



**EXERCISE
SCIENCE AND
WELLNESS**

**HEALTH
INFORMATICS**

**HEALTHCARE
DIAGNOSTICS**

**HEALTHCARE
THERAPEUTIC**

**NURSING
SCIENCE**

**MEDICAL
THERAPY**

Local Implementation Considerations:

Students completing two or more courses for two or more credits within a program of study earn concentrator status for Perkins V federal accountability reporting.

Proposed Indicator: Students finishing three or more courses for four or more credits with one course from level 3 or 4 within a program of study earn completer status for federal accountability reporting.



COURSES

LEVEL 1
Lifetime Nutrition and Wellness
Principles of Exercise Science and Wellness (TBD)

LEVEL 2
Kinesiology I (TBD)

LEVEL 3
Anatomy and Physiology
Kinesiology II (TBD)

LEVEL 4
Practicum in Entrepreneurship (TBD)
Project Based Research
Career Preparation I

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Certified Personal Trainer	Physical Therapist Assistant	Kinesiology and Exercise Science		Exercise Physiology
	Physical Therapy Aides	Therapeutic Recreation/ Recreational Therapy		
	Dietetic Technician	Athletic Training/ Trainer		
			Dietitians and Nutritionists	Physical Therapist
Additional industry based certification information is available from the TEA CTE website.				
For more information on postsecondary options for this program of study, visit TXCTE.org.				

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Athletic Trainers	\$53,450	215	22%
Exercise Physiologists	\$41,662	33	33%
Coaches and Scouts	\$40,010	2,133	23%
Dietitians and Nutritionists	\$57,762	428	24%
Recreational Therapists	\$45,906	74	24%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:

Health Occupation Students of America (HOSA)

Work Based Learning Activities:

Volunteer at a hospital or rehabilitation center; manage a school sports team

The Exercise Science and Wellness program of study introduces students to the fields that assist patients with maintaining physical, mental, and emotional health. Students will research diet and exercise needed to maintain a healthy, balanced lifestyle and learn about and practice techniques to help patients recover from injury, illness, or disease.



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.

Successful completion of the Exercise Science and Wellness program of study will fulfill requirements of the Public Service Endorsement.

Approved Statewide Program of Study - September 2019



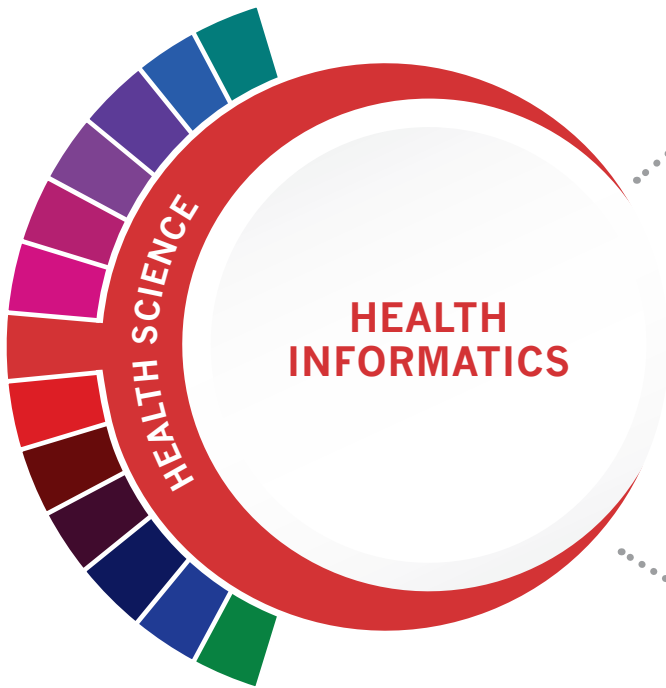
COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	GRADE
Lifetime Nutrition and Wellness	13024500 (.5 credit)	None	9-12
Principles of Exercise and Wellness	TBD	TBD	TBD
Kinesiology I	TBD	TBD	TBD
Anatomy and Physiology	13020600 (1 credit)	PREQ: Biology and a second science credit; RPREQ: a course from the Health Science cluster	10-12
Kinesiology II	TBD	TBD	TBD
Practicum in Entrepreneurship	TBD	TBD	TBD
Project-Based Research	12701500 (1 credit)	None	11-12
Career Preparation I	12701300 (2 credits) 12701305 (3 credits)	None	11-12

