



The following programs of study are available within the Health Science cluster.

- Biotechnology Research and Development
- Diagnostic Services
- Health Informatics
- Support Services
- Therapeutic Services

**9270CT**

*Formerly Health Science Technology I*

**Principles of Health Science**

- ⇒ *Grade Placement . . . . .10-12*
- ⇒ *Credit . . . . .1 Unit*
- ⇒ *Prerequisite . . . . . None*

This course includes skills related to the health care industry. Content relates to patient relationships, working environments, and ethical and legal responsibilities. Entry-level skills will also be developed for taking vital signs, maintaining safety, and performing first aid and CPR. Introduction to basic human anatomy and physiology and medical terminology will prepare the student for a transition to clinical experiences in health care. **Advanced Technical Credit and Tech Prep college credit are available through community colleges in Texas.**

**9272CT**

*Formerly Health Science Technology II*

**Health Science**

- ⇒ *Grade Placement . . . . . 11-12*
- ⇒ *Credit . . . . . 2 Units*
- ⇒ *Prerequisite . . . . . Principles of Health Science, Biology I and Approval Process*
- ⇒ *Past Prereq . . . . . Health Science Technology , Biology I and Approval Process*

This course will provide for the development of multi-occupational knowledge and skills related to a wide variety of health careers. Students will observe and assist professional health care personnel in clinical/hospital environments. Students must provide their own transportation to their assigned clinical settings. Students must be CPR certified, have the current Hepatitis B series, and a TB skin test is required. A uniform, name tag, stethoscope and professional liability insurance will be required. **This course receives advanced grade points. Advanced Technical Credit and Tech Prep college credit are available through community colleges in Texas.**

**9278CT**

**Medical Terminology**

- ⇒ *Grade Placement . . . . . 10-12*
- ⇒ *Credit . . . . . 1/2 Unit*
- ⇒ *Prerequisite . . . . . None*

This course is designed to develop a working knowledge of the language of medicine. Students acquire word-building skills by learning prefixes, suffixes, word roots, abbreviations, and acronyms. By relating terms to body systems, students identify proper use of words in a medical environment. Knowledge of medical terminology enhances the student’s ability to successfully secure employment or pursue advanced education in health care. **Advanced Technical Credit and Tech Prep college credit are available through community colleges in Texas.**

**Problems and Solutions in Health Science/CNA**

- ⇒ *Grade Placement . . . . . 12*
- ⇒ *Credit . . . . . 1 Unit (2 class periods for a semester)*
- ⇒ *Prerequisite . . . . . Principles of Health Science, Biology I and Approval Process*
- ⇒ *Past Prereq . . . . . Health Science Technology I, Biology I and Approval Process*

This is an occupational specific course designed to provide knowledge and skills for certification as a Certified Nurse Assistant. The course of instruction is comprised of classroom instruction and clinical/hospital experience. Students will learn to attend to patients' hygiene, comfort, nourishment, and social needs. Competencies will be demonstrated by the taking of vital signs, assisting patients with ADL's, maintaining patient hygiene and safety, and providing infection control. Upon completion of the course, students will be eligible to test for state Certified Nurse Assistant certification. Students must be CPR certified, have the current Hepatitis B series, and a TB skin test is required. A uniform, name tag, stethoscope, gait belt, fee for certification testing, and professional liability insurance will be required. A criminal background check will be required upon entrance into the course due to licensing rules for certification. Students must provide their own transportation to the clinical setting. **This course receives advanced grade points. Local Articulated Credit and Tech Prep college credit are available through the Lone Star Community College System.**

**Practicum in Health Science/EMT**

- ⇒ *Grade Placement . . . . . 12*
- ⇒ *Credit . . . . . 2 Units*
- ⇒ *Prerequisite . . . . . Principles of Health Science, Biology I or Anatomy & Physiology with Certification in First Aid and CPR and Approval Process*
- ⇒ *Past Prereq . . . . . Health Science Technology I, Biology I or Anatomy & Physiology of Human Systems with Certification in First Aid and CPR and Approval Process*

This is an occupational specific course designed to provide knowledge and skills for certification as an Emergency Medical Technician. Instruction will be provided related to patient assessment, spinal immobilization, trauma management, treatment of medical emergencies and mechanical aids to breathing. The EMT program requires an additional ambulance and emergency room experience outside the classroom. The student must be age 18 by March 1<sup>st</sup> to participate in the course and take the EMT test. In order to receive the state certification, the student must be 18 years of age, have successfully passed the certification test and have proof of a high school diploma. Students must be CPR certified, have the current Hepatitis B series, and a TB skin test is required. Student tuitions, uniform, blood pressure cuff, stethoscope, trauma scissors, penlight, safety glasses, and professional liability insurance will be required. Students must provide their own transportation to the training location. **This course receives advanced grade points. Local Articulated Credit and Tech Prep college credit are available through the Lone Star Community College System.**

**Problems and Solutions in Health Science/Certified Pharmacy Technician**

- ⇒ *Grade Placement . . . . . 12*
- ⇒ *Credit . . . . . 1 Unit (Either 1 class period or 2 periods for a semester)*
- ⇒ *Prerequisite . . . . . Principles of Health Science, Biology I and Approval Process*
- ⇒ *Additional Recommended Prerequisite . . . . . Algebra II with at least a B average*
- ⇒ *Past Prereq . . . . . Health Science Technology I, Biology and Approval Process*
- ⇒ *Additional Recommended Prerequisite . . . . . Algebra II with at least a B average*

This is an occupational specific course designed to provide knowledge and skills for certification as a Certified Pharmacy Technician. The course of instruction is comprised of classroom instruction, lab applications, and independent study. No clinical hours are required but may be provided based on individual needs and students must provide own transportation. Students will learn federal and state law pertaining to the pharmacy industry, drug classifications, medical terminology, ethical and legal issues, safety, aseptic technique, calculations, career opportunities, and pharmacy operations. Upon completion of the course, students