



Everywhere you Look, Health Science Touches your Life

Health Science : Career
Exploration



Copyright © Texas Education Agency, 2017.

These Materials are copyrighted © and trademarked ™ as the property of the Texas Education Agency (TEA) and may not be reproduced without the express written permission of TEA, except under the following conditions:

- 1) Texas public school districts, charter schools, and Education Service Centers may reproduce and use copies of the Materials and Related Materials for the districts' and schools' educational use without obtaining permission from TEA.
- 2) Residents of the state of Texas may reproduce and use copies of the Materials and Related Materials for individual personal use only, without obtaining written permission of TEA.
- 3) Any portion reproduced must be reproduced in its entirety and remain unedited, unaltered and unchanged in any way.
- 4) No monetary charge can be made for the reproduced materials or any document containing them; however, a reasonable charge to cover only the cost of reproduction and distribution may be charged.

Private entities or persons located in Texas that are **not** Texas public school districts, Texas Education Service Centers, or Texas charter schools or any entity, whether public or private, educational or non-educational, located **outside the state of Texas** *MUST* obtain written approval from TEA and will be required to enter into a license agreement that may involve the payment of a licensing fee or a royalty.

For information contact: Office of Copyrights, Trademarks, License Agreements, and Royalties, Texas Education Agency, 1701 N. Congress Ave., Austin, TX 78701-1494; phone 512-463-7004; email:

copyrights@tea.state.tx.us.



Stop and look around...



- > Chances are you have been to the doctor or dentist lately. Your grandmother may have recently stayed in the hospital. New developments in biotechnology may have affected the food you ate for breakfast today.



The World of Health Science...

- > There are many opportunities within the world of health science. Interested students need to have a solid background in math and science as well as communication, technical and teamwork skills. Education and training can be obtained in high schools, community colleges, universities and technical schools. Through the training programs, learners gain knowledge and skills that lead to workplace learning experiences like job shadowing and internships.



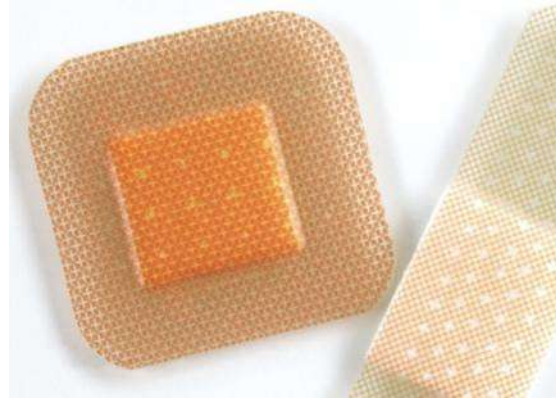


Career Pathways

- > The health science career cluster is divided into 5 career pathways. Pathways are grouped by common knowledge and skills required for occupations in these career fields. Each pathway provides instruction as a basis for success in an array of careers and educational pursuits.



The Five Pathways



- > Therapeutic Services
- > Diagnostic Services
- > Health Informatics
- > Support Services
- > Biotechnology Research and development



Employment Outlook

- > Health Science is the largest and fastest growing industry in the United States. The health care industry employs over 10 million workers in more than 200 careers.





Therapeutic Services

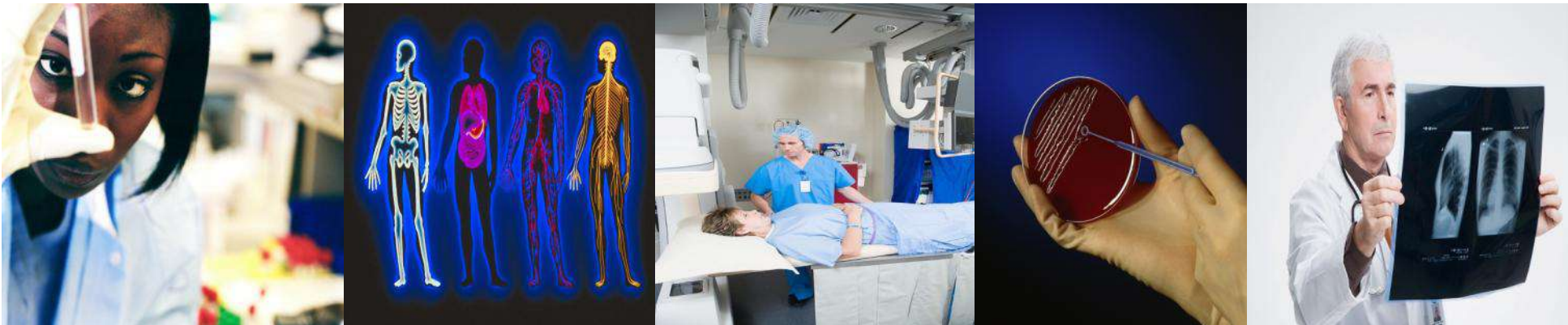
- > Careers in therapeutic services are primarily focused on changing the health status of the patient over time. Health professionals work directly with patients and may provide care, treatment, counseling and health education information.





Diagnostic Services

- > Careers in diagnostic services use tests and evaluations that aid in the detection, diagnosis and treatment of diseases, injuries or physical conditions.





Health Informatics

- > The health informatics pathway offers a wide range of career opportunities. Careers range from health care administrators who manage health care agencies to individuals responsible for managing patient data, financial information and computer application related to health care processes and procedures.





