# HEALTH PROFESSIONS AND PRELAW CENTER

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## **HEALTH PROFESSIONS DESCRIPTIONS**

This list is a brainstorming tool that can help current and prospective IUB students and alumni explore careers in the health fields. It is not meant to be comprehensive but is a great place to start! We strongly encourage you to use each of the health career resources at <a href="http://hpplc.indiana.edu/ohp/#explore">http://hpplc.indiana.edu/ohp/#explore</a>, and to consider completing the self-assessment located on the same page.

#### **Undergraduate Degrees and Certificates completed at IU Bloomington**

Though it is not meant to be comprehensive, the list immediately below includes many of the health- or healthcare-related degrees and certificates offered through IU Bloomington.

<u>Athletic Training:</u> Athletic trainers are health professionals who focus on prevention, recognition, evaluation and immediate care of injuries for people of all ages, from professional athletes to industrial workers. They work under the supervision of a licensed physician as part of a health care team and often have administrative responsibilities. Athletic trainers should not be confused with fitness trainers or personal trainers, who train people to become physically fit (see entry for *Fitness Specialist*). The School of Public Health's Department of Kinesiology offers this degree/major www.publichealth.indiana.edu/program-areas/athletic-training-undergraduate/index.shtml.

<u>Audiology:</u> Audiologists evaluate, assess and determine a course of treatment for people who have hearing, balance and related ear problems. They interpret results of specialized tests and may coordinate them with medical, educational and psychological information to make a diagnosis and determine a course of treatment. Audiologists may work in private practice, in clinics, or with educators and other healthcare providers. Some audiologists specialize in working with children, the elderly or special cases. *Note that a graduate degree is required to practice as an audiologist*, but IUB does offer an undergraduate degree in preparation for audiology graduate studies. The most common choice is the Bachelor of Arts in Speech and Hearing, with a Concentration in Audiology and Hearing. More details at <a href="https://www.indiana.edu/~sphs/academics/undergraduate/overview.shtml">www.indiana.edu/~sphs/academics/undergraduate/overview.shtml</a>.

<u>Community Health:</u> Public health educators promote the health of the general public through educational programs, policy changes and data analysis. Educators may implement, monitor and evaluate health programs and/or serve as a resource through government agencies, hospitals, nonprofit organizations, businesses and universities. This IUB major helps students acquire the background for developing, implementing and evaluating health education programs in the community, most of them occurring in clinical, educational and occupational settings. The School of Public Health's Department of Applied Health Science offers this degree/major www.publichealth.indiana.edu/degrees/undergraduate.shtml.

<u>Dietetics:</u> Dietetics is the science of applying food and nutrition to health. Dieticians plan food and nutrition programs and supervise the preparation and serving of meals. They help prevent and treat illnesses by promoting healthy eating habits and suggesting diet modifications. Most jobs are in hospitals, nursing care facilities, and offices of physicians or other health practitioners. The School of Public Health's Department of Applied Health Science offers this degree/major www.publichealth.indiana.edu/degrees/undergraduate.shtml.

Emergency Medical Technician (Certification): Emergency medical technicians (EMTs) assess, treat and transport victims of illness and injury. They are typically dispatched to a location after a 911 call. EMTs give appropriate emergency care and, when necessary, transport the patient, following strict rules and guidelines. There are four levels of training. IUB students can earn certification for Indiana EMT-Basic (or EMT-1) either by taking several courses through the Department of Applied Health Science in the School of Public Health, followed by the National Registry of EMTs exam <a href="https://www.publichealth.indiana.edu/departments/applied-health-science/degrees/emt-program.shtml">www.publichealth.indiana.edu/departments/applied-health-science/degrees/emt-program.shtml</a>. EMT

certification may also be earned through certification classes offered through private companies. (Refer also to <a href="http://hpplc.indiana.edu/ohp/ohp-pa.shtml#EMT\_CNA">http://hpplc.indiana.edu/ohp/ohp-pa.shtml#EMT\_CNA</a> and to the related entry on Paramedic Science in this document.)

**Exercise Science** is a science-based curriculum designed to provide a background in the exercise sciences for those students who wish to further their education at the graduate level. *Note that exercise science is primarily intended as part of a preprofessional path prior to entering a graduate program, and is therefore not primarily intended as a standalone major/degree*. Students with only the exercise science BS may be prepared for entry level positions with corporate and community fitness programs, health clubs, YMCAs and similar fitness related organizations. The School of Public Health's Department of Kinesiology offers this degree/major <a href="https://www.publichealth.indiana.edu/program-areas/exercise-science/index.shtml">www.publichealth.indiana.edu/program-areas/exercise-science/index.shtml</a>.

