Welcome

The Department of Natural Science faculty has put together this Health Professions Guide to help students make well informed choices about their education and preparation for careers in the broad field of Human Health. For each of the health professions listed below in the Table of Contents we have assembled information about the occupational outlook, educational requirements, graduate programs, graduate school admissions, entrance exams, and additional information. Links to the websites of professional societies or other web-based resources are provided as appropriate.

We hope that you find this Health Professions Guide to be helpful to you as you plan your educational career.

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Podiatrist (DPM)

Occupational Outlook

Educational Requirements
Information on all of the colleges of podiatric medicine and their entrance requirements, curricula, and student financial aid is available from:

American Association of Colleges of Podiatric Medicine, 15850 Crabbs Branch Way, Suite 320, Rockville, MD 20855. Internet: http://www.aacpm.org

Graduate Programs
There are nine colleges of Podiatric Medicine in the United States. They are:

- Arizona School of Podiatric Medicine at Midwestern University http://midwestern.edu/azpod
- Barry University School of Podiatric Medicine http://www.barry.edu/podiatry
- California School of Podiatric Medicine at Samuel Merritt University https://www.samuelmerritt.edu/podiatric_medicine
- College of Podiatric Medicine and Surgery, Des Moines University http://www.dmu.edu/cpms/pm
- New York College of Podiatric Medicine http://nycpm.edu
- Kent State University College of Podiatric Medicine http://www.kent.edu/cpm/
- Dr. William M. Scholl College of Podiatric Medicine at Rosalind Franklin University http://rosalindfranklin.edu/scholl
- Temple University School of Podiatric Medicine http://podiatry.temple.edu/
- Western University of Health Sciences College of Podiatric Medicine https://www.westernu.edu/podiatry/podiatry-about/

Graduate School Applications
All nine colleges of Podiatric Medicine use a common application service:
http://www.e-aacpmas.org/

Entrance Exams
All nine colleges of Podiatric Medicine require a standardized admissions test. All nine accept the Medical College Admissions Test (MCAT) http://www.aamc.org/mcat
Two (NYCPM, TUSPM) accept the Graduate Record Exam (GRE) http://www.ets.org/gre or the Dental Admissions Test (DAT) http://www.ada.org/dat.aspx

Additional Information
For information on a career in podiatric medicine, contact:
- The National Health Professions website http://www.explorehealthcareers.org/
Medical Doctor (MD)

Occupational Outlook

Educational Requirements
Information on all of the American medical colleges and their entrance requirements, curricula, and student financial aid is available from:
American Association of Medical Colleges, Section for Student Services 2450 N St. NW, Washington DC 20037. Internet: http://www.aamc.org/students

Graduate Programs
Most physicians’ training requires four years of medical school beyond the baccalaureate degree and three-eight years of residency depending on the chosen specialty. In 2014, there were 135 medical schools accredited by the Liaison Committee on Medical Education (http://www.lcme.org/directory.htm ). Most of these medical colleges also offer an M.D-PhD program to accepted applicants who would like do biomedical research upon completion of residency training. The list of schools that offer this option is available on the AAMC website (https://www.aamc.org/students/considering/exploring_medical/research/mdphd/applying_md-phd/61570/mdphd_programs.html ).

Graduate School Admissions
All 135 medical colleges use a common application service: https://www.aamc.org/students/applying/amcas/

Entrance Exams
All 135 medical colleges require the standardized admissions test (http://www.aamc.org/mcat ). In addition, most schools have earlier admission programs that admit select prospective students before the regular admission cycle.

Additional Information
For more information on the different medical specialties, please visit the following websites
American Academy of Family Physicians; http://fmignet.aafp.org
American Board of Medical Specialties; http://www.abms.org
American Congress of Obstetricians and Gynecologists; http://www.acog.org
American College of Surgeons; http://www.facs.org/
American Society of Anesthesiologists; http://www.asahq.org/career/homepage.htm
Physician Assistant (PA)

Occupational Outlook

Educational Requirements
Only 27 schools of the 159 do not require a Bachelor’s degree prior to entering their program. These programs give either PA certification, Associate’s, or Bachelor’s degree as the highest credential awarded. For the other schools, the program is a graduate program and requires a Bachelor’s degree for admittance along with departmental pre-requisites. These vary by school but often include: Introductory Biology, Microbiology, Anatomy/Physiology, Genetics, Chemistry, Organic Chemistry, Biochemistry, Statistics, Calculus, Psychology, Developmental Psychology, and Medical Terminology. Generally, you must have a GPA > 3.0 to apply, and schools often have an additional requirement of internship hours with a local doctor prior to application. These requirements can vary from 150 hours → 1000 hours.

