It is our goal at UND to prepare students for any pharmacy school in the country. Getting accepted into any pharmacy school is done through a highly competitive, two stage application process. It is extremely important that you are well prepared and able to present the best possible application to pharmacy schools when you apply - good planning is key!

The Pre-Pharmacy 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 120 semester credits (36 of which must be upper divisional credits)

You will be assigned two advisors while pursuing your degree and the Pre-Pharmacy Program at UND:
- A major advisor (from your major department) to help with the planning of your major curriculum
- A Health Sciences Advisor (from the College of Arts & Sciences) to help with all aspects of pharmacy school preparation

Joining the Pre-Pharmacy Program is easy!
1. Incoming freshmen students should plan to attend Summer Orientation - you can declare Pre-Pharm at that time
2. Current or transfer students can declare Pre-Pharmacy by stopping in the A&S advising office or by calling 701.777.4974

Staying in the Pre-Pharmacy 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 grade of C or better before the start of sophomore year:
     - Biol 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 3.400 or higher during freshman year

2. **Transfer students or current students switching** to Pre-Pharmacy after freshman year must:
   - If not already completed at UND or transferred in, complete the following courses with a grade of C or better:
     - Biol 150 & 151 with labs
     - Math 103
     - Chem 121 & 122 with labs
   - Maintain a cumulative GPA of 3.400 or higher

3. **All continuing Pre-Pharmacy students** must:
   - Take Pre-Pharmacy courses as advised
   - Prepare for and take the PCAT
   - Maintain a cumulative GPA of 3.400 or higher
Pharmacy schools consider a variety of factors when reviewing applications:

1. Academics
   a. Undergraduate Preparation
      Admission into pharmacy school requires anywhere from 1 year of undergraduate work to completion of an undergraduate degree (BS, BA, etc.) from an accredited college or university. All pharmacy schools have specific content or course prerequisites which are included in the UND Pre-Pharmacy 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 pharmacy 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
      Pharmacy schools do not require any particular major, so the choice for a major is entirely up to you! You should pick something you are good at, enjoy studying, and fits your parallel plan—something you could see yourself doing as a career—should you not go on to pharmacy school. A list of each major and degree offered at UND may be found at: [http://und.edu/academics/registrar/fields-of-study.cfm](http://und.edu/academics/registrar/fields-of-study.cfm). Visit the Program Page of a particular major to see the opportunities and careers associated with that major, as well as coursework you will be studying with a sample four year plan.
      
      The combination of your major with the Pre-Pharmacy Program will directly contribute to the length of time it will take for you to complete an undergraduate degree at UND. Pursuing a major within the College of Arts & Sciences combined with Pre-Pharm can typically be finished in 4 years if both the major and Pre-Pharm are started freshmen year. Pursuing a major from a college other than Arts & Sciences combined with Pre-Pharm may take longer due to the required coursework sequencing and/or required practicums and internships. Please work with your assigned Health Sciences Advisor to determine the appropriate academic plan for your chosen major combined with the Pre-Pharmacy Program.
   
   c. GPA
      Since pharmacy 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. The average cumulative GPA of recent regional pharmacy school matriculants is 3.40 (UMN) - 3.74 (NDSU).

2. PCAT
   a. Timing
      This rigorous exam is required by most pharmacy schools. Students will typically take the PCAT in May or June of the year prior to their expected graduation ("Junior Year” if on a 4-year plan). While retakes are allowed, it is best to "do it right the first time".
   
   b. Preparation
      Since considerable time needs to go into PCAT preparation (20+ hours/week), UND students are encouraged to take a lighter credit load (12 credits) during the spring semester before taking the PCAT (typically junior year) to give them room for reviewing and practice testing. UND offers an optional PCAT Review Course facilitated through Kaplan. This course is billed separately and does not count for credit at UND.
   
