

Premedical Information for Harvard Students

Timelines, Courses, and Resources 2023–2024





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TABLE OF CONTENTS

| Starting Out | 1 |
|---|---------|
| Medical School Application Timeline | 2 |
| Medical School Requirements for Admissions I. Course Requirements II. Medical College Admissions Test (MCAT) | 3 |
| Harvard Courses That Satisfy Most Medical School Admissions Requirements | 4 |
| Considerations for Planning Your Program of Study Course Load, Pass/Fail, and GPA Chemistry, Biology, Physics, and Math Placement Science General Education Courses Research Study Abroad Summer School Post-Baccalaureate Options | 6 |
| Sample Course Sequences Medical Career Resources for Harvard Students | 9 14 |

STARTING OUT

Dear Harvard Students,

Premedical Information for Harvard Students: Timelines, Courses, & Resources 2022-2023 provides an overview of the application timelines and courses required for admission to U.S. medical schools. We hope it will serve as a planning guide to help you integrate this coursework into your academic plan at Harvard. We have also included a list of Harvard resources that will help as you consider a career in medicine.

As a first-year Harvard student, or someone who has recently decided to pursue premedical coursework and activities, you will hear many opinions about what being premed means and what medical school admission committees expect to see in an applicant. Do not believe all that you hear or read online misconceptions and misinformation can provoke unnecessary anxiety. This booklet is designed to help dispel some common premed and medical school admissions myths.

While this publication describes the process for students applying to MD programs (allopathic medicine), many Harvard students choose to pursue other health professions such as public health, dentistry, veterinary medicine, nursing, and osteopathic medicine. Please feel free to contact us to discuss the requirements for these and other health professions fields. We urge you to take advantage of the range of premedical and pre-health advising resources available at Harvard. Concentration advisors, House and Dudley Community premedical tutors, Mignone Center for Career Success (MCS) career advisors, and practitioners in the field will offer a range of perspectives on how to enhance your experience at Harvard as you explore your future careers.

Please also know that you do not need to be sure that you want to go to medical school to seek out the advice of the pre-health team here at the Mignone Center for Career Success. We are also here to help you think about your other options and about how to explore whether a career in health care is right for you.

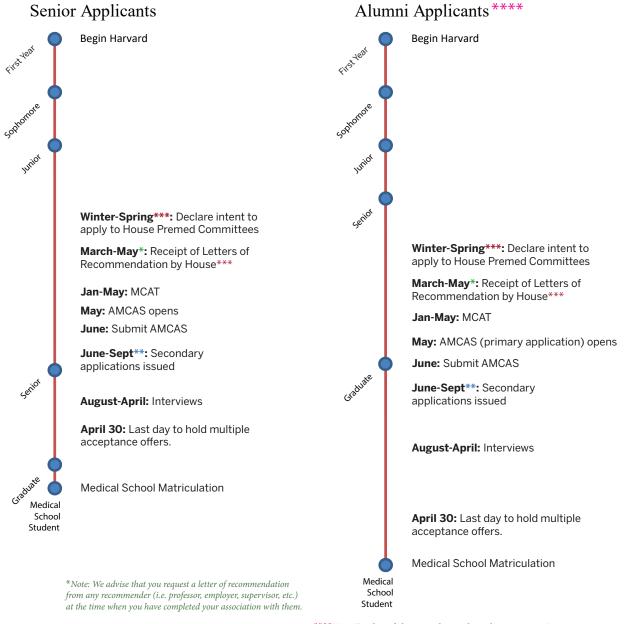
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Premedical and Health Careers Advisors Mignone Center for Career Success Harvard University, Faculty of Arts and Sciences

MEDICAL SCHOOL APPLICATION TIMELINE

Approximately 75-80% of Harvard applicants to medical school in recent years have waited until their senior year and beyond to apply to medical school. This timeline allows you four years to fulfill your premedical requirements. You can also take some or even all of your premedical requirements after you graduate from college. The national average age of entering medical school students is 24, and medical schools value the added experience and maturity brought by students who have taken one or more gap years.



