

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. This career cluster includes occupations ranging from medical assistant, registered nurse, and physical therapist to forensic science technician and athletic trainer.

Statewide Program of Study: *Diagnostic and Therapeutic Services*

The Diagnostic and Therapeutic Services program of study focuses on occupational and educational opportunities associated with diagnosing and treating acute, episodic, or chronic illness independently or as part of a healthcare team. This program of study includes exploration of patient treatment and rehabilitative programs that help build or restore daily living skills to persons with disabilities or developmental delays.

Secondary Courses for High School Credit

Level 1	<ul style="list-style-type: none"> Principles of Health Science Principles of Diagnostic Healthcare Principles of Therapeutic Healthcare Principles of Allied Health Introduction to Dental Science Introduction to Imaging Technology Introduction to Pharmacy Science
Level 2	<ul style="list-style-type: none"> Medical Terminology Allied Health Therapeutic Services Dental Anatomy and Physiology Disaster Response Imaging Technology I Pharmacy I
Level 3	<ul style="list-style-type: none"> Anatomy and Physiology Medical Microbiology Medical Assistant Emergency Medical Technician–Basic Clinical Ethics Dental Equipment and Procedures Health Science Theory Health Science Theory + Health Science Clinical Respiratory Therapy I Imaging Technology II Pharmacy II
Level 4	<ul style="list-style-type: none"> Mathematics for Medical Professionals Pathophysiology Pharmacology Respiratory Therapy II Optical Technician Sterile Processing (TBD) Practicum in Health Science Practicum in Health Science + Extended Practicum in Health Science Career Preparation for Programs of Study Career Preparation for Programs of Study + Extended Career Preparation

Aligned Advanced Academic Courses

AP or IB	AP Biology	AP Chemistry
	IB Biology SL	IB Chemistry SL
	IB Biology HL	IB Chemistry HL
Dual Credit	Dual credit offerings will vary by local education agency.	

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none"> Intern with a medical assistant at a community clinic, hospital, assisted living, or long-term care facility Participate in job shadowing experiences such as Emergency Medical Services (EMS) ride along or hospital/clinical job
Expanded Learning Opportunities	<ul style="list-style-type: none"> Participate in Health Occupation Students of America (HOSA) or SkillsUSA Participate in Advanced Medical Ambulance Bus (AMBUS) event or Community Emergency Response Team (CERT) event

Aligned Industry-Based Certifications

- Certified Cardiographic Technician
- Certified Clinical Medical Assistant
- Certified Dental Assistant
- Certified EKG Technician
- Certified Nurse Aide (CNA)
- Certified Occupational Therapy Assistant
- ECG Technician
- Emergency Medical Technician–Basic
- Limited Medical Radiologic Technologist
- Medical Assistant
- Medical Laboratory Assistant
- Medical Laboratory Technician
- Nationally Registered Certified EKG Technician
- Patient Care Technician
- Pharmacy Technician
- Phlebotomy Technician
- Registered Dental Assistant X-Ray Certification
- Emergency Medical Responder
- Certified Respiratory Therapist

Successful completion of the Diagnostic and Therapeutic Services program of study will fulfill requirements of the Public Services endorsement or the STEM endorsement if the math and science requirements are met.



Example Postsecondary Opportunities

Apprenticeships

- Medical Assistant

Associate Degrees

- Emergency Medical Technology
- Radiologic Technology/Science

Bachelor's Degrees

- Emergency Medical Technology
- Medical Insurance Coding

Master's, Doctoral, and Professional Degrees

- Medicine
- Occupational Therapy

Additional Stackable IBCs/License

- Registered Diagnostic Medical Sonographer



Example Aligned Occupations

Medical Assistants

Median Wage: \$36,834
Annual Openings: 11,638
10-Year Growth: 29%

Dental Hygienists

Median Wage: \$79,663
Annual Openings: 1,352
10-Year Growth: 32%

Physician Assistants

Median Wage: \$127,332
Annual Openings: 974
10-Year Growth: 41%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:
<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>



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Course Information

Level 1

Course	Prerequisites Corequisites	Career Clusters
Principles of Health Science* 13020200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Principles of Diagnostic Healthcare N1302106 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Principles of Therapeutic Healthcare N1302110 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: Biology	
Principles of Allied Health* N1302105 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Introduction to Dental Science N1302101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Introduction to Imaging Technology N1302102 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Introduction to Pharmacy Science N1302103 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Level 2

Course	Prerequisites Corequisites	Career Clusters
Medical Terminology* 13020300 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Allied Health Therapeutic Services* N1302120 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Allied Health Recommended Corequisites: None	

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* Indicates course is included in more than one program of study.

