

Guide for Students Interested in:

- M.D.: Doctor of Medicine, Allopathic Medicine
- D.O.: Doctor of Osteopathy
- M.D./PH.D.
- D.P.M.: Doctor of Podiatric Medicine
- O.D.: Doctor of Optometry

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Admission requirements vary by program and institution. In general, most U.S. medical schools will expect applicants to take the Medical College Admission Test (MCAT) and to successfully complete the following outlined courses. To find school-specific requirements, visit their websites or the annual *Medical School Admissions Requirements (MSAR)* guide. The MSAR (<https://services.aamc.org/msar/>), published by the Association of American Medical Colleges (AAMC), provides information on course requirements, by school, acceptability of AP, community college and online coursework. In general, it is recommended that applicants complete prerequisite courses at an accredited 4-year institution.

Up to date information regarding the current MCAT is available at

<https://www.aamc.org/students/applying/mcat/>. Most medical schools require the MCAT. Some students find it helpful to take a preparation course for the MCAT.

Coursework Minimum

- 2 semesters of Biology
- 4 semesters of Chemistry (2- Inorganic, 2- Organic)
- 2 semesters of Math (students placed levels of Calculus & Statistics)
- 2 semesters of Physics
- 2 semesters of English (1- Boston Course, 1- Other ENGL course)

Coursework Overview

- ***Courses with an asterisk*** contain materials tested on the MCAT
- Courses that fulfill PLAN Requirements/ Key Content Areas are in parenthesis:
 - Social/Historical (SH)
 - Aesthetic, Literary & Artistic (ALA)
 - Global Cultural (GC)
 - Scientific Inquiry (SCI)
 - Quantitative Literacy (QL)

Required by NEARLY ALL Medical Schools

	# of Semesters	Simmons Courses to Satisfy Prerequisites
Biology	2 semesters required; 3+ recommended	*BIOL 113: General Biology or BIOL 115: Advanced General Biology (both SCI) *BIOL 222: Animal Physiology (SCI) *BIOL 225: Cell Biology
General Chemistry: Enrollment in CHEM113 or 115 is dependent on placement exam score or Chemistry department recommendation.	2 semesters	*CHEM 111: Introductory Chemistry, CHEM 113: Principles of Chemistry or CHEM 115: Advanced General Chemistry (all SCI) (CHEM 113 or 115 recommended) *CHEM 216: Quantitative Analysis (SCI)

Organic Chemistry	2 semesters	*CHEM 224: Organic Chemistry I (SCI) *CHEM 225: Organic Chemistry II (SCI)
Mathematics: Requirements vary greatly. Some schools recommend Calculus & Statistics, while others require 2 "math" courses. We recommend you take at least 1 Calculus & 1 Statistics course.	2-3 semesters	MATH 120: Calculus I (QL, prerequisite for PHYS 112) MATH 121: Calculus II (QL, prerequisite for PHYS 113) MATH 118: Introductory Statistics (QL) and/or higher level
College Physics	2 semesters	*PHYS 112 & 113: Fundamentals of Physics I & II (SCI) (Recommended) OR *PHYS 110 & 111: Introductory Physics I & II (SCI)

Required or Recommended by MOST Medical Schools

English Composition	2 semesters	ENGL or COMM: choose a writing intensive course (often fills ALA KCA); BOS 101 fulfills 1 semester
Biochemistry	1 semester	*CHEM 345: Biochemistry or CHEM 223: Introduction to Biochemistry (SCI)
Sociology	1 semester	*SOCI 101: Introduction to Sociology (SH) or *SOCI 241: Health, Illness & Society (SH)

