



PREMED (M.D. and D.O.) INFORMATION SUMMARY

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ACADEMICS + ACTIVITIES = MEDICAL SCHOOL PREPARATION

These classes and activities help you answer “Why Medicine?” and develop the Core Competencies outlined by the AAMC, <https://www.aamc.org>.

**Service Orientation • Social Skills • Cultural Competence • Teamwork • Reliability & Dependability • Resilience & Adaptability
Capacity for Improvement • Ethical Responsibility to Self and Others • Oral Communication • Written Communication
Critical Thinking • Scientific Inquiry**

Academic Preparation

Academic preparation for medical school requires a Bachelor’s degree and completion of a set of prerequisite classes, usually science, which vary from school to school. Common classes are listed on the last page of this summary. For your degree, any major is appropriate. There is no preference in this regard, so study something you love! Competitive applicants have very high grades so pace yourself in order to succeed, and remember that all grades will count when you apply even if you repeat classes.

Service to the Community

Because you are preparing for a humanitarian profession, it is important to have volunteer experiences that demonstrate a commitment to serving others in your community. It is suggested that this be ongoing throughout your college years prior to application for admission. **Competitive applicants complete 3 different experiences each lasting 6 months to a year with at least 200 hours, in the 4 years before they apply to medical school.**

- Lowell Bennion Community Service Center (<http://bennioncenter.org>)

Patient Exposure

Interacting well with patients is one of the key indicators of a successful future provider. Your experience **can be either paid or unpaid**. It may or may not require certification. Examples include ER volunteer, nursing home, hospice and more. **Competitive applicants complete 1-2 different experiences each lasting at least 6 months to a year, total of 100+ hrs.**

Physician Shadowing

This should be one of your first experiences as a premedical student. Observing a physician in action will help you gather the information you need to fully commit to the profession and to learn about a variety of medical specialties. **Many students find physicians to shadow through volunteer experiences at medical facilities**. It is a good idea to shadow both M.D and D.O. doctors. **Competitive applicants shadow 3-5 different physicians, spending at least 8-10 hours with each, and have a good balance between primary care and non-primary care**

Why Medicine?

Leadership Experience

As a physician, you will be a leader and a team member with your patients, your staff, your colleagues, and in your community. Examples of leadership includes offices in organizations, leadership in church activities, coordinating a project, serving on a committee, managing or training or supervising at work, teaching experience of any kind, coaching, peer counseling, mentoring, etc. Competitive applicants complete 100+ hours in 3 different experiences each lasting 3 months or longer in the 4 years before applying to medical school.

Research Experience

Physicians depend on medical literature to remain current in their field throughout their careers. Most medical schools required or highly recommend participation in research that tests a **hypothesis**. Your research experience can be from many different areas. It does not have to be medically related or in a lab. **Competitive applicants complete at least 1 experience under a supervision of a faculty member or other researcher lasting 6 months to a year.**

- Undergraduate Research Opportunities Program (UROP) (<http://our.utah.edu/>)

Things to Remember

- What you do outside of class is important so don’t neglect activities. However, remember that activities *complement* your coursework, but *they will not compensate for low grades*.
- Make sure you have contact information for supervisors and physicians in case you need a recommendation letter. Try to keep an open relationship with them after you discontinue activities.
- Keep a record of all hours of service and experiences. The **PreMed Planner Spread Sheet** on our website can help with this. You will find it on our website under [Downloads](#).
- Writing reflections on each activity in a journal will be helpful when you complete your application and write your personal statement.

APPLICATION TIMELINE

TIMELINE	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
MCAT	Register & Study		Take exam															
LORs	Request letters & get contact info from letter writers																	
Application	Prep - Write draft of Personal Statement - Research Schools				- Applications open online to fill out profile/info 1 st week of May - Submit applications the first week of June at the earliest				Application deadlines Oct.-Nov. for MD Dec.-March. for DO				If no interviews, begin assessing reapplication					
					Secondary Applications								update LORs					
					Interviews													
Financial Aid											Acceptance Notifications Priority filing for federal financial aid							

❖ THE MCAT

- The MCAT is administered in January, and March through September.
- Taking the exam by spring will enable you to apply earlier. September is the last MCAT accepted by many schools for the following Fall entering class.
- The MCAT is divided into four multiple choice sections: Biological and Biochemical Foundations of Living Systems, Chemical and Physical Foundations of Living Systems, Psychological, Social and Biological Foundations of Behavior, and Critical Analysis and Reasoning Skills. You can obtain the most updated information from <https://www.aamc.org/students/applying/mcat/mcat2015/>.