<u>Fitness Specialist</u> is a degree which provides specialized educational and practical experiences to those interested in a career in the emerging fitness/health/wellness industry. It is accredited by the American College of Sport Medicine (ACSM), the largest sports medicine and exercise science organization in the world. Students are eligible to take three nationally recognized certifications upon completion of their degree: ACE Personal Trainer, ACE Group Exercise Instructor, ACSM Health and Fitness Instructor. The School of Public Health's Department of Kinesiology offers this degree/major www.publichealth.indiana.edu/program-areas/health-fitness-specialist/undergraduate.shtml.

<u>Healthcare Management & Policy:</u> This major introduces students to health care administration through courses in public personnel, health care administration, epidemiology, health education, legal aspects of health care, health finance and economics, managed care, hospital and long term care administration and health care marketing. The School of Public and Environmental Affairs a Bachelor of Science in Public Health with a major in Health Administration <a href="https://spea.indiana.edu/undergraduate/majors-minors-certificates/healthcare-management.html">https://spea.indiana.edu/undergraduate/majors-minors-certificates/healthcare-management.html</a>.

<u>Health Education – Secondary Teacher Preparation:</u> Health education teachers promote wellness and health of young adults in junior high and high schools, where the health education curriculum traditionally includes topic such as substance abuse, injury prevention, human sexuality, consumer health, disease prevention, mental health, nutrition, physical activity and personal growth. The School of Public Health's Department of Applied Health Science administers this degree in collaboration with the School of Education major www.publichealth.indiana.edu/degrees/undergraduate.shtml.

<u>Human Development and Family Studies</u> explores human behavior from the perspective of lifespan development and within the context of the intimate environment of the family. As an applied field, it is focused on how developmental stages, the effects of divorce, coping with aging, and human sexuality can illuminate relationships and behavior. Family Studies examines specific roles within the family and how the members interact with each other and with greater society. The School of Public Health's Department of Applied Health Science offers this degree/major <a href="https://www.publichealth.indiana.edu/degrees/undergraduate.shtml">www.publichealth.indiana.edu/degrees/undergraduate.shtml</a>.

<u>Nursing:</u> Registered nurses (RNs) assess, develop, plan, implement, and evaluate care plans for individuals, families and communities. RNs may specialize in one or more areas of patient care as well as take positions that involve little or no patient care (e.g., case managers, forensics nurses). [See the Bureau of Labor Statistics Occupational outlook Handbook for more info: www.bls.gov/oco/ocos083.htm.] Academic preparation to take the Registered Nurse (RN) licensure exam can be earned through a Bachelor of Science in Nursing (BSN) degree or an Associate of Science in Nursing (ASN) degree. The IUB School of Nursing offers a four-year BSN <a href="http://hpplc.indiana.edu/ohp/ohp-n.shtml">http://hpplc.indiana.edu/ohp/ohp-n.shtml</a>.

<u>Nutrition Science:</u> Nutrition scientists learn how the body works and how to prevent disease through nutrition. Most nutrition science students continue their education either in medical or graduate school because the study of nutrition science lays a solid foundation for future academics, researchers, doctors, dentists, and other health professionals. The School of Public Health's Department of Applied Health Science offers this degree/major www.publichealth.indiana.edu/degrees/undergraduate.shtml.

<u>Physics (Applied Physics)</u>: Through the Applied Physics track, students can pursue a program focused on practical applications of physics to human biology and medicine while earning a Bachelor of Science degree in Physics. The Applied Physics program offers coursework in medical physics, a subject that encompasses topics such as nuclear medicine, imaging techniques, and radiation therapy. Applied Physics students interested in medical physics have the

opportunity to intern at local facilities that employ medical physicists, a career path that is currently in high demand. For more information, visit <a href="http://applied.physics.indiana.edu">http://applied.physics.indiana.edu</a>.

Psychological and Brain Sciences (Psychology): Psychology seeks to understand the basic principles by which living organism adapt their behaviors to the changing physical and social environments in which they live. A bachelor's degree in psychology qualifies a person to assist psychologists and other professionals in various social services organizations, doing research or providing administrative support. Many find employment in the business world in sales, business management or doing marketing research. The Department of Psychological and Brain Sciences in the College of Arts and Sciences offers degrees in both Psychology and Neuroscience <a href="https://www.indiana.edu/~psyugrad/">www.indiana.edu/~psyugrad/</a> <a href="https://psych.indiana.edu/grad-programs.php">prospective/welcome.php</a>. (Note: students pursuing a career in <a href="https://psych.indiana.edu/grad-programs.php">psych.indiana.edu/grad-programs.php</a>.)

