

The University of Arizona Arizona Health Sciences Center

Guide to Health Careers



2012-2013



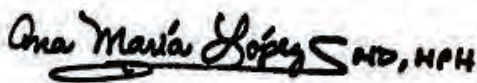
Dear Student,

Welcome to the health professions! Health care professionals work in teams for the benefit of the patient. Each health care professional serves a specific role in helping the patient and the community stay healthy. Choosing your career path within the health care professions is one of the most rewarding life decisions that you will make. This guide is designed to provide you with basic information about health career professions that will help you determine which health career profession is right for you!

Each health career profession highlighted in this guide describes the profession, provides quick facts about educational requirements for entry to the profession, and discusses what you will need to enter the health career educational program. Additional in-depth information can be found at the website links referenced on each health career page.

Read through this guide; make notes in the margin; talk with your parents, teacher, mentor, school/career counselor. Ask questions! Be in touch with us and let us know how we can help you in making the right choice to become a health care professional. We look forward to working with you and helping make your decision to become a health care professional a career reality!

Best wishes for your future,

A handwritten signature in black ink that reads "Ana Maria Lopez MD, MPH". The signature is written in a cursive style with a horizontal line underneath the name.

Associate Dean for Inclusive Excellence
and Community Engagement
University of Arizona College of Medicine

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Data courtesy of the Bureau of Labor Statistics Occupational Outlook
Handbook and the Medical Library Association

How can I decide if a health career is right for me?

The best way to find out is to experience it!

Once you are 16 years old, you will be able to volunteer in a hospital or clinic. Join your school's Health Occupations Students of America (HOSA) club. You can become a pharmacy tech, nursing assistant (CNA), or an emergency medical technician (EMT) once you are 18. Getting certified in CPR and First-Aid will also be useful.

Some other organizations you could volunteer with are:

Red Cross	Hospices
Ronald McDonald House	Refugee organizations
Animal shelters or rescues	

What should I do to prepare for college?

The state universities in Arizona (UA, ASU, NAU) have the following minimum requirements:

4 years of English	4 years of Math
3 years of Science with lab	2 years of a second language
2 years of Social Science (including 1 year of US History)	
1 year of Fine Arts (art, music, theater, etc)	

In order to be considered for honors or scholarships, you should also take the SAT or the ACT.

Other colleges in the United States will have similar requirements. You should check the requirements of each school you are interested in.

Colleges know you are more than just your grades — they will look at what clubs you were in, if you had a job or played sports, if you volunteer or are active in your community.

How will I know a college is right for me?

Take the opportunity to visit schools, or attend college fairs in your area. Talk to your guidance counselor as well — part of his or her job is to know about many of the schools in the country and help you decide what might be a good fit.

How can I pay for college?

If you are applying to college, you can also begin applying for financial aid. The Free Application for Federal Student Aid is available starting January 1 of each year. There are many reliable resources for scholarships, such as FastWeb; you can also check with your high school's guidance office for continuously updated lists of scholarships. You should also check with the financial aid offices of the colleges you are interested in.

Learn more about college, financial aid, and health careers by going to

www.collegeboard.org

www.fafsa.ed.gov

www.fastweb.com

www.azahec.org

www.assurance.arizona.edu

www.explorehealthcareers.org

Athletic Trainer



What does an athletic trainer do?

Athletic trainers specialize in preventing, diagnosing, and treating muscle and bone injuries and illness. Many athletic trainers work in secondary schools and colleges, and may work outdoors in all weather conditions.

Quick Facts:

2010 Median Pay: \$41,600/year or \$20.00/hour

Entry-Level Education: Bachelor's degree

License: Requirements vary by state; many states require trainers to take a Board of Certification exam.

What classes will I need?

CAATE-accredited Athletic Training programs include courses in biology, anatomy, physiology, nutrition, and exercise science. Courses in chemistry, physics, and psychology are also encouraged. Students must also complete clinical experiences during their studies.

Learn more by going to

<http://www.nau.edu/chhs/at>

<http://www.nata.org/high-school-connection>

Dentists



What is a dentist?

Dentists diagnose and treat problems with a patient's teeth, gums, and other parts of the mouth. They provide advice and instruction on taking care of teeth and gums and on diet choices that affect oral health.