❖ THE AAMC SJT OR ALTIUS SUITE

There are two common instruments designed to assess characteristics necessary to succeed as a physician

- *AAMC Standardized Judgement Test (SJT)*—This is the most common assessment used by medical schools. It was developed to measure the [pre-professional competencies outlined in the AAMC](#). It has 95 – 105 minutes total session time (75 minutes exam time). It is scored from 1 (low) – 9 (high). Students will receive a test score for AAMC SJT. For more information and preparation resources, visit [AAMC Standardized Judgement Test \(SJT\) website](#).
- *Altius Suite*—is a 3 part assessment adopted by some medical schools. Casper is a newer situational judgement test that assesses for 10 characteristics: Collaboration, Communication, Empathy, Equity, Ethics, Motivation, Problem Solving, Professionalism, Resilience, and Self Awareness. Snapshot is a short one way virtual interview that highlights communication skills and motivation for your chose profession. Duet is a value-alignment assessment that compares your values to the mission of the school. For more information go to the Altius website <https://takealtus.com/suite/>.

❖ THE APPLICATION PROCESS

- Most US medical schools admit students once a year to start late Summer/early Fall.
- Applications are submitted 12-15 months before your desired medical school enrollment date. This means the application process can begin as early as the spring after your Junior year. However, the timing depends on when you will complete your degree and the necessary premedical coursework, and successfully take the MCAT. All degrees must be posted to your transcript prior to starting medical school, and the timing is sensitive.
- While applying early in the cycle has advantages, the best time for **you** to apply is when your application is the best it can be.
- You can apply to both M.D. and D.O. schools, and we encourage students to consider doing so.
- Requirements vary from school to school. Research schools *early* for specific information about requirements.
- There are a handful of private schools not affiliated with any of these centralized services and require other applications. Information is available on each school's website.
- Before submitting applications, have people with an unbiased eye go over each **entire** application to catch any errors.
- **To help us advise other students, we would appreciate it if you would release your statistical information from your applications to the Health Professions Advisor when prompted. This information will always be kept confidential.**
- There are **three** centralized application services processing primary applications for US medical schools: **AMCAS** for MD schools, **AACOMAS** for DO schools, and **TMDAS** for schools in the University of Texas system. These services are very similar, but not identical. They open online in early May each year to allow applicants to start building applications and begin accepting submissions on or around June 1st. Refer to the chart on page 3 for additional information.

Application Comparison	TMDSAS—U of TX	AMCAS—MD	AACOMAS—DO
Primary Application Fee: # of schools included	Flat fee includes all schools, but <u>no</u> fee waivers	1 school included in fee, Extra fee for each additional	1 school included in fee, Extra fee for each additional
Add additional schools after submission?	Yes—No additional charge	Yes—Additional charge	Yes—Additional charge
Personal statement length	1 required, 5000 char limit 2 optional, 2500 char each	1 required, 5300 char limit	1 required, 5300 char limit
Extracurricular experience listings	Chronological list of all info since HS graduation (academic, extracurricular, employment, etc.)	May list up to 15 activities 700 character limit each Designate 3 'significant'	May list all activities 600 character limit each
Official MCAT Score Report	required	required	required
Official transcripts	TMDSAS form required	AMCAS form required	AACOMAS form required
GPA calculations*	Unique calculation with no decimals	Total, BCPM, and AO	Total, BCP, and AO
Early application advantage?	Yes	Yes	Yes
Deadlines?	October 1	By school, mostly Oct or Nov	By school, mostly Dec-Apr
Website	utsystem.edu/tmdsas/	www.aamc.org	www.aacom.org