Graduate Programs
There are currently 159 accredited programs in the United States. A list of these institutions can be found at the following site: http://www.arc-pa.org/acc_programs/index.html. The only accredited institution for the PA program in Kansas is at Wichita State University (http://webs.wichita.edu/?u=PA&p=/mpa/).

Graduate School Applications
The majority of the US programs use a single application service CASPA. This link provides you with the information on all of these schools (https://portal.caspaonline.org/). The application deadlines vary, with some due as early as September and others as late as March. The requirements for each also vary, with some requiring supplemental applications separate from the universal CASPA. It is best to check with each school, see the link above to determine what is required when.

Entrance Exams
Most schools require GRE (http://www.ets.org/gre) and TOEFL (for international students) with some allowing MCAT (http://www.aamc.org/mcat) as a substitute. Wichita State University does not require the GRE or MCAT for admission.

Additional Information
American Academy of Physician Assistants; http://www.aapa.org
Physical Therapist (DPT)

Occupational Outlook

Educational Requirements
Almost all PT programs require a bachelor’s degree for admission but no specific major. In recent years most McPherson College students pursuing this path have completed biology or physical education majors. Each individual physical therapy program will likely have slightly different requirements but a typical mix is: Introductory Biology, Anatomy/Physiology, two semesters of Chemistry, two semesters of Physics, Statistics, Math, two Psychology courses, and English writing/speech. Some programs may include courses like Exercise Physiology or Medical Terminology. Most programs also require PT observation time (for example, a non-paid internship). As you plan your undergraduate education it is a good idea to look at specific requirements for schools you might be interested in attending. Most programs require a minimum GPA of 3.0 but report average GPA’s for admitted students between 3.7-3.8. See the information below under Graduate School Admission for a centralized list of most schools and their prerequisites.

Graduate Programs
There are more than 200 graduate physical therapy programs in the US. The programs generally lead to a Doctor of Physical Therapy degree (DPT). The three in the state of Kansas are University of Kansas Medical Center (http://www.kumc.edu/school-of-health-professions/physical-therapy-and-rehabilitation-science/doctor-of-physical-therapy.html), University of St. Mary’s (http://www.stmary.edu/DPT), and Wichita State University (http://www.wichita.edu/thisis/home/?u=pt).

Graduate School Applications
The American Physical Therapy Association (APTA, http://www.apta.org/) sponsors a centralized application service for most physical therapy programs (PTCAS, http://www.ptcas.org/Overview/) This resource compiles all the prerequisites for each program, gives application deadlines, and allows one to apply to multiple schools with one application process.

Entrance Exams
Many programs require the Graduate Record Exam (GRE).

Additional Information
American Physical Therapy Association (APTA, http://www.apta.org/)
Osteopathic Medicine (DO)

Occupational Outlook

Educational Requirements
Schools are looking for students whose academic record shows an aptitude and necessary knowledge for students to successfully complete the program. Information about applicants and admitted students over the past several years can be found here: (http://www.aacom.org/data/Pages/default.aspx ). Most schools require a Bachelor’s degree, however, some allow entrants that have >2/3 coursework completed with the necessary prerequisite courses. Specific course requirements vary between schools and should be checked individually.

Graduate Programs
There are 30 accredited schools offering DO programs at 40 different sites (http://www.aacom.org/data/Pages/default.aspx ). There are six regional schools:
- Des Moines University College of Osteopathic Medicine, Des Moines, IA (http://www.dmu.edu/do/)
- Kansas City University of Medicine and Biosciences College of Osteopathic Medicine, Kansas City, MO (http://www.kcumb.edu/academics/college-of-osteopathic-medicine/)
- A.T. Still University–Kirksville College of Osteopathic Medicine, Kirksville, MO (http://www.atsu.edu/kcom/)
- Oklahoma State University Center for Health Sciences College of Osteopathic Medicine, Tulsa, OK (http://www.healthsciences.okstate.edu/college/index.cfm)
- Rocky Vista University College of Osteopathic Medicine, Parker, CO (http://www.rockyvistauniversity.org/aboutCOM.asp)
- University of North Texas Health Science Center at Fort Worth Texas College of Osteopathic Medicine, Fort Worth, TX (http://www.hsc.unt.edu/education/tcom/)