FOR ADDITIONAL INFORMATION ON THE HEALTH SCIENCE CAREER CLUSTER, PLEASE CONTACT:

Kevin Johnson | Kevin.Johnson@tea.texas.gov

<https://tea.texas.gov/cte>



COURSES

- LEVEL 1**
Principles of Health Science
Medical Terminology
Principles of Health Informatics (TBD)

- LEVEL 2**
Business Information Management I/Lab
Medical Intervention Evaluation and Research (TBD)

- LEVEL 3**
Health Informatics
Healthcare Information Systems and Management (TBD)

- LEVEL 4**
Mathematics for Medical Professionals
World Health Research
Project-Based Research

POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Certified Coding Associate	Certified Professional in Informatics	Health Information/Medical Records Technology/Technician	Medical and Health Service Managers	
Medical Coding and Billing Specialist	Medical Transcriptionist			

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Medical Records and Health Information Technicians	\$35,922	1,588	24%
Medical and Health Service Managers	\$93,995	2,562	29%
Billing and Posting Clerks	\$35,485	5,775	25%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Health Occupations Students of America (HOSA)

Work Based Learning Activities:
Volunteer at a community wellness center, hospital, assisted living center, or nursing home

The Health Informatics program of study focuses on exposing students to the management and use of patient information in the healthcare field. Students may learn about and research recent modifications of computerized healthcare and the process of creating and maintaining hospital and patient records in accordance with regulatory requirements of the healthcare system. Students may also practice writing and interpreting medical reports.



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Successful completion of the Health Informatics program of study will fulfill requirements of the Public Service Endorsement.
Approved Statewide Program of Study - September 2019



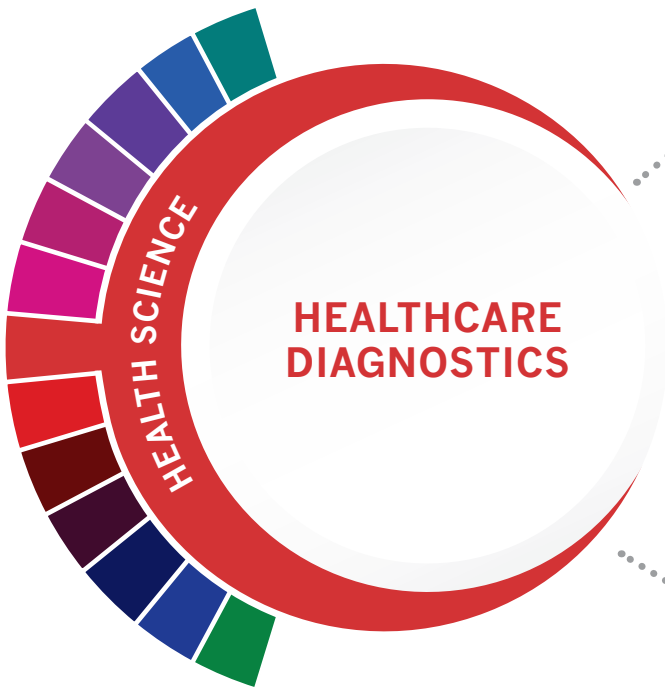
COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	GRADE
Principles of Health Science	13020200 (1 credit)	None	9-10
Medical Terminology	13020300 (1 credit)	None	9-12
Principles of Health Informatics	TBD	TBD	TBD
Business Information Management I/Lab	13011400 (1 credit) 13011410 (2 credits)	None	9-12
Medical Intervention and Evaluation	TBD	TBD	TBD
Health Informatics	13020960 (1 credit)	PREQ: Business Information Management I and Medical Terminology	11-12
Healthcare Information Systems and Management	TBD	TBD	TBD
Mathematics for Medical Professionals	13020970 (1 credit)	PREQ: Geometry and Algebra II	11-12
World Health Research	13020900 (1 credit)	PREQ: Biology and Chemistry	11-12
Project-Based Research	12701500 (1 credit)	None	11-12

