A physician (i.e. medical doctor) is a highly trained, licensed medical professional tasked with promoting, maintaining &/or restoring health and wellness in his/her patients. Some physicians, referred to as “general practitioners” or “generalists,” maintain a practice that provides continuing and inclusive care for individuals, families or a specific community, treating acute and chronic conditions as well as providing wellness and preventive care education. Other physicians – the “specialists” – focus their practices on specific diseases (e.g. cancer, infectious disease), specific organs or body part (e.g. skin, lungs), specific patient groups (e.g. children, elderly) or treatment type (e.g. diagnostic, therapeutic).

Physicians trained in the United States must obtain a professional (graduate level) degree from an accredited medical school or college and pass a state licensure exam prior to practicing. Most medical schools require students to have completed an undergraduate degree program before they can begin their medical education. Following medical school, most new physicians complete additional training in “residency,” which can last two to ten years depending on the specialty chosen. Physicians are also required to complete varying hours of continuing medical education (CME) in order to maintain their license to practice (e.g. Kentucky: 60 CME credits every three years)

Students wishing to become physicians have two educational options – allopathic or osteopathic medical schools. **Allopathic medicine** focuses on the use of pharmaceutics &/or physical interventions to treat a patient’s symptoms or pathology. Physicians trained in allopathic medical schools receive a “Doctor of Medicine” degree, signified by the initials M.D. after their name. While based on an educational curriculum very similar to allopathic medical schools, **osteopathic medicine** involves additional training in osteopathic musculoskeletal manipulative principles and techniques and emphasizes a holistic view of the patient. Physicians trained in osteopathic medical schools receive a “Doctor of Osteopathy” degree, signified by the initials D.O. after their name.

Admission requirements or recommendations to most medical schools (allopathic or osteopathic) include the following:
- Bachelors degree from an accredited College/University (any major)
- Appropriate pre-requisite coursework
- GPA 3.4 or higher preferable (accepted students usually have higher GPAs)
- Satisfactory MCAT scores (Medical College Admission Test)
- College academic transcripts
- Shadowing, patient contact or volunteer experience (recommended)
- Undergraduate research experience (recommended)
- Recommendations.

Application to medical school occurs through a centralized application service. Students applying to allopathic medical schools apply via AMCAS – the American Medical College Application Service, with the exception of medical schools in Texas. Application to these schools is through TMDSAS – the Texas Medical and Dental Schools Application Service. Students applying to osteopathic medical schools apply via ACOMAS – the American Colleges of Osteopathic Medicine Application Service.
## Pre-Medicine (M.D./D.O.) Admission Course Prerequisites

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Recommended BC Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inorganic Chemistry (+ lab)</td>
<td>CHM 131: Accelerated General Chemistry</td>
</tr>
<tr>
<td></td>
<td>CHM 311: Quantitative Analysis</td>
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<tr>
<td>Organic Chemistry (+ lab)</td>
<td>CHM 221: Organic Chemistry I</td>
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<tr>
<td></td>
<td>CHM 222: Organic Chemistry II</td>
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<tr>
<td>Biology (+lab)</td>
<td>BIO 110: Modern Biology</td>
</tr>
<tr>
<td>(2 yrs. recommended)</td>
<td>BIO 323: Human Physiology**</td>
</tr>
<tr>
<td></td>
<td>BIO 330: Genetics**</td>
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<tr>
<td></td>
<td>BIO 441: Cell &amp; Molecular Biology*, **</td>
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<tr>
<td>Physics (+ lab)</td>
<td>PHY 217: Physics I</td>
</tr>
<tr>
<td></td>
<td>PHY 218: Physics II</td>
</tr>
<tr>
<td>Mathematics (1 year)</td>
<td>MAT 115: Algebra with Modeling</td>
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<tr>
<td></td>
<td>MAT 125: Trigonometry with Applications</td>
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<tr>
<td></td>
<td>MAT 135: Calculus</td>
</tr>
<tr>
<td>English/Composition (1 year)</td>
<td>Satisfied by BC General Education</td>
</tr>
<tr>
<td></td>
<td>Courses GSTR 110 &amp; GSTR 210</td>
</tr>
</tbody>
</table>

## VERY Strongly Recommended Courses

- **Biochemistry**, **Microbiology**, **Embryology**, **Histology**
- **Social Science** (2 or more terms)

- CHM 340: Biochemistry I (biomolecules)
- CHM 440: Biochemistry II (metab. pathways)
- BIO 222: Microbiology
- BIO 331: Developmental Biology
- BIO 306: Histology & Histotechniques
- PSY 100: General Psychology
- PSY 209: Social Psychology
- SOC 100: Sociology for Everyday Life

*Increased emphasis on new MCAT V exam
** Recommended by many medical schools based on recent curriculum changes
Some medical schools require or recommend one of more of the following courses. The Pre-Medical Advisory Committee recommends considering the (***)-noted courses in light of the additional Social Science and Critical Thinking emphasis on the new MCAT V exam.