**Note: Recommended turnaround time for secondary applications is 10-14 days.

***Note: These deadlines are dependent on your House.

****Note: Timeline of alumni applicant who took one gap year. It is also common to apply a few years after graduation.

MEDICAL SCHOOL REQUIREMENTS FOR ADMISSION (AS OF JULY 2023)

Requirements are not the same at all medical schools. Fulfilling the requirements below will allow you to apply to almost any U.S. medical school.

I. Course Requirements

- One year of general or inorganic chemistry with lab
- One year of organic chemistry with lab
- One year of general physics with lab
- One year of biology with lab
- One year of English

It is recommended that you complete almost all of these courses before taking the MCAT and before applying to medical school.

ADDITIONAL REQUIREMENTS:

- Currently around 50 medical schools require one or two semesters of mathematics (college math, calculus, and/or statistics).
- Currently more than 70 medical schools require one semester of biochemistry. This number may continue to increase
- Some medical schools require more than one year of biology.
- Around 20 medical schools require one semester of statistics.

IMPORTANT: Check the current edition of the <u>Medical School Admission Requirements (MSAR</u>), the official guide of the Association of American Medical Colleges, for information on particular course requirements for specific medical schools.

Be sure to check the premedical requirements for your state medical school. MSAR is updated annually and can be purchased online. Medical schools also list their specific requirements on their websites. For a list of all U.S. medical schools and links to their admissions policies pages, see the MCS resource <u>Information About Requirements</u>, <u>Admissions</u>, and <u>Financial Aid Policies for Medical School Matriculation Prepared by OCS</u>.

II. Medical College Admissions Test (MCAT)

The Medical College Admissions Test (MCAT) currently assesses the medical school applicant's understanding of basic concepts in general biology, biochemistry, general chemistry, organic chemistry, non-calculus based physics, statistics, psychology, and sociology. The test consists of four multiple-choice sections:

- 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

For the most up-to-date information about the test, please visit the official Medical College Admission Test (MCAT) website and <u>MCAT resource hub</u>. Some highlights include:

- What's on the MCAT Exam?
- Online practice questions
- Khan Academy MCAT video collection
- Psychology and sociology textbook resources
- Test dates and registration

To prepare for the MCAT, some students may choose to take an introductory psychology course such as Psychology 1, or a sociology course such as Sociology 1000 or any of the Sociology 1100-series courses, in addition to the science requirements. Many students, however, have successfully completed the MCAT without specific course preparation in those areas. As Harvard courses are not designed specifically to prepare students for the MCAT, there may be some topics that are included on the MCAT but not covered in your courses. Depending on your background, you may find it necessary to learn certain concepts on your own or by consulting external resources such as the AAMC's free resource "A Road Map to MCAT Content in Sociology and Psychology Textbooks (available on the MCAT Official Prep Hub - register for your free MCAT account to gain access to this and other free MCAT prep resources).

Review additional free AAMC MCAT materials at <u>aamc.org</u> and <u>khanacademy.org</u>.

III. Situation Judgment Test (SJT)

In recent years a growing number of medical schools have begun to require a Situational Judgment Test as part of their admissions review process. SJTs are designed to evaluate an applicant's decision-making and ethical-reasoning skills. There are currently two SJRs that medical schools may require or recommend:

- <u>AAMC PREview</u>
- <u>Casper</u>

Bothe PREview and Casper are taken virtually and do not require content review in order to prepare. Utilizing free practice questions and exams on their respective websites is sufficient to familiarize oneself with the format of the exams. For an up-to-date list of medical schools that require an SJT, review MSAR (linked above). Sitting for an SJT is typically done in the late spring or summer of the application year.

HARVARD COURSES THAT SATISFY MOST MEDICAL SCHOOL ADMISSIONS REQUIREMENTS (AS OF JULY 2023)

For almost all medical schools, Advanced Placement (AP) exams in biology, chemistry, and physics do not fulfill the premedical requirement in these areas. Most medical schools require that biology, chemistry, and physics be taken in college. See the section on "Mathematics" below for more information about using AP Calculus to satisfy medical school math requirements. Please note that Harvard College does not make the decision about which courses meet premedical course requirements. Each medical school is the final arbiter of which courses it will accept. Therefore, if you have any doubt about whether a course can be substituted for the courseslisted below, you should check with the admissions offices of the medical schools to which you may apply.