Recreational Therapy: Recreational therapists improve health, functional ability and quality of life for people with disabilities and illnesses through a variety of recreational activities. Therapists help individuals build confidence, socialize effectively, reduce depression and anxiety, recover motor functioning and reasoning abilities. They also teach people with disabilities how to use community resources and recreational activities. The School of Public Health's Department of Recreation, Park, and Tourism Studies offers an undergraduate rec therapy degree/major <a href="www.publichealth.indiana.edu/degrees/undergraduate.shtml">www.publichealth.indiana.edu/degrees/undergraduate.shtml</a>. Also available, a Master's Degree in recreational Therapy, intended for those who have already graduated with a different undergraduate degree <a href="http://www.publichealth.indiana.edu/degrees/graduate.shtml">http://www.publichealth.indiana.edu/degrees/graduate.shtml</a>.

<u>Safety:</u> Safety professionals protect people, property and the environment. They identify hazards, advise their organization on how to eliminate or minimize hazards, and evaluate the effectiveness of loss prevention programs. They also help organizations comply with Occupational Safety and Health Administration (OSHA) and other safety-related standards. The School of Public Health's Department of Applied Health Science offers a Bachelor of Science in this major www.publichealth.indiana.edu/degrees/undergraduate.shtml.

<u>Social Work:</u> Those with social work degrees possess a strong desire to help improve people's lives, and to advocate on their behalf. They work in a great variety of settings, and in many different capacities. A Bachelor's of Social Work (BSW) is offered through the IUB School of Social Work <a href="http://socialwork.iub.edu/">http://socialwork.iub.edu/</a>. (Those who choose an associated career path often earn their Master's Degree in Social Work (MSW). The BSW is *not* required prior to the MSW; in this case, any undergraduate degree is acceptable.)

**Speech-language Pathology:** Speech-language pathologists assess, diagnose, treat and help prevent speech, language, cognitive, communication, voice, swallowing, fluency and other related disorders. *Note that a graduate degree is required to practice as a speech pathologist*, but IUB does offer an undergraduate degree in preparation for speech pathology graduate studies. The most common choice is the Bachelor of Arts in Speech and Hearing, with a Concentration in Speech-Language Pathology. More details at <a href="https://www.indiana.edu/~sphs/academics/undergraduate/overview.shtml">www.indiana.edu/~sphs/academics/undergraduate/overview.shtml</a>.

<u>Undergraduate Research:</u> The departments of Biology (<u>www.bio.indiana.edu/</u>), Chemistry (<u>www.chem.indiana.edu/</u>), Physics (<u>http://applied.physics.indiana.edu/</u>), and Psychological and Brain Sciences (www.indiana.edu/~psych/) offer abundant opportunities for undergraduate research on this campus. Please visit their respective websites for more information.

### **Undergraduate Degrees and Certificates completed at other IU Campuses**

The undergraduate degrees and certificates listed below include many Indiana University degrees/majors for which you can complete one or two years of prerequisites at IUB, but would then need to apply to the competitive admission professional portion of the given program, offered on the Indianapolis campus (and, in some cases, other IU branches).

Clinical Laboratory Sciences: Clinical Laboratory Scientists (also called Medical Technologists) perform diverse and complex laboratory analyses on biological samples from patients. They combine theoretical knowledge and technical skills to provide quality test results that are used for making diagnostic and therapeutic decisions. Tasks performed include analyses of body fluids, evaluation of cellular components of blood, preparation of blood components for patient therapy, and identification of microorganisms. The Clinical Laboratory Science program is a four year program that requires three years of prerequisite college coursework that may be completed at IUB, followed by a professional year

that is completed at the IU School of Medicine in Indianapolis. Information and resources at <a href="http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP">http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP</a>.

Cytotechnology: Cytotechnologists are medical laboratory specialists who assist with the detection and diagnosis of disease using samples drawn from various human body sites. They prepare slides and microscopically examine them for abnormalities of all types, including cancerous and precancerous cells. They also search for microbial causative agents for inflammatory diseases and abnormalities that indicate other disease processes. The prime objective of a cytotechnologist is to detect cancer early, when the best chance for a cure exists. The IU cytotechnology program is four years total, including three years of prerequisites that may be completed at IUB. If admitted to the professional program, students complete their professional program coursework on the Indianapolis campus. Information and resources at <a href="http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP">http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP</a>.

