

Your Path to Becoming a Medical Doctor

AT THE UNIVERSITY OF IOWA



OUR MISSION IS SIMPLE: CHANGING MEDICINE. CHANGING LIVES. AT THE CARVER COLLEGE OF MEDICINE, WE DO THAT BY INSPIRING AND EDUCATING STUDENTS TO BECOME WORLD-CLASS HEALTH CARE PROVIDERS AND SCIENTISTS FOR IOWA AND THE WORLD.

What Makes Us Different?

Our Curriculum

As a medical student at Iowa, you'll get a lot of hands-on experience, including opportunities to learn from real doctors—and real patients—in hospital or clinic setting.

Our Distinction Tracks

Six distinction tracks allow you to follow your own personal interests and career goals.

We're an Academic Medical Center

Being an academic medical center means that we teach and train future doctors and scientists, take care of patients, and do medical research. As a student, you'll get the opportunity to work and learn with some of the top medical experts in the world.

You'll Be Part of a Community

Being a doctor means being part of a health care team. Our Learning Communities allow you to work with other students, become a leader, and gain experience beyond the classroom or clinic.



Types of Doctors

Medicine offers a lot of career choices. Many doctors treat patients full-time, while others also teach, conduct research, manage hospitals and clinics, or help develop health policy. There is no single road to becoming a doctor, but most medical career paths share key characteristics.

Doctors fall into two main groups: primary care doctors and specialists.

Primary Care Doctors

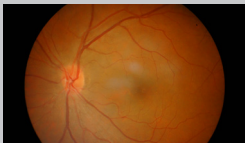
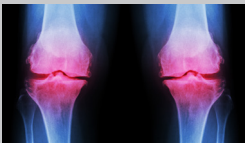
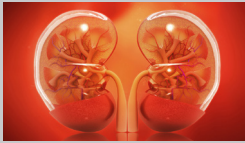
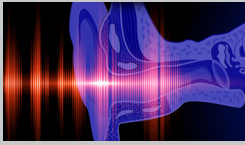
The term “primary care” refers to the medical fields that treat most common health problems: family medicine, general internal medicine, pediatrics (children’s health), and in some cases obstetrics and gynecology (women’s health).

Specialists

Specialists concentrate on diseases or problems that affect specific parts of the body. They may treat patients with complicated illnesses who are sent to them by primary care doctors or other specialists.

Types of Degrees

Whatever their focus, all doctors must hold one of two degrees. Most have an MD (doctor of medicine) degree, and some hold a DO (doctor of osteopathy) degree. The two types of degrees reflect different theories and practices of medicine – allopathy and osteopathy – but medical licensing authorities recognize both training paths. Besides the MD, doctors may hold other degrees, like a PhD (doctor of philosophy) or master’s degrees in the sciences or in fields like public health or hospital administration.



Medical Specialties

Some of the most common medical specialties and their areas of emphasis are:

Allergy and Immunology: allergies and other disorders involving the immune system

Anesthesiology: administration of medications (anesthetics) to prevent pain or induce unconsciousness during surgery or other procedures

Cardiovascular Diseases (Cardiology): heart and blood vessels

Dermatology: skin, hair, and nails

Emergency Medicine: illness or injuries that require immediate medical attention

Endocrinology: internal glands, such as thyroid and adrenal glands, and diseases such as diabetes

Family Medicine: general care of illnesses and injuries

Gastroenterology: digestive tract (stomach, intestines, liver, gallbladder, and related organs)

Hematology: blood and blood-forming parts (such as bone marrow) of the body

Internal Medicine: diagnosis and nonsurgical treatment of diseases in adults

Nephrology: kidneys

Neurology: brain, spinal cord, and nerves

Obstetrics and Gynecology: women’s health, pregnancy, and childbirth

Oncology: cancer as well as other types of tumors

Ophthalmology: eyes and vision

Orthopedics: muscles, bones, and joints

Otolaryngology: ears, nose, and throat

Pathology: examination and diagnosis of organs, tissues, and body fluids

Pediatrics: the care of children from birth to young adulthood

Psychiatry: mental, emotional, and behavioral disorders

Pulmonology: lungs and chest

Radiology: study and use of various types of radiation, including X-rays, and imaging systems in the diagnosis and treatment of disease

Rheumatology: joints, muscles, and tendons, including arthritis

Surgery: treatment of injuries or disorders by incision or manipulation with instruments

