

# MEDICAL FIELDS

Medicine, Dentistry, Podiatry, Optometry, Chiropracty, Pharmacy, Physician Assistant, and Veterinary Medicine

## AREAS

## EMPLOYERS

## EDUCATION INFORMATION

### MEDICINE

#### Some Areas of Specialization

- Allergology
- Anesthesiology
- Cardiology
- Dermatology
- Emergency Medicine
- Family and General Practice
- Gastroenterology
- Internal Medicine
- Obstetrics & Gynecology
- Orthopedics
- Pathology
- Pediatrics
- Psychiatry
- Radiology
- Surgery
- Research
- Public Health

- Hospitals
- Clinics
- Private or group practice
- Health networks
- Nursing homes
- Rehabilitation centers
- Mental health institutions
- Federal, state, and local health departments
- Government agencies
- Armed services
- Correctional facilities
- Colleges and universities
- Medical schools
- Large corporations

**Test Required:** MCAT

**Education Required:** After earning an undergraduate degree, the Doctor of Medicine (MD) requires 4 years of medical school, followed by 3-8 years of internship and residency depending on specialization chosen.

Some physicians pursue the Doctor of Osteopathic Medicine (DO) degree. DO's emphasize the body's musculoskeletal system, preventive medicine, and holistic patient care and often work in family and general practices, although they may be found in many specialties.

### DENTISTRY

#### Some Areas of Specialization

- Endodontics
- Oral Pathology
- Oral and Maxillofacial Radiology
- Oral and Maxillofacial Surgery
- Orthodontics
- Pediatric Dentistry
- Periodontics
- Prosthodontics
- Public Health
- Research

- Private practice (80% of dentists)
- Armed services
- Federal, state, and local health departments
- Correctional facilities

**Test Required:** DAT

**Education Required:** After earning an undergraduate degree, the Doctor of Dental Surgery (DDS) or Doctor of Dental Medicine (DMD) requires 4 years of dental school (last 2 years are clinical rotations).

**AREAS**

**EMPLOYERS**

**EDUCATION INFORMATION**

**PODIATRY**

**Some Areas of Specialization**

Surgery  
Orthopedics  
Primary Care  
Sports Medicine  
Pediatrics  
Dermatology  
Radiology  
Geriatrics  
Diabetic Foot Care

Private practice  
Community health clinics  
Hospitals  
Residential and nursing homes  
National Health Service  
Sports clubs  
Some specialty retail chains

**Test Required:** MCAT or GRE

**Education Required:** After earning at least 90 hours of undergraduate course work, the Doctor of Podiatric Medicine (DPM) requires 4 academic years (last 2 years are clinical rotations). After completing the DPM, podiatrists must work a 3 year podiatric medical and surgical residency (PMSR).

**OPTOMETRY**

**Some Areas of Specialization**

Family Practice  
Pediatric Optometry  
Geriatric Optometry  
Vision Therapy  
Contact Lenses  
Hospital-Based Optometry  
Primary Care Optometry  
Ocular Disease  
Public Health  
Research

Private practice  
Physicians' offices  
Retail optical centers  
Hospitals  
Armed services

**Test Required:** OAT

**Education Required:** After earning an undergraduate degree, the Doctor of Optometry (OD) requires 4 academic years at optometry school. Some optometrists complete a residency; it is not required.

**CHIROPRACTIC MEDICINE**

**Some Areas of Specialization**

Sports Injuries  
Neurology  
Orthopedics  
Pediatrics  
Nutrition  
Internal Disorders  
Diagnostic Imaging  
Ergonomics

Solo and group practices  
Hospitals or health clinics  
Physicians' offices

**Test Required:** GRE or MCAT

**Education Required:** After earning at least 90 hours of undergraduate course work, the Doctor of Chiropractic (DC) requires 4 academic years at a chiropractic school.

## AREAS

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### PHARMACY

#### **Some Areas of Specialization**

Clinical Pharmacy  
Intravenous Nutrition Support  
Oncology  
Nuclear Pharmacy  
Geriatric Pharmacy  
Psychopharmacotherapy  
Research  
Public Health

Hospitals  
Nursing homes  
Mental health institutions  
Health clinics  
Retail chains  
Government agencies including:  
    Food and Drug Administration  
    Public Health Service  
    Department of Veteran's Affairs  
    Armed Services  
Pharmaceutical companies  
Health insurance firms  
Universities

**Test Required:** PCAT

**Education Required:** After spending at least 2 to 3 years in undergraduate coursework, the Doctor of Pharmacy (PharmD) requires 4 academic years. Many applicants to pharmacy school have completed a bachelor's degree.

