It is our goal at UND to prepare students for any medical school in the country. Our undergraduates have been accepted at over 40 medical schools in the United States, Canada and England. Seats in medical school entering classes are limited – all together less than 21,500 seats are available across the country each year. The national ratio of qualified applicants per available seat is approximately 3:1. Regionally, however, the ratio is closer to 5:1. Getting accepted into any medical 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 medical schools when you apply - good planning is key!

The Pre-Medicine 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-Medicine 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 medical school preparation

Joining the Pre-Medicine Program is easy!:

1. Incoming freshmen students should plan to attend Summer Orientation - you can declare Pre-Med at that time
2. Current or transfer students can declare Pre-Med by stopping in the A&S Advising Office or by calling 701-777-4974

Staying in the Pre-Medicine 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:
     - 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-Medicine after freshman year, must:
   - If not already completed at UND or transferred in, complete the following courses with a C grade or better:
     - Biol 150-151, with labs
     - Math 103
     - Chem 121-122, with labs
   - Have a cumulative GPA of 3.400 or higher
3. **All continuing Pre-Medicine students** must:
   - Take Pre-Medicine courses as advised
   - Prepare for and take the MCAT
   - Keep cumulative GPA and science GPA competitive

*If you are currently a non-UND undergraduate student (attending and planning to graduate from another undergraduate institution), and would like information specifically about the UND School of Medicine and Health Sciences, you should:

- contact the UND SMHS Office of Admissions and Student Affairs: 701-777-4221
- contact the UND SMHS INMED Program Office (for Native American students only): 701-777-3037
1. Academics
   a. Undergraduate Preparation
      Admission into medical school typically requires completion of a Bachelor’s degree or at least 90 credits from an accredited college or university. All medical schools have specific content or course prerequisites which are included in the UND Pre-Med 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 medical 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

      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 medical 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.coursera.org/4yearplan/.

      The combination of the Pre-Medicine Program with a major in the College of Arts and Sciences can usually be finished in 4 years if both major and Pre-Med are started freshman year. The combination of the Pre-Medicine 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-Medicine, you will need at least 5 years of undergraduate studies to do so.

   c. GPA
      Since medical 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 regional medical school matriculants: 3.70 - 3.80.

2. MCAT
   a. Timing
      This rigorous, full day exam is required by all medical schools. Students planning to finish their undergraduate degrees in 4 years typically take the MCAT in May or June after their 3rd year (junior year) of college. While retakes are allowed, it is best to “do it right the first time”.

   b. Preparation
      Since considerable time (30+ hours/week) needs to go into MCAT preparation, UND students are encouraged to take a lighter load (12 credits) during the spring semester of their junior year to give them room for reviewing and practice testing. UND offers an optional MCAT Review Course every spring facilitated through Kaplan. This course is billed separately and does not count for credit at UND.

   c. Scores
      The national average MCAT composite score for recent medical school matriculants was 510 (representing the 82nd percentile range).
3. Life Experiences
   a. Real World - Direct Patient Care Experience => 300-500 hours
      • Medical schools expect you to spend considerable time working in health care. You need to get a job in which you give direct medical care to patients, have a chance to observe doctors and other health care team members, and have a supervisor observing you (most medical schools require a letter of recommendation from a health care work supervisor).
      • You may need to combine several jobs to get the experience and understanding of medicine you need. Work settings can include hospital, rehab, clinic, group care home (nursing, disabled children or adults, Alzheimer's unit, VA, etc.), hospice, home health, support services, phlebotomy, EMS, etc.
   b. Shadowing => 20-40 hours
      • The majority of hours need to be with basic care doctors: family medicine, internal medicine, pediatrics
      • A few of the hours can be with specialists
      • Be sure to include both rural and city experiences
   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:
        o Lifeguards, first responders
        o Coaching/teaching sports (for park boards, travelling leagues, Special Olympics, etc.)
        o Camp counseling (church camps, day camps, medical camps, music camps, etc.)
        o Big Brother/Big Sister, Meals on Wheels, Relay for Life, etc.
        o Volunteering at your local city mission, free clinic, humane society, etc.
        o College organization participation or leadership (clubs, honor societies, sororities/fraternities, etc.)
        o College tutoring or TA positions
        o Medical missions trips (through college organizations, national organizations, or local churches)
        o Church work/sponsored activities (Sunday school teacher, youth worker, mission trips, etc.)
        o American Red Cross, Peace Corps
   d. Research => expected of students planning to attend top tier medical 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 medical schools.
   b. Letters need to address the personal attributes and academic abilities that make you a good fit for medical school and the profession of medicine.
   c. Authors will have to include professors and health care work supervisors 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
   In general, medical schools consider your home state of residency to be where you graduated high school and/or where your parent(s) currently live. You do not become a resident of a state by just attending college there!
Courses included in the **UND Pre-Medicine Program** fall into one (or more) of three categories. These categories are:

1. Requirements for most medical schools
2. Good preparation for the MCAT (as recommended by AAMC and former UND undergraduates)
3. Good, additional elective preparation for med schools (as recommended by current medical students)