*As a note, premedical course requirements cannot be taken online/remotely, unless courses are only offered by a specific institution in an online format for that term/semester (i.e. due to Covid-19).

GENERAL OR INORGANIC CHEMISTRY WITH LAB (ONE YEAR):

Two of the following courses. Both should contain labs.

- Life and Physical Sciences A or Life Sciences 1a or Life Sciences 50a*
- Physical Sciences 1 (no longer offered) **or** Physical Sciences 11 **or** Physical Sciences 10 (will become Chemistry 10 starting Fall 2023)
- Chemistry 10**
- Engineering Sciences 181 (for Engineering concentrators)
- Advanced inorganic or physical chemistry^{***} (For example, CHEM S-1AB (Harvard Summer School) Chemistry 40, Chemistry 60, or Chemistry 160)

Note: *Life Sciences 50a will satisfy the requirement of one semester of general chemistry with lab and one semester of biology with lab at most medical schools.

***Chemistry 10 satisfies two semesters of general chemistry with lab for most medical schools. A small number of students may decide to take Chem 10 (Fall) --> Chem 17 (next Fall) --> Chem 27 (Spring). To satisfy the general and organic chemistry and biochemistry requirements at most medical schools, students selecting this sequence should take one additional advanced inorganic chemistry course (for example, Chem 40, Chem 60, Chem 160, or Chem 161).

***If you plan to take only higher level inorganic or physical chemistry courses, most medical schools will accept these courses in lieu of general chemistry. If neither of these courses has lab, you may have to take an additional inorganic or physical chemistry lab course, or demonstrate your lab competency through research.

BIOLOGY WITH LAB (ONE YEAR):

Two of the following courses. Both should contain labs. Most medical schools recommend that these courses cover the cellular and molecular aspects as well as the structure and function of living organisms. Narrowly focused biology courses cannot be used to meet the basic premedical biology requirements.

- Life Sciences 1b
- Life Sciences 2
- Life Sciences 50a*
- Life Sciences 50b**
- Molecular & Cellular Biology 60
- Molecular & Cellular Biology 68
- Organismic & Evolutionary Biology 10
- Organismic & Evolutionary Biology 58
- Stem Cell & Regenerative Biology 50
- Human Evolutionary Biology 1420
- Engineering Sciences 53
- BIOS S-1a (Harvard Summer School)
- BIOS S-1b (Harvard Summer School)

Note: *Life Sciences 50a will satisfy the requirement of one semester of general chemistry with lab and one semester of biology with lab, and **Life Sciences 50b will satisfy the requirement of one semester of biology with lab and one semester of math at most medical schools.

ORGANIC CHEMISTRY WITH LAB (ONE YEAR):

One of the following series:

- Chemistry 17 and Chemistry 27
- Chemistry 20 and Chemistry 30
- CHEM S-20ab (Harvard Summer School)
- CHEM S-17 (Harvard Summer School) and Chemistry 27*

Note: Most medical schools that require biochemistry will accept a combination of Chemistry 17 and Chemistry 27 as fully meeting both the organic and biochemistry requirements. Students who take CHEM S-20ab or Chemistry 20 and Chemistry 30 may subsequently take Chemistry 27 without the lab component, with permission from the course instructor/preceptor, to satisfy one semester of biochemistry.

*CHEM S-17 includes the laboratory component of the course. Chemistry 27 will subsequently be taken without the lab component.

BIOCHEMISTRY (ONE SEMESTER):

One of the following courses. Currently one semester of biochemistry is required by more than 70 medical schools. The MCAT also places a considerable emphasis on biochemistry.

- Most medical schools that require biochemistry will accept a combination of Chemistry 17 and Chemistry 27 as fully meeting both the organic and biochemistry requirements.
- Molecular & Cellular Biology 63
- Molecular & Cellular Biology 65
- BCMP 234
- BIOS S-10 (Harvard Summer School)
- Advanced courses such as Chemistry 170 or Chemistry 171. Please consult with MCS advisors.

