GUIDE ONE
Pre-Med and Pre-Health Planning
Johns Hopkins University

WHAT ARE SCHOOLS LOOKING FOR?
PRE-MED PREREQUISITES
PLANNING REMINDERS

Office of Pre-Professional Programs and Advising
http://studentaffairs.jhu.edu/preprofadvising/
Introduction

In *Guide One: Pre-Med and Pre-Health Planning*, we provide an introductory overview for those who intend to apply to allopathic (MD), physician-scientist (MD-PhD), osteopathic (DO), and dental (DDS, DMD) programs. **The academic policies and recommendations in this document, however, primarily apply to incoming students from the Class of 2026.** If you are not a first-year student, please speak to a Pre-Professional Advisor if you have questions about your specific circumstances.

In this guide, “medical school” refers to allopathic (MD), physician-scientist (MD-PhD), osteopathic (DO), and dental (DDS, DMD) programs. In addition, each of these career options have dedicated web pages with important information on the Pre-Professional Office website:

- Allopathic Medical School
- MD-PhD Programs
- Osteopathic Medical School
- Dental School
Guidelines for the Health Professions

Whether you are interested in pre-med, pre-dental, pre-vet, pre-nursing, or any other potential health career, it is important to follow general guidelines as you prepare for your future health professions school application.

**What do health professions schools want from their future applicants?**

- **Individuality and Passion**
  Health professions schools look for demonstration of substantive and long-term investment in activities that distinguish an applicant, particularly those that include creativity, leadership, and exploration.

- **Strong Letters of Evaluation (LOE)**
  Begin developing rapport with professors, supervisors, research PIs, etc., early in your academic career. You will eventually collect LOEs from individuals who know you well and can speak enthusiastically about your abilities and skills.

- **Research and Independent Investigation**
  Most schools like to see investment in and contributions to research. Health professions schools value independent inquiry in any discipline.

- **Academic Achievement**
  Health professions schools review your cumulative GPA, BCPM GPA (Biology, Chemistry, Physics, Math), and MCAT or DAT score. They also look for trends in academic performance and evidence of a challenging course load.

- **Diverse Interests**
  Consider coursework that reflects the depth and scope of your academic interests. Also, engage in activities that are unique to you and will help make you a compelling applicant to health professions school.

- **Clinical Experience**
  Health professions schools place an emphasis on your clinical exposure to patient care, including time spent shadowing and volunteering or working in hospitals, clinics, and other patient-centered areas. Engaging in direct patient interaction is imperative.
Pre-Med Prerequisites

Since many of our pre-health students are interested in applying to medical school, the following information specifically pertains to pre-medical coursework. However, all health professions graduate programs follow similar academic guidelines. Students interested in professions other than medicine should make an appointment with the appropriate advisor per the Pre-Professional Advising website.

JHU does not have one standard set of classes that will help you fulfill course requirements for medical school. We recommend students consider the following general guidelines for completing pre-medical course requirements. Please consult with KSAS Academic Advising or WSE Undergraduate Advising if you have questions regarding the best courses to take as a first-year student.

We RECOMMEND JHU students complete the following coursework (or the equivalent of). However, please note that the following recommendations will vary depending on AP credit.

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirements</th>
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<tbody>
<tr>
<td>Chemistry</td>
<td>• 2 courses in general (inorganic) chemistry with associated labs</td>
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<td></td>
<td>• 2 courses in organic chemistry with one associated lab (JHU offers one 3-credit organic chemistry lab)</td>
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<tr>
<td>Biology</td>
<td>• 2 courses in biology with associated labs</td>
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<tr>
<td>Biochemistry</td>
<td>• 1 course in biochemistry (lab requirements vary)</td>
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<tr>
<td>Math</td>
<td>• 2 courses in calculus</td>
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<tr>
<td></td>
<td>• 1 course in statistics</td>
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<tr>
<td>Physics</td>
<td>• 2 courses in general physics with associated labs (Calculus I and Calculus II are co-requisites for General Physics I and General Physics II at JHU)</td>
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<tr>
<td>English/Writing</td>
<td>• 2 writing intensive courses</td>
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<tr>
<td>Intensive</td>
<td>• One course preferably taken in the English Department, Writing Seminars Department, or University Writing Program.</td>
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<td>• A second course can be taken in the English Department, Writing Seminars Department, or University Writing Program OR from other humanities or social sciences departments such as Philosophy, History, Anthropology, etc.</td>
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<tr>
<td>Social Sciences</td>
<td>• 2 courses that emphasize social and behavioral science principles</td>
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<td>• We recommend taking Introduction to Psychology and Introduction to Sociology to provide a solid foundation for the MCAT</td>
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**Caveats for Course Planning**

1. **Varying course requirements**: Course requirements often vary among medical schools. Therefore, it is simply not possible for you to meet every pre-med requirement for every medical school in the U.S. What is most important is to consider the coursework and academic background necessary to best prepare for medical school and to perform well on the MCAT. You must research individual medical school requirements to ensure you have completed all prerequisite coursework.

2. **AP and IB Credit**: Policies regarding AP and IB credit are inconsistent across medical schools, so most students must complete additional coursework even if they have AP or IB credit on their transcript.
   - If you have AP or IB credit for an introductory science sequence for medical school, you are advised to take at least one additional course in that area.
   - However, if you have AP/IB biology credit, you will need two biology classes with labs.