*Total = Total GPA, BCPM = Biology, Chemistry, Physics, Math (Science) GPA, AO = All Other (Non-Science) GPA

❖ LETTERS OF RECOMMENDATION

- Once a medical school receives your primary application through the application service, the school will request supplementary materials, including program specific secondary applications and Letters of Recommendation (LORs).
- Application services do not share letters: Be sure to plan ahead regarding where to have your letters sent.
 - Applicants who plan to apply only to AMCAS, AACOMAS, or TDMSAS affiliated medical schools most often take advantage of the Letter Service provided by those systems.
 - If applying to both MD and DO schools, or including TMDSAS schools, unaffiliated schools, or an international program, it is easiest to subscribe to a service like Interfolio (interfolio.com/) which allows you to collect all your letters in one place and have them sent to each application service.
- Do not delay submitting your primary application while waiting for letters to arrive. Letters are part of the secondary process.
- Requirements for letters vary between schools, so research schools early and know what you need. The following is based on the UUSOM's requirements, and generally covers the types of letters you will need. Plan ahead! Get to know people from these categories so you will have a variety of people who can write excellent letters for you.
 - Science Professor (BCPM)
 - Non-Science Professor *OR* 2nd Science Professor (Requirements vary by school)
 - Mentor letter—Usually a Supervisor for Research, Patient Exposure, Community Service, or Employment

❖ PREMED GENERAL POLICIES REGARDING COURSEWORK

CLEP Credit & Correspondence Study	Not acceptable as part of the premed curriculum
AP Credits	Students must take coursework beyond introductory classes waived by AP
"Online" Courses	Online <u>sections</u> of semester based university classes, or online/in person hybrid sections of semester based classes will usually be accepted. <i>Online courses which are not university semester based (independent study) will generally not be accepted.</i>
Repeat Policy	All grades for repeated courses will be counted towards your GPA on your medical school application through AMCAS, AACOMAS, and/or TMDSAS
Withdrawals	W's should be used only for emergencies, although W's will not affect your GPA and is better than a low grade.
GPA	<i>Generally</i> the minimum GPA for Total, Science, and AO is 3.0, but may be higher or lower depending on the school. The average GPA for accepted applicants is usually in the 3.6 range for MD schools and 3.5 range for DO schools. UUSOM recommended minimum is 3.0, and average for accepted applicants is around 3.7.

Premedical Course Guide

This guide is designed for applying to a *range* of medical schools. It is **not a comprehensive list**. Requirements may vary by school.

Shading indicates the classes most commonly required by medical schools. See a PPA advisor for more information.

[Classes with * *may* be taken at a Community College. However, not all medical schools accept prerequisites from 2 year schools]