Graduate School Applications
The majority of schools use a single application service (AACOMAS). The deadlines for each school vary considerably (September – April). Additional information is available at this site: (http://www.aacom.org/InfoFor/applicants/Pages/default.aspx ). Some colleges offer early decision programs, these deadlines are much sooner, and are specific to each program. This pdf provides all information about deadlines and application requirements (http://www.aacom.org/Documents/AACOMASInstructions.pdf). You must contact each program specifically to learn of their requirements. Regardless, you should submit all materials well ahead of the deadline (~ 6 weeks) as many interview slots are filled as applications come in.
Entrance Exams
All colleges require a standardized admissions test, the MCAT. These scores must be submitted along with the application. http://www.aamc.org/mcat

Additional Information
More information on the field of Osteopathic Medicine and becoming a DO can be found at the American Osteopathic Association website (http://www.osteopathic.org/osteopathic-health/becoming-a-do/Pages/default.aspx)
Pharmacist (PD)

Occupational Outlook
“Employment is expected to increase faster than the average. As a result of job growth, the need to replace workers who leave the occupation, and the limited capacity of training programs, job prospects should be excellent.” [http://www.bls.gov/ooh/healthcare/pharmacists.htm](http://www.bls.gov/ooh/healthcare/pharmacists.htm)

Educational Requirements
In order to function as a pharmacist a Pharm.D. degree is required. There is no longer a Bachelors of Pharmacy degree. Most students complete at least three years of college science and other courses before being admitted to a Pharm.D. program. Some students enroll in the program after finishing a Bachelors degree. It is sometimes possible to enter a Pharm.D. program after three years and still graduate from McPherson College by completing a senior research project. The Pharm.D. generally requires four years of study.

Graduate Programs
Pharmacy schools have gotten together to generate a nationwide portal for applications and information, this includes prerequisite course listings for most schools: PharmCAS [http://www.pharmcas.org/](http://www.pharmcas.org/)

Kansas has an excellent program
University of Kansas, Lawrence, Kansas [http://pharmacy.ku.edu/](http://pharmacy.ku.edu/)

In neighboring states:
University of Oklahoma, College of Pharmacy, Oklahoma City, OK [http://pharmacy.ouhsc.edu/](http://pharmacy.ouhsc.edu/)
Southwestern Oklahoma State University, Weatherford, OK [http://www.swosu.edu/academics/pharmacy/](http://www.swosu.edu/academics/pharmacy/)
University of Missouri - Kansas City, Kansas City, MO [http://pharmacy.umkc.edu/](http://pharmacy.umkc.edu/)
University of Colorado, Denver, CO [http://www.ucdenver.edu/academics/colleges/pharmacy/Pages/SchoolofPharmacy.aspx](http://www.ucdenver.edu/academics/colleges/pharmacy/Pages/SchoolofPharmacy.aspx)
University of Wyoming, Laramie, WY [http://www.uwyo.edu/pharmacy/](http://www.uwyo.edu/pharmacy/)

Graduate School Applications
Most schools are using PharmCAS [http://www.pharmcas.org/](http://www.pharmcas.org/)

Entrance Exams
Pharmacy College Admission Test (PCAT) [http://pcatweb.info/](http://pcatweb.info/)

Additional Information
It has been possible for several students to get experience locally working in a pharmacy while in college. Several have gone on to successfully get their pharmacy tech certification. Experience is very helpful for applying to grad programs.
Optometrist (OD)

Occupational Outlook
The United States Department of Labor’s Bureau of Labor Statistics produces the Occupational Outlook Handbook. The BLS suggests the optometry profession will grow by 24% through 2022, which is much faster than the average career growth rates. The 2014-2015 edition’s complete guide and information about the occupation of Optometrist can be found at http://www.bls.gov/ooh/healthcare/optometrists.htm

Educational Requirements
In order to become an optometrist, you will need to earn a Doctor of Optometry degree. In order to be accepted into one of the programs listed below, you must have a minimum of 90 credit hours of undergraduate study, although completing a bachelor’s degree is highly recommended, with a overall GPA above 2.8 (although GPAs > 3.0 are often given first consideration). The 90 hours should include a variety of prerequisite courses. While each program has distinct prerequisite requirements, generally schools require a C or better in the following courses:
- 2 introductory biology courses with labs
- 2 inorganic chemistry courses with labs
- 1 organic chemistry course with lab
- 2 physics courses with labs (1 should include an optics section)
- 1 calculus course
- 2 english courses
- 1 statistics course
- ~ 5 courses in humanities (including psychology)

Some programs require the following courses, while others highly recommend them:
- 1 microbiology course
- 1 biochemistry course
- 1 human anatomy course
- 1 human physiology course
- 2 foreign language courses

We highly recommend you look up those schools you are interested in attending to check on the specific requirements of that institution.