<u>Dental Hygiene</u> (Associate of Science or Bachelor of Science – the ASDH is currently the standard degree, though many programs offer a BS): A dental hygienist is trained and licensed to provide preventive dental services. These services include, among other responsibilities, cleaning patients' teeth with a variety of instruments, taking x-rays, examining teeth and gums, recording the presence of diseases or abnormalities, and educating patients to help them develop and maintain good oral health. Several IU branches (not IUB) offer an Associate of Science or Bachelor of Science degree in dental hygiene. Most IUB students must plan to complete prerequisites over a two-year period. NOTE: Most prospective students who have not yet entered college are better off not attending IUB for prerequisites, and instead completing them at the IU branch whose DH program they hope to be admitted to. An application to the given DH program is required. More information at <a href="http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#DH">http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#DH</a>.

<u>Health Information Management (HIM)</u>: Health information managers (HIMs) are responsible for the maintenance and security of all patient records. HIMs maintain, collect and analyze health information. The Indiana University School of Informatics and Computing, Indianapolis campus, offers a degree in Health Information Management. IUB students may complete prerequisite *and* (if admitted) professional coursework through a combination of classroom and online courses <a href="http://soic.iupui.edu/undergraduate/degrees/">http://soic.iupui.edu/undergraduate/degrees/</a>.

<u>Histotechnology (Certificate and Associate of Science)</u>: A histology technician processes surgical, autopsy or research tissue specimens for microscopic examination. Although most histology technicians work in human health care facilities, many are employed in veterinary, industrial, or research laboratories. IUB students may be eligible for admission to the Certificate in Histotechnology program if they meet the minimum academic requirements . Information and resources at <a href="http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP">http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP</a>.

Medical Imaging Technology: Medical imaging technologists are radiographers who have completed additional education in advanced image production. They use interventional angiography, computer tomography, medical resonance imaging and/or ultrasonography as the imaging modality. IU Bloomington students prepare for entry to the Medical Imaging Technology (MIT) program by taking general education courses required for admission to the MIT program along with general education and admission courses required for the Associate of Science degree in Radiography (see entry below). Only certified radiographers are accepted into the MIT program, so there is no direct entry possible for IU Bloomington students. They must have completed or in the process of completing requirements for the Radiography AS when they apply. If admitted to the professional program, students complete their professional program coursework on the Indianapolis campus. Information and resources at http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP.

<u>Nuclear Medicine Technology:</u> Nuclear medicine technologists provide patient diagnostic and therapeutic services using the nuclear properties of radioactive materials. They perform patient organ imaging procedures, analysis of biological specimens and administer radioactive medications to patients. If admitted to the professional program, students complete their professional program coursework on the Indianapolis campus Information and resources at <a href="http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP">http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP</a>.

**<u>Nursing</u>**: Registered nurses (RNs) assess, develop, plan, implement, and evaluate care plans for individuals, families and communities. RNs may specialize in one or more areas of patient care, and can also pursue careers that involve little or no patient care (*e.g.*, case managers, forensics nurses). Academic preparation to take the Registered Nurse (RN) licensure exam can be earned through a Bachelor of Science in Nursing degree or an Associate of Science in

Nursing degree. The four-year BSN can be completed on campuses throughout the IU system, including IUB http://hpplc.indiana.edu/ohp/ohp-n.shtml.

at http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMaiorsMinorsandCertificates.shtml#SOMHPP.

Paramedic Science (Associate of Science): Emergency Medical Technicians (EMTs) assess, treat and transport victims of illness and injury. EMT (basic) is the entry level into the emergency medical field (see entry for *Emergency Medical Technician*). The EMT *paramedic* is the advanced practitioner in the field. Paramedics immobilize fractures, supply intravenous therapy, perform heart monitoring, and provide other lifesaving interventions for the victims of acute illness or injury. An Associate of Paramedic Science is offered on the Indianapolis campus and through Ivy Tech. A Bachelor of Paramedic Science degree will soon be offered through IUB — watch www.publichealth.indiana.edu/degrees/undergraduate.shtml for details. Additional information and resources

<u>Radiation Therapy:</u> Radiation Therapists administer and monitor radiation therapy for the treatment of benign and malignant tumors, communicating with the physician and supportive care personnel, care-giving, effective management of rapidly changing situations and professionalism. IUB students complete two years of prerequisite course work on our campus. If admitted to the Radiation Therapy professional program, students complete their professional coursework on the Indianapolis campus. Additional information and resources at <a href="http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP">http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP</a>.