For additional information on the **Health Science** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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Diagnostic and Therapeutic Services



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Statewide Program of Study: *Diagnostic and Therapeutic Services*

Course Information

Level 2

Course	Prerequisites Corequisites	Career Clusters
Dental Anatomy and Physiology N1302122 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Biology and Introduction to Dental Science Recommended Corequisites: None	
Disaster Response N1303011 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Law, Public Safety, Corrections, and Security Recommended Corequisites: None	
Imaging Technology I N1302123 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Introduction to Imaging Technology Recommended Corequisites: None	
Pharmacy I 13021020 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Biology, Introduction to Pharmacy Science, or Principles of Health Science Recommended Corequisites: None	

Level 3

Course	Prerequisites Corequisites	Career Clusters
Anatomy and Physiology* 13020600 (1 credit)	Prerequisites: One credit in Biology and one credit in Chemistry, Integrated Physics and Chemistry, or Physics Corequisites: None Recommended Prerequisites: A course from the Health Science career cluster Recommended Corequisites: None	
Medical Microbiology* 13020700 (1 credit)	Prerequisites: One credit in Biology, one credit in Chemistry, and at least one credit in a course from the Health Science career cluster Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

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Level 3

Course	Prerequisites Corequisites	Career Clusters
Medical Assistant 13021015 (1 credit)	Prerequisites: Anatomy and Physiology (may be a corequisite) Corequisites: Anatomy and Physiology (may be a prerequisite) Recommended Prerequisites: Medical Terminology Recommended Corequisites: None	
Emergency Medical Technician–Basic N1303015 (2 credits)	Prerequisites: Biology Corequisites: None Recommended Prerequisites: Principles of Law, Public Safety, Corrections, and Security; and Anatomy and Physiology Recommended Corequisites: None	
Clinical Ethics* N1302121 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Nursing Science and Science of Nursing Recommended Corequisites: None	
Dental Equipment and Procedures N1302130 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Introduction to Dental Science and Dental Anatomy and Physiology Recommended Corequisites: None	
Health Science Theory* 13020400 (1 credit)	Prerequisites: One credit in Biology and at least one credit in a course from the Health Science career cluster Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Health Science Theory + Health Science Clinical* 13020410 (2 credits)	Prerequisites: One credit in Biology and at least one credit in a course from the Health Science career cluster Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Respiratory Therapy I 13021120 (1 credit)	Prerequisites: At least one credit in a course from the Health Science career cluster Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

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Course	Prerequisites Corequisites	Career Clusters
Imaging Technology II N1302131 (2 credits)	Prerequisites: Imaging Technology I Corequisites: None Recommended Prerequisites: Introduction to Imaging Technology Recommended Corequisites: None	
Pharmacy II 13021030 (2 credits)	Prerequisites: One credit in Biology, one credit in Chemistry, and Pharmacy I Corequisites: None Recommended Prerequisites: Algebra I, Introduction to Pharmacy Science, and Pharmacy I Recommended Corequisites: None	

Level 4

Course	Prerequisites Corequisites	Career Clusters
Mathematics for Medical Professionals* 13020970 (1 credit)	Prerequisites: Geometry and Algebra II Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Pathophysiology* 13020800 (1 credit)	Prerequisites: One credit in Biology, one credit in Chemistry, and at least one credit in a Level 2 or higher course from the Health Science career cluster Corequisites: None Recommended Prerequisites: Anatomy and Physiology Recommended Corequisites: None	
Pharmacology* 13020950 (1 credit)	Prerequisites: One credit in Biology, one credit in Chemistry, and at least one credit in a Level 2 or higher course from the Health Science career cluster Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Respiratory Therapy II 13021122 (1 credit)	Prerequisites: Respiratory Therapy I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Optical Technician N1302126 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Biology or Principles of Health Science Recommended Corequisites: None	

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Level 4

Course	Prerequisites Corequisites	Career Clusters
Sterile Processing TBD (TBD credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: TBD	
Practicum in Health Science* First Time Taken: 13020500 (2 credits) Second Time Taken: 13020510 (2 credits)	Prerequisites: Health Science Theory and Biology Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Health Science + Extended Practicum in Health Science* First Time Taken: 13020505 (3 credits) Second Time Taken: 13020515 (3 credits)	Prerequisites: Health Science Theory and Biology Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

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