   In general, it is acceptable to forfeit your AP or IB credit if you feel more comfortable reviewing the material and strengthening your knowledge in an introductory college course in preparation for the MCAT.

3. **Biochemistry**: A background in biochemistry is essential for MCAT preparation and is a requirement of medical schools. Most JHU students take Biochemistry from the Department of Biology. However, please check biochemistry course options with your WSE or KSAS academic advisor if you are majoring in Biomedical Engineering, Materials Science (Biomaterials track), Biophysics, Chemistry, or Public Health Studies.

4. **Genetics**: Although genetics is not required for the MCAT, it is considered an important foundational course in preparation for medical school curricula.

5. **Math/Statistics**: Calculus I and Calculus II are co-requisites to the physics sequence at Johns Hopkins. In addition to calculus, it is suggested you enroll in a statistics class in preparation for the MCAT and as a requirement for medical schools.

6. **Humanities and Social Sciences**: It is important to demonstrate interests beyond the sciences, as medical schools want to see that applicants have diverse intellectual interests. In light of the content on the MCAT, pre-meds are advised to consider courses that emphasize ethics, philosophy, cross-cultural studies, the arts, and public health.

7. **Letter Grades**: All pre-medical requirements must be taken for a letter grade, and for the majority of medical schools, you must earn a “C” or higher in those courses. Do not take pre-med courses or requirements pass/fail (S/U).

7. **Find balance**: Although you need a strong GPA for medical school admissions, trying to maintain a perfect GPA may prevent you from pursuing experiences outside of the classroom that will help set you apart from other students. The key is to find balance between your academics and extra-curricular activities.

8. **Other Considerations**: Click here for our recommendations about prerequisite courses, summer science courses, online coursework, and taking courses “S/U” (pass/fail).
The English/Writing Intensive Requirement

Ultimately, it is at the discretion of a medical or dental school to determine whether a particular course meets their English or writing intensive requirement, and it is your responsibility to be familiar with the requirement for each medical/dental school to which you will apply. However, we recommend the following guidelines for choosing classes to fulfill the requirement:

Complete two (2) writing-intensive courses.
• One writing-intensive course should preferably be taken in the English Department, Writing Seminars Department, or University Writing Program.
• A second writing-intensive course can be taken in the English Department, Writing Seminars Department, or University Writing Program, OR it can be taken from other humanities or social sciences departments such as Philosophy, History, Anthropology, etc.

Choosing a Major

One of the biggest pre-med myths is that you must major in the sciences to get into medical school. This is absolutely not true. Each year, many JHU graduates majoring in humanities and social science subjects are accepted into medical school. It is important that you choose a major that reflects your genuine academic interests rather than a major you think “looks good” to medical schools. Choose a major you are passionate about! Whether that major is Anthropology, Biomedical Engineering, Molecular and Cellular Biology, Medicine, Science and the Humanities, Public Health Studies, Writing Seminars, or something else entirely, keep in mind all students who apply to medical school must complete their pre-medical prerequisites in addition to the requirements of their major.
Pre-Health 101

All freshmen and sophomores interested in applying to health professions schools are required to attend a Pre-Health 101 meeting prior to their first individual pre-professional advising appointment. Pre-Health 101 consists of a 45-minute small group session that is offered during both the fall and spring semesters and focuses on the qualities and requirements of pre-health students. Pre-Health 101 registration information is promoted to students via email at the beginning of each academic semester.

Summer Before College

We appreciate how excited some students are to begin their pre-med journey, and we’re looking forward to assisting you with your questions and concerns. However, we hope you take the time to enjoy the summer by spending it with friends and family, relaxing, pursuing hobbies, traveling, etc. The next four years of college will become busier, and it is not necessary or expected that you begin pursuing pre-med experiences prior to matriculation. So, enjoy your summer, have fun, and we’ll see you in the fall!

In Closing

Navigating your way through academic requirements at Johns Hopkins University takes careful planning and great patience. If you are pursuing a health professions career, the academic planning process requires adaptability and flexibility. We encourage you to seek input from your advisors to devise a plan that is appropriate for your emerging academic and professional goals.

Office of Pre-Professional Programs and Advising
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Planning Reminders

**Sign up for the Pre-Health Listserv.**
All incoming freshmen and transfer students who have indicated a pre-health interest in their Advising Profile will automatically be added to our pre-health email listserv before fall classes begin. If you did not indicate a pre-health interest in your profile, please visit the Pre-Professional Advising Office’s [website](#) to sign up for the appropriate listserv.

- Attend a Pre-Health 101 meeting. All pre-health freshmen (and sophomores if they did not attend Pre-Health 101 in their freshman year) must attend one Pre-Health 101 meeting before scheduling their first individual pre-professional advising appointment.

- Explore volunteer and community service opportunities.

- Explore [research](#) opportunities. Think of research from the perspective of discovery, investigation, and inquiry. It can include anything from wet lab, bench research, clinical research, public health research, humanities research, etc.

- Consider studying abroad, whether for Intersession, summer, or a semester.

- Get to know your faculty, research principal investigators (PIs), supervisors, and other mentors; they will be good resources for your future [letters of evaluation](#).

- Work on developing strong [study skills](#). Be aware that the study habits that worked well for you in high school may need to be honed or improved upon in college.

- Attend relevant programs and events (announced through our listserv).

- Follow us on Instagram @jhuprehealth.