PHYSICS WITH LAB (ONE YEAR):

One of the following series:

- Physical Sciences 2 and Physical Sciences 3
- Physical Sciences 12a and Physical Sciences 12b (Note that PS 12a is a prerequisite for PS 12b)
- Physics 15a or Physics 16, and Physics 15b
- Applied Physics 50a and Applied Physics 50b
- PHYS S-1a and PHYS S-1b (Harvard Summer School)

MATHEMATICS:

Two math courses which can be satisfied with a combination of an AP calculus score of 4 or 5 (at most medical schools^{*}), a college calculus course, and/or statistics. *However, depending on your background you may need to take more than one semester of calculus in order to be fully prepared for your concentration or for future coursework*. Note that several physics courses, including Physical Sciences 2 and 3, recommend Math 1b or equivalent. Around 20 schools specifically require a statistics course, and we expect this number to increase.

- Math Ma **and** Math Mb **or**
- Math 1a or Math 1b or
- Math 19a **or**

- Math 18 **or**
- Math 21a **or** 21b **or**
- Applied Math 21a or 21b or
- Life Sciences 50b**
 or
- Any more advanced Math or Applied Math course

PLUS

• Any statistics course (e.g., Statistics Department courses or Psychology 1900, Math 19b, Sociology 1156, Applied Math 101, or Engineering Sciences 150)

Note: *If you have a 4 or 5 on the AP Calculus AB test, you have met the requirement for one of the two semesters of math required by many medical schools. If you have a 4 or 5 on the AP Calculus BC test, you have met the requirement for both of the two semesters of math required by many medical schools. Note, however, that some medical schools do not accept calculus (or statistics) APs toward satisfaction of their math (or statistics) requirement unless the AP score is recorded on the applicant's official undergraduate transcript. Only Harvard students who have activated advanced standing will have AP tests and scores recorded on their official transcripts.

**We expect that Life Sciences 50b will satisfy the requirement of one semester of biology with lab and one semester of math at most medical schools.

ENGLISH (ONE YEAR):

One semester of the English requirement is met with Expos. (Students who are recommended for Expos 10 and go on to take Expos 20 have met the full requirement of two semesters of English.)* For many medical schools, the second semester can be met with English or Literature courses, many Humanities courses, or with some General Education courses.

We cannot confirm that a specific Gen Ed course would be approved by every medical school, since schools make their own determination about what courses they will accept toward fulfillment of this requirement. Therefore, please use your best judgment when considering Gen Ed courses and whether they can be expected to meet the English requirement. To be accepted by most medical schools, Gen Ed courses should:

- deal primarily with literature (English literature or literature originally written in another language but read in English translation). Courses that focus on music, painting, or architecture, for example, would not be acceptable for satisfaction of the English requirement at most medical schools. A course whose primary assignments are multimedia or group projects will not meet this requirement for most medical schools;
- 2) be writing intensive. As for the number of papers, many Gen Ed courses assign enough papers to be considered writing intensive by medical schools. Papers should, at a minimum, be 4-5 pages long, and more than one paper should be assigned over the course of the semester. Acceptable combinations of writing assignments would be two to three papers of 4-5 to 8-12 pages in length. Most medical schools would not consider courses that assign only a series of shorter (e.g. 1-2 page) assignments to be writing intensive;
- 3) preferably be taught by a faculty member in the English or Comparative Literature departments, or a foreign Literatures and Languages department (such as East Asian Languages and Civilizations, Germanic Languages and Literatures, Near Eastern Languages and Civilizations, the Classics, etc.).

Note: *Students who are recommended for Expos 20 should ordinarily enroll in that course, and plan to take an additional English/Writing course following the guidelines above. We do not advise petitioning to enroll in Expos 10 for the sole purpose of finding a more convenient path to satisfy the one-year requirement

of English/Writing for medical schools. Students who believe Expos 10 offers the best starting point based on their writing preparation should speak with the Writing Program to discuss their options.

CONSIDERATIONS FOR PLANNING YOUR PROGRAM OF STUDY

Course Load, Pass/Fail, and GPA

There is no need to rush and overload with science courses in your first year. We recommend that firstyear students take at most two science courses (including math) each semester. The first few semesters at Harvard involve getting used to a new setting, a new set of social and extracurricular activities, and new ways of learning and studying. College-level science courses, especially those with lab, can be unexpectedly time-consuming and demanding, particularly for students who have not had strong science preparation in high school. Consult with your First-Year Adviser, and the advising staff in Life and Physical Sciences, Engineering Sciences, and Math for course load and placement advice.