Support Services

- > Careers in the support services provide a therapeutic environment for the delivery of health care. Career opportunities range from entry level to management including technical and professional careers.





Biotechnology Research and Development

- > Careers in the biotechnology research and development pathway involve bioscience research and development as it applies to human health. These are scientists who may study diseases to discover new treatments, invent medical devices or improve the accuracy of diagnostic tests.





Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Sample Career Specialties/Occupations	Acupuncturist Anesthesiologist/Assistant Anesthesia Technologist/Technician Art/Music/Dance Therapist(s) Athletic Trainer Audiologist Certified Nursing Assistant Chiropractor Chiropractic Assistant Dental Assistant/Hygienist Dental Lab Technician Dietitian/Nutritionist Denturist EMT/Paramedic Endodontist Exercise Physiologist Home Health Aide Kinesiotherapist Licensed Practical Nurse Massage Therapist Medical Assistant Mental Health Counselor Naturopathic Doctor Nurse Anesthetist Nurse Midwife Nurse Practitioner Occupational Therapist/Assistant Oral Surgeon Orientation/Mobility Specialist Orthodontist Orthopedist Orthopedic Prosthetist/Technician Podiatrist Perfusionist Pharmacist Pharmacy Technician Physical Therapist/Assistant Physician (MD/DO) Physician Assistant Podiatrist Psychologist Psychiatrist Radiation Therapist Recreation Therapist Registered Nurse Rehabilitation Counselor Respiratory Therapist Speech-Language Therapist Surgical Technician Veterinarian Veterinarian Assistant/Technician Vision Rehabilitation Therapist Wellness Coach	Audiologist Blood Bank Technology Specialist Cardiovascular Technologist Clinical Lab Technician Clinical Laboratory/Technologist Computer Tomography (CT) Technologist Cytogenetic Technologist Cytotechnologist Dentist Diagnostic Medical Sonographer Electrocardiographic (ECG) Technician Electroencephalographic Technologist Electronic Diagnostic (EEG) Technologist Exercise Physiologist Geneticist Geriatrician Histotechnician Histotechnologist Magnetic Resonance Technologist Mammographer Medical Technologist/Clinical Laboratory Scientist Nuclear Medicine Technologist Optician Ophthalmologist Ophthalmic Assistant/Technologist Optometrist Pathologists' Assistant Phlebotomist Polysomnographic Technologist Positron Emission Tomography (PET) Technologist Radiologic Technologist Radiologist Speech-Language Pathologist	Admitting Clerk Applied Researcher Compliance Technician Clinical Account Manager Clinical Account Technician Clinical Data Specialist Community Services Specialists Data Quality Manager Epidemiologist Ethicist Health Educator Health Information Mgmt. Administrator Health Information Mgmt. Technician Healthcare Access Manager Healthcare Administrator Healthcare Finance Information Information Privacy Officer Managed Care Contract Analyst Medical Coder Medical Historian Medical Illustrator Medical Information Technologist Medical Librarian Medical Transcriptionist Patient Account Manager Patient Account Technician Patient Advocate Patient Information Coordinator Project Manager Public Health Educator Quality Management Specialist Quality Data Analyst Research and Decision Support Specialist Reimbursement Specialist Risk Manager Unit Coordinator Utilization Manager Utilization Review Manager	Animal Behaviorist Biomedical/Clinical Engineer Biomedical/Clinical Technician Clinical Simulator Technician Central Service Manager Central Service Technician Community Health Worker Dietary Manager Dietetic Technician Environmental Health Advocate Environmental Health Practitioner Environmental Services/ Specialist Facilities Manager Food Safety Specialist Health Advocate Hospital Maintenance Engineer Industrial Hygienist Interpreter Marital, Couple, Family Counselor/Therapist Materials Manager Medical Health Counselor Mortician/Funeral Director Nurse Educator Occupational Health Nurse Occupational Health & Safety Expert Social Worker Transport Technician	Biochemist Bioinformatics Scientist Biomedical Chemist Biomedical Manufacturing Technician Biostatistician Cancer Registrar Cell Biologist Clinical Data Management Specialist Clinical Pharmacologist Clinical Trials Monitor Clinical Trials Research Coordinator Crime Scene Investigator Diagnostic Molecular Scientist Forensic Biologist Forensic Chemist Forensic Odontologist Forensic Pathologist Genetic Counselor Geneticist-Lab Assistant Lab Technician Medical Editor/Writer Microbiologist Molecular Biologist Nurse Researcher Packaging Technician Patent Lawyer Pharmaceutical/Clinical Project Manager Pharmaceutical Sales Representative Pharmaceutical Scientist Pharmacokineticist Pharmacologist Product Safety Scientist Process Development Scientist Processing Technician Quality Assurance Technician Quality Control Technician Regulatory Affairs Specialist Research Assistant Research Scientist Toxicologist
	Therapeutic Services	Diagnostics Services	Health Informatics	Support Services	Biotechnology Research and Development
Cluster K & S	Cluster Knowledge and Skills: • Academic Foundation • Communications • Systems • Employability Skills • Legal Responsibilities • Ethics • Safety Practices • Teamwork • Health Maintenance Practices • Technical Skills • Information Technology Applications Revised July 2009				





The Future...

- > Health science will bring better health care
- > Outstanding employment opportunities



Resources

> www.careerclusters.org