



DREXEL UNIVERSITY  
College of  
Medicine

# CATALOG

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# Table of Contents

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- About the College of Medicine ..... 2
  - Medicine (MD) ..... 3
    - Course Descriptions ..... 4
- Index ..... 5



# About the College of Medicine

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## Overview

Renowned for its innovative, student-centered educational programs, Drexel University College of Medicine (<http://www.drexelmed.edu>) (DUCOM) is the consolidation of two venerable medical schools with rich and intertwined histories: Hahnemann Medical College and Woman's Medical College of Pennsylvania. Established in 1848 and 1850, respectively, they were two of the earliest medical colleges in the United States, and Woman's was the very first medical school for women in the nation.

Today, there are over 1,000 medical students. There are some 625 residents, 700 clinical and basic science faculty, and more than 2,000 affiliate and other non-compensated faculty.

Within the College of Medicine, The School of Biomedical Sciences and Professional Studies (<http://catalog.drexel.edu/graduate/schoolofbiomedicalsciences>) offers an additional 23 majors and 8 professional certificates.

## Major

- Medicine (MD) (p. 3)

## About the College of Medicine

### Mission Statement

Drexel University College of Medicine excels and innovates in education, research, and delivery of compassionate care in our culture of diversity, spirited inquiry, collaboration, and opportunity.

### About the College

The College of Medicine's main campus, Queen Lane, is in a suburban-like setting in the East Falls section of Philadelphia. Additional facilities are located at the Center City campus, next to Hahnemann University Hospital. Our Pediatrics Department is at St. Christopher's Hospital for Children, and the Psychiatry Department is based at Friends Hospital. Students can receive clinical education at more than 20 affiliated hospitals and ambulatory sites chosen for their commitment to teaching as well as medical excellence. The College of Medicine is renowned for its innovative educational programs, enhanced by the use of technology that permeates all components of the curriculum.

The College's medical practice, Drexel Medicine®, is a patient-focused practice emphasizing quality, innovation and community service, and enhanced by physician involvement in the research and educational programs.

Collaborative projects leveraging Drexel University's technological expertise continue to push the frontiers of nanomedicine and neuroengineering. The College of Medicine is a major regional center for spinal cord research, and has developed one of the leading centers for malaria study in the nation. Additionally, the College is home to a memory

disorders center dedicated to ground-breaking research in Alzheimer's and related dementias.

Drexel University College of Medicine houses one of eight National Institute on Drug Abuse (NIDA) Centers of Excellence for Physician Information, one of 21 National Centers of Excellence in Women's Health designated by the Department of Health & Human Services, the Executive Leadership in Academic Medicine (ELAM) program, and the Archives and Special Collections on Women in Medicine. It has developed the largest HIV/AIDS primary care practice in the Mid-Atlantic region, with extensive NIH-funded research in prevention and therapeutic intervention. Faculty clinicians are highly respected in numerous other specialties, including cardiology and pain management.

## Facilities

Drexel University College of Medicine is a living laboratory, giving students a broad variety of hands-on experience, enhanced by clinical rotations in hospitals, practicums, and external research opportunities, depending on their program of study. Students in all programs benefit from the College's physical plant, which offers some of the most advanced facilities in biomedical, health sciences, and healthcare education. The Queen Lane campus is designed for the purpose of teaching basic sciences and clinical skills in lecture halls, classrooms, small group rooms and a variety of laboratories. The College of Medicine provides wireless Internet access to curricular resources from anywhere on campus. Computers, multimedia technology, and the Internet augment the information and skills students learn from classes, print materials, and on clinical rotations. College of Medicine faculty members have been leaders in developing interactive computer-based learning tools, ranging from biochemical exercises to simulated patients presenting ethical dilemmas. Comprehensive curriculum websites, streaming videos of lectures, and online slide atlases for histology and pathology are all available.

Some of the College's key facilities and their features include:

### Queen Lane Student Activities Center

A 17,700-square-foot student activity center was completed in 2006 at the Queen Lane Campus. The Student Activities Center occupies 2 floors and houses a full line of exercise equipment, a bookstore, student government offices and flexible space for events and lectures. The facility is available to students, staff and groups.

