

- Two types of programs—allopathic medicine (M.D.) and osteopathic medicine (D.O.)—train students to become physicians. The credentials, training, jobs, and available specialties are the same for both.
- Physicians diagnose, treat, and work to prevent human illness and injury. Allopathic and osteopathic physicians both use a biological approach to healing.
- 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 holistic approach to care. 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. The residency system has now been combined.
- Purdue University is one of nine locations for the Indiana University School of Medicine. The main campus is in Indianapolis. Marian University houses Indiana's only osteopathic medical school in Indianapolis.

## Education & Licensure

- You should complete a bachelor's degree in a major of interest to you along with the prerequisite courses (below).
- Medical school is generally a four-year program followed by on-the-job training (residency) which lasts 3-7 years depending on specialty. Subspecialization is accomplished through fellowships following the residency which can last several more years.
- MDs and DOs are licensed nationally and by the state in which they practice.
- 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. Gaining additional volunteer or work experience in clinical settings is valuable to understanding healthcare delivery.
- Medical schools will 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. The sequence you take will depend on your major.
- Many schools require a minimum grade of a C in all required courses.
- Other than biochemistry, which is one semester and does not require a lab, the core science requirements are typically 8-10 credit hours with two of those hours being lab (gen bio, gen chem, organic chem, and physics).

**Common Prerequisite Courses** (required courses determined by each medical school but similar to this list)

Requirements	Purdue Equivalents (specific courses may vary by major & campus)
General Biology with lab	BIOL 11000-11100 or BIOL 13100 & BIOL 23100 & 23200 (lab) or BIOL 23100 and ABE 22600* & upper-level biology (including additional lab) or BME 29500* & BME 32001* or BME 35400* plus additional upper-level biology (including additional lab).
Anatomy & Physiology (recommended)	BIOL 20300-20400 ( <del>BIOL 30100-30200</del> )
General Chemistry with lab	CHM 11510 with lab-CHM 11610 with lab or CHM 12500-12600 or CHM 13600 or CHM 12901 (Students may earn 11500 credit through their course sequence of 12901, CHM 25500-25600, & CHM 33900. CHM 11500 credit exam along with CHM 12901 also option)
Organic Chemistry with lab	CHM 25500-25600 or CHM 26100-26200 or CHM 26505-26605 or PHSC 20400-20500 (formerly MCMP)
Biochemistry	BCHM 30700 or BCHM 56100 or CHM 33900 or CHM 43300 or PHSC 20800 ( <del>CHM 33300, CHM 53300</del> )
Physics with lab	PHYS 22000-22100 or PHYS 23300-23400 or PHYS 17200-27200 or PHYS 17200 & 24100 (may need 1 hr lab such as PHYS 25200) or ENGR 16100-16200*
English (if required usually need 2 semesters)	ENGL 10600 or ENGL 10800 or SCLA 10100*; plus another English course with strong writing component (either writing or literature course)
Psychology (1 semester)	PSY 12000
Sociology (1 semester)	SOC 10000 or higher level sociology course (Anthropology is also acceptable)
Statistics (recommended)	A course in statistics is recommended
<b>Pre-Med Planning Seminar (optional)</b>	<b>BIOL 39600 is a 0 credit 10-week class covering how to apply to medical school</b>
*Ask individual medical schools if they will accept these courses toward their requirements; <del>Courses no longer offered.</del>	

**Student Organizations:** Caduceus Club (Purdue's Pre-Medicine & Pre-Health Club)

## Program Information Resources

### MD Programs

[Medical School Admission Requirements](https://store.aamc.org/medical-school-admission-requirements-msar-for-u-s-and-canadian-medical-schools-online.html) (MSAR) available online for an annual fee (\$28 for 1 year, \$36 for 2 years)  
<https://store.aamc.org/medical-school-admission-requirements-msar-for-u-s-and-canadian-medical-schools-online.html>

### DO Programs

[Choose DO Explorer Searchable Database](https://www.aacom.org/become-a-doctor) is also available for free. <https://www.aacom.org/become-a-doctor>

## Applying

- Medical programs are 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 (509 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 through AACOMAS; and Texas programs (both MD and DO) through TMDSAS.
- AMCAS, TMDSAS, AACOMAS all open in May and should be submitted in June or July for best results.
- Many factors will influence where you choose to apply. You do need to include the public school(s) where you are an in-state resident as this is often your best chance of admission.

## Fee Assistance

- [MCAT & AMCAS Fee Assistance through the AAMC](https://students-residents.aamc.org/applying-medical-school/applying-medical-school-process/fee-assistance-program/) <https://students-residents.aamc.org/applying-medical-school/applying-medical-school-process/fee-assistance-program/>
- [AACOM Financial Aid and Scholarships](https://www.aacom.org/become-a-doctor/financial-aid-and-scholarships) <https://www.aacom.org/become-a-doctor/financial-aid-and-scholarships>
- [AACOMAS Fee Assistance Waiver](https://www.aacom.org/become-a-doctor/how-to-apply-to-osteopathic-medical-college/application-fee-waiver) <https://www.aacom.org/become-a-doctor/how-to-apply-to-osteopathic-medical-college/application-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 \$239,200. Job growth in medicine is expected to grow 3% by 2032, according to the [Bureau of Labor Statistics](https://www.bls.gov/ooh/healthcare/physicians-and-surgeons.htm)  
<https://www.bls.gov/ooh/healthcare/physicians-and-surgeons.htm>.

## Programs in Indiana

- [Indiana University School of Medicine](https://medicine.iu.edu/md) Indianapolis | <https://medicine.iu.edu/md>
- [Marian University College of Osteopathic Med](https://www.marian.edu/osteopathic-medical-school) Indianapolis | <https://www.marian.edu/osteopathic-medical-school>

## More Information

- [Association of American Medical Colleges](https://www.aamc.org/) <https://www.aamc.org/> (includes info on AMCAS, MCAT, MSAR)
- [American Medical Association](https://www.ama-assn.org/) <https://www.ama-assn.org/>
- [American Association of Colleges of Osteopathic Medicine](https://www.aacom.org/) <https://www.aacom.org/> (includes links to AACOMAS)
- [American Osteopathic Association](https://osteopathic.org/) <https://osteopathic.org/>
- [TMDSAS](https://www.tmdsas.com/) (for applications in Texas) <https://www.tmdsas.com/>

## Other Careers to Consider

Physician Assistant · Nurse Practitioner · Anesthesiologist Assistant · Podiatrist · Chiropractor · Naturopathic Physician

## Preparing for your Giant Leap

[purdue.edu/preprofessional](https://purdue.edu/preprofessional)