Quick Facts:

2010 Median Pay: \$146,920/year or \$70.64/hour

Entry-Level Education: Professional degree plus a 1-2 year residency

License: At the state level

What classes will I need?

In order to apply to dental school, you need a bachelor's degree (usually in biology or chemistry) and coursework in biology, chemistry, organic chemistry, physics, math, and anatomy. You will also need to take the Dental Acceptance Test (DAT).

After you graduate from dental school, you will need to complete a residency that will last 1-2 years depending on your specialty.

Learn more by going to

<http://www.ada.org/education.aspx>

<http://www.azda.org/public/careers.asp>

Dietitians and Nutritionists



What is a dietitian or a nutritionist?

Dietitians and nutritionists are experts in food and nutrition. They advise people on what to eat in order to lead a healthy lifestyle or achieve a specific health-related goal.

Quick Facts:

2010 Median Pay: \$53,250/year or \$25.60/hour

Entry-Level Education: Bachelor's Degree, plus a supervised internship

License: While Arizona does not require a license, most states do, and licensure can increase your job opportunities

What classes will I need?

Most bachelor's degree programs in nutrition or dietetics will include courses in biology, chemistry, organic chemistry, nutrition, and physiology as well as statistics and a technical writing course. You will also need to participate in a supervised internship, which typically takes place after you graduate from college and may last anywhere from 8 to 12 months.

Learn more by going to

<http://www.cals.arizona.edu/nutrition>

<http://www.eatright.org/BecomeanRDorDTR>

Health Sciences Librarian



What is a health sciences librarian?

Health sciences librarians are health information professionals who have specialized knowledge in quality health information resources. They have a direct impact on the quality of patient care by helping physicians, allied health professionals, administrators, students, faculty, and researchers stay abreast of and learn about new research developments in their fields. Using materials varying from traditional print journals to electronic databases and mobile devices, health sciences librarians devise and use innovative strategies to access and deliver important information for patient care.

Quick Facts:

2008 Median Pay: \$65,796/year or \$31.63/hour

Entry-Level Education: Master's degree

Other Education: A bachelor's degree or higher in science, health care, or allied health may be useful, but is not necessary

What classes will I need?

There are no specific courses required for admission to master's programs in Information Resources or Library Science, but you should consider taking classes in web design, computer science, statistics, research techniques, communication, and life sciences or allied health fields. Some graduate programs will require the Graduate Record Examination (GRE) for admission.

Learn more by going to

<http://www.sirls.arizona.edu/>

<http://www.mlanet.org/career>

Medical Laboratory Scientists



What does a medical laboratory scientist do?

Medical laboratory technologists or technicians collect samples and perform tests to analyze body fluids (such as blood or urine), tissues, and other substances. Most work in hospitals or large private laboratories.

Quick Facts:

2010 Median Pay: \$46,680/year or \$22.44/hour

Entry-Level Education: Associate's degree

License: A national certification exam is required; some states also require a license

What classes will I need?

Courses in math, biology, chemistry, and microbiology are required for all programs, as well as courses in all the different departments within a medical lab. Medical laboratory technician (MLT) programs are associate's degrees and can be completed in two years. Medical laboratory scientist (MLS) are bachelor's level or higher, require more advanced courses, and often take 4-5 years to complete. A bachelor's degree is often required for leadership or administrative positions.

Learn more by going to

<http://www.ascp.org/Functional-Nav/Career-Center>

<http://pathology.med.und.nodak.edu/cls/index.cfm>

(partners with UA Dept. of Chemistry)

Paramedics & EMTs

What do paramedics and EMTs do?

Paramedics and EMTs care for sick and injured people in emergency medical settings. They respond to emergency calls, perform medical services and transport patients to medical facilities. They work both indoors and outdoors and often work with police and firefighters when responding to emergencies.



Quick Facts:

2010 Median Pay: \$30,360/year or \$14.60/hour

Entry-Level Education: Certificate (EMT) or Associate's degree (Paramedic)

License: At the state level; you will also need to take a national exam

What classes will I need?

If you're interested in becoming an EMT or a paramedic, you should take courses in biology, chemistry, and anatomy in high school, as these will be good preparation for your training. You will need to get a CPR certification from the Red Cross or the American Heart Association in order to apply for EMT programs. You must have EMT certification in order to apply for paramedic programs.