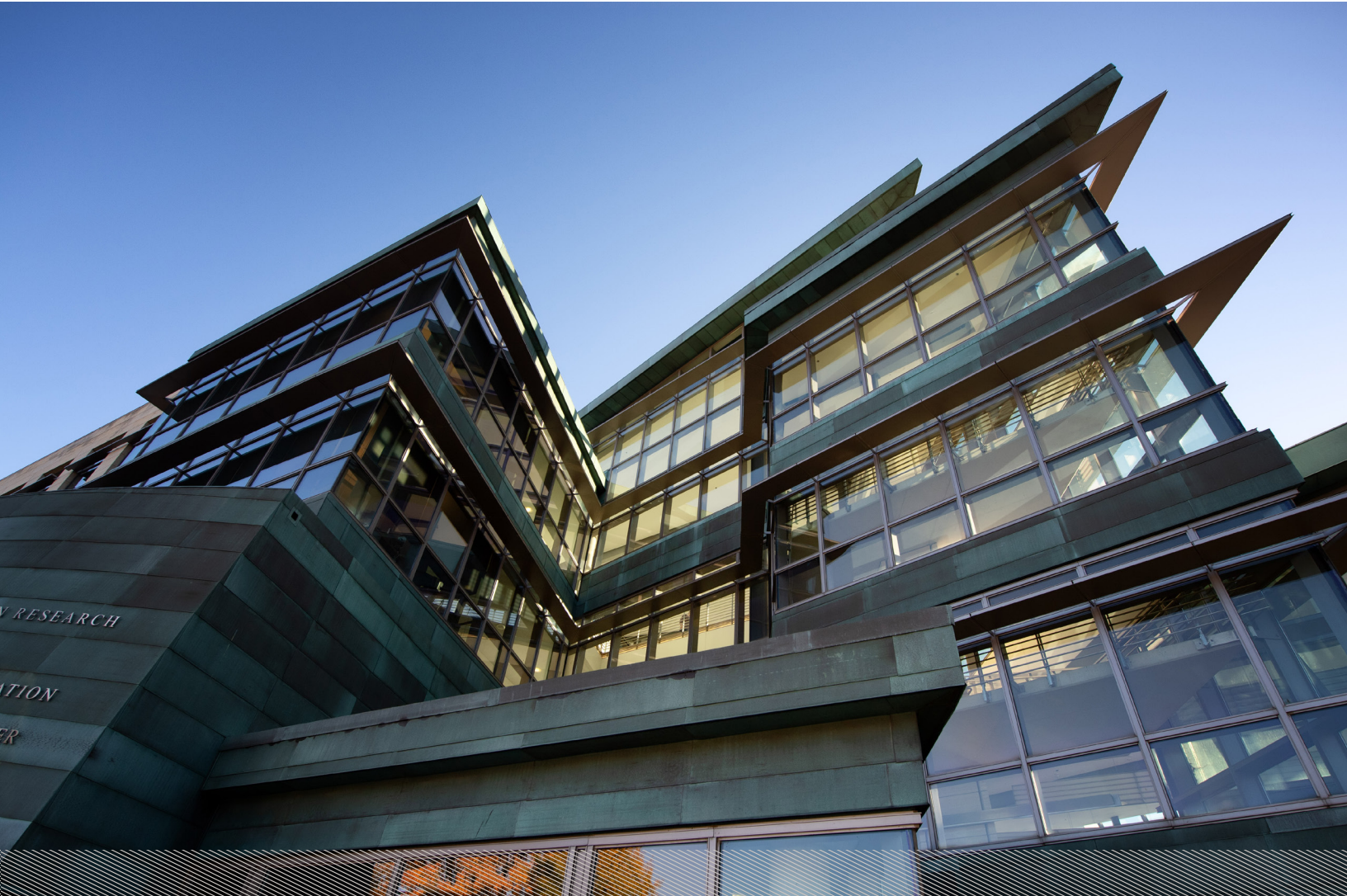
Urology: kidneys, adrenal glands, ureters, bladder, urethra, and male reproductive organs

Our Academic Medical Center

University of Iowa Health Care is the only academic medical center in Iowa. It is made up of the UI Roy J. and Lucille A. Carver College of Medicine, UI Hospitals & Clinics, UI Stead Family Children’s Hospital, UI Physicians, and other university units.

While students can learn basic principles in the classroom, their education could never be complete without clinical experience—that is, working with doctors and other members of the health care team, and seeing real patients.

Doctors who work in academic medicine have several roles. At the University of Iowa, many of our faculty teach and do research in Carver College of Medicine and also take care of patients at UI Hospitals & Clinics.