Radiography (Associate of Science): Radiographers use x-rays to produce photographic images of body structure. These images are then used to diagnose and treat diseases and injuries incurred by the patient. Radiographers may also assist physicians in performing other complex examination procedures. If admitted to the Radiation Therapy professional program, students complete their professional program coursework on the Indianapolis campus. Some hospitals and other providers offer radiography non-degree certificates as well. Additional information and resources at <a href="http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP">http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP</a>.

Respiratory Therapy: Respiratory therapists (RTs) evaluate and treat patients with cardiopulmonary disorders and are actively involved in health promotion and disease prevention. They care for anyone from the premature infant to the geriatric or older patient. RTs practice in a variety of settings, ranging from patients' homes to the highest level of critical care units. If admitted to the professional program, students complete their professional program coursework on the Indianapolis campus. Additional information and resources at <a href="http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP">http://hpplc.indiana.edu/ohp/AdditionalHealthcare-RelatedMajorsMinorsandCertificates.shtml#SOMHPP</a>.

### **Graduate Professional Degrees**

(Master's, Doctoral, Medical)

Admission to the programs below requires completion of prerequisite requirements - usually including a bachelor's degree and major of your choosing, prereq courses, and other admission requirements - followed by an application to the competitive professional program itself. In most cases, IU Bloomington students incorporate required prerequisite courses into a bachelor's degree and apply to a good many schools offering their program of interest, with the application usually falling about a year prior to the start of the professional program itself. Important: most graduate-level programs have no preference as to what undergraduate degree/major applicants complete. The following list is not meant to be comprehensive so we encourage students to explore additional options using the resources at <a href="http://hpplc.indiana.edu/ohp/#explore">http://hpplc.indiana.edu/ohp/#explore</a>.

#### Important notes:

- While some professional programs allow a small number of students to enter their programs before completing an undergraduate degree, this path is not common and is extremely challenging to manage. Most students should plan to complete a bachelor's degree before earning an advanced degree.
- Indiana University does not offer advanced degrees for all of the professions listed below. It is very common for students to earn their undergraduate degree at one school and a professional degree at another school.

<u>Audiology:</u> Audiologists evaluate, assess and determine a course of treatment for people who have hearing, balance and related ear problems. They interpret results of specialized tests and may coordinate them with medical, educational and psychological information to make a diagnosis and determine a course of treatment. Audiologists may work in private practice, in clinics, or with educators and other healthcare providers. Some audiologists specialize in

working with children, the elderly or special cases <a href="www.indiana.edu/~sphs/academics/">www.indiana.edu/~sphs/academics/</a>. For more information, also look this profession up in the Occupational Outlook Handbook <a href="www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>; refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...National Association of...).

Biomedical Sciences: Advances in medical science research have led to expanding opportunities to contribute to the development of new treatments and further the understanding of disease. Depending on one's area of research interest, one may pursue graduate degree programs in a variety of diverse areas in the biomedical and life sciences. The IU School of Medicine offers a Biomedical Gateway Program that can lead to PhDs in Anatomy and Cell Biology; Biochemistry and Molecular Biology; Cellular and Integrative Physiology; Medical and Molecular Genetics; Medical Biophysics and Biomolecular Imaging; Medical Neuroscience; Microbiology and Immunology; Pathology and Laboratory Medicine; Pharmacology; and Toxicology. For more information, visit <a href="http://grad.medicine.iu.edu/degree-programs/ibmg/">http://grad.medicine.iu.edu/degree-programs/ibmg/</a>). Other medical schools and universities offer a wide variety of similar programs in the biomedical and life sciences. In addition, look these professions up in the Occupational Outlook Handbook <a href="https://grad.medicine.iu.edu/degree-programs/ibmg/">www.bls.gov/ooh/a-z-index.htm</a>; refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

<u>Chiropractic Physicians:</u> Chiropractors, also known as *doctors of chiropractic* or *chiropractic physicians*, diagnose and treat patients whose health problems are associated with the body's muscular, nervous, and skeletal systems, especially the spine. Chiropractors believe that interference with these systems impairs the body's normal functions and lowers its resistance to disease. They also hold that spinal or vertebral dysfunction alters many important body functions by affecting the nervous system and that skeletal imbalance through joint or articular dysfunction, especially in the spine, can cause pain. For more information, look this profession up in the Occupational Outlook Handbook <a href="https://www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>; refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...National Association of...).

