

Health Science Career Cluster

The Health Science Career Cluster focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

Healthcare Diagnostics Statewide Program of Study



The Healthcare Diagnostics program of study introduces students to occupations and education opportunities related to performing complex medical laboratory tests for the diagnosis, treatment, and prevention of disease. This program of study may also include exploration into the opportunities associated with blood laboratories as well as radiologic technology and ultrasound technology.

Secondary Courses for High School Credit

Level 1

- Principles of Health Science
- Principles of Diagnostic Healthcare
- Introduction to Imaging Technology

Level 2

- Medical Terminology
- Imaging Technology I

Level 3

- Health Science Theory/Health Science Clinical
- Medical Microbiology
- Imaging Technology II

Level 4

- Anatomy and Physiology
- Pathophysiology
- Practicum in Health Science

Postsecondary Opportunities

Associates Degrees

- Nuclear Medical Technology/Technologist
- Magnetic Resonance Imaging (MRI) Technology/Technician

Bachelor's Degrees

- Nuclear Medical Technology/Technologist
- Medical Radiologic Technology/Science Radiation Therapist

Master's, Doctoral, and Professional Degrees

- Radiologist
- Radiologic Technology/Science Radiographer

Work-Based Learning and Expanded Learning Opportunities

| Exploration Activities | Work-Based Learning Activities |
|--|--|
| <ul style="list-style-type: none"> • Participate in Health Occupation Students of America | <ul style="list-style-type: none"> • Perform clinical rotations at a community wellness center, hospital, assisted living, nursing home |

Industry-Based Certifications

- Certified Cardiographic Technician
- Certified Clinical Medical Assistant
- Certified EKG Technician
- ECG Technician
- Limited Medical Radiologic Technologist
- Medical Assistant
- Medical Laboratory Assistant
- Medical Laboratory Technician
- Nationally Registered Certified EKG Technician
- Phlebotomy Technician
- Registered Diagnostic Medical Sonographer - Abdomen*
- Registered Diagnostic Medical Sonographer - Obstetrics and Gynecology*
- Registered Technologist - Cardiac-Interventional Radiography*
- Registered Technologist - Computed Tomography*
- Registered Technologist - Magnetic Resonance Imaging*
- Registered Technologist - Mammography*
- Registered Technologist - Nuclear Medicine Technology*
- Registered Technologist - Radiography*
- Registered Technologist - Sonography*
- Registered Technologist - Vascular Sonography*
- Registered Technologist - Vascular-Interventional Radiography*
- Registered Vascular Technology*

*IBC sunseting 8/31/24

Aligned Occupations

| Occupations | Median Wage | Annual Openings | % Growth |
|--|-------------|-----------------|----------|
| Diagnostic Medical Sonographers | \$69,909 | 495 | 35% |
| Phlebotomist | \$30,597 | 1,442 | 36% |
| Nuclear Medicine Technologists | \$75,962 | 91 | 13% |
| Radiologic Technologists | \$55,494 | 1,196 | 21% |
| Magnetic Resonance Imaging Technologists | \$68,661 | 217 | 21% |

Successful completion of the Healthcare Diagnostics program of study will fulfill requirements of the Public Service or STEM endorsement if the math and science requirements are met. Revised – August 2022

Healthcare Diagnostics Course Information

Level 1

| COURSE NAME | SERVICE ID | PREREQUISITES | COREQUISITES |
|-------------------------------------|---------------------|---------------|--------------|
| Principles of Health Science | 13020200 (1 credit) | None | None |
| Principles of Diagnostic Healthcare | N1302106 (1 credit) | None | None |
| Introduction to Imaging Technology | N1302102 (1 credit) | None | None |

Level 2

| COURSE NAME | SERVICE ID | PREREQUISITES | COREQUISITES |
|----------------------|---------------------|---------------|--------------|
| Medical Terminology | 13020300 (1 credit) | None | None |
| Imaging Technology I | N1302123 (1 credit) | None | None |

Level 3

| COURSE NAME | SERVICE ID | PREREQUISITES | COREQUISITES |
|---|---|-----------------------|--------------|
| Health Science Theory/Health Science Clinical | 13020400 (1 credit) 13020410 (2 credits) | Biology | None |
| Medical Microbiology | 13020700 (1 credit) | Biology and Chemistry | None |
| Imaging Technology II | N1302131 (1 credit) | Imaging Technology I | None |

Level 4

| COURSE NAME | SERVICE ID | PREREQUISITES | COREQUISITES |
|-----------------------------|--|-------------------------------------|--------------|
| Anatomy and Physiology | 13020600 (1 credit) | Biology and a second science credit | None |
| Pathophysiology | 13020800 (1 credit) | Biology and Chemistry | None |
| Practicum in Health Science | 13020500 (2 credits) 13020505 (3 credits) 13020510 (2 credits) 13020515 (3 credits) | Health Science Theory and Biology | None |

FOR ADDITIONAL INFORMATION ON THE HEALTH SCIENCE CAREER CLUSTER,
PLEASE CONTACT: CTE@tea.texas.gov
<https://tea.texas.gov/cte>

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