

### Typical Medical School Prerequisite Requirements

| Subject             | # of Semesters                                   | Simmons Courses to Satisfy Prerequisites   |
|---------------------|--|--|
| Biology             | 2 semesters required;<br>3+ strongly recommended | <b>*BIOL 113:</b> General Biology or BIOL 115: Advanced General Biology (both SCI)<br><b>*BIOL 225:</b> Cell Biology<br><b>*Two additional Biology courses at the 200+ level</b> , including one that covers the structure and functions of systems prior to the MCAT:<br>BIOL 222: Animal Physiology, or<br>BIOL 231 & 232: Anatomy & Physiology I & II |
| General Chemistry   | 2 semesters                                      | <b>*CHEM 113:</b> General Chemistry I or<br><b>*CHEM 115:</b> Intensive General Chemistry<br><br><b>*CHEM 216:</b> General Chemistry II & Quantitative Analysis OR<br><b>*CHEM 226:</b> Analytical Chemistry (for Biochemistry and Chemistry Majors)   |
| Organic Chemistry   | 2 semesters                                      | <b>*CHEM 224:</b> Organic Chemistry I (SCI)<br><b>*CHEM 225:</b> Organic Chemistry II (SCI)  |
| Mathematics         | 3 semesters                                      | <b>*MATH 120:</b> Calculus I (QL, prerequisite for PHYS 114)<br><b>*MATH 121:</b> Calculus II (QL, prerequisite for PHYS 115)<br><br><b>STAT 118:</b> Introductory Statistics and/or higher level (QL)   |
| Physics             | 2 semesters                                      | <b>*PHYS 114:</b> Fundamentals of Physics I (IL)<br><b>*PHYS 115:</b> Fundamentals of Physics II (SCI)<br><b>*PHYS 201:</b> Wave Phenomena (strongly recommended)  |
| Biochemistry        | 1 semester                                       | <b>*CHEM 345:</b> Biochemistry (recommended) or<br><b>CHEM 223:</b> Principles of Biochemistry (SCI)   |
| English Composition | 2 semesters                                      | <b>ENGL:</b> choose a writing intensive course (Can be fulfilled through ALA or Writing Intensive); WRI 101 fulfills 1 semester  |
| Psychology          | 1 semester                                       | <b>*PSYC 101:</b> Introduction to Psychological Science (or higher)  |
| Sociology           | 1 semester                                       | <b>*SOCI 101:</b> Introduction to Sociology<br>OR<br><b>A healthcare sociology course</b> (options include SOCI 241, SOCI 245, SOCI 345, or similar courses) (often fulfills GH or DEIJ)   |

\*Should be taken before MCAT

**Note:** Additional upper-level science classes are always beneficial, especially if students choose a major outside the sciences.

**Simmons supports three timelines for Pre-Med students: the “Traditional” Timeline, the Growth(+) Year Timeline, and the Grow into Chemistry timeline. All three paths equally prepare students for medical school.**

### “Traditional” Timeline Example

This timeline is an *example* of how you *may* wish to take courses if you plan to go directly from Simmons to Medical School, with only the summer after graduation as a break. This is generally an appropriate route for a student who has no doubts that they want to attend medical school (and therefore don’t need to spend time exploring options), and is strong academically in their first two years of college. It is common for students to start out on the “Traditional” Timeline in their first year, and then transition to the Growth Year Timeline later in their career for a variety of reasons (i.e. academic rigor, MCAT preparation timeline, wanting to work before starting medical school, etc.). Students will consult with the Pre-Health Advisors to determine which timeline will aid them in being the strongest possible candidate at the time of application to medical school. This path is designed to prepare you to take the MCAT in the spring semester of your **junior** year.