### PHYSICIAN ASSISTANT

#### **Most Common Areas of Practice**

General Internal Medicine  
Family Medicine  
Surgery  
Pediatrics  
Emergency Medicine  
Occupational Medicine  
Obstetrics and Gynecology  
Dermatology

Physicians' offices  
Hospitals  
Surgical facilities  
Public clinics  
Federal, state, and local health departments  
Government agencies  
Colleges and universities  
Nursing homes  
Armed services  
Correctional facilities

**Test Required:** GRE or MCAT

**Experience:** PA schools typically require extensive healthcare experience; research institutional requirements.

**Education Required:** Complete an accredited physician assistant educational program. The majority of programs take at least 2 years to complete and result in a master's degree (e.g., MPA or MPAS). Clinical experience is gained during the second year. Some PA's pursue additional education to prepare for specialties.

### VETERINARY MEDICINE

#### **Areas of Specialization**

Small Animal Care, e.g., Companion Animals  
Large Animal Care, e.g., Equine, Livestock  
Food Safety  
Preventative Medicine  
Surgery  
Laboratory Animal Medicine  
Research

Group or private practice  
Federal government including:  
    Department of Agriculture  
    Department of Health and Human Services  
State and local government  
Colleges of veterinarian medicine  
Medical schools  
Research laboratories  
Animal food companies  
Pharmaceutical companies  
Zoos

**Test Required:** GRE, VCAT, or MCAT

**Education Required:** After earning an undergraduate degree, the Doctor of Veterinary Medicine (DVM or VMD) requires 4 academic years at a college of veterinarian medicine. Veterinarians who plan to specialize will spend additional years in internships or residency programs.

### **STRATEGIES FOR GAINING ADMITTANCE INTO PROFESSIONAL PROGRAMS**

- Choose an appropriate undergraduate major and include prerequisite courses required by the professional program, e.g., biology, chemistry, and physics, if they are not a requirement of the chosen major.
- Meet with a pre-health advisor periodically to discuss curricular decisions.
- Maintain a high grade point average, particularly in the sciences, to improve chances of admission to graduate or professional school.
- Develop excellent computer, mathematics, and verbal and written communication skills.
- Build good relationships with professors and/or employers in order to secure strong recommendations.
- Join related student organizations, such as Alpha Epsilon Delta pre-health honor society, and assume leadership roles.
- Obtain summer jobs, volunteer positions, research positions, or internships to test fields of interest and gain valuable experience. Participate in service-oriented organizations, medical missions, remote healthcare clinics, and the like.
- Develop a back up plan in case medical/graduate school admission is denied.
- Look at entrance requirements for desired institutions. Be aware of any standardized test requirements, minimum grade point averages, and prerequisites.
- Conduct informational interviews with professionals in your desired field regarding their backgrounds. Arrange a shadowing experience.
- Join professional associations and community organizations to stay abreast of current issues in the medical field and to develop networking contacts.
- Read scientific journals related to your area of interest.
- Research accredited institutions. Check graduation rates, success rates on licensing exams, cost, location, etc. If possible, speak with current students.
- Practice interview skills at your career center to prepare for admissions interviews.

### **GENERAL INFORMATION**

- Develop a desire to help people of all backgrounds and ages including various races and socioeconomic groups.
- Gain an understanding of the rigorous education and training required in the medical professions to ascertain your willingness to complete the required experiences.
- Study the demands required by each of the medical fields. Many professionals work long, irregular, sometimes overnight hours. Consider your tolerance for such a schedule.
- All fields require licensure that is generally regulated by the state of residency. Research requirements for your state and medical position.
- Plan for a lifetime of learning to stay abreast of new trends in the field and to fulfill continuing education requirements for licensure.
- In some medical fields, additional training is necessary for advanced research and administrative positions, university teaching, and independent research.
- Some medical fields offer the opportunity for post doctoral experiences which can allow one to gain additional training or specialize in a particular area.