sophomore	Junior	Senior
Fall	Bio majors: <ul style="list-style-type: none"> <li>Bio 120</li> <li>Bio 150, 150L</li> <li>Chem 121, 121L</li> <li>Math 103</li> </ul>	Bio majors: <ul style="list-style-type: none"> <li>Chem 341, 341L ?</li> <li>Bio 315 (Genetics)</li> <li>Bio 315R (Genetics Recitation)</li> <li>Bio 332 (Ecology)</li> </ul>	Bio majors: <ul style="list-style-type: none"> <li>Physics 211, 211L</li> <li>Bio 442, 442L</li> <li>Chem 333, 333L (for minor) ?</li> </ul>	Bio majors: <ul style="list-style-type: none"> <li>Bio 480</li> <li>Bio requirement**</li> <li>Anat 204, 204L or Other Bio requirement**</li> </ul>
	Chem/Biochem majors: <ul style="list-style-type: none"> <li>Chem 101</li> <li>Chem 121, 121L</li> <li>Bio 150, 150L</li> <li>Math 103</li> </ul>	Chem/Biochem majors: <ul style="list-style-type: none"> <li>Chem 341, 341L</li> <li>Chem 361</li> <li>Chem 333, 333L or Bio 315?</li> <li>Physics 211, 211L</li> </ul>	Chem/Biochem majors: <ul style="list-style-type: none"> <li>Chem 466</li> <li>Chem 333, 333L or Bio 315?</li> <li>Anat 204+L or Bio 442+L</li> </ul>	Chem/Biochem majors: <ul style="list-style-type: none"> <li>BMB 401, 403</li> <li>Chem 492 or 495?</li> <li>Bio elective?***</li> </ul>
	Other majors: <ul style="list-style-type: none"> <li>Bio 150, 150L</li> <li>Chem 121, 121L</li> <li>Math 103</li> </ul>	Other majors: <ul style="list-style-type: none"> <li>Chem 341, 341L ?</li> <li>Anat 204, 204L</li> <li>Bio 315?</li> <li>Your major requirements?</li> </ul>	Other majors: <ul style="list-style-type: none"> <li>Physics 211, 211L</li> <li>PPT 301</li> <li>Chem 333, 333L (for minor) ?</li> <li>Your major requirements?</li> </ul>	Other majors: <ul style="list-style-type: none"> <li>Bio 315?</li> <li>Other Bio elective?***</li> <li>Your major requirements?</li> </ul>
	Everyone: Courses from Group 1*	Everyone: Courses from Group 1 or 2*	Everyone: Courses from Group 2 or 3*	Everyone: Courses from Group 2, 3 or 4* <p><b>2<sup>o</sup> Opt School Apps Due</b> <i>(Submit to schools ASAP)</i></p> <p><b>Interviews Begin</b> <i>(Usually run October-February)</i></p>
Spr	Bio majors: <ul style="list-style-type: none"> <li>Bio 151, 151L</li> <li>Chem 122, 122L</li> <li>Math 146</li> </ul>	Bio majors : <ul style="list-style-type: none"> <li>Chem 342+L or 340+L?</li> <li>Bio 341, 341L (Cell Bio)</li> <li>Bio 312 (Evolution)</li> </ul>	Bio majors: <ul style="list-style-type: none"> <li>Physics 212, 212L</li> <li>BMB 301 or MBio 302+L</li> </ul>	Bio majors: <ul style="list-style-type: none"> <li>MBio 302+L or BMB 301</li> <li>Bio requirement**</li> </ul>
	Chem/Biochem majors: <ul style="list-style-type: none"> <li>Bio 151, 151L</li> <li>Chem 122, 122L</li> <li>Math 146</li> </ul>	Chem/Biochem majors: <ul style="list-style-type: none"> <li>Chem 342, 342L</li> <li>Chem 362</li> <li>Physics 212, 212L</li> </ul>	Chem/Biochem majors: <ul style="list-style-type: none"> <li>Chem 467</li> <li>BMB 301</li> <li>Anat 204+L or PPT 301</li> </ul>	Chem/Biochem majors: <ul style="list-style-type: none"> <li>Chem 492 or 495?</li> <li>MBio 302, 302L</li> <li>Other Bio elective?***</li> </ul>
	Other majors: <ul style="list-style-type: none"> <li>Bio 151, 151L</li> <li>Chem 122, 122L</li> <li>Math 146</li> </ul>	Other majors: <ul style="list-style-type: none"> <li>Chem 342+L or 340+L?</li> <li>Bio 341</li> <li>Your major requirements?</li> </ul>	Other majors: <ul style="list-style-type: none"> <li>Physics 212, 212L</li> <li>BMB 301 or MBio 302+L</li> <li>Your major requirements?</li> </ul>	Other majors: <ul style="list-style-type: none"> <li>BMB 301 or MBio 302+L</li> <li>Other Bio elective?***</li> <li>Your major requirements?</li> </ul>
	Everyone: Courses from Group 1*	Everyone: Courses from Group 1 or 2*	Everyone: Courses from Group 2 or 3* <p><i>Take a lighter credit load (12 credits) For OAT prep or OAT prep course</i></p>	Everyone: Courses from Group 2, 3 or 4*
Sum	Bio 341 is offered at UND during the summer – to help lighten their load during the regular school year, students may wish to do it after freshman or sophomore year (once Bio 150-151 and Chem 121-122 are completed) .....		<p><b>WICHE Forms – ND, MT, WY res only</b> <i>(Complete over Spring Break)</i></p> <p><b>OAT (1<sup>st</sup> one by June 15<sup>th</sup>)</b></p> <p><b>1<sup>o</sup> Opt School Apps Due</b> <i>(Submit to OptomCAS by July 15<sup>th</sup>)</i></p>	

\* Courses in Group 1 are **required** for all majors. Courses from Groups 2, 3 and 4 are **options for Bio requirements/electives** or other **electives**.  
Group 1: Eng 110 or 130, Psych 111, Soc 110, Comm 110, Badm 101 or Econ 201 or Econ 202, a Stats class (Psych 241 or Soc 326); additionally, the Chem/Biochem major also requires a level 2 proficiency in a Foreign Language (i.e., Span 101 and 102)  
\*\*Group 2 Fall courses: Bio 315, Med 205 \*\*Group 2 Spring courses: Bio 341, Med 205  
\*\*Group 3 Fall courses: Chem 333, business/management/finance course; \*\*Group 3 Spring courses: business/management/finance course  
\*\*Group 4 Fall courses: Bio 420, Mbio 328; \*\*Group 4 Spring courses: Bio 369+L