<u>Clinical Psychology:</u> Clinical psychologists often may provide individual, family, or group psychotherapy, and design and implement behavior modification programs. Some clinical psychologists collaborate with physicians and other specialists to develop and implement treatment and intervention programs that patients can understand and comply with. Other clinical psychologists work in universities and medical schools, where they train graduate students in the delivery of mental health and behavioral medicine services. (Students planning to pursue a career in *psychiatry* must complete medical school. For other graduate school paths and careers paths within related fields, see <a href="http://psych.indiana.edu/grad\_programs.php">http://psych.indiana.edu/grad\_programs.php</a>.) For more information, look this profession up in the Occupational Outlook Handbook <a href="http://psych.indiana.edu/grad\_programs.php">www.bls.gov/ooh/a-z-index.htm</a>; refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

Counseling, therapist, and related fields: Depending upon what degree / licensure they have earned, their career focus, and their work setting, counselors and therapists help people (e.g., individuals, groups, couples, and families) with personal, family, educational, mental health, and career-related problems. With the proper training and experience, one can become a counselor or director of school services personnel in elementary and secondary schools, community agencies, educational and non-educational institutions, or business and industry. A Master of Social Work degree (MSW) combined with Licensed Clinical Social Worker certification (LCSW), or PhD in clinical psychology, are among the best gateways into the counseling and therapy professions. See related entries in this document and look these professions up in the Occupational Outlook Handbook <a href="https://www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>; refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

<u>Dentistry:</u> Dentists diagnose, prevent, and treat problems with teeth or mouth tissue. They remove decay, fill cavities, examine x-rays, place protective plastic sealants on children's teeth, straighten teeth, and repair fractured teeth. They also perform corrective surgery on gums and supporting bones to treat gum diseases. Dentists extract teeth and make models and measurements for dentures to replace missing teeth. They provide instruction on diet, brushing, flossing, the use of fluorides, and other aspects of dental care; and administer anesthetics and write prescriptions for antibiotics and other medications. For more information, look this profession up in the Occupational Outlook Handbook <a href="https://www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>; refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...National Association of...).

<u>Forensic Anthropology:</u> Forensic anthropologists analyze human remains for legal and humanitarian reasons. The majority of forensic anthropologists are associated with academic or research institutions and consult on legal cases when asked. Others are employed by medical examiner's offices, the armed forces, non-government organizations or ad-hoc tribunals. Forensic anthropologists usually have a PhD or a Master's degree in physical or biology

anthropology, and often a bachelor's degree in anthropology. A strong background in biology and chemistry are also needed. For more information, look this profession up in the Occupational Outlook Handbook <a href="www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>; refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

<u>Health Administration</u>: Healthcare organizations need good management to keep them running smoothly. The occupation of medical and health services manager encompasses all individuals who plan, direct, coordinate, and supervise the delivery of healthcare. Medical and health services managers include specialists and generalists. Specialists are in charge of specific clinical departments or services, while generalists manage or help to manage an entire facility or system. For more information, look this profession up in the Occupational Outlook Handbook <a href="https://www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>; refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

<u>Law: Health, Patent, Intellectual Property:</u> Science majors do extremely well in law school admissions generally, as well as in specialties such as Health Law, Intellectual Property, Bioethics, Trademarks, Copyright, Patent Law, and Bioengineering. In addition, many law schools offer certificate programs or other opportunities to specialize in areas for which a science background would be helpful. Use the career research resources at <a href="www.hpplc.indiana.edu/law/law-ires.shtm">www.hpplc.indiana.edu/law/law-ires.shtm</a>]. For more information, also look related professions up in the Occupational Outlook Handbook <a href="www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>; refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

Medical Physics: Medical Physics is the bridge connecting physics and medicine. A medical physicist is a professional who specializes in the application of the concepts and methods of physics to the diagnosis and treatment of human disease. There are two principle branches of medical physics: clinical practice and research. Within each of these branches you will find several disciplines including therapeutic radiological physics, diagnostic imaging physics, medical nuclear physics, health physics, radiation biology and biophysics. In the hospital setting, medical physicists partner with physicians to develop radiation therapy treatments for patients. They certify and maintain therapy and imaging equipment and ensure a safe clinical working environment. In the laboratory, medical physicists develop new therapies and imaging technologies based upon cutting edge biology and physics <a href="https://www.aapm.org/medical\_physicist/default.asp">www.aapm.org/medical\_physicist/default.asp</a>. For more information, also look this profession up in the Occupational Outlook Handbook <a href="https://www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>; refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