| Year & PLAN Requirements   | Fall   | Spring   | Summer  |
|--|--|--|---|
| <b>Year 1</b><br>WRI 101: Writing Boston   | SIM 100: Simmons (2 cr.)<br><br>CHEM 113: General Chemistry I<br><br>BIOL 113: General Biology   | CHEM 224: Organic Chemistry I<br><br>MATH 120: Calculus I  | <i>Exposure to Medicine</i><br><br><i>Community Service</i> |
| <b>Year 2</b>  | CHEM 225: Organic Chemistry II<br><br>PHYS 114: Physics I<br><br>MATH 121: Calculus II   | CHEM 216: General Chemistry II OR CHEM 226: Analytical Chemistry (Chemistry & Biochemistry majors)<br><br>PHYS 115: Physics II<br><br>BIOL 225: Cell Biology | <i>Continue Service</i><br><br><i>Research</i>              |
| <b>Year 3</b><br><br>Simmons 200: Extend, 2 cr.  | CHEM 345: Biochemistry<br><br>PHYS 201: Wave Phenomena<br><br>MCAT Preparation<br><br>Review the Committee Letter Process  | MCAT Preparation<br><br><u>MCAT Exam strongly recommended by mid-April</u><br><br>Committee Letter Process   | Apply by June/July<br><br>Secondary Applications            |
| <b>Year 4</b><br>Capstone (in major)   | Med School Interviews  | Med School Interviews  | Take a break before Med School                              |
| <b>Additional Required Coursework:</b><br><br>These courses are offered in both Fall and Spring semesters, and therefore offer students greater flexibility when adding them to their academic plan.<br><br>*Should be taken before MCAT | STAT 118: Introductory Statistics (or higher, QL)<br>*PSYC 101: Introduction to Psychological Science (or higher)<br>*1 Sociology Course: Intro to Sociology or a healthcare sociology course (options include SOCI 101, SOCI 241, SOCI 245, SOCI 345, or similar courses)<br>ENGL: choose a writing intensive course (Can be fulfilled through ALA or Writing Intensive)<br>*Two additional Biology courses at the 200+ level, including one that covers the structure and functions of systems prior to the MCAT (i.e. BIOL 222: Animal Physiology, or BIOL 231 & 232: Anatomy & Physiology I & II).<br><br>Some <b>Key Content Areas</b> (ALA, GH, and SCI) and <b>Key Skills Areas</b> (DEIJ, QL, IL, WI, and Leadership) requirements may be fulfilled with the above Pre-Health courses. |  |   |

## Growth Year(+) Timeline Example

This timeline is an *example* of how you *may* wish to take courses if you plan to take at least one growth year between Simmons and medical school. **Approximately 80% of Simmons Pre-Health students and 50% of students nationally take at least one growth year.**

This schedule is designed to prepare you to take the MCAT in the spring semester of your **senior** year. The exam should be taken in the calendar year prior to which you plan to enter medical school (for example, if you are applying in 2020 for entrance to medical school in Fall 2021, you should take the exam in Spring 2020). If you wish to take additional years before applying to medical school, the MCAT, committee letter process, and application timeline can be moved to later years (although the times of year will always remain the same). Pre-Health Advising is available to Alumni to support them during their growth years.

| Year & PLAN Requirements   | Fall  | Spring   | Summer   |
|--|---|--|--|
| <b>Year 1</b><br>WRI 101: Writing Boston   | SIM 100: Simmons (2 cr.)<br><br>CHEM 113/115: General Chemistry<br><br>BIOL 113: General Biology  | CHEM 224: Organic Chemistry I<br><br>MATH 120: Calculus I  | <i>Exposure to Medicine</i><br><br><i>Community Service</i>    |
| <b>Year 2</b>  | CHEM 225: Organic Chemistry II<br><br>MATH 121: Calculus II   | CHEM 216: General Chemistry II OR CHEM 226: Analytical Chemistry (Chemistry & Biochemistry majors)<br><br>BIOL 225: Cell Biology | <i>Continue Service</i><br><br><i>Research</i>                 |
| <b>Year 3</b><br>Simmons 200: Extend, 2 cr.  | PHYS 114: Physics I   | PHYS 115: Physics II   | <i>Research or Clinical Experience</i>                         |
| <b>Year 4</b><br>Capstone (in major)   | CHEM 345: Biochemistry<br><br>PHYS 201: Wave Phenomena<br><br>MCAT Preparation & Review the Committee Process   | MCAT Preparation<br><br>Take MCAT Exam by mid-April<br><br>Committee Letter Process  | <i>Apply by June/July</i><br><br><i>Secondary Applications</i> |
| <b>Growth Year</b>   | Med School Interviews   | Med School Interviews  | <i>Take a break before Med School</i>                          |
| <b>Additional Required Coursework:</b><br><br>These courses are offered in both Fall and Spring semesters, and therefore offer students greater flexibility when adding them to their academic plan.<br><br>*Should be taken before MCAT | *STAT 118: Introductory Statistics (or higher, QL)<br>*PSYC 101: Introduction to Psychological Science (or higher)<br>*1 Sociology Course: Intro to Sociology or a healthcare sociology course (options include SOCI 101, SOCI 241, SOCI 245, SOCI 345, or similar courses, SH or GC)<br>ENGL: choose a writing intensive course (Can be fulfilled through ALA or Writing Intensive)<br>*Strongly recommended: including one that covers the structure and functions of systems prior to the MCAT (i.e. BIOL 222: Animal Physiology, or BIOL 231 & 232: Anatomy & Physiology I & II).<br><br>Some <b>Key Content Areas</b> (ALA, GH, and SCI) and <b>Key Skills Areas</b> (DEIJ, QL, IL, WI, and Leadership) requirements may be fulfilled with the above Pre-Health courses. |  |  |