Graduate Programs
There are currently 23 programs in the United States that offer a graduate program in optometry. A complete list of these programs can be found here: http://www.aoa.org/Documents/students/od_program_directory_3_7_2014.pdf

Graduate School Applications
Schools use the Optometry Centralized Application Service (http://www.optomcas.org/). However, you should go to the individualized websites to find out if any other specific materials are required along with the application.
Entrance Exams
In order to apply for optometry school, you must take the Optometry Admission Test (OAT; http://www.ada.org/en/oat/).

Additional Information
In addition to the academic requirements listed above, it is either required (in some schools) or highly recommended that you shadow/intern with at least 1 optometry clinic.

More information on optometry schools and programs can be found here: http://www.opted.org/
More information on the profession of optometry can be found here: http://explorehealthcareers.org/en/Career/11/Optometrist#Tab=Overview
Here is an optometry career guide with lots of important information: http://www.opted.org/wp-content/uploads/2013/03/EyesHaveIt_CareerGuide.pdf
Veterinarian (DVM)

**Occupational Outlook**

**Educational Requirements**
In addition to requiring either an undergraduate degree or 45-90 hours of undergraduate work, all colleges will require a standardized admissions test. Twenty-two of the veterinarian colleges require the Graduate Record Examinations (GRE), four require the VCAT, and two accept the MCAT.

**Graduate Programs**
Additional information about all of the accredited veterinary medical colleges in the United States is provided at [http://aavmc.org/Students-Applicants-and-Advisors.aspx](http://aavmc.org/Students-Applicants-and-Advisors.aspx)

**Graduate School Applications**
All United States veterinary medical colleges use a common application service: [https://portal.vmcas.org/](https://portal.vmcas.org/)

**Entrance Exams**
All veterinary medical colleges above require some kind of a standardized exam; either the Graduate Record Exams (GRE), [http://www.ets.org/gre](http://www.ets.org/gre), or the Medical College Admissions Test (MCAT), [http://www.aamc.org/mcat](http://www.aamc.org/mcat).

**Additional Information**
Association of American Veterinary Medical Colleges, 1101 Vermont Ave. NW., Suite 301, Washington, DC 20005 ([http://aavmc.org](http://aavmc.org))
Dentistry (DDS)

Occupational Outlook

Educational Requirements
Information on prerequisites, DAT and the application to dental schools can be found at http://www.ada.org/3219.aspx
Additional information on how to apply, DAT, fanatical aid, different carrier paths in dentistry can be found at American student dental association handbook; website http://www.asdanet.org/

Graduate Programs
A list of all accredited dental education programs in the US which offer DDS or DMD degrees can be found at http://www.ada.org/267.aspx

Graduate School Applications
Questions related to admissions criteria and application process should be directed to individual dental schools. Most dental schools use a single application through AADSAS service. This service is available with a fee. The online application to the schools participating in the AADSAS can be found at http://www.adea.org/Secondary.aspx?id=17139. The AADSAS toll-free number is 800-353-2237

Entrance Exams
Dental Admission Test (DAT). A computer based testing which tests you on Biology, general chemistry, Organic chemistry, reading comprehension, quantitative ability and perceptual ability. More information at http://www.ada.org/dat.aspx

Additional Information
Additional information on DDS/DMD programs can be found at American dental education association http://www.adea.org/Pages/default.aspx or American dental association http://www.ada.org/index.aspx web sites.
Registered Nurse (BSN, RN)

Occupational Outlook

Educational Requirements
No degrees are required for admittance; however, the prerequisite courses necessary for admittance varies across programs. You must check each program to find out what requirements (GPA, courses) you must meet in order to apply. You can access each program through the link found below.

Graduate Programs
There are 44 schools with nursing pre-licensure programs across Kansas. These programs vary in the licensure they offer, with some offering Practical Nurse (LPN) programs, while others offer Registered Nurse (RN) programs with either an Associate’s degree or a Bachelor’s degree (BSN). The following site hosted by the Kansas Board of Licensure lists all these schools, what program(s) they offer, and what accreditation each program has:
http://www.ksbn.org/cne/nursingschoolst.pdf

Graduate School Applications
Each school has its own application for admittance.

Entrance Exams
There are no entrance exams required for admittance into these programs.

Additional Information