Just as it is important not to overload on courses and activities, premed students should also avoid dropping below the regular course rate of four courses per semester. To be competitive for medical school admission, applicants should demonstrate an ability to handle a science-intensive curriculum and a love of learning through in-depth study of a particular area or areas of interest. However, if you anticipate a challenging semester ahead, it is perfectly acceptable to take one of your elective courses pass/fail (*Required premedical courses must be taken for a letter grade to be accepted by medical schools. The exception is if a course is required to be graded SEM/UEM*, Pass/Fail, or Sat/Unsat, as was the case at Harvard College and many other undergraduate institutions during Spring 2020 due to Covid-19).

While you do want to achieve an overall strong performance in the sciences, there is no specific GPA (or MCAT score) that guarantees acceptance to medical school. Your grades are only one of the factors in the admissions process. Your personal qualities, experiences, and motivation are also critical factors. Medical school admissions committees look favorably on students who have tested their interest in medicine through community service, healthcare-related internships, extracurricular activities, or research. Each medical school develops its own criteria and priorities for admission, reflecting the goals of the respective school. For some medical schools, potential for service to an underserved community is very important; for others, a determining factor may be research experience. To assess your personal qualities, experiences, and motivation for becoming a doctor, the admissions committees will carefully review the statements and essays in your application, letters of evaluation, your coursework (including trends in academic performance and level of course difficulty), and personal interviews.

Do not be disheartened or discouraged from pursuing medicine if your first science grades do not meet your expectations. Medical school admissions committees look favorably on an upward trend in your academic record. That being said, if you have received a C or lower grade in a science course, it is a good idea to make an appointment with an MCS premedical adviser, your academic adviser, and/or an adviser at the Academic Resource Center to review your course load, your extracurricular activities, and study strategies as you continue your studies.

For information on GPAs and admission to medical school, check the MCS publication *Medical School Admissions Data*, available online (email premed@fas.harvard.edu to request access).

Chemistry, Biology, Physics, and Math Placement

Please contact the advisers and course teaching staff in the appropriate department.

Science General Education Courses

Science General Education courses cannot be used to satisfy the science premedical requirements. However, if the content of the General Education course is primarily biology, chemistry, math, or physics, this course will count towards your science GPA as calculated for your medical school application.

Research

Basic science research is not a requirement for medical school admission, and in fact, many Harvard students continue on to medical school without working in a lab. Successful medical school applicants have usually demonstrated the ability to pursue an area of study in depth. This could be many things including basic or social science research, clinical research, or a thesis in English literature. The experience of formulating an original research question and critically analyzing data does not have to occur in a research lab.

If you are excited about pursuing basic science research at Harvard, there are many wonderful resources available to you, both at the college campus in Cambridge and at the Harvard Medical School campus and affiliated hospitals in Boston. For science concentrators in particular, the experience of working in a lab can significantly enhance your college experience. If you are exploring a combined MD-PhD degree and an academic medical career as a physician-scientist, it is a good idea to take advantage of these opportunities early to develop your interests. But if you only discover your interests in research and academic medicine later in college, do not be discouraged, as many MD-PhD applicants take several gap years in order to build strong research experiences before applying to medical school.

Study Abroad

Premedical courses should not be taken during study abroad. Most medical schools will not accept premedical requirements taken at a foreign institution. However, students are encouraged to enroll in other courses abroad and to pursue international research and internship opportunities.

Summer School

Harvard Summer School courses can be taken for credit toward your degree and toward your medical school requirements. However, you can also take a premedical course elsewhere during the summer at an academically competitive **four-year U.S. college**, as long as the course is not required for your concentration. (You do not need to get Harvard credit for a course to use it for medical school admissions.) Do not take more than the equivalent of two semesters (i.e. 8 course credits) of your premedical course requirements during the summer, as it may appear as if you are avoiding Harvard science courses or avoiding taking science courses during the term. Additionally, it is usually not advisable to split sequential courses between institutions. (Note that CHEM S-20ab: Organic Chemistry does **not** satisfy the requirement of one semester of biochemistry at any medical schools.)