Medicine: Physicians and surgeons serve a fundamental role in our society and have an effect upon all our lives. They diagnose illnesses and prescribe and administer treatment for people suffering from injury or disease. Physicians examine patients, obtain medical histories, and order, perform, and interpret diagnostic tests. They counsel patients on diet, hygiene, and preventive healthcare. There are two types of physicians: Doctor of Medicine (MD) and Doctor of Osteopathic Medicine (DO). MDs are also known as allopathic physicians. While both MDs and DOs may use all accepted methods of treatment, including drugs and surgery, DOs place special emphasis on the body's musculoskeletal system, preventive medicine, and holistic patient care. DOs are more likely than MDs to be primary care specialists although they can be found in all specialties. About half of DOs practice general or family medicine, general internal medicine, or general pediatrics. Read <a href="http://hpplc.indiana.edu/medicine/med-res-twokinds.shtml">http://hpplc.indiana.edu/medicine/med-res-twokinds.shtml</a>. Then, for more information, look these professions up in the Occupational Outlook Handbook <a href="http://www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>. Refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

Occupational Therapy (OT): Occupational therapists help people maximize their ability to participate in life independently. With OT, children and adults facing physical, cognitive or psychosocial challenges can improve skills that help them perform daily tasks at home, school, work and play. Occupational therapists don't simply treat medical conditions. They help people stay engaged in activities that give them pleasure or a sense of purpose despite challenges. Critical thinking and problem-solving skills, patience, empathy, strong communication skills and the ability to work with a team of caregivers are skills to this profession. For more information, read <a href="http://hpplc.indiana.edu/ohp/ohp-ot.shtml#description">http://hpplc.indiana.edu/ohp/ohp-ot.shtml#description</a>, and look this profession up in the Occupational Outlook Handbook <a href="http://www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>. Refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

**Optometry:** Doctors of Optometry (ODs) are the primary healthcare professionals for the eye. Optometrists examine, diagnose, treat, and manage diseases, injuries, and disorders of the visual system, the eye, and associated structures

as well as identify related systemic conditions affecting the eye. For more information, look this profession up in the Occupational Outlook Handbook <a href="https://www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>, and refer to the websites of professional organizations affiliated with the profession (e.g., American Association of...National Association of...).

<u>Pharmacy:</u> Pharmacists dispense drugs prescribed by physicians and other health practitioners and provide information to patients about medications and their use. They advise physicians and other health practitioners on the selection, dosages, interactions, and side effects of medications. Pharmacists also monitor the health and progress of patients in response to drug therapy to ensure safe and effective use of medication. Pharmacists must understand the use, clinical effects, and composition of drugs, including their chemical, biological, and physical properties. For more information, also look this profession up in the Occupational Outlook Handbook <a href="https://www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>; refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

<u>Physical Therapy:</u> Physical therapists (PTs) are healthcare professionals who diagnose and treat individuals of all ages, from newborns to the elderly, who have medical problems or other health-related conditions that limit their abilities to move and perform functional activities in their daily lives. PTs provide interventions utilizing therapeutic exercise, physical agents and assistive devices to restore function, relieve pain and prevent or limit permanent disabilities. They may also participate in administrative, teaching and research activities. For more information, read <a href="http://hpplc.indiana.edu/ohp/ohp-pt.shtml#a1">http://hpplc.indiana.edu/ohp/ohp-pt.shtml#a1</a>, and look this profession up in the Occupational Outlook Handbook <a href="http://hpplc.indiana.edu/ohp/ohp-pt.shtml#a1">www.bls.gov/ooh/a-z-index.htm</a>. Refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

<u>Physician Assistant:</u> Physician Assistants (PAs) are health care professionals licensed to practice medicine with physician supervision. As part of their comprehensive responsibilities, PAs conduct physical exams, diagnose and treat illnesses, order and interpret tests, counsel on preventative health care, assist in surgery and, in all states, are permitted to write prescriptions. Because of the close working relationship that PAs have with physicians, PAs are educated in the medical model designed to complement physician training. PA school is often described as "accelerated medical school. For more information, read <a href="http://hpplc.indiana.edu/ohp/ohp-pa.shtml#Description">http://hpplc.indiana.edu/ohp/ohp-pa.shtml#Description</a>, and look this profession up in the Occupational Outlook Handbook <a href="https://www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>. Refer also to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