Learn more by going to

http://www.naemt.org/about_ems/emsCareers.aspx

<http://www.ems.gov>

Pharmacists

What do pharmacists do?

Pharmacists dispense prescription medications to patients and offer advice on their safe use. They work in pharmacies, grocery and drug stores, hospitals and clinics.



Quick Facts:

2010 Median Pay: \$111,570/year or \$53.64/hour

Entry-Level Education: Professional degree

License: Pharmacists must pass a national exam in pharmacy skills and knowledge and a state exam in pharmacy law in order to receive a license.

What classes will I need?

Specific requirements for PharmD programs will vary by school, but most require English, calculus, chemistry, organic chemistry, biology, anatomy, physics, social sciences and the humanities. Some schools may require more science or liberal arts courses as well. You should also try to volunteer or shadow in pharmacies or seek employment as a pharmacy tech in order to gain experience. You will also need to take the Pharmacy College Admission Test (PCAT), which will test you in biology, verbal and reading comprehension skills, math skills, chemistry, and writing ability.

Learn more by going to

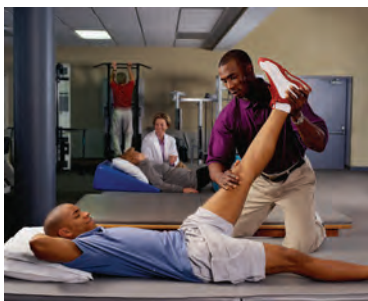
<http://www.pharmacy.arizona.edu/>

<http://www.pharmacyforme.org>

Physical Therapists

What do physical therapists do?

Physical therapists help people who have injuries or illness improve their movement and manage their pain. They are often an important part of rehabilitation and treatment of patients with chronic conditions or injuries.



Quick Facts:

2010 Median Pay: \$76,310/year or \$36.69/hour

Entry-Level Education: Professional Degree (Master's or Doctoral, depending on the program)

License: At the state level

What classes will I need?

In order to apply to physical therapy school, you need a bachelor's degree (in any field) and coursework in biology, chemistry, organic chemistry, and anatomy. Most programs will also require the Graduate Record Examination (GRE).

Master's of Physical Therapy and Doctor of Physical Therapy programs are both three years in length and cover the same material. If you want to go into specialized care (such as sports therapy), you will need to complete a residency that may last up to 3 years after graduation.

Learn more by going to
<http://www.apta.org/careers>

Physicians



What do physicians do?

Physicians (including surgeons) diagnose and treat injuries and illness in patients. Physicians examine patients, take medical histories, prescribe medications, and order, perform, and interpret diagnostic tests. Surgeons operate on patients to treat injuries, such as broken bones; diseases, such as cancerous tumors; and deformities such as cleft palates.

Quick Facts:

2010 Median Pay: \$166,400/year or \$80.00/hour

Entry-Level Education: Professional Degree followed by an internship and residency

License: At the national and state level

What classes will I need?

In order to apply to medical school, you need a bachelor's degree (in any field) and coursework in biology, chemistry, organic chemistry, physics, math, and English. Courses in humanities and social sciences are also encouraged. Additionally, you should gain health care experience through volunteering at a local hospital or clinic. You will also need to take the Medical College Admissions Test (MCAT).

After completing medical school, you will need to complete a residency program, which can last between 3 and 8 years, depending on the specialty you choose.

Learn more by going to

<http://www.aamc.org/students/aspiring>

<http://www.diversity.medicine.arizona.edu>

Physiology

What is Physiology?

Physiology is the study of how the body works—specifically, how cells, tissues, and organisms function. It is a biological science that provides the foundation upon which we build our knowledge of what “life” is, how to treat diseases, and how to cope with stresses imposed upon our bodies by different environments.



What can I do with a degree in Physiology?

The Physiology major prepares students to continue their studies, following the completion of the Bachelor of Science in Health Sciences, in graduate or professional school pursuing a career in a field related to health sciences, basic research, or health care.

The major curriculum includes many courses required for application to graduate school and professional schools of...

Medicine	Dentistry
Pharmacy	Physical Therapy
Exercise Science	Physician Assistant
Optometry	Veterinarian
Occupational Therapy	

Learn more by going to
www.physiology.arizona.edu
www.the-aps.org

Public Health

What is Public Health?