Required/Recommended by SOME Medical Schools

Psychology	1 semester	*PSYC 101: Introduction to Psychological Science
Additional Sciences Refer to schools of interest to see if any additional sciences are required or recommended. There are many other science courses offered at Simmons that may be helpful as a Pre-Med student. This list is just a sampling. Please consult with your advisors for more suggestions.		BIOL 218: Zoology BIOL 221: Microbiology CHEM 331: Thermodynamics & Kinetics CHEM 347: Adv. Topics in Biochemistry HON 303: HIV/AIDS Intersect. Sci. & Soc. NUTR 111: Nutrition Science PHYS 201: Wave Phenomena & Intro to Modern Physics PSYC 201: Biological Psychology
All courses fulfill SCI KCA → Additional Social Sciences & Humanities Refer to schools of interest to see if any additional social science or humanities courses are required or recommended. There are many other courses offered at Simmons. This list is just a sampling. Please consult with your advisors for more suggestions.		MGMT 120: Introduction to Health Systems (SH) NUTR 111: Nutrition Science (SCI) or NUTR 112: Fundamentals of Nutrition Science NUTR 150: International Nutrition Issues (GC) PHIL 130: Ethics (GC) PHIL 131: Biomedical Ethics (SH) PSYC 231: Abnormal Psychology PSYC 232: Health Psychology PSYC 239: Psychology of Aging PSYC 244: Drugs & Behavior SOCI 210: Body Politics (SH) SOCI 232: Race, Gender & Health (GC) SOCI 275: Birth & Death (GC) SOCI 245: Global Health (SH) SOCI 344: Health Systems & Policy

General Timeline

This timeline is an *example* of how you *may* wish to take courses. This is a plan generally appropriate for a science major who does not plan to take a gap year before medical school. Timing of these courses may change due to your major/minor requirements, placement exam results, academic performance or availability. In addition to these courses, you must take classes required by Simmons and your major(s)/minor(s). Develop an academic plan with your advisors based on the courses above that is tailored to **your** needs. The sample timeline below does not include language or specific major requirements. It is only a sample of the Pre-Med course sequence with notes about the Simmons PLAN. Visit Simmons' course catalog to view the descriptions and availability of each course: <http://courses.simmons.edu> Refer to the Simmons Course Catalog to find PLAN and major requirements, course prerequisites, descriptions of each course.

This schedule is designed to prepare you to take the MCAT in the spring semester of your junior 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).

	Fall	Spring	Summer
Year 1	Boston Course (BOS 101) Simmons Explore (SIM 101, 1 cr.) Chemistry I (CHEM 111/113/115) Biology I (BIOL 113/115)	Leadership Course (LDR 101) Chemistry II (CHEM 216) Biology course (BIOL 218 or 221) Calculus I (MATH 120)	<i>Exposure to Medicine</i> <i>Community Service</i>
Year 2 PLAN Requirements: Learning Community • 2 courses, 3 cr. each • 1 integrated seminar, 2 cr. Simmons: Experience, fall or spring, 1 cr.	Organic Chemistry I (CHEM224) Animal Physiology (BIOL 222) <i>Learning Community:</i> Physics I (PHYS 112) AND Calculus II (MATH 121)	Organic Chemistry II (CHEM 225) Cell Biology (BIOL 225) Physics II (PHYS 113)	<i>Continue Service</i> <i>Research</i>
Year 3 PLAN Requirements for years 3 & 4: 3D- Design Across Diverse Disciplines Capstone Simmons: Excel, 1 cr.	Biochemistry (CHEM 345) <i>MCAT Preparation</i>	<i>MCAT Preparation</i> <i>MCAT Exam at least 2 months before application</i>	<i>Apply by June/July</i> <i>Secondary Applications</i>
Year 4	Additional Course Requirements <i>Med School Interviews</i>	Additional Course Requirements <i>Med School Interviews</i>	<i>Take a break before Med School begins</i>
Additional Required or Suggested Coursework: These courses depend on your major, completion of prerequisites and requirements for prospective medical schools	MATH 118: Introductory Statistics (QL) PSYC 101: Introduction to Psychological Science SOCI 241: Health, Illness and Society (SH) ENGL or COMM: choose a writing intensive course (often ALA) Language, 2 sequential courses in the same language Remaining Global Cultural (GC) Key Content Area <ul style="list-style-type: none"> The QL, ALA, SH and SCI requirements will likely be fulfilled with the above Pre-Health courses. Please discuss any questions or uncertainties with your advisors. 		