<table>
<thead>
<tr>
<th>Subject/Course</th>
<th>Recommended BC Courses</th>
</tr>
</thead>
</table>
| Anatomy                | BIO 101: Anatomy and Physiology I  
                          | BIO 220: Comparative Vertebrate Anatomy                                                |
| Neuroscience           | BIO 325: Neurobiology  
                          | PSY 212: Behavioral Neuropsychology                                                    |
| Nutrition              | CFS 221: Fundamentals of Nutrition                                                     |
| Psychology***          | PSY 208: Cognitive Psychology  
                          | PSY 209: Social Psychology  
                          | PSY 211: Abnormal Psychology  
                          | PSY 231: Social Gerontology                                                          |
| Sociology***           | SOC 110: Problems of American Institutions  
                          | SOC 132: Introduction to Race in America  
                          | SOC 223: Social Stratification & Inequality                                            |
| Statistics             | ECO 250: Applied Statistics                                                            |
| Child/Family Studies***| CFS 130: Lifespan Human Development  
                          | CFS 207: Family Relations                                                              |
| Health                 | HLT 111: Human Sexuality  
                          | HLT 210: Health in Appalachia  
                          | HLT 215: Significant Issues in Health                                                 |
| Communication          | COM 206: Interpersonal Communication  
                          | COM 207: Intercultural Communication  
                          | COM 305: Interracial Communication  
                          | COM 311: Communication & Gender                                                     |
| Philosophy***          | PHI 100: Introduction to Philosophy  
                          | PHI 214: Approaches to Ethics  
                          | PHI 250: Minds, Brains and Machines                                                  |
| Women & Gender         | WSG 236: Women & Health  
                          | WSG 366: Cross-cultural Perspectives on Family  
                          | WGS 220: Gender in Appalachia  
                          | SOC 325: Gender and Sex Roles                                                        |
| Art                    | ART 118: Drawing                                                                     |
# Professional Society Information & Links

## Allopathic Medical Colleges [MD]

American Association of Medical Colleges (AAMC)  
[www.aamc.org](http://www.aamc.org)

AAMC Students, Applicants, Residents  
[https://students-residents.aamc.org/](https://students-residents.aamc.org/)

AAMC Medical College Admission Test (MCAT)  
[https://students-residents.aamc.org/applying-medical-school/taking-MCAT-exam](https://students-residents.aamc.org/applying-medical-school/taking-MCAT-exam)

AAMC Fee Assistance Program  
[https://students-residents.aamc.org/](https://students-residents.aamc.org/)  
(Click on “Applying to Medical School” link. Under “Applying to Medical School: Understanding the Process” heading, click on “Fee Assistance Program” link.

AMCAS (Association of Medical Colleges Application Service)  
[https://students-residents.aamc.org/](https://students-residents.aamc.org/)  
(Click on “Applying to Medical School” link. Under “Applying to Medical School: Understanding the Process” heading, click on “Applying to Medical School with AMCAS” link.

## Osteopathic Medical Colleges [DO]

American Association of Colleges of Osteopathic Medicine (AACOM)  
[www.aacom.org/home](http://www.aacom.org/home)

AACOM Osteopathic Medicine  
[www.aacom.org/become-a-doctor](http://www.aacom.org/become-a-doctor)

AACOM Applying to Osteopathic Medical College  
[www.aacom.org/become-a-doctor/applying](http://www.aacom.org/become-a-doctor/applying)

Medical College Admission Test (MCAT)  
[https://students-residents.aamc.org/applying-medical-school/taking-MCAT-exam](https://students-residents.aamc.org/applying-medical-school/taking-MCAT-exam)

Fee Assistance Program  
[https://students-residents.aamc.org/](https://students-residents.aamc.org/)  
(Click on “Applying to Medical School” link. Under “Applying to Medical School: Understanding the Process” heading, click on “Fee Assistance Program” link.

AACOMAS (American Association of Colleges of Osteopathic Medicine Application Service)  
[www.aacom.org/become-a-doctor/applying/aacomas](http://www.aacom.org/become-a-doctor/applying/aacomas)