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COURSES

LEVEL 1

Principles of Health Science
Principles of Diagnostic Healthcare (TBD)
Introduction to Imaging Technology (TBD)

LEVEL 2

Medical Terminology
Imaging Technology I (TBD)

LEVEL 3

Health Science Theory
Medical Microbiology
Imaging Technology II (TBD)

LEVEL 4

Anatomy and Physiology
Pathophysiology
Practicum in Health Science

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE S DEGREE	BACHELOR S DEGREE	MASTER S/ DOCTORAL PROFESSIONAL DEGREE
Limited Licensed Radiology Technologist	Medical Sonographer	Nuclear Medical Technology/ Technologist		Radiologist
EKG/ ECG Technician	Radiologic Technologist	Magnetic Resonance Imaging (MRI) Technology/ Technician	Medical Radiologic Technology/ Science Radiation Therapist	Radiologic Technology/ Science - Radiographer
Medical Laboratory Technician				
Phlebotomy Technician				

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Diagnostic Medical Sonographers	\$69,909	495	35%
Phlebotomists	\$30,597	1,442	36%
Nuclear Medicine Technologists	\$75,962	91	13%
Radiologic Technologists	\$55,494	1,196	19%
Magnetic Resonance Imaging Technologists	\$68,661	217	21%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Health Occupation
Students of America
(HOSA)

**Work Based Learning
Activities:**
Clinical rotations at a
community wellness
center, hospital, assisted
living, nursing home

The Healthcare Diagnostics program of study introduces students to occupations and educational 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 ultrasonic technology.



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.

Successful completion of the Healthcare Diagnostics program of study will fulfill requirements of the Public Service Endorsement.
Approved Statewide Program of Study - September 2019

COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	GRADE
Principles of Health Science	13020200 (1 credit)	None	9-10
Principles of Diagnostic Healthcare	TBD	TBD	TBD
Introduction to Imaging Technology	TBD	TBD	TBD
Medical Terminology	13020300 (1 credit)	None	9-12
Imaging and Technology I	TBD	TBD	TBD
Health Science Theory	13020400 (1 credit) 13020410 (2 credits)	PREQ: Biology	10-12
Medical Microbiology	13020700 (1 credit)	PREQ: Biology and Chemistry	10-12
Imaging Technology II	TBD	TBD	TBD
Anatomy and Physiology	13020600 (1 credit)	PREQ: Biology and a second science credit	10-12
Pathophysiology	13020800	PREQ: Biology and Chemistry	10-12
Practicum in Health Science	13020500 (2 credits) 13020505 (3 credits) 13020510 (2 credits) 13020515 (3 credits)	PREQ: Health Science Theory and Biology	11-12

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COURSES

LEVEL 1

Principles of Health Science
Principles of Therapeutic Healthcare (TBD)
Introduction to Pharmacy Science (TBD)
Introduction to Dental Science (TBD)

LEVEL 2

Medical Terminology
Dental Anatomy and Physiology (TBD)
Pharmacy I (TBD)

LEVEL 3

Anatomy and Physiology
Health Science Theory
Medical Microbiology
Pharmacy II (TBD)
Medical Assistant (TBD)
Dental Equipment and Procedures (TBD)