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

**UND Courses required by most medical schools** (all but English and Math are needed for MCAT preparation):

- Biol 150, 150L General Biology I
- Biol 151, 151L General Biology II
- Math (choose one) => best to complete before Physics
  - Math 146 Applied Calculus
  - Math 165 Calculus I
- 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
- Phys 211, 211L College Physics I
- Phys 212, 212L College Physics II
- Math 165-166 Calculus I and II
- AP credit for Calculus
- A Statistics course (choose one)
  - Psyc 241 Psychological Statistics
  - Soc 326 Sociological Statistics
- Psyc 111 Introduction to Psychology
- Engl 110 Composition I
- Engl 130 Composition II
- An upper level writing intensive humanities/social science course is required by UM Twin Cities and Duluth med schools – see Health Sciences Advisor for suggestions

**Additional UND Courses needed/recommended for MCAT preparation:**

- Biol 315 Genetics
- Biol 341 Cell Biology
- Psych 250 Developmental Psychology
- Psych 270 Abnormal Psychology
- Soc 110 Introduction to Sociology
- A Physiology course (choose one)
  - Biol 442 Physio of Organs/Systems (for Bio majors)
  - PPT 301 Human Physiology (for other majors)

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

- Anat 204, 204L Anatomy for Paramed Personnel
- Biol 420 Neuroscience
- Biol 369, 369L Histology
- MBio 302 General Microbiology
- Biol 390 Endocrinology
- MBio 328 Introduction to Immunology
- Biol 415 Genomics
- Nutr 240 Fundamentals of Nutrition
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 MCAT and medical school. The chart below shows complete major and Pre-Medicine science and math course schedules for both Biology and Chem/Biochem majors. For students pursuing other majors, since only the science and math Pre-Medicine courses are listed, 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>
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<td><strong>Fall</strong></td>
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<td>Bio majors:</td>
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<td>• Biol 120:</td>
<td>• Chem 341, 341L</td>
<td>• Physics 211, 211L</td>
<td>• Biol 480</td>
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<td>• Biol 150, 150L</td>
<td>• Biol 315</td>
<td>• Biol 442, 442L</td>
<td>• Biol requirement**</td>
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<td>• Chem 121, 121L</td>
<td>• Chem 333, 333L for minor?</td>
<td>• Chem 333, 333L for minor?</td>
<td>• Anat 204, 204L or other Biol requirement**</td>
</tr>
<tr>
<td>• Math 103</td>
<td>• Physics 211, 211L</td>
<td>• Biol 442 (do not take 442L)</td>
<td>• Biol elective**</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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<td>• Chem 101</td>
<td>• Chem 466+R</td>
<td>• Chem 467</td>
<td>• BMB 401, 403</td>
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<tr>
<td>• Chem 121, 121L</td>
<td>• Chem 315</td>
<td>• Biol 301</td>
<td>• Chem 492?</td>
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<tr>
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<td>• Biol 442 (do not take 442L) or PPT 301 (Anat 204 is pre-req)</td>
<td>• Biol 341</td>
<td>• Anat 204, 204L or other Biol elective**</td>
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<tr>
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<td>• Chem 333, 333L for minor?</td>
<td>• Your major requirements...</td>
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<td><strong>Chem/Biochem majors:</strong></td>
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<td>• Your major requirements...</td>
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<td>• Math 103</td>
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<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>• Chem 342, 342L</td>
<td>• Chem 467</td>
<td>• Chem 495</td>
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<td>• Biol 151, 151L</td>
<td>• Chem 362</td>
<td>• BMB 301</td>
<td>• Biol elective**</td>
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<td>• Math 146</td>
<td>• Physics 212, 212L</td>
<td>• Biol 341</td>
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<td><strong>Other majors:</strong></td>
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<td><strong>Other majors:</strong></td>
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<tr>
<td>• Biol 151, 151L</td>
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<td>• Physics 212, 212L</td>
<td>• Biol elective(s)**</td>
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<tr>
<td>• Chem 122, 122L</td>
<td>• Anat 204, 204L (?)</td>
<td>• BMB 301</td>
<td>• Your major requirements...</td>
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<tr>
<td>• Math 146</td>
<td>• Biol 341 (now or summer?)</td>
<td>• Your major requirements...</td>
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<td><strong>Biol 341</strong> is offered at UND during the summer. To help lighten their load during the regular school year, students may wish to take it after freshman or sophomore year (once Biol 150-151 and Chem 121-122 are completed) ......</td>
<td><strong>2nd Med School Apps Due</strong> (Submit to schools ASAP) <strong>Interviews Begin</strong> (Usually run October-February)</td>
<td><strong>WICHE Forms - MT, WY res only</strong> (Complete over Spring Break) <strong>MCAT (1st one by June 15th)</strong> <strong>1st Med School Apps Due</strong> (Submit to AMCAS by June 1st - 15th)</td>
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</table>

* Courses in Group 1 are required for all majors and include: Engl 110 and 130, Psych 111, Psych 250, Psych 270, Soc 110, Comm 110, and a Statistics class such as Psych 241 or Soc 326 or 7; additionally, the Chem/Biochem major requires a level 2 proficiency in a Foreign Language (i.e., Span 101, 102)

* Courses in Group 2 are sensible electives for all majors: Med 205, Nutr 240

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

Group 3 Fall courses: Biol 378, Biol 410, Biol 364+L, Chem 333+L
Group 3 Spring courses: Mbio 302
Group 4 Fall courses: Biol 390, Biol 420, Biol 460, Mbio 328
Group 4 Spring courses: Biol 369+L, Biol 415