

HEALTHCARE SCIENCES

Physical & Occupational Therapy, Cytotechnology, Dental Hygiene,
Health Information Management, Medical Technology

What can I do with these degrees?

AREAS

PHYSICAL THERAPY

Physical therapy involves treatment through physical means for people disabled by illness, accident, or congenital handicap. Physical therapy seeks to improve mobility, relieve pain, or minimize permanent physical disabilities.

Clinical Practice

Acute care

Neuro-rehab

Out-patient

Management

Education

Research

Consultation

EMPLOYERS

Hospitals

Clinics

Home healthcare agencies

Nursing homes

Sports medicine facilities

Rehabilitation centers

Schools

Group or private practices

Universities and colleges

STRATEGIES/INFORMATION

Earn a master's degree in physical therapy from a program accredited by the American Physical Therapy Association. Programs include supervised clinical experiences. Some programs are moving toward a doctoral degree. Obtain a doctoral degree for teaching and research positions.

All states require licensure which includes passing an examination.

One third of physical therapists work in hospitals and one quarter are employed in physical therapy offices.

Attain superior grades in pre-physical therapy course work due to intense competition for admittance to physical therapy programs.

Obtain knowledge of several basic sciences including anatomy, physiology, biology, chemistry, and physics.

Volunteer for a physical therapist in a hospital or clinic to gain experience and improve chances of acceptance into a program. Many programs require volunteer experiences and a good knowledge of the field for admission.

Develop strong interpersonal and communication skills. Must possess patience and a desire to help individuals of all ages with disabilities. A positive attitude is important when working with patients.

Manual dexterity and physical stamina are important in succeeding in physical therapy work.

Some physical therapists specialize in pediatrics, geriatrics, sports, orthopedics, etc. after gaining several years of general experience.

AREAS

OCCUPATIONAL THERAPY

Occupational therapy is the treatment of people who are unable to function independently due to an injury, illness, or disability. Occupational therapists utilize activities with specific goals to enhance the quality of life and increase the independence of individuals who have a mentally, emotionally, or physically disabling condition.

Screening
Evaluation
Treatment
 Physical
 Psychosocial
 Social
 Vocational
Follow-up
Administration
Teaching

EMPLOYERS

Hospitals (including psychiatric and rehabilitative)
Schools
Group or private practice
Nursing homes
Community mental health centers
Adult daycare programs
Job training centers
Residential care facilities
Out-patient rehabilitation facilities
Federal and state government
 Armed Forces
 Public Health Service
 Veterans Administration
Universities and colleges

STRATEGIES/INFORMATION

Earn a bachelor's or master's degree in occupational therapy to gain entry in the field.
Some programs offer a "certificate" in occupational therapy for students having a degree other than O.T.
All states regulate O.T. licensure. Requirements include passing a certification exam given by the American Occupational Therapy Certification Board and a supervised clinical internship. Those who have passed the exam become Registered Occupational Therapists (OTR).
Doctoral degree is preferred for university teaching positions.
Occupational therapists may choose to specialize in a particular age group or type of disability.
Build a solid foundation in physical, biological, and behavioral sciences.
Individuals working in occupational therapy should possess patience and a true interest in helping people with disabilities reach their full potential.
Develop communication skills which are important when interacting with patients and their families.
Volunteer in an occupational therapy or related healthcare setting to experience the field first-hand and improve chances of program admittance.
Learn to work well within a team. O.T.'s work with many other professionals, including physicians, physical therapists, and social workers in the rehabilitation of patients.

AREAS

EMPLOYERS

STRATEGIES/INFORMATION

CYTOTECHNOLOGY

Cytotechnologists are detectives who study the patterns of disease progression found in human cells. These laboratory professionals detect subtle changes and clues within cells. With expert eyes, the cytotechnologist looks for the smallest abnormalities in color, shape, and size that may indicate clinically significant conditions. This rewarding profession provides the potential to help save lives by discovering disease early and uncovering information that informs effective treatment.

Screening and Diagnosis:

- Cancer
- Pre-cancerous abnormalities
- Benign tumors or growths
- Infectious organisms and inflammatory conditions

Evaluation of Tissue:

- Bladder
- Bone and soft tissue
- Breast
- Female reproductive tract
- Liver
- Lung
- Lymph nodes
- Pancreas
- Thyroid

Technological Equipment Operation:

- Light microscopes
- Biomedical instrumentation
- Laboratory information systems

Hospital and private laboratories
Federal and state government laboratories
Clinics and university medical centers
Public health facilities
Research and biotechnology industry
Healthcare administrative departments
Educational institutions

Supplement curriculum with courses in biology that emphasize body structure, development, tissue organization, and function. Recommended courses include histology, cellular biology, and genetics. Additional recommended coursework may include other biological sciences such as zoology or ecology.