LEVEL 4

Pathophysiology
Pharmacology
Practicum in Health Science

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Registered Dental Assistant	Dental Assistant	Dental Hygienist		Dentist
Certified Patient Care Technician	Surgical Technologist			Physician Assistant
Certified Nurse Aide/Assistant	Medical Assistant	Medical/ Clinical Assistant		Family and General Practitioners
Pharmacy Technician	Pharmacy Aides			Pharmacist

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Medical Assistants	\$29,598	8,862	30%
Surgical Technologists	\$45,032	1,150	20%
Dental Hygienists	\$73,507	1,353	38%
Physicians and Surgeons	\$213,071	1,151	30%
Dental Assistants	\$34,840	4,422	31%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:

SkillsUSA
Health Occupation
Students of America
(HOSA)

Work Based Learning Activities:

Volunteer at a community wellness center, hospital, assisted living, or nursing home.

The Healthcare Therapeutic program of study introduces students to occupations and educational opportunities related to diagnosing and treating acute, episodic, or chronic illness independently or as part of a healthcare team. This program of study also includes an introduction to the opportunities associated with providing treatment and counsel to patients as well as rehabilitative programs that help build or restore daily living skills to persons with disabilities or developmental delays.



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.

Successful completion of the Healthcare Therapeutic program of study will fulfill requirements of the Public Service Endorsement.
Approved Statewide Program of Study - September 2019

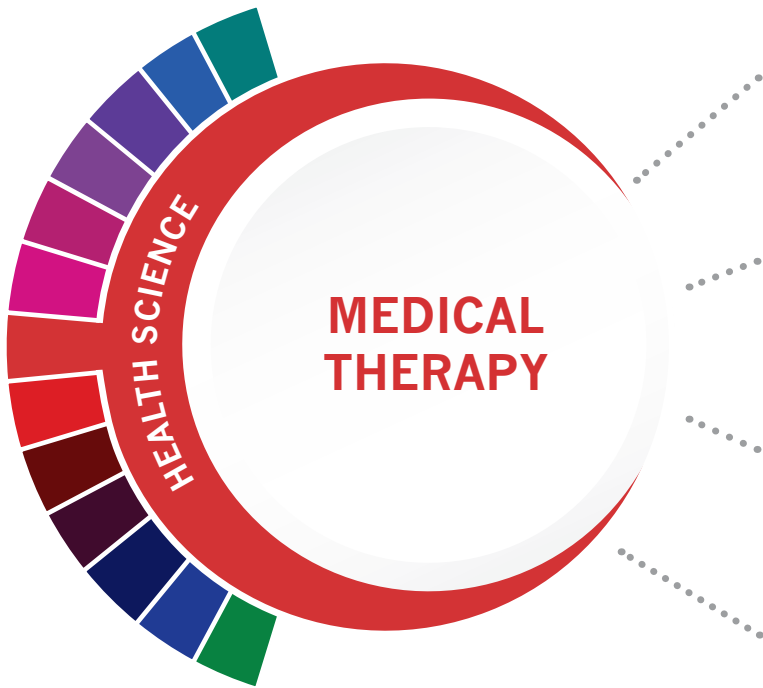
COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	GRADE
Principles of Health Science	13020200 (1 credit)	None	9-10
Principles of Therapeutic Healthcare	TBD	TBD	TBD
Introduction to Pharmacy Science	TBD	TBD	TBD
Introduction to Dental Science	TBD	TBD	TBD
Medical Terminology	13020300 (1 credit)	None	9-12
Dental Anatomy and Physiology	TBD	TBD	TBD
Pharmacy I	TBD	TBD	TBD
Anatomy and Physiology	13020600 (1 credit)	PREQ: Biology and a second science credit	10-12
Health Science Theory	13020400 (1 credit) 13020410 (2 credits)	PREQ: Biology	10-12
Medical Microbiology	13020700 (1 credit)	PREQ: Biology and Chemistry	10-12
Pharmacy II	TBD	TBD	TBD
Medical Assistant	TBD	TBD	TBD
Dental Equipment and Procedures	TBD	TBD	TBD
Pathophysiology	13020800 (1 credit)	PREQ: Biology and Chemistry	11-12
Pharmacology	13020950 (1 credit)	PREQ: Biology and Chemistry	11-12
Practicum in Health Science	13020500 (2 credits) 13020505 (3 credits) 13020510 (2 credits) 13020515 (3 credits)	PREQ: Health Science Theory and Biology	11-12

