

## PRE-MEDICINE ADVISING SHEET

This sheet is designed to give a typical pre-medical student a general understanding of the minimum course work generally required for MCAT preparation and as required for acceptance to medical schools. This document may not be equally suitable for all students and should be used solely as an initial guide since specific pre-requisite course requirements vary between medical schools. This variation can include how these schools view credit awarded for AP/IB credit and courses taken online, as well as the types of courses and number of credit hours required in each subject. ***Therefore, students are responsible for checking the specific admission prerequisites for each medical school to which they apply.***

### Typical minimal preparation for medical school requirements and MCAT examination:

#### The following courses can be taken any time before Biochemistry I:

Biological sciences with lab (BI 210 and BI220)\*

#### The following courses are in sequence according to pre-requisite order:

General chemistry with lab (CH 105 and CH 106, or CH 107)

Organic chemistry with lab (CH 351 and CH 352)

Biochemistry I (CH362) *and* Biochemistry II (CH462)\*

#### Additional courses to be taken at any point before the MCAT exam:

Psychological Inquiry (SW 250-PS)

Understanding Society (SW 200-SO)

Physics with lab (PH 107 and PH 108)

Elementary Statistics (MA162) and/or college-level math\*\*

Physiology (BI411)\*\*\*

\*Completion of both BI210 and BI220 is required before taking Biochemistry 1 (CH362). Most medical schools only require one semester of biochemistry, but for the best MCAT and application preparation, pre-med students should plan to take both Biochemistry 1 and 2 (CH362 and CH462). However, if a student is interested in taking only one semester of biochemistry, CH362 is the course to enroll in. Introduction to Biochemistry (CH361) does not provide adequate preparation for the MCAT and lacks the depth necessary for medical school preparation.

\*\*While not a strict requirement for the MCAT (although it may be beneficial), it is typically required as a prerequisite for medical schools. Most medical schools will accept Research Methods/Statistics (PS210) or Biostatistics (BI250) in place of MA162. Students should check with their medical schools of interest to determine the mixture of statistics and mathematics courses are required for admission.

\*\*\*Not a requirement for medical schools, although this course or Human Anatomy and Physiology 1 & 2 (BSHS 334 and 335) does cover material represented on a portion of the MCAT and may be beneficial

#### In addition to the typically required courses, we recommend taking as many of the following as possible:

Upper level ( $\geq 300$  level) biology courses, highly recommending Immunology (BI220 is the only prerequisite)

Upper level ( $\geq 300$  level) chemistry courses

Additional Psychology or Sociology

#### Research:

While medical schools do not list research experiences as required, 85-90% of applicants accepted to medical schools have some research experience. Therefore to be well-qualified candidates, students should engage in research activities. Generally, the first place to look for these activities is within the department that houses the student's major.

### Pre-professional advising:

Pre-medical students should contact the ELC (formerly known as CHASE) administrative assistant to ensure that they are included on the pre-medical email listserv. Pre-medical students are also encouraged to find more details on Butler's pre-health website at <https://www.butler.edu/academic-services/pre-health-advising/areas-of-interest/pre-medicine/>.

**Two Major Types of Medical Schools in the United States:** In the US, there are two major types of medical degrees: Doctor of Medicine (MD) and a Doctor of Osteopathic Medicine (DO). MD and DO degrees are very similar. They have similar prerequisites for entry into professional school and require an applicant to take the MCAT. Both degrees require four years of medical school, followed by three additional years of residency. The significant difference between the two is one of philosophy. For more information on these two types of medical degrees check out the following website: <http://medicalschoollhq.net/md-vs-do-what-are-the-differences-and-similarities/>

For more details on careers as an MD or a DO, consult the American Medical Association (<http://www.ama-assn.org/ama>) and the American Osteopathic Association (<http://www.osteopathic.org/Pages/default.aspx>)

**Applying to Medical School:** for details, please consult the Butler pre-health website at <https://www.butler.edu/pre-health-advising/applying-medical-school>

**Medical College Admission Test (MCAT):** A student interested in medical school will typically prepare for the Medical College Admission Test (MCAT) during their third year (fall/winter) and then take the exam in spring/summer of following the third year. For more information visit the MCAT website at <https://students-residents.aamc.org/applying-medical-school/taking-mcat-exam/>

**Letters of Recommendation:** Pre-medical students should be prepared to ask two science professors and one non-science professor for letters of recommendation. For more details, please check the Butler pre-health website.

**Personal statement:** A personal statement is a well thought out explanation of why medicine is right for you based on the experiences that have led you to this conclusion. Experiences from your life, work, research, or shadowing that are pertinent to explaining your call to medicine need to be included as part of this statement. Journaling is a convenient way of keeping track of formative experiences and their impact on you as they occur.

**Application timeline:** The application process to medical school begins in May/June of the third year and the primary application should be submitted to the American Medical College Application Service (AMCAS) and/or American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS) no later than July. Secondary applications begin to arrive in August or September of the senior year, and they must be completed and returned immediately.

### Pre-health Advising:

**Contact:** Should you have more questions, please visit the ELC office (JH105) or request to meet with one of the two current faculty pre-health advisors (<https://www.butler.edu/pre-health-advising/advisors>). The advisors are happy and excited to work with you to help ensure you become the best candidate possible for professional school.

**Sophomore review:** In the spring semester of the sophomore year, each pre-medical student will meet with one of the pre-health advisors for a review of their preparation to date. The student's coursework, overall GPA, volunteering and shadowing experiences, and other extra-curricular activities will be discussed.

**Programing:** Our programming goal is to provide general information and advice to students, while also providing individualized advising sessions. Programing for pre-medical and pre-health professional students starts the first-week students are on campus and extends through their time at Butler and beyond. First-year programming includes an introduction of the advisors and what they do, along with information on what students can do to start building a competitive application. Second-year programming includes our Networking Night with local health professionals, which can lead to shadowing and other opportunities. Our third year programming focuses on helping students understand the application process and timeline. We support alumni up to five years after graduating from Butler.