Traditional Timeline to Become a Doctor

- **4 years** undergraduate school (bachelor's degree)
- **4 years** medical school
- **3 to 5 years** specialty training (medical residency)
- **1 to 3 years** fellowship training (additional training in a medical specialty)

“AS A PHYSICIAN, YOU INTERACT WITH PATIENTS AT A VERY UNIQUE AND SIGNIFICANT TIME IN THEIR LIFE AND ARE ABLE TO HELP THEM IN A MEANINGFUL WAY.”

Applying to Medical School

When applying to medical school, there are important deadlines to keep in mind. The exact dates change every year but following is a general timeline.

May: American Medical College Application Service (AMCAS) process opens

June: AMCAS application submission begins

July: Secondary application opens

September: Final Medical College Admission Test (MCAT) test date of the year

September: Interviews begin

November: AMCAS application deadline

December: Secondary application deadline

January: Interviews end

March: All final admissions decisions

August: MD orientation and White Coat Ceremony



Medical school

The path to becoming a doctor officially begins with medical school, which typically takes four years to complete.

Make no mistake: Medical school is not easy. It’s challenging, but it’s also rewarding. To do well, you must be able to analyze information and solve problems, work with others, communicate clearly, show good judgment, and make decisions under pressure.

You must have a sincere interest in medicine and serving your patients and community. You should reach for excellence and be committed to doing the work needed to complete the MD program.

Educational Background

UI medical students come from a wide range of backgrounds, though all begin medical school after completing at least a bachelor’s degree program at a college or university. Some studied sciences, while others majored in liberal arts or humanities. There is no preference of major as long as the required science courses are completed.

Many students go straight to medical school after completing their bachelor’s degree, but some turn to medicine after years in other careers.

Taking a “gap” year before applying to medical school is also very common. This allows you to gain real-world experience, study for the MCAT, prepare for the application process, and save money before entering medical school.

MCAT

Admitted students tend to have records of high academic achievement, including good scores on the Medical College Admission Test (MCAT), a national examination that all medical school applicants must take.

Typical Medical School Class

Like other medical schools, the UI Carver College of Medicine actively recruits students who reflect the diverse communities they will serve.

Learn more: medicine.uiowa.edu/md

USMLE

Throughout medical school, you must take the United States Medical Licensing Examination (USMLE), a three-part test that all doctors must pass in order to practice medicine in the United States or Canada. The USMLE covers basic medical principles, clinical diagnosis and disease development, and clinical management.

Selecting a Specialty

You will make important career decisions as you reach the final years of medical school. You will choose the medical specialty in which you plan to practice and begin applying to graduate medical education programs, also referred to as residencies.

Students often do not know what specialty they want to practice until they are exposed to a variety of areas in their clinical clerkships. Clerkships give you exposure to a range of areas to better decide which specialty is best for you.

Match Day

Most students secure residency positions through the National Resident Matching Program, which pairs the top choices of students and residency program directors nationwide. These pairings are simultaneously announced at schools across the country every March on “Match Day.” It reveals where you will spend the next several years of your education.

Learn more: medicine.uiowa.edu/md

Curriculum Highlights

The medical curriculum at the UI Carver College of Medicine is divided into preclinical and clinical components. The goal is to help you develop attitudes, skills, and knowledge that will help you throughout your career as a doctor.

Preclinical

The first three semesters of study are devoted to preclinical themes: Mechanisms of Health and Disease, Medicine and Society, and Clinical and Professional Skills.

These themes wind through all four years of medical school, giving you the right balance of scientific knowledge and patient care experience.

Clinical

Clinical clerkships begin in the fourth semester—a semester earlier than most other medical schools. For more than two years, you will receive supervised, hands-on clinical training at the bedside and in outpatient settings.

This allows you to develop your ability to interact with patients and other medical professionals—nurses, pharmacists, therapists, and others—while acquiring general medical knowledge. During your last three semesters, you may tailor your educational experiences to fit your career choice.