## Grow into Chemistry Timeline Example

This timeline allows students to ease into the rigorous Chemistry sequence required for medical school. It allows time to adjust to a college curriculum and take a health science-focused survey of Chemistry course prior to starting the Pre-Med Chemistry sequence with CHEM 113: General Chemistry I in their sophomore year. **Please note that this timeline will require at least one growth year between graduation from Simmons and starting medical school.** Approximately 80% of Simmons Pre-Health students and 50% of students nationally take at least one growth year.

This schedule is designed to prepare you to take the MCAT in the spring semester of your **senior** year. The exam should be taken in the calendar year prior to which you plan to enter medical school (for example, if you are applying in 2020 for entrance to medical school in Fall 2021, you should take the exam in Spring 2020). If you wish to take additional years before applying to medical school, the MCAT, committee letter process, and application timeline can be moved to later years (although the times of year will always remain the same). Pre-Health Advising is available to Alumni to support them during their growth years.

| Year & PLAN Requirements   | Fall  | Spring  | Summer   |
|--|---|---|--|
| <b>Year 1</b><br>WRI 101: Writing Boston   | SIM 100: Simmons (2 cr.)<br><br>BIOL 113: General Biology   | MATH 120: Calculus I<br><br>CHEM 110: General, Organic, and Biological Chemistry  | <i>Exposure to Medicine</i><br><br><i>Community Service</i>    |
| <b>Year 2</b>  | CHEM 113: General Chemistry I<br><br>PHYS 114: Physics I and<br>MATH 121: Calculus II   | CHEM 224: Organic Chemistry I<br><br>PHYS 115: Physics II   | <i>Continue Service</i><br><br><i>Research</i>                 |
| <b>Year 3</b><br>Simmons 200: Extend, 2 cr.  | CHEM 225: Organic Chemistry II<br><br><i>PHYS 201: Wave Phenomena</i>   | CHEM 216: General Chemistry II OR CHEM 226: Analytical Chemistry (Chemistry & Biochemistry majors)<br><br>BIOL 225: Cell Biology                              | <i>Research or Clinical Experience</i>                         |
| <b>Year 4</b><br>Capstone (in major)   | CHEM 345: Biochemistry<br><br>BIOL 222 or 231: Animal Physiology or A&P I (prior to MCAT)<br><br><i>MCAT Preparation &amp; Review Committee Letter Process</i>  | (BIOL 232: A&P II - if took BIOL 231 in Fall)<br><br><i>MCAT Preparation</i><br><br><i>Take MCAT Exam by mid-April</i><br><br><i>Committee Letter Process</i> | <i>Apply by June/July</i><br><br><i>Secondary Applications</i> |
| <b>Growth Year</b>   | <i>Med School Interviews</i>  | <i>Med School Interviews</i>  | <i>Take a break before Med School</i>                          |
| <b>Additional Required Coursework:</b><br><br>(Most offered Fall & Spring)<br><br>*Should be taken before MCAT | STAT 118: Introductory Statistics (or higher, QL)<br>*PSYC 101: Introduction to Psychological Science (or higher)<br>*1 Sociology Course: Intro to Sociology or a healthcare sociology course (options include SOCI 101, SOCI 241, SOCI 245, SOCI 345, or similar courses, SH or GC)<br>ENGL: choose a writing intensive course (Can be fulfilled through ALA or Writing Intensive)<br><br>Some <b>Key Content Areas</b> (ALA, GH, and SCI) and <b>Key Skills Areas</b> (DEIJ, QL, IL, WI, and Leadership) requirements may be fulfilled with the above Pre-Health courses. |   |  |