### Queen Lane Medical Simulation Center

The College opened a state-of-the-art simulation center for medical education in 2010. Part of a new 25,000-square-foot addition, the center allows students to learn in simulated operating room and patient room settings.

### Clinical Education Assessment Center

Ten examination rooms with digital capture that simulate physicians' offices are linked to control and observation rooms for faculty. Students work with standardized patients to enhance their abilities in medical interviewing, physical examination skills, and patient counseling.

### Multidisciplinary Laboratories

- Forty-two tables with microscopes for teaching neuroanatomy, microbiology, and pathology are available.

- Microscopes are equipped with a networked video system so that all students in a class can look at a single slide under the microscope through monitors on their lab tables or on a projection screen and can retrieve microscopic images via computer.

### **New College Building**

The New College Building at the Center City Hahnemann campus is designed for the purpose of teaching basic and clinical sciences, with auditoriums, classrooms, laboratories and offices. The lecture halls are designed to accommodate a variety of educational methodologies, spanning from the basic lecture format to the enriched laboratory setting where courses such as Anatomy, Pathology, Microbiology, Histology and Applied Anatomic Pathology can be taught.

### **Libraries**

Drexel University has four libraries to serve the needs of students, faculty and staff. The collections of two libraries – one at Queen Lane and one at Center City – emphasize subjects relevant to the health sciences, with print resources distributed to meet the needs of the programs and departments at each campus, and free document delivery service between the locations.

Computers in the reference areas of each library, and the Microcomputer Centers, provide access to the Libraries' online catalog; to databases (indexes) including MEDLINE, CINAHL, and PsycINFO; to more than 2000 full-text electronic journals, and to online reference resources such as MD Consult and Harrison's Online. Full Internet access is provided for reference and research purposes.

All online resources (databases, electronic journals, etc.) are available to students, staff and faculty who are registered Library users, and can be accessed from off-campus locations. In addition to Internet access, computers in the Microcomputer Centers also provide a broad range of software including word processing, spreadsheet, communications, graphics, and statistics. Computer-assisted instruction and tutorials are available for many curricula-related topics. A plotter and scanner are also available at some locations.

The Library staff is dedicated to providing assistance to students and other library users through on-the-spot reference help, mediated literature searches, and instructional sessions. Guides are available online to help with the use of Library services and resources.

### **Videoconferencing**

Drexel University College of Medicine makes extensive use of videoconferencing between Philadelphia campuses and clinical teaching sites, and the Sacramento campus. There are videoconferencing classrooms with split screen to allow for speakers in different locations.

### **Web-Based Instruction**

Uses of web-based instruction range from providing a supplement to classroom instruction to teaching a whole course remotely. Many instructors post their syllabi on the web, distribute supplementary readings via the web, and set up electronic discussion lists for their students. Having students submit assignments electronically is common practice.

Unique faculty-developed tools, including doc.com, a web-based set of video encounters between physician and patient, help medical students improve their communication skills. DxR, a web-based patient simulation program, trains students in clinical reasoning; and MedEthEx provides an online series of exercises in medical ethics and communication. The recently implemented Web-OSCE, closely linked to doc.com, allows

medical trainees to interview standardized patients remotely and receive performance feedback.

## **The Doctor of Medicine (MD) Program**

### **About the Program**

With its dedication to academic and clinical excellence, Drexel University College of Medicine has earned national recognition as an institution that provides innovation in medical education. Medical students are trained to consider each patient's case and needs in a comprehensive integrated manner, taking into account many more factors than the presenting physiological condition. The medical college is dedicated to preparing "Physician Healers" – doctors who practice the art, science and skill of medicine.

Recognizing that students have different learning styles, students choose between two innovative academic curricula for their first two years of study. Both options focus on professional medical education, preparing students to pursue a career as either a generalist or specialist. Both stress problem solving, lifelong learning skills and the coordinated teaching of basic science with clinical medicine.

Both curricular tracks give early exposure to clinical skills training by using standardized patients to help students learn the art and skill of taking histories, counseling and educating patients, and performing physical exams.