Notes for Specific Majors When Combined with Pre-Med

Any undergraduate major is appropriate for medical school assuming the applicant has completed the basic pre-med requirements. Nonetheless, the majority of students applying to medical school have undergraduate majors in the sciences. It is very important to do well in science courses.

**If students plan to take the PHYS 112/MATH 121 Learning Community in the fall of their sophomore year, they should take MATH 120 in their first year and hold off taking MATH 121 until their sophomore year. This LC is not required of Pre-Health students, however students may find it to be an efficient opportunity to fill the LC requirement*

Major	Notes
Biochemistry	<ul style="list-style-type: none"> • First-year Biochemistry majors should take MATH 120 & 121 (or higher)*. • Calculus prepares students for PHYS 112 & 113 in sophomore year. • First-year, first semester students should take, CHEM 111/113/115 and BIOL 113 (unless they have AP credit to fill any of these courses). This means Biochemistry majors will likely take language later in their academic plan or during a summer. • BIOL 113 is a pre-requisite for BIOL 221, which Biochemistry students take in the spring of their first-year. • CHEM 111/113/115 is a prerequisite for CHEM 216, which is taken in the second semester. • As a fourth course, students may choose to fill a KCA or take a Statistics or Calculus course.
Biology	<ul style="list-style-type: none"> • First-year Biology majors should take CHEM 111/113/115 and BIOL 113 (unless they have AP credit to fill any of these courses). As a third course, students may choose language, a Math course* or a Key Content Area (KCA) course. • BIOL 113 is a pre-requisite for BIOL 218, which Biology students take in the spring of their first-year. • CHEM 111/113/115 is a prerequisite for CHEM 216, taken in the second semester.
Chemistry	<ul style="list-style-type: none"> • First-year, first semester students should likely take some level of Calculus and CHEM 113/115. As a third course, Chemistry students may choose language, BIOL 113 or a Key Content Area (KCA) course. BIOL 113 is a pre-requisite for later BIOL courses needed for Pre-Med. • First-year Chemistry majors should take MATH 120 & 121* (or higher). Chemistry majors will need MATH 220 by the end of junior year. • Calculus prepares students for PHYS 112 & 113 in sophomore year.
Neuroscience & Behavior (Neurobiology track)	<ul style="list-style-type: none"> • First-year, first semester N&B students may want to take PSYC 101, BIOL 113 and CHEM 111/113/115 (unless they have AP credit to fill any of these courses). Student may also choose to take PSYC 101 or BIOL 113 in the spring of first year. As an alternate first semester course, N&B students may instead choose language, a Calculus course*, Statistics or a Key Content Area (KCA) course. • PSYC 101 is a pre-req for PSYC 201 and 203, which N&B students take in their sophomore year. BIOL 113 is a pre-req for later BIOL courses needed for the Neurobiology track and Pre-Med.
Public Health (either track)	<ul style="list-style-type: none"> • First-year, first semester PH students should take CHEM 111/113/115. In the spring, students are encouraged to take BIOL 104. • During the first year, either semester, students should take SOCI 241 and BIOL 113. PH students also have room to begin their language, a Calculus course*, Statistics or a Key Content Area (KCA) course. • SOCI 245 (sophomore year) will fulfill the Global Cultural KCA.
Non-science majors	<ul style="list-style-type: none"> • May want or need to take summer courses. • Highly encouraged to begin Pre-Health requirements as early as possible • Taking additional science electives can help boost the BCPM GPA. When students only take the required prerequisites, each course counts more in the science GPA because there are fewer courses included in that GPA. • Should take CHEM 111/113/115 in their first semester to begin the Chemistry sequence. Other course options could include BIOL 113, MATH 120, MATH 118, KCAs, or other major courses.

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
 - Dual-enrollment and transfer courses DO count toward your GPA for admission
- "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).

Applying to Medical School

Admission to medical school is very competitive. 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).

Good Qualities of Professional School Applicants:

- Apply early (late spring) of the year before the expected year of matriculation.
- Submit application 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

Students applying to medical schools must submit application materials through AMCAS. Information regarding the AMCA application process can be found at <https://www.aamc.org/students/advisors/amcasresources/>