## Applying to Medical School

Admission to medical school is very competitive. Nationally, the percentage of applicants who are accepted varies from year to year but is generally less than 50% of the applicant pool. Accepted applicants nationally have an overall undergraduate grade point average of 3.5-3.6. Accepted applicants also have high scores on the MCAT averaging from 504 (DO) to 510 (MD).

### Qualities of Strong Professional School Applicants:

- Apply early (early summer) of the year before the expected year of matriculation.
- Submit applications to schools that best match your strengths.
- A high GPA in science and non-science courses – a competitive GPA is above a 3.5-3.6
- High Scores on the MCAT.
- Active in volunteer/work experience/extracurricular events
- Has significant clinical experience – shadowing & volunteer work are essential!
- Well known by professors
- Great letters of recommendation and evaluations
- It is recommended that applicants complete prerequisite courses at their home institution. If this is not possible, they should be completed at an accredited 4-year institution.

Students applying to medical schools must submit application materials through AMCAS (MD) or AACOMAS (DO).

- AMCAS application resources: <https://students-residents.aamc.org/amcas-tools-and-tutorials/amcas-tools-and-tutorials>
- AACOMAS application resources: <https://www.aacom.org/become-a-doctor/applying>

## GPA Calculation

- Most professional schools will calculate your Overall GPA as well as your Science & Math GPA for admission. Math/science GPA is calculated using scores from any course taken in the departments of Biology, Chemistry, Physics, and Math (BCPM GPA).
- AP credits are NOT computed into your GPA
- ALL post-secondary coursework will be used to compute your GPA for admission, even if they are not included in your Simmons GPA. Dual-enrollment and transfer courses DO count toward your GPA.
- “W” grades do not count in your GPA. However, avoid “W” grades. Professional schools expect students to consistently carry a full-time course load (16-18 credits).

## MCAT

Most U.S. medical schools will expect applicants to take the Medical College Admission Test (MCAT). The MCAT is a multiple-choice standardized exam that takes 7 hours and 30 minutes to complete (including breaks). The MCAT covers the following topics:

- Biological and Biochemical Foundations of Living Systems
- Chemical and Physical Foundations of Biological Systems
- Psychological, Social, and Biological Foundations of Behavior
- Critical Analysis and Reasoning Skills (CARS)

The AAMC recommends that students prepare for 300-350 hours for the MCAT exam. Many students find it beneficial to take a prep course for the MCAT. Up to date information regarding the current MCAT is available at <https://www.aamc.org/students/applying/mcat/>.

The average MCAT score of an accepted student to an MD school is 511.7; for DO schools the average accepted MCAT score is 504.7.

## Researching Medical Schools

Admission requirements vary by program and institution. To find school-specific requirements visit medical school websites directly in addition to the following resources:

- **MD Schools:** *Medical School Admissions Requirements* (MSAR) guide. The MSAR (<https://students-residents.aamc.org/medical-school-admission-requirements/medical-school-admission-requirements-msar-applicants>), published by the Association of American Medical Colleges (AAMC), provides information on course requirements by school, acceptability of AP, community college, and online coursework for MD Schools. Some information on the MSAR is free to all students, and a 1-year subscription to access all information is \$28.
- **DO Schools:** U.S. Colleges of Osteopathic Medicine <https://www.aacom.org/become-a-doctor/us-coms>