### **The IFM Curriculum**

The Interdisciplinary Foundations of Medicine (<http://webcampus.drexelmed.edu/ifm>) (IFM) curriculum integrates basic science courses and presents them through clinical symptom-based modules. Each first-year module focuses on clinical symptoms and features relevant material from the perspective of several basic and behavioral science disciplines. By the end of the first year, the basic and behavioral science courses have presented their entire core content, integrating it with related material in other disciplines. In the second year, students study basic and clinical sciences using an organ system approach. Students learn in lectures, labs, and small group settings.

### **The PIL Curriculum**

Students who choose the Program for Integrated Learning (<http://webcampus.drexelmed.edu/pil>) (PIL), a problem-based curriculum, learn primarily in small groups which are supervised and facilitated by faculty. There are seven 10-week blocks over the first two years. Each block contains 10 case studies, detailing real patient issues relating to the topics of the block. The cases serve as the stimulus and context for students to search out the information they need to understand, diagnose, and treat clinical problems. Developing the information they need to learn is crucial to the PIL approach. Sharing information, concept mapping, evaluating and giving and receiving feedback are essential facets of the curriculum. Laboratories and lectures complement the case studies

### **Years 3 and 4**

The third year curriculum (<http://webcampus.drexelmed.edu/handbook/clkships/3rdintro.htm>) is devoted to required clinical clerkship rotations in medicine, family medicine, obstetrics and gynecology, pediatrics, psychiatry, and surgery. The clerkships all embody the following principles:

- Common curricular objectives at all sites

- Students spend 30% of their clinical time in expanded ambulatory care experiences
- Each clerkship incorporates the concept of interdisciplinary teaching, with representatives of other departments or service areas
- Each clerkship integrates the teaching of basic sciences into clinical material

All third year clerkships take place in Drexel's affiliated hospitals. Students' assignments for the third year are based on the results of a lottery system.

The fourth-year curriculum (<http://webcampus.drexelmed.edu/handbook/pathways/fourthyr.htm>) is structured in the form of "pathways" – courses that give students a well-rounded educational experience with some focus on potential careers. Students can choose a discipline-specific or generalist pathway. All students have a pathway advisor. The pathway system is structured so that students take both required courses and electives. The required courses include a sub internship in internal medicine, a clerkship in neurology and an additional course specific to the pathway chosen. Students also choose six elective courses, in close consultation with their pathway advisor.

Fourth-year students complete their required courses at Drexel's affiliated hospitals. However, pathway advisors usually advise their students to select electives outside the Drexel system. Additionally, opportunities exist for fourth-year electives at international sites.

For more information, visit the College of Medicine's MD Program (<http://www.drexelmed.edu/TheMDProgram/tabid/87/Default.aspx>) web site.

## Dual Degree Programs

### MD/PhD Program

The MD/PhD program is designed for a limited number of individuals who are strongly motivated toward a career in academic medicine and medically oriented research. The program trains individuals in the fundamental clinical aspects of medicine and offers advanced training in biochemistry, microbiology and immunology, molecular and cellular biology, neuroscience and pharmacology, as well as medical engineering. Physicians with extensive research training are uniquely positioned to advance medical care and to teach at the cutting edge of medical discovery. Tuition scholarships and stipends for medical school and graduate school are provided for a limited number of students.

### MD/MPH

With Drexel's School of Public Health, the College of Medicine offers a joint five-year program for highly qualified students to pursue both the MD and the Master of Public Health degrees. Students are taught to be physicians with a public-health orientation to the development, planning, delivery, and evaluation of health care programs and policies.

### MD/MBA

The MD/MBA degree meets a growing demand by physicians who wish to manage corporate medical practices, hospitals, and related organizations and contribute to the development of health policy. The joint program prepares physicians to apply management principles to individual or group practices or to move into management positions at many types of organizations. Students receive training at both the College of Medicine and at Drexel's A.A.C.S.B. -accredited LeBow College of Business. The program lets students earn both degrees in five years.

For additional information, visit the College's Dual Degrees (<http://webcampus.drexelmed.edu/admissions/dualdegrees.asp>) page.

## Course Descriptions

# Index

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## A

About the College of Medicine ..... 2

## C

Course Descriptions ..... 4

## M

Medicine (MD) ..... 3