BIOLOGY	CHEMISTRY	MATH	PHYSICS	NON-SCIENCE							
<p>*1610 (4) Fundamentals of Bio I (Prereq: Math 1010) [NOT waived by AP Biology]</p> <p>Formerly BIOL 1210</p>	<p>OPTIONAL preparatory courses for Chemistry and Math</p> <ul style="list-style-type: none"> • <i>Math Boot Camps, MATH 10 or MATH 15</i> • <i>Chemistry Boot Camp CHEM 10</i> • <i>CHEM 1200 (3) Prep for College Chemistry</i> • <i>CHEM 1208 (1) Intro to Periodic Table</i> • <i>CHEM 2308 (1) Intro to O-Chem</i> <p><i>NOTE: In order to take a math class, you must have the required ACT, SAT or math placement test scores, or have successfully passed the prerequisite math class</i></p>			<p>2 Writing Classes [NOT waived by AP]</p> <p>WRTG 2010 (3) Intermediate Writing (Prereq: WRTG 1010) & Upper Division Writing (CW) (Prereq: WRTG 2010)</p>							
<p>*2325 (4) Human Anatomy (Recom. Prereq: BIOL 1610) Fulfills BIOL lab requirement for <u>most</u> M.D & D.O. schools</p>		<p>*1050 (4) & *1060 (3) College Algebra & Trigonometry (Prereq: MATH 1010) Can be substituted with 1080 (5) or 1210 (4)</p>	<p>Physics has 2 options. Consult both your major advisor and a PPA advisor for the correct lecture and lab sequence. [NOT waived by AP Physics]</p>	<p>Arts/Humanities (FF/HF)</p>							
<p>*2420 (4) Human Physiology (Prereq: BIOL 1610 & CHEM 1210) MCAT prep</p>	<p>*1210 (4) Gen Chem 1 1215 (1) Lab (Prereq: MATH 1050) [NOT waived by AP Chemistry]</p>	<p>1210 (4) Calculus 1 Recommended by <u>some</u> schools (Prereq: MATH 1050 & 1060 or 1080).</p> <p>1220 (4) Calculus II (Prereq MATH 1210) <u>may</u> be required by a few schools</p>	<p style="text-align: center;">OR</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <p>2010 (4) Gen. Physics 1 2015 (1) Lab (Prereq: MATH 1060)</p> </td> <td style="width: 50%; border: none;"> <p>2210 (4) for Scientists & Engineers 1 2215 (1) Lab (Prereq MATH 1210)</p> </td> </tr> </table>	<p>2010 (4) Gen. Physics 1 2015 (1) Lab (Prereq: MATH 1060)</p>	<p>2210 (4) for Scientists & Engineers 1 2215 (1) Lab (Prereq MATH 1210)</p>	<p>Behavioral Science (BF)</p>					
<p>2010 (4) Gen. Physics 1 2015 (1) Lab (Prereq: MATH 1060)</p>	<p>2210 (4) for Scientists & Engineers 1 2215 (1) Lab (Prereq MATH 1210)</p>										
<p>2020 (3) Cellular Biology (Prereq: BIOL 1610 & CHEM 1210) Fulfills 2nd General Bio</p>	<p>*1220 (4) Gen Chem 2 1225 (1) Lab (Prereq CHEM 1210)</p>	<p>*1070 (3) Statistics (Prereq: B or higher in MATH 0980, B or higher in MATH 1010 or 1030) Recommended by <u>many</u> med schools. Can be substituted with PSY 3000, FCS 3210, or other statistics course.</p>	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <p>2020 (4) Gen. Physics 2 2025 (1) Lab Prereq: PHYS 2010)</p> </td> <td style="width: 50%; border: none;"> <p>2220 (4) for Scientists & Engineers 2 2225 (1) Lab (Prereq PHYS 2210 & MATH 1220)</p> </td> </tr> </table>	<p>2020 (4) Gen. Physics 2 2025 (1) Lab Prereq: PHYS 2010)</p>	<p>2220 (4) for Scientists & Engineers 2 2225 (1) Lab (Prereq PHYS 2210 & MATH 1220)</p>	<p>Optional Behavioral Science for MCAT Prep</p>					
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<p>2030 (3) Genetics (Prereq: BIOL 2020)</p>	<p>2210 (3) Human Genetics (Prereq: BIOL 1610)</p>										
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<p>2310 (4) O-Chem 1 2315 (2) Lab (Prereq CHEM 1220)</p>	<p>2320 (4) O-Chem 2 2325 (2) Lab</p>										
<p>BIOL/CHEM 3510 (3) Biochem I (Prereq: CHEM 2310) CHEM 2320 & BIOL 2020 recom. MCAT prep</p>				<p>2 Biology Labs: Most Medical schools require two Biology labs. <i>Either</i> the Anatomy OR Physiology lab can count for 1 lab at most schools. The 2nd lab can be fulfilled by other biology labs such as BIOL 1615, 1625, 3115, 3205, 3235, 3515, 3525 or others. <i>Please note that some of these labs require the corresponding course.</i> Labs at SLCC may also be acceptable.</p>							

OPTIONAL exploration courses:

UGS 1020 (1): Introduction to PreMed/PrePA

LEAP 1100+1101 (3+3): Health Professions LEAP

H EDU 2010 (3): Introduction to Health Professions