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COURSES

- LEVEL 1**
Principles of Health Science
Introduction to Speech Pathology and Audiology
Principles of Allied Health (TBD)

- LEVEL 2**
Medical Terminology
Speech and Language Development
Allied Health Therapeutic Services (TBD)

- LEVEL 3**
Speech Communication Disorder
Health Science Theory
Physical Therapy I (TBD)
Occupational Therapy I (TBD)
Radiation Therapy I (TBD)
Respiratory Therapy I (TBD)

- LEVEL 4**
Practicum in Health Science
Occupational Therapy II (TBD)
Physical Therapy II (TBD)
Radiation Therapy II (TBD)
Respiratory Therapy II (TBD)

POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Certification in Orthopedic Manual Therapy	Certified Respiratory Therapist	Occupational Therapy Assistant	Respiratory Therapists	Occupational Therapists
Limited Licensed Radiology Technologist	Certified Physical Therapy Assistant	Radiation Therapists		Speech Language Pathologist
		Respiratory Therapists		Physical Therapists
		Physical Therapy Assistant		

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Speech Language Pathologists	\$73,070	1,068	25%
Respiratory Therapists	\$57,429	830	20%
Occupational Therapists	\$92,227	834	34%
Physical Therapy Assistants	\$70,200	1,268	44%
Radiation Therapists	\$70,658	101	23%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:

Health Occupation Students of America (HOSA)

Work Based Learning Activities:

Lab internship
Job shadow
Clinical rotations

The Medical Therapist program of study focuses on the study of biology and medicine in order to introduce students to the knowledge and skills necessary to be successful in the healthcare field in occupations such as, Respiratory, Occupational, Physical, or Speech Therapist. Students may also practice patient care and communication.



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Successful completion of the Medical Therapist program of study will fulfill requirements of the Public Service Endorsement. Approved Statewide Program of Study - September 2019

