The Association of American Medical Colleges (AAMC) has a wealth of information about becoming a doctor on their website - https://www.aamc.org/students/aspiring/. Before you decide to pursue this career path we encourage you to familiarize yourself with this website.

At MTSU the Pre Medical program does not lead to a degree. It is a set of courses we know are helpful to have in preparation for the MCAT exam and for admission to most medical schools. Therefore students are required to select a major of their choice. Many students choose a science related major such as Biology, Biochemistry, or Chemistry. However any major is acceptable and students are encouraged to choose one they are interested in.

While individual medical schools will vary in their requirements most require students to complete (at a minimum):

- One year of laboratory based college level biology, some schools prefer junior/senior level (BIOL 1110/1111 and BIOL 1120/1121)
- One year of Inorganic Chemistry (CHEM 1110/1111 and 1120/1121)
- One year of Organic Chemistry (CHEM 3010/3011 and 3020/3021)
- One course in Biochemistry (either CHEM 3530/3531 or CHEM 4500 and CHEM 4510)
- One year of college level Physics (PHYS 2010/2011 and 2020/2021)
- One year of college level English (ENGL 1010 and 1020)
- One semester of Calculus (MATH 1910)
- Social Behavioral Understanding of Health Care (courses in Psychology and/or Sociology)
- A Bachelor’s Degree in a field of your choosing

The Medical College Admissions Test (MCAT) is required. Students typically take the MCAT after their third year. The MCAT consists of four sections that will test your knowledge in the above listed class. The first two sections, *Chemical and Physical Foundations of Biological Systems* and *Biological and Biochemical Foundations of Living Systems* will test your ability “to bring together what they know about biology, general and organic chemistry, physics, and biochemistry to solve problems about biological and other living systems. These sections will test the extent to which applicants think like scientists by reasoning about research designs and results, interpreting data and drawing conclusions, and considering ethical issues in research. A third test section, *Critical Analysis and Reasoning Skills*, will test reasoning and analysis skills using passages from population health, studies of diverse cultures, ethics and philosophy, and other humanities and social sciences disciplines. The most current science on cognitive processing will be used to test applicants’ ability to comprehend and analyze what they read, draw inferences from text, and apply arguments and ideas to new situations. Reading broadly in preparation for medical school will help test takers familiarize themselves with the issues and arguments these disciplines raise.

The fourth section, *Psychological, Social, and Biological Foundations of Behavior*, will be formatted like the two natural sciences sections and test the ways that psychological, sociocultural, and biological factors influence people’s perceptions and reactions to the world, behavior and behavior change, individuals’ opinions of themselves and others, cultural and social differences that influence overall health, and the relationships between social stratification, access to resources, and well-being.” (This information was taken from the following website: https://www.aamc.org/students/download/378098/data/mcat2015scorescaleguide.pdf)
Students who are successful on the MCAT are traditionally successful in medical school. Scores are tabulated based on subscores from these four sections. Each section ranges from 118 to 125. Therefore total scores will range from 472 to 528, with 500 considered the center score. Other factors used in the admissions decision include Overall GPA, Science & Math GPA, Recommendations, a Personal Statement, and Interviews. The GPA used includes all grades so repeating a class for a better grade will not replace the grade from your first attempt.

Application to most medical schools is made via the American Medical College Application System (AMCAS). This is typically completed in the summer one full year before you expect to matriculate in medical school. This website has more information regarding AMCAS - [https://www.aamc.org/students/applying/amcas/](https://www.aamc.org/students/applying/amcas/). If you are interested in Osteopathic Medicine you will apply though the American Association of Colleges of Osteopathic Medicine (AACOMAS). [http://www.aacom.org](http://www.aacom.org).

Students are encouraged to take courses beyond the minimum requirements for admission to medical school. While any upper division Biology or Chemistry courses would be helpful, the following are some courses to consider as they may help students prepare for the academic rigors of medical school:

- BIOL 2230/2231 Microbiology
- BIOL 3020/3021 Comparative Anatomy of Vertebrates
- BIOL 3050 Parasitology
- BIOL 3250/3251 Genetics
- BIOL 3500 Evolution
- BIOL 4110/4111 General Physiology
- BIOL 4130/4131 Histology
- BIOL 4170 Endocrinology
- BIOL 4210/4211 Cell and Molecular Biology
- BIOL 4280 Undergraduate Research in Biology
- BIOL 4300/4301 Immunology
- BIOL 4430 Diagnostic Microbiology
- BIOL 4460/4461 Human Genetics
- BIOL 4550 Biotechnology
- CHEM 2230 Quantitative Analysis
- CHEM 3880 Undergraduate Research in Chemistry
- CHEM 4000 Medicinal Chemistry
- CHEM 4150 Bioorganic Chemistry
- CHEM 4530 Biochemical Techniques
- NUR 3010 Pathophysiology
- PHIL 3345 Bioethics
- PSY 1410 General Psychology
- PSY 3230 Abnormal Psychology
- PSY 4240 Behavioral Neuroscience
- PSY 4630 Death and Dying
- PSY 4650 Health Psychology
- SOC 1010 Introduction to Sociology
- SOC 2010 Social Problems
Medical Schools Like to See the Following in Your Schoolwork

- Full course loads of 16 - 18 hrs/semester unless you are also working 10+ hrs/week.
- 2 - 3 lab classes most semesters.
- Taking an “easy” semester is not recommended as doing so is not an option in medical school. Furthermore it does not demonstrate a student’s ability to handle a challenging and difficult academic course load.

Medical Schools Need to See Clinical Experiences

- Before applying to medical school, you need 100 - 200 hours of direct observation of doctors in medical settings.
- Medical schools will look for a record of clinical experience over several years in multiple settings.
- **Begin getting clinical experience early** so you will find out quickly if you really want to be around sick people and insurance company paperwork for a career.
  - How to get experiences - Call physicians you know, and ask if you can watch them at work for a day (called "shadowing"). Other ways you can gain clinical experience include volunteering or working in emergency rooms, clinics, nursing homes, or hospice. You can also gain valuable experiences through volunteering in support organizations for the chronically ill (muscular dystrophy or multiple sclerosis associations for example).

Medical Schools Like Proof of Community Involvement & Leadership

- You need to demonstrate an ability to earn good grades and carry a full course and/or work load while doing more than just studying. You need to demonstrate leadership qualities, concern for others, and an ability to work well in groups.
- How to demonstrate community involvement & leadership - be an active community member (volunteer in a local school or religious group, volunteer for the Special Olympics, Heart Walk, Memory Walk or MS walk, spend a day with Habitat for Humanity. Consider joining some of the clubs and organizations on campus – see this website for a comprehensive list [https://mtsu.collegiatelink.net/organizations](https://mtsu.collegiatelink.net/organizations). Like sports? Coach a youth sports team.
- There are lots of ways to get involved so take advantage of these opportunities to development your leadership skills. Consider running for a position on the Executive Board of one of these groups to help plan events!
- Check out these Pre-Professional Clubs!
  - Student National Medical Association (SNMA)
  - PreScripts

For more information please see your Advisor in the Pre Professional Health Science Advising Center in KUC 316 or email preprof@mtsu.edu.

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