TYPICAL MEDICAL SCHOOL CLASS

150 average class size	70% are Iowa residents	50% are women	“I WANT TO PROVIDE HEALING AND COMFORT TO PATIENTS WHEN THEY ARE SICK OR INJURED.”
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Medical School:

A sample year-by-year breakdown

Year 1

Milestone: Completion of Orientation and participation in the White Coat Ceremony

Courses:

- Gross anatomy
- Social determinants of health
- Foundations of cellular life
- Human energy and genetics
- Public health and epidemiology
- Microbiology
- Neuroscience
- Physiology
- Abnormal development and disease

Year 2

Courses:

- Advanced clinical reasoning
- Health services organization and delivery
- Transition from classroom instruction to clinical practice

Year 3

Milestone: USMLE Step 1

Courses:

- **Core clerkships:** ambulatory practice, inpatients internal medicine, obstetrics and gynecology, surgery, neurology, psychiatry
- **Selectives:** anesthesia, dermatology, ophthalmology, orthopedics, otolaryngology, radiology, urology

Year 4

Milestones: USMLE Step 2, residency interviews, Match Day, Graduation

Courses:

- Advanced clerkships

Distinction tracks

Our distinction tracks give you the opportunity to learn outside and beyond the required medical school curriculum. The tracks represent ways for you to follow your own personal interests and career goals.

- Global Health Distinction Track
- Healthcare Delivery Science and Management Track
- Humanities Distinction Track
- Research Distinction Track
- Service Distinction Track
- Teaching Distinction Track

“THE PHYSICIAN’S ABILITY TO DIAGNOSE AND CARE FOR MY SISTER INSPIRED ME TO PURSUE A CAREER IN MEDICINE.”

Medical Scientist Training Program

If you are interested in biomedical research, the Medical Scientist Training Program (MSTP) offers you the opportunity to earn both MD and PhD degrees. The MSTP typically gives you the education and training to work as both a doctor and scientist.

About 10 students enter this program each year.

Program Affiliations

Admitted students tend to have records of high academic achievement, including good scores on the Medical College Admission Test (MCAT), a national examination that all medical school applicants must take.

The entire process takes seven to eight years, and then your residency and fellowship will depend on the specialty you select.

After earning your joint degree, you may choose to begin a clinical residency program. Students often go on to apply this combined clinical and research experience to careers as faculty members at academic medical centers.

Learn more: medicine.uiowa.edu/mstp

EDUCATIONAL COMMITMENT/TIMELINE

- **2 YEARS**
MD curriculum with other medical students and research rotations
- **3 to 4 YEARS**
PhD coursework and research
- **2 YEARS**
MD clinical clerkships
- **3 to 5 YEARS**
Residency
- **1 to 3 YEARS**
Fellowship



Sample Residency Lengths

Following are residency lengths for selected specialties:

- Emergency medicine — three years
- Family medicine — three years
- Pediatrics — three years
- Internal medicine — three years

- Anesthesiology — four years
- Dermatology — four years
- Neurology — four years
- Obstetrics and gynecology — four years
- Ophthalmology — four years
- Pathology — four years
- Psychiatry — four years
- Radiology — four years

- Orthopedic surgery — five years
- Otolaryngology — five years
- Pediatric subspecialties — five years total
- Urology — five years
- Surgical subspecialties — six to seven years

Learn more: gme.medicine.uiowa.edu



Graduate Medical Education

Upon graduating from medical school, you have earned your MD degrees, but your education isn’t finished.

Residency

After medical school comes your medical residency—usually at a hospital—where you will pursue advanced training in the specialty of your choice. Residency is the time when you learn the full responsibility of being a doctor.

Residencies can last three to five years, depending on the specialty. You must complete a residency to become certified in a given medical field.

Like medical school, residency programs are selective and often competitive. Unlike medical school, they offer salaries and benefits.

Residency application requirements

- Formal application
- Letters of recommendation
- Personal interview

Resident responsibilities

- Treating patients
- Teaching less-experienced colleagues
- Completing paperwork

Resident rank

Intern: first year of postgraduate medical education

Junior resident: second or third year of residency

Senior resident: third, fourth, or fifth year of residency

Chief resident: a doctor who has completed their residency and is charged with overseeing daily operations

Fellowship

Doctors who seek even more specialized training may pursue a fellowship after their residency.

Certification

Once your education and training are completed, you may pursue certification in your chosen specialty. National specialty and subspecialty boards establish criteria that doctors must meet to be certified in a given field. You must demonstrate that you have completed training and pass a written examination. Some boards require an oral examination as well.

Medical licensure

Medical licensure is a separate process governed by boards established by each state. Procedures may vary, depending on where you plan to practice.