Post-Baccalaureate Options

Many Harvard students do not complete or even begin taking premedical courses while enrolled as undergraduates. Post-baccalaureate programs or independent coursework allow college graduates to take some or all of the required premedical courses. Harvard students who choose to complete their requirements after graduation can still take advantage of Harvard premedical/pre-health advising and resources at MCS and in their House for up to five years after graduation. Please visit the <u>MCS website</u> for more information on post-baccalaureate options and programs.

SAMPLE COURSE SEQUENCES THAT MEET MOST MEDICAL SCHOOL REQUIREMENTS

If you are planning on concentrating in a science, most premedical requirements will be included in your course of study. However, you can also choose any nonscience concentration and still have time to complete these required courses. Many Harvard students started premedical coursework later in college or even after graduation. We have created the following sample schedules to illustrate how you can assemble the needed courses for medical school—regardless of your concentration or when you embark on your premed path. Students considering concentrating in the life and physical sciences should consult with the Assistant Director (ADUS) or Director of Undergraduate Studies (DUS) in the concentrations you are considering.

Please note that these are examples only. There are many possible course sequences, and your individual circumstances will determine your plan of study.

| | fall | spring |
|------------|---|---|
| first year | Life Sciences 1a or LPS A Math 1a | Life Sciences 1b Math 1b |
| sophomore | Life Sciences 2 | Physical Sciences 11 Stat 102 |
| junior | Chemistry 17 | Chemistry 27 |
| senior | Physical Sciences 2 or Applied Physics 50a | Physical Sciences 3 or Applied Physics 50b |

Four-Year Plan (applying to medical school after senior year):

Four-Year Plan (applying to medical school after senior year):

| | fall | spring |
|------------|---|---|
| first year | [AP Calculus] | Life Sciences 1b Stat 104 |
| sophomore | Life Sciences 1a or LPS A Math 1b | Physical Sciences 11 |
| junior | Chemistry 17 | Chemistry 27 |
| senior | Physical Sciences 2 or Applied Physics 50a OEB 10 | Physical Sciences 3 or Applied Physics 50b |

Three-Year Plan (applying to medical school after junior year):

| | fall | spring |
|------------|---|---|
| first year | Life Sciences 1a or LPS A Math 1b | Physical Sciences 11 Stat 102 |
| sophomore | Chemistry 17 OEB 10 | Chemistry 27 Life Sciences 1b |
| junior | Physical Sciences 2 or Applied Physics 50a | Physical Sciences 3 or Applied Physics 50b |

Three-Year Plan (applying to medical school after junior year):

| | fall | spring |
|------------|---------------------------------------|-----------------------------------|
| first year | Life Sciences 1a or LPS A Math 19a | Physical Sciences 11 |
| sophomore | MCB 60 | Chemistry 20 Life Sciences 1b |
| junior | Physics 15a Chemistry 30 | Physics 15b Stat 102 MCB 65 |

Three-Year Plan (applying to medical school after junior year):

| | fall | spring |
|------------|---|---|
| first year | Life Sciences 1a or LPS A Math 21a | Life Sciences 1b Physical Sciences 11 |
| sophomore | Physical Sciences 2 or Applied Physics 50a MCB 60 | Physical Sciences 3 or Applied Physics 50b Chemistry 20 |
| junior | Chemistry 30 | Stat 110 or Chemistry 27 |

Three-Year Plan with Summer School:

| | fall | spring | summer |
|------------|---|---|---|
| first year | Life Sciences 1a or LPS A | Life Sciences 1b Math 1b | |
| sophomore | Life Sciences 2 | Physical Sciences 11 | CHEM S-20ab (equivalent to two terms of Organic Chemistry with lab) |
| junior | Physical Sciences 2 or Applied Physics 50a MCB 63 | Physical Sciences 3 or Applied Physics 50b | |

Three-Year Plan with Summer School and Study Abroad:

| | fall | spring | summer |
|------------|--|----------------------------------|----------------------------------|
| first year | Life Sciences 1a or LPS A [AP Calculus] | Physical Sciences 11 Stat 102 | |
| sophomore | Chemistry 17 | Chemistry 27 Life Sciences 1b | Physics S-1a and Physics S-1b |
| junior | MCB 60 | ABROAD | |