That's a good question! Most students do not consider a career in public health because they do not know what it is. Hopefully the "4 P's of public health" can help you remember



Population: You focus on helping a group of people be healthy, like everyone at your school.

Promotion: Promotion is just another way of saying education. Examples of things you may have been educated about are:

What are the negative impacts of smoking?

Why is it dangerous to drink alcohol and drive?

Why should you wash your hands?

Protection: These professionals make sure you have clean water, that your food is safe to eat and that you aren't exposed to harmful chemicals that can make you sick.

Prevention: The main point of public health is to keep you healthy! Prevention is the focus of any job in public health, where most doctors and nurses treat you after you are sick or injured.

What can I do with a public health degree?:

Public health careers offer something for everyone! Epidemiology and biostatistics involve math and modeling. Environmental health requires a great deal of science skills. Health administration incorporates business and management. Health education involves skills to develop community programs. Health policy includes an understanding of law-making processes.

A degree in public health is also great preparation for going into another health profession, such as nursing, medicine or pharmacy!

Learn more by going to
www.publichealth.arizona.edu
www.whatispUBLICHEALTH.org

Registered Nurses



What does a registered nurse do?

Registered nurses (RNs) provide and coordinate patient care, educate patients and the public about various health conditions, and provide advice and emotional support to patients and their family members. RNs work in hospitals, physicians' offices, home healthcare services, and nursing care facilities. They also work in correctional facilities, schools, summer camps, and with the military and government.

Quick Facts:

2010 Median Pay: \$64,690/year or \$31.10/hour

Entry-Level Education: Associate's degree

License: At the state level; all nurses must pass a national licensing exam (NCLEX-RN)

What classes will I need?

In all nursing education programs, students take courses in nursing, anatomy, physiology, microbiology, chemistry, nutrition, psychology and other social and behavioral sciences. Associate's degree programs usually take 2-3 years to complete. Bachelor's degree programs typically take four years to complete. Bachelor's degrees are usually required for administrative, research, consulting, and teaching positions.

Learn more by going to

<http://www.nursing.arizona.edu/>

<http://www.nursingworld.org/careercenter>

Speech-Language Pathologists



What is a speech-language pathologist?

Speech-language pathologists, sometimes called speech therapists, assess, diagnose, treat, and help prevent communication and swallowing disorders in their patients. They may specialize in working with specific groups, such as elementary school children, or with specific problems, such as stroke recovery.

Quick Facts:

2010 Median Pay: \$66,920/year or \$32.17/hour

Entry-Level Education: Master's degree

License: Requirements vary by state

What classes will I need?

Accredited master's programs often do not require a specific undergraduate major, but they will require you to take courses in physical science (chemistry, earth science, or physics), biology, a behavioral science (such as psychology), statistics, and at least one college-level math course, as well as at least one class on speech or hearing disorders. You will have to take the Graduate Record Examination (GRE) for admission into a master's program as well.

Learn more by going to

<http://slhs.arizona.edu>

<http://www.asha.org/students>

Veterinarians

What does a veterinarian do?

Veterinarians care for the health of animals. They diagnose, treat, or research medical conditions and diseases of pets, livestock, and animals in zoos, racetracks, and laboratories.



Quick Facts:

2010 Median Pay: \$82,040/year or \$39.44/hour

Entry-Level Education: Professional degree

License: At the state level; all vets must pass the North American Veterinary Licensing Exam as well

What classes will I need?

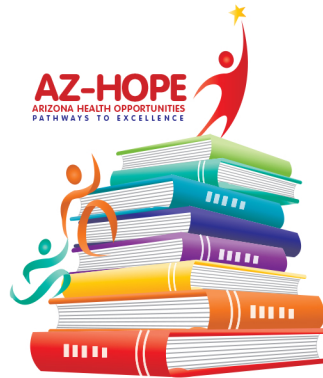
In order to apply to veterinary school, you need a bachelor's degree (in any field) and coursework in biology, chemistry, organic chemistry, and physics at the minimum. Courses in math, humanities and social sciences are also encouraged. Additionally, you will need to gain experience through volunteering with both small animal and large animal veterinarians. Many veterinary schools require the Graduate Record Examination (GRE).

Learn more by going to

<http://www.amva.org>

<http://www.talktothetvet.com/faqvetcareer.htm>

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