   c. Scores
      Average national PCAT composite score for recent pharmacy school matriculants: 56th - 78th percentile
3. Relevant Life Experiences
   a. Shadowing => 100+ hours
      - Get a good feel for the profession by shadowing pharmacists in different situations such as: hospital
        pharmacies, private pharmacies, chain pharmacies (Walgreens, CVS, etc.), or big box type pharmacies
        (Wal-Mart, Sam’s Club, Target, etc.)
      - Be sure to include both rural and city experiences
   b. Work experience => can be considered shadowing if working in a pharmacy
      - Pharmacy schools expect you to spend considerable time working in health care settings. You need to get
        a job in a pharmacy or other medical setting where you give direct medical care to patients, have a chance
        to observe doctors, pharmacists, and other health care team members.
      - Be sure you have a supervisor observing you (most pharmacy schools require a letter of recommendation
        from a health care work supervisor).
   c. Community service, extracurriculars and activities showing leadership => 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. Research => expected of students planning to attend top tier pharmacy schools
      - UND has numerous opportunities for doing undergraduate basic science research during summer breaks or
        the school year – you may apply for positions that either pay or give you college credit
      - Regional hospitals, labs, companies may offer summer opportunities
      - National labs (the NIH and the CDC) have some summer positions for college students
   e. 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 pharmacy schools.
   b. Letters need to address the personal attributes and academic abilities that make you a good fit for pharmacy
      school and the profession of pharmacy.
   c. Authors will have to include professors, work supervisors and peers who know 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
   Pharmacy schools consider your home state of residency to be where you graduated high school and/or where
   your parent(s) live. You do not become a resident of a state by just attending college there!
Courses included in the **UND Pre-Pharmacy Program** fall into one (or more) of three categories. These categories are:

1. Requirements for most pharmacy schools
2. Good preparation for the PCAT
3. Good electives for additional preparation for pharmacy schools

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

**UND Courses required by most pharmacy schools and/or required for PCAT preparation** (all but English, Comm, Econ, and Psyc are needed for PCAT preparation):

- Biol 150, 150L General Biology I
- Biol 151, 151L General Biology II
- Chem 121, 121L General Chemistry I
- Chem 122, 122L General Chemistry II
- Chem 341, 341L Organic Chemistry I
- Chem 342, 342L Organic Chemistry II
- BMB 301 Biochemistry I
- Phys 211, 211L College Physics I
- Phys 212, 212L College Physics II
- Anat 204, 204L Anatomy for Paramed Personnel
- A Physiology course (choose one)
  - Biol 442, 442L Physio of Organs/Systems (for Bio majors)
  - PPT 301 Human Physiology (for other majors)
- MBio 302, 302L General Microbiology
- Biol 315 Genetics
- Biol 341 Cell Biology

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

- Biol 390 Endocrinology
- Biol 410 Molecular Techniques
- Biol 415 Genomics
- BMB 401 Biochemistry II
- MBio 328 Introduction to Immunology
- PPT 315 Pharmacology
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 PCAT and pharmacy school. The chart below shows complete major and Pre-Pharmacy science and math course schedules for both Biology and Chem/Biochem majors. For students pursuing other majors, only the science and math Pre-Pharmacy 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:

