

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: **Nursing Science**

The Nursing Science program of study focuses on occupational and educational opportunities associated with patient care. This program of study includes the practice of caring for patients, performing routine procedures such as monitoring vital signs, developing, and implementing care plans, maintaining medical records, and managing disease or pain.



Secondary Courses for High School Credit

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|----------------|--|
| Level 1 | <ul style="list-style-type: none"> Principles of Health Science Principles of Nursing Science |
| Level 2 | <ul style="list-style-type: none"> Science of Nursing Medical Terminology |
| Level 3 | <ul style="list-style-type: none"> Health Science Theory Health Science Theory + Health Science Clinical Anatomy and Physiology Medical Microbiology Leadership and Management in Nursing Clinical Ethics |
| Level 4 | <ul style="list-style-type: none"> Pathophysiology Pharmacology Practicum in Nursing 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, or assisted living facility Conduct informational interviews with nurses in different departments and healthcare settings
Expanded Learning Opportunities	<ul style="list-style-type: none"> Volunteer at community clinics, hospitals, assisted living and long-term care facilities Participate in HOSA or SkillsUSA

Aligned Industry-Based Certifications

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|---|---|
| <ul style="list-style-type: none"> Certified Clinical Medical Assistant Certified Nurse Aide (CNA) Certified Patient Care Technician (CPCT) Licensed Vocational Nurse | <ul style="list-style-type: none"> Medical Assistant Patient Care Technician Phlebotomy Technician Registered Nurse |
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Example Postsecondary Opportunities

Apprenticeships

- Registered Nurse Resident



Associate Degrees

- Medical Assisting
- Vocational Nursing

Bachelor's Degrees

- Registered Nursing
- Nursing Administration

Master's, Doctoral, and Professional Degrees

- Nursing Administration
- Nursing Science

Additional Stackable IBCs/Licensures

- Certified Nursing Assistant



Example Aligned Occupations

Nursing Assistants

Median Wage: \$30,856
Annual Openings: 10,936
10-Year Growth: 15%

Licensed Practical and Licensed Vocational Nurses

Median Wage: \$50,913
Annual Openings: 6,865
10-Year Growth: 17%

Registered Nurses

Median Wage: \$79,831
Annual Openings: 16,207
10-Year Growth: 17%

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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Statewide Program of Study: *Nursing Science*

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 Nursing Science N1302109 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	

Level 2

Course	Prerequisites Corequisites	Career Clusters
Science of Nursing N1302129 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of Nursing Science or Principles of Health Science Recommended corequisites: None	
Medical Terminology* 13020300 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	

Level 3

Course	Prerequisites Corequisites	Career Clusters
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: Medical Terminology Recommended corequisites: Health Science Clinical	
Health Science Theory + Health Science Clinical* 13020410 (2 credits)	Prerequisites: Biology Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
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: None Recommended corequisites: A course from the Health Science career cluster	
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	
Leadership and Management in Nursing 13021225 (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: Science of Nursing 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	

* 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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Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
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	
Practicum in Nursing 13021230 (2 credits)	Prerequisites: One credit in Biology, one credit in Chemistry, and at least one Level 2 or higher course in the Nursing Science program of study Corequisites: None Recommended prerequisites: Science of Nursing, Medical Terminology, and Anatomy and Physiology Recommended corequisites: None	
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* (2 credits)	Prerequisites: At least one Level 2 or higher career and technical education course Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Career Preparation for Programs of Study + Extended Career Preparation* (3 credits)	Prerequisites: At least one Level 2 or higher career and technical education course Corequisites: None Recommended prerequisites: None Recommended corequisites: None	

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