Become familiar with applied learning techniques.

Most programs utilize a combination of training activities such as microscopic evaluation, laboratory skills development, case presentations, research, community health projects, and supervised clinical laboratory site experiences.

Earn a Bachelor of Science Degree in Cytotechnology from a program accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

Prepare for and pass the certification examination given by the Board of Registry of the American Society of Clinical Pathologists.

Develop problem solving as well as effective written and verbal communication skills.

Display personal characteristics such as accuracy, responsibility, and motivation.

AREAS

EMPLOYERS

STRATEGIES/INFORMATION

DENTAL HYGIENE

Dental hygienists help people of all ages maintain optimal oral health by working with dentists to prevent tooth decay, periodontal disease, oral cancer, and other conditions that affect oral function.

Specific areas of activity for dental hygienists include:

- Gathering data for a dental diagnosis
- Recording medical and dental histories
- Screening and charting oral structures and conditions
- Exposing and processing oral radiographs
- Dietary analysis
- Providing oral disease prevention information and instruction
- Monitoring oral health status of individuals
- Providing therapeutic services
- Removing calculus and plaque from the teeth
- Applying fluoride and dental sealants to the teeth

Private dental offices and dental clinics
Federal, state, and local health departments or associated institutions
Hospitals and nursing homes
School districts or departments of education
Private business/industry
Correctional facilities
Private and public centers for pediatric, geriatric, and other individuals or groups with special needs
Health maintenance organizations

Associate or bachelor's degree is required to enter the field in all states except Alabama.
A passing score on the Dental Hygiene National Board Examination and state or regional clinical examination is also required for licensure.
A master's degree in dental hygiene is available at some institutions.
The scope of practice for dental hygienists is determined by individual states.
Opportunities for practice are available throughout the world.

HEALTH INFORMATION MANAGEMENT

HIM professionals play critical roles in maintaining, collecting and analyzing the data that doctors, nurses, and other healthcare providers rely on in the delivery of quality healthcare.

Patient Health Information Management
Medical Records Administration
Computer Information Systems Management
Diagnosis and Procedure Coding
Personnel and Budget Administration
Quality Improvement
Research

Physician offices and clinics
Long-term care facilities
Insurance companies
Government agencies
Home care providers
Behavioral health facilities
Information systems vendors
Rehabilitation centers
Pharmaceutical companies
Hospitals

Earn a bachelor's degree in Health Information Management from a program accredited by the American Health Information Management Association.
A passing score on a national examination is required for certification as a Registered Health Information Administrator (RHIA).
Visit a health information management department in a hospital to better understand the role of health information managers.
Develop strong oral and written communication skills, interpersonal skills, orientation to detail, flexibility, and basic computer skills in word processing, spreadsheets, and databases.

AREAS

EMPLOYERS

STRATEGIES/INFORMATION

MEDICAL TECHNOLOGY

Medical technologists, also known as clinical laboratory scientists, work together with other members of the healthcare team to perform and supervise laboratory analyses on blood, body fluids, and tissue. They also provide data to detect, diagnose, and monitor disease. Medical technologists use medical equipment such as microscopes, computers, and other highly technical instruments to assist them in their work.

Blood Banking
Microbiology
Hematology
Chemistry
Immunology
Urinalysis
Molecular Biology

Hospital and private laboratories
Biotechnology industry
Research and forensic laboratories
Public health laboratories
Laboratory industry sales and lab product development
Universities and colleges
Pharmaceutical companies
Armed forces

Earn a bachelor's degree in medical technology from a program accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).
Be prepared to participate in supervised clinical experiences.
Many states require a license to practice. Obtain licensure by passing a certification exam given by the National Certification Agency for Clinical Laboratory Sciences (NCA) or the American Society for Clinical Pathology Board of Registry (ASCP).
Attain good grades in pre-medical technology course work, including biology, anatomy, physiology, and general and organic chemistry.
Develop manual dexterity, fine motor skills, and an attention to detail.
Visit a clinical laboratory. Talk with practitioners to gain critical knowledge of the profession.