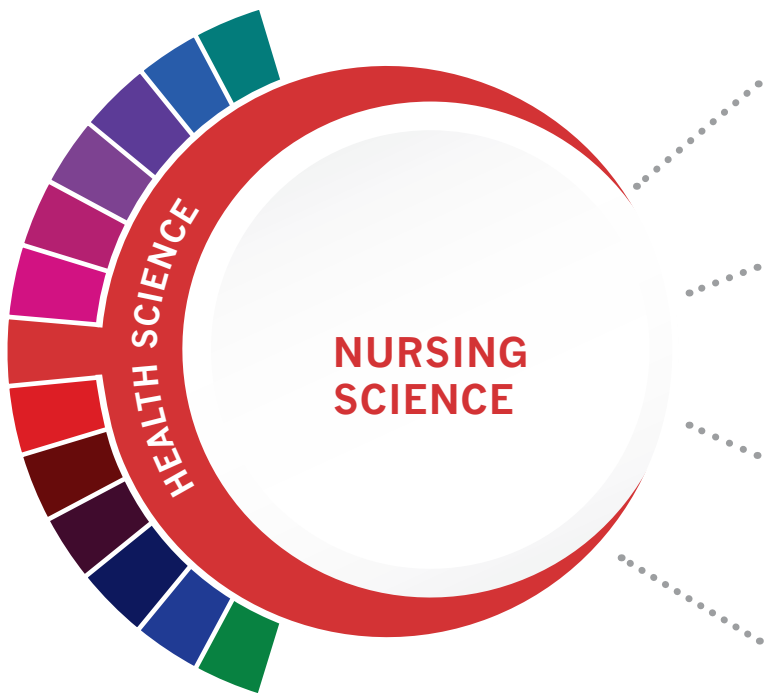
COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	GRADE
Principles of Health Science	13020200 (1 credit)	None	9-10
Introduction to Speech Pathology and Audiology	N1302100 (1 credit)	None	10-12
Principles of Allied Health	TBD	TBD	TBD
Medical Terminology	13020300 (1 credit)	None	9-12
Speech and Language Development	N1302098 (1 credit)	None	11-12
Allied Health Therapeutic Service	TBD	TBD	TBD
Speech Communications Disorders	N1302099 (1 credit)	None	11-12
Health Science Theory	13020400 (1 credit) 13020410 (2 credits)TBD	PREQ: BiologyTBD	10-12TBD
Physical Therapy I	TBD	TBD	TBD
Occupational Therapy I	TBD	TBD	TBD
Radiation Therapy I	TBD	TBD	TBD
Respiratory Therapy I	TBD	TBD	TBD
Practicum in Health Science	13020500 (2 credits) 13020505 (3 credits) 13020510 (2 credits) 13020515 (3 credits)	PREQ: Health Science Theory and Biology	11-12
Occupational Therapy II	TBD	TBD	TBD
Physical Therapy II	TBD	TBD	TBD
Radiation Therapy II	TBD	TBD	TBD
Respiratory Therapy II	TBD	TBD	TBD

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COURSES

- LEVEL 1**
Principles of Health Science
Principles of Nursing (TBD)

- LEVEL 2**
Medical Terminology
Science of Nursing (TBD)

- LEVEL 3**
Medical Microbiology
Anatomy and Physiology
Clinical Ethics (TBD)
Leadership and Management in Nursing (TBD)

- LEVEL 4**
Pathophysiology
Pharmacology
Practicum in Nursing (TBD)

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Certified Medical Assistant	Licensed Vocational Nurse	Registered Nursing/ Registered Nurse	Informatics Nurse Specialists	Nurse Practitioner
Certified Nurse Aide/Assistant				Nursing Administration
Certified Patient Care Technician				Nurse Anesthetist

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Licensed Vocational Nurses	\$45,178	7,186	21%
Registered Nurses	\$68,682	17,493	26%
Nurse Practitioners	\$107,827	977	50%
Nurse Anesthetists	\$154,856	357	23%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Health Occupation Students of America (HOSA)

Work Based Learning Activities:
Volunteer at a community wellness center, hospital, assisted living center, or nursing home.

The Nursing Program of Study introduces students to knowledge and skills related to patient care. CTE concentrators may learn about or practice caring for patients, routine procedures such as monitoring vital signs, development and implementation of care plans, maintenance of medical records, and disease or pain management. Students may focus on the healthcare system and research system designs and make recommended modifications.



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.

Successful completion of the Nursing program of study will fulfill requirements of the Public Service Endorsement. Approved Statewide Program of Study - September 2019



COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	GRADE
Principles of Health Science	13020200 (1 credit)	None	9-10
Principles of Nursing	TBD	TBD	TBD
Medical Terminology	13020300 (1 credit)	None	9-12
Science of Nursing	TBD	TBD	TBD
Medical Microbiology	13020700 (1 credit)	PREQ: Biology and Chemistry	10-12
Anatomy and Physiology	13020600 (1 credit)	PREQ: Biology and a second science credit	10-12
Clinical Ethics	TBD	TBD	TBD
Leadership and Management in Nursing	TBD	TBD	TBD
Pathophysiology	13020800 (1 credit)	PREQ: Biology and Chemistry	11-12
Pharmacology	13020950 (1 credit)	PREQ: Biology and Chemistry	11-12
Practicum in Nursing	TBD	TBD	TBD

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