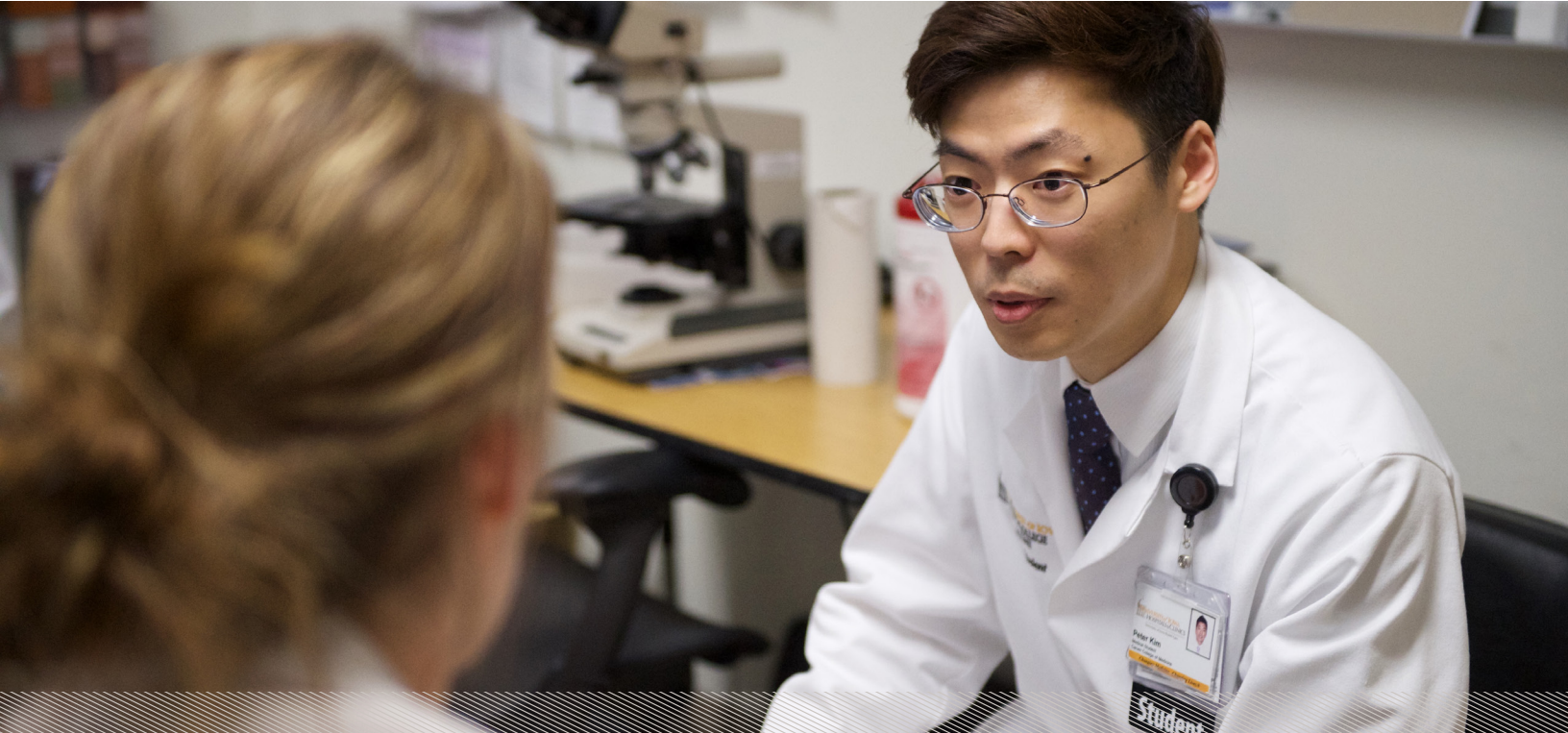
Continuing Education

Even after you complete postgraduate training and start practicing medicine, you must continue your education throughout your career. With the pace of change in medicine, continuing education programs are especially important.

Requirements

Continuing education requirements vary from state to state. To practice in Iowa, you must complete 40 hours of certified courses every two years to renew your medical license.

“THIS FIELD WILL ALLOW ME TO CONTINUALLY LEARN, GROW, AND IMPROVE AS I CONTINUE TO HELP THOSE IN NEED.”





Oath of Hippocrates

I do solemnly swear by that which I hold most sacred:

That I will be loyal to the profession of medicine and just and generous to its members; that I will lead my life and practice my art in uprightness and honor; that into whatsoever house I shall enter, it shall be for the good of the sick to the utmost of my power, I, holding myself aloof from wrong, from corruption, and from the temptation of others to vice; that I will exercise my art solely for

the cure of my patients, and will give no drug, perform no operation for a criminal purpose, even if solicited, and far less suggest such a thing; that whatsoever I shall see or hear of the lives of others which is not fitting to be spoken, I will keep inviolably secret.

These things I do promise, and in proportion as I am faithful to this, my oath, may happiness and good repute be ever mine—the opposite if I shall be forsworn.

