Career Description

- Two types of programs—allopatic medicine (M.D.) and osteopathic medicine (D.O.) are available to become a physician. The credentials, training, jobs, and available specialties are the same for both.
- Allopathic and osteopathic physicians use a biological approach to healing. Physicians diagnose, treat, and work to prevent human illness and injury.
- They perform examinations, analyze medical histories, order and interpret diagnostic tests and develop treatment plans.
- Allopathic and osteopathic physicians are very similar in their approach to working with patients and the differences between them are more historical than current practice.
- The osteopathic approach is patient oriented and uses a somewhat more holistic approach than allopathic medicine. Osteopathic medicine also incorporates a treatment modality—Osteopathic Manipulative Medicine (OMM)—which is a form of musculo-skeletal manipulation that is used both for diagnosis and treatment.
- MDs and DOs practice in all the same specialties. Work is in progress to combine the two types of residencies.
- Purdue University is one of the locations for the Indiana University School of Medicine. Marian University houses the osteopathic medical school in the state.

Becoming a Physician

- Students should complete a bachelor’s degree in a field of their choice along with necessary prerequisite courses.
- Medical school is a four year program followed by on the job training (residency) which will last 3-8 years. Subspecialization is accomplished through fellowships which can last several more years.
- MDs and DOs are licensed by the state after passing an examination.
- Physicians must also pass board exams for certification in specialty areas.

Preparation

- Observe physicians to make sure this is the right field for you and that you truly understand what it means to be an allopathic or osteopathic physician.
- Medical schools will also want to see you can handle a heavy course load while being active in extracurricular activities, providing community service, and gaining medical experience.
- While each medical school determines the courses it will require, the required courses are relatively standard and similar to the list below.
- All required courses must have a minimum grade of C.
- Other than Biochemistry, which is one semester and does not require a lab, the science requirements are typically 8-10 credit hours with two of those hours being lab.

Common Prerequisite Courses (pre-reqs determined by each medical school but similar to this list)

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Purdue Equivalents (specific courses may vary by major)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Biology with lab</td>
<td>BIOL 11000-11100 or BIOL 13100 &amp; BIOL 23100 &amp; 23200 (lab) or BIOL 23000 &amp; upper level biology (including 2 hours of lab)</td>
</tr>
<tr>
<td>Anatomy &amp; Physiology (recommended for the MCAT)</td>
<td>BIOL 20300-20400 or BIOL 30100-30200</td>
</tr>
<tr>
<td>General Chemistry with lab</td>
<td>CHM 11500-11600 or CHM 12500-12600 or CHM 12300-12400 or CHM 13600 or CHM 12901 (CHM 11500 credit exam recommended along with CHM 12901)</td>
</tr>
<tr>
<td>Organic Chemistry with lab</td>
<td>CHM 25500-25600 or CHM 26100-26200 or CHM 26505-26605 or MCMP 20400-20500</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>CHM 33300 or CHM 33900 or CHM 53300 or BCHM 30700 or CHM 56100 or MCMP 20800</td>
</tr>
<tr>
<td>Physics with lab</td>
<td>PHYS 22000-22100 or PHYS 23300-23400 or PHYS 21800-21900 or PHYS 17200-27200 or PHYS 17200 &amp; 24100* (may need 1 hr lab such as PHYS 25200)</td>
</tr>
<tr>
<td>English (if required usually need 2 semesters)</td>
<td>ENGL 10600 or ENGL 10800 or SCLA 10100 and another English course with strong writing component (either writing or literature)</td>
</tr>
<tr>
<td>Psychology (1 semester)</td>
<td>PSY 12000</td>
</tr>
<tr>
<td>Sociology (1 semester)</td>
<td>SOC 10000 or higher level sociology course (Anthropology is also acceptable)</td>
</tr>
<tr>
<td>Statistics (recommended)</td>
<td>A course in statistics is recommended</td>
</tr>
<tr>
<td><strong>Pre-Med Planning Seminar (optional)</strong></td>
<td><strong>BIOL 39600 is a 0 credit 10 week class covering how to apply to medical school and other health professions programs</strong></td>
</tr>
</tbody>
</table>
Student Organizations: American Medical Student Association, Caduceus Club

Research Programs

MD Programs
*Medical School Admission Requirements* (MSAR) available online for an annual fee ($28.00 as of August 2017)
https://www.aamc.org/students/applying/requirements/msar/

DO Programs
*Osteopathic Medical College Information Book* available free online

Applying

- Medical programs are very competitive. Schools look for well-rounded students with interesting experiences.
- Competitive applicants have:
  - Strong academic performance including a grade point average (GPA) of 3.6 or better
  - High scores on the MCAT (508 and above for MD and 505 and above for DO)
  - Leadership, teamwork, and communication skills
  - Undergraduate research experience
  - Volunteer and shadowing experiences
  - Strong positive letters of recommendation (mostly from faculty)
- Students apply for MD programs through an online application system called AMCAS.
- DO programs use an application system called AACOMAS.
- Students applying to MD and/or DO programs in Texas need to use a system called TMDSAS.

Fee Assistance

- [MCAT & AMCAS Fee Assistance through the AAMC](https://students-residents.aamc.org/applying-medical-school/applying-medical-school-process/fee-assistance-program/)
- [AACOM Financial Aid and Scholarships](http://www.aacom.org/become-a-doctor/financial-aid)
- [AACOMAS Fee Assistance Waiver](http://www.aacom.org/become-a-doctor/applying/fee-waiver)

Employment Outlook

- The government projects shortages of doctors in the next 30 years.
- Primary care physicians are especially in demand.
- While income varies by specialty, location, and hours worked, the median income for all MDs and DOs is about $208,000.
- According to the Bureau of Labor Statistics, job growth in medicine is expected to grow 13% by 2026.

Programs in Indiana

- [Indiana University School of Medicine](https://medicine.iu.edu/) Indianapolis, IN
- [Marian University College of Osteopathic Medicine](https://www.marian.edu/osteopathic-medical-school) Indianapolis, IN

More Information

- [American Association of Medical Colleges](https://www.aamc.org/) *(includes info on AMCAS, MCAT, MSAR)*
- [American Medical Association](http://www.ama-assn.org/ama)
- [American Association of Colleges of Osteopathic Medicine](http://www.aacom.org)
- [American Osteopathic Association](http://www.osteopathic.org/)
- [TMDSAS](http://www.utsystem.edu/tmdsas) (for applications in Texas)

Other Careers to Consider

- Physician Assistant
- Nurse Practitioner
- Anesthesiologist Assistant
- Pathologists’ Assistant

Information for this career guide came from the above websites, those of individual schools, the Bureau of Labor Statistics