Four-Year Plan with Study Abroad:

| | fall | spring |
|------------|--|--|
| first year | Life Sciences 1a or LPS A Math 1b | Life Sciences 1b Physical Sciences 11 |
| sophomore | Chemistry 17 | Chemistry 27 |
| junior | ABROAD | Physical Sciences 12a |
| senior | Physical Sciences 12b Life Sciences 2 | Stat 102 |

Premed Beginning Sophomore Year with Summer School:

| _ | fall | spring | summer |
|-----------|---|------------------------------------|---|
| sophomore | Life Sciences 1a or LPS A Math 21 a or Applied Math 21a | Life Sciences 1b Statistics | |
| junior | Physical Sciences 10 | Physics 12a | CHEM S-17 (equivalent to one term of Organic Chemistry and two terms of Orgo lab) |
| senior | Physics 12b Life Sciences 2 | Chemistry 27 (take without lab) | |

Premed Beginning Junior Year:

| | fall | spring |
|--------|--------------------------------------|---------------------------------|
| junior | Life Sciences 1a or LPS A Math 1a | Physical Sciences 11 Math 1b |
| senior | Chemistry 17 | Chemistry 27 |

Premed Beginning after Graduation (Post-Baccalaureate):

| | fall | spring | summer |
|----------|-----------------------------------|---------------------------------|---------|
| post-bac | General Chemistry Physics | General Chemistry Physics | Biology |
| post-bac | Organic Chemistry Biochemistry | Organic Chemistry Statistics | |

MEDICAL CAREER RESOURCES FOR HARVARD STUDENTS

Take the initiative to seek out the resources you need to get factual and realistic answers to your questions. Remember that fulfilling your premedical requirements should not dominate your college experience. Take the time to step off the "premed path" and take advantage of all Harvard has to offer you.

ACADEMIC AND PRE-PROFESSIONAL ADVISING

First-Year and Sophomore Advising: Resident proctors, first-year advisors, peer advising fellows, the Advising Programs Office, sophomore advisors, concentration advisors, and the First-Year Experience Office are all here to help you to make your first two years a very positive experience.

Premedical and Health Professions Advising: The medical and health careers advisors at the Mignone Center for Career Success offer drop-in hours, start-of-term course-selection office hours, and individual advising. Workshops cover such topics as The Medical School Application Process, Creating Your Personal Statement, Selecting Medical Schools, Planning Your Gap Years, Financing Your Medical Education, the Medical School Interview, and more. Pre-Health 101 is a workshop which will be your first introduction to premedical/pre-health advising and planning at Harvard, and the Gaining Traction in Pre-Health series will help you explore clinical experience, summer planning, research opportunities, diverse pathways in medicine and healthcare, and more in greater detail. First-year students and first-semester sophomores are asked to book "Navigating Premed & Pre-Health" advising appointments and to complete the associated form. If you would like more information, please check the <u>Premed & Health Careers calendar</u>.

| Name | Email | Concentration | Year |
|-------------------|--------------------------------------|---|--------|
| Ava Bandel | avabandel@college.harvard.edu | Human Evolutionary Biology | Senior |
| Colin Le | colinle@college.harvard.edu | Chemistry | Senior |
| Jordan Robbins | jordanrobbins@college.harvard.edu | Neuroscience | Senior |
| Ellen Deng | ellendeng@college.harvard.edu | Chemistry | Senior |
| Esha Ahmad | esha_ahmad@college.harvard.edu | Neuroscience | Junior |
| Christine Lee | christinelee1@college.harvard.edu | Chemistry/Computer Science | Senior |
| Ayush Noori | anoori@college.harvard.edu | Computer Science/Neurosci- ence | Junior |
| Harold Peon | haroldpeon@college.harvard.edu | Human Developmental and Regenerative Biology | Junior |
| Helen Scarborough | helenscarborough@college.harvard.edu | History & Science | Junior |
| Claire Yuan | claireyuan@college.harvard.edu | Chemistry & Physics/History & Science | Junior |

Pre-Health Peer Liaisons (PPL): The PPL are specialty PAFs who assist the MCS Premed and Pre-Health Advisors with workshops and pre-health programming.