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Sophomore</th>
<th>Junior</th>
<th>Senior</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
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<tr>
<td>Bio majors:</td>
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<td>Bio majors:</td>
<td>Bio majors:</td>
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<tr>
<td>• Biol 120</td>
<td>• Chem 341, 341L</td>
<td>• Physics 211, 211L</td>
<td>• Biol 480</td>
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<tr>
<td>• Biol 150, 150L</td>
<td>• Biol 315</td>
<td>• Biol 442, 442L</td>
<td>• Biol requirement**</td>
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<tr>
<td>• Chem 121, 121L</td>
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<td>• Chem 333, 333L (for minor)?</td>
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<tr>
<td>• Math 107</td>
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<td>Chem/Biochem majors:</td>
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<td>Chem/Biochem majors:</td>
<td>Chem/Biochem majors:</td>
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<tr>
<td>• Chem 101</td>
<td>• Chem 341, 341L</td>
<td>• Chem 466+R</td>
<td>• MBio 401, 403</td>
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<tr>
<td>• Chem 121, 121L</td>
<td>• Chem 361</td>
<td>• Anat 204, 204L</td>
<td>• Chem 492</td>
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<tr>
<td>• Biol 150, 150L</td>
<td>• Chem 333, 333L</td>
<td>• Biol 315</td>
<td>• Bio elective**</td>
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<tr>
<td>• Math 107</td>
<td>• Physics 211, 211L</td>
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<tr>
<td>Other majors:</td>
<td>Other majors:</td>
<td>Other majors:</td>
<td>Other majors:</td>
</tr>
<tr>
<td>• Biol 150, 150L</td>
<td>• Chem 341, 341L</td>
<td>• Physics 211, 211L</td>
<td>• Bio elective**</td>
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<tr>
<td>• Chem 121, 121L</td>
<td>• Biol 315</td>
<td>• PPT 301 (Anat 204 is pre-req)</td>
<td>• Chem 333+L (for minor)?</td>
</tr>
<tr>
<td>• Math 107</td>
<td>• Major requirements</td>
<td>• Major requirements</td>
<td>• Major requirements</td>
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<tr>
<td>Everyone:</td>
<td>Everyone:</td>
<td>Everyone:</td>
<td>Everyone:</td>
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<tr>
<td>Courses from Group 1*</td>
<td>Courses from Group 1* or 2*</td>
<td>Courses from Group 1*, 2* or 3**</td>
<td>Courses from Group 3** or 4**</td>
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<td>Bio majors:</td>
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<tr>
<td>• Biol 151, 151L</td>
<td>• Chem 342, 342L</td>
<td>• Physics 212, 212L</td>
<td>• MBio 302, 302L</td>
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<tr>
<td>• Chem 122, 122L</td>
<td>• Biol 315+L</td>
<td>• BMB 301</td>
<td>• Biol requirement**</td>
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<tr>
<td>• Math 165</td>
<td>• Anat 204, 204L</td>
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<td>Chem/Biochem majors:</td>
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<td>Chem/Biochem majors:</td>
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<tr>
<td>• Biol 151, 151L</td>
<td>• Chem 342, 342L</td>
<td>• Chem 467</td>
<td>• Chem 495</td>
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<tr>
<td>• Chem 122, 122L</td>
<td>• Chem 362</td>
<td>• BMB 301</td>
<td>• MBio 302, 302L</td>
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<tr>
<td>• Math 165</td>
<td>• Physics 212, 212L</td>
<td>• PPT 301</td>
<td>• Biol 341</td>
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<td>Other majors:</td>
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<td>Other majors:</td>
</tr>
<tr>
<td>• Biol 151, 151L</td>
<td>• Chem 342, 342L</td>
<td>• Physics 212, 212L</td>
<td>• Bio elective**</td>
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<tr>
<td>• Chem 122, 122L</td>
<td>• Anat 204, 204L</td>
<td>• BMB 301</td>
<td>• Major requirements</td>
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<tr>
<td>• Math 165</td>
<td>• Biol 341</td>
<td>• Major requirements</td>
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<tr>
<td>Everyone:</td>
<td>Everyone:</td>
<td>Everyone:</td>
<td>Everyone:</td>
</tr>
<tr>
<td>Courses from Group 1*</td>
<td>Courses from Group 1 or 2*</td>
<td>Courses from Group 2 or 3*</td>
<td>Courses from Group 2, 3 or 4*</td>
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<td><strong>Sum</strong></td>
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<tr>
<td><strong>Life Experiences</strong></td>
<td><strong>Life Experiences</strong></td>
<td><strong>WICHE Forms – AK, H, NV res only</strong></td>
<td><strong>PCAT (1st one in July)</strong></td>
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<tr>
<td>(Complete over Spring Break)</td>
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<tr>
<td><strong>1st Pharm School Apps Due</strong></td>
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<td>(Submit to PharmCAS by July 19th)*</td>
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<td>(Submit to schools ASAP)</td>
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<tr>
<td><strong>Interviews Begin</strong></td>
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<tr>
<td>(Usually run October-February)</td>
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</tbody>
</table>

* Courses in Group 1 are required for all majors and include: Engl 110, Engl 130, Psyc 111, Comm 110, Econ 201, and a Statistics class (Psych 241 or Soc 326); additionally, the Chem/Biochem major requires a level 2 proficiency in a Foreign Language (i.e., Span 101 and 102)

* Courses in Group 2 are sensible electives for all majors: Phil 120, N&D 240, and a Business Course

** Courses in Groups 3 and 4 are options for Bio requirements/electives or electives for other majors:

Group 3 Fall courses: Biol 390
Group 3 Spring courses: PPT 315

Group 4 Fall courses: BMB 401, Mbio 328
Group 4 Spring courses: Biol 410, Biol 415