<u>Podiatric Medicine:</u> Podiatrists treat corns, calluses, ingrown toenails, bunions, heel spurs, and arch problems; ankle and foot injuries, deformities, and infections; and foot complaints associated with diseases such as diabetes. To treat these problems, podiatrists prescribe drugs, order physical therapy, set fractures, and perform surgery. They also fit corrective inserts called orthotics, design plaster casts and strappings to correct deformities, and design custom-made shoes. Podiatrists may use a force plate to help design the orthotics. For more information, look this profession up in the Occupational Outlook Handbook <a href="https://www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>, and refer to the websites of professional organizations affiliated with the profession (e.g., American Association of...National Association of...).

<u>Public Health:</u> Public health experts develop, implement, and evaluate interventions designed to affect health behaviors in populations as well as develop and design public policies that affect public health. They work in public and private settings such as business, industry, higher education, volunteer agencies, government and health care <a href="www.whatispublichealth.org/">www.whatispublichealth.org/</a>. For more information, also look this profession up in the Occupational Outlook Handbook <a href="www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>, and refer to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

Recreational Therapy: Recreational therapists improve health, functional ability and quality of life for people with disabilities and illnesses through a variety of recreational activities. Therapists help individuals build confidence, socialize effectively, reduce depression and anxiety, recover motor functioning and reasoning abilities. They also teach people with disabilities how to use community resources and recreational activities. The School of Public Health's Department of Recreation, Park, and Tourism Studies a Master's Degree in recreational Therapy. It is *not* an advanced practice degree, like most degrees listed in this section, but is instead designed for those who have already graduated with a different undergraduate degree <a href="www.publichealth.indiana.edu/degrees/graduate.shtml">www.publichealth.indiana.edu/degrees/graduate.shtml</a>. Also offered, is an undergraduate rec therapy degree/major <a href="www.publichealth.indiana.edu/degrees/undergraduate.shtml">www.publichealth.indiana.edu/degrees/undergraduate.shtml</a>, intended for those who are still relatively early-on in their undergraduate degree.

<u>Social Work:</u> Those with social work degrees possess a strong desire to help improve people's lives and to advocate on their behalf. They work in a great variety of settings and in many different capacities. While a Bachelor of Social Work degree (BSW) can lead to specific jobs, a Master of Social Work (MSW) offers entre into many additional job and career options. For more information on the MSW click the Programs & Campuses menu item at <a href="http://socialwork.iu.edu/">http://socialwork.iu.edu/</a>. For additional information, look up social work in the Occupational Outlook Handbook <a href="http://socialwork.iu.edu/">www.bls.gov/ooh/a-z-index.htm</a>, and refer to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

<u>Speech-language Pathologists:</u> Speech-language pathologists assess, diagnose, treat and help prevent speech, language, cognitive, communication, voice, swallowing, fluency and other related disorders <a href="https://www.indiana.edu/~sphs/academics/">www.indiana.edu/~sphs/academics/</a>. For more information, also look this profession up in the Occupational Outlook Handbook <a href="https://www.bls.gov/ooh/a-z-index.htm">www.bls.gov/ooh/a-z-index.htm</a>, and refer to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

<u>Veterinary Medicine:</u> Veterinarians serve in various roles in our society: 1) they provide healthcare for animals in all types of settings, 2) they conduct research, and 3) they protect humans against diseases carried by animals. They work in their own or group practices; as US government meat and poultry inspectors; as animal welfare and safety workers, epidemiologists, or commissioned officers for US Public Health Service or various branches of the US Armed Forces. For more information, look this profession up in the Occupational Outlook Handbook <u>www.bls.gov/ooh/a-z-index.htm</u>, and refer to the websites of professional organizations affiliated with the profession (e.g., American Association of...).

#### **Important**

This information was prepared for Indiana University Bloomington students by the Health Professions and Prelaw Center. Please note that specific requirements and policies can change at any time without notice. Students are responsible for obtaining the most current information directly from application and testing services, and the schools and programs in which they have an interest. Refer to each program's web pages, bulletins, and other publications for the most current information. Students are responsible for understanding degree course requirements, as well as other requirements, policies, and procedures related to the degree(s) they are pursuing; for enrolling in appropriate courses; for understanding IU policies/procedures; and for following through properly with regard to all of the preceding.

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