House Premedical Tutors: Premedical and pre-health advising also takes place within the Houses and the Dudley Community. Harvard's House-based pre-professional advising system is unlike that at any other college. Each House has a committee of premedical tutors, who are generally Harvard Medical School students, residents, and/or alumni, or graduates of other U.S. medical schools currently in residency training in the Boston area. Students should become familiar with their Premedical Committee. As medical practitioners, the premedical tutors are invaluable resources for learning about your potential career. The House Premedical Committee is also responsible for the Harvard College committee letter of evaluation sent to medical and dental schools when you apply.

Research: For questions and advice about research in the life sciences, contact Kate Penner, Undergraduate Science Research Advisor in the Science Education Office: <u>penner@fas.harvard.edu</u>; or Greg Llacer, Director of the Office for Undergraduate Research and Fellowships: <u>gregory_llacer@harvard.edu</u>. For more information see <u>lifesciences.fas.harvard.edu</u> and <u>uraf.harvard.edu</u>.

Life and Physical Sciences Advisers: For questions about life and physical sciences concentrations and courses, please contact one of the advisers listed below and be sure to check <u>lifescience.fas.harvard.edu</u> regularly for information, including updated FAQs.

| Concentration | Name | Email Address | |
|------------------------|------------------|-----------------------------|--|
| Integrative Biology | Andrew Berry | berry@oeb.harvard.edu | |
| Chemistry | Gregg Tucci | tucci@fas.harvard.edu | |
| HEB | Andrew Yegian | ayegian@fas.harvard.edu | |
| CPB and MCB | Dominic Mao | dominicmao@fas.harvard.edu | |
| CPB and MCB | Monique Brewster | mbrewst@fas.harvard.edu | |
| Neuroscience | Ryan Draft | draft@fas.harvard.edu | |
| Neuroscience | Laura Magnotti | magnotti@fas.harvard.edu | |
| Neuroscience | Kristina Penikis | kpenikis@fas.harvard.edu | |
| Physics | David Morin | morin@physics.harvard.edu | |
| HDRB | Amie Holmes | amie_holmes@fas.harvard.edu | |
| Biomedical Engineering | Linsey Moyer | lmoyer@seas.harvard.edu | |
| Psychology | Katie Powers | kpowers@fas.harvard.edu | |

CAREER EXPLORATION AND OPPORTUNITIES

Crimson Careers: This job and internship database maintained by MCS contains listings of opportunities, updated daily: <u>harvard-csm.symplicity.com/students</u>. For other MCS job resources, please visit <u>careerservices.fas.harvard.edu/channels/search-for-a-job-employer/</u> and also be sure to visit the <u>Featured</u> <u>Healthcare Job & Internship Opportunities page</u> on the MCS website.

Premedical and Pre-Health Email Updates: Edit your choices on the "This Week @ MCS" newsletter and select "Premed/Pre-Health" to receive announcements and information about upcoming workshops and medical school visits.

MCS Health and Medical Careers Website: You will find information on healthcare-related internship opportunities, links, workshop schedules, past workshop PowerPoint slides and recordings, year-by-year timelines, links to relevant and annotated healthcare-related sites on the internet, and much more at careerservices.fas.harvard.edu/channels/pre-med-students/.

The Mignone Center for Career Success Website: The general MCS website, <u>careerservices.fas.harvard.</u>

<u>edu</u>, has links to information on fellowships and funding, international opportunities, a calendar of events, and other career resources.

HAA Alumni Database: This searchable database maintained by the Harvard Alumni Association contains an online listing of Harvard/Radcliffe College and other Harvard alumni/ae who have volunteered to be contacted by students considering medicine or other health professions.

HAA Alumni in Healthcare Shared Interest Group: Current students are encouraged to join this shared interest group (SIG) to connect with Harvard alumni working or interested in all areas of healthcare. Visit http://harvardalumnihealthcare.com and www.facebook.com/harvardalumnihealthcare/.

Association of American Medical Colleges (AAMC): www.aamc.org provides comprehensive information on medical careers and the medical school admissions process. This is a useful site for information on requirements, financial aid for medical school, post-baccalaureate programs, and much more. Visit <u>students-residents.aamc.org</u>. You can also find information about how to subscribe to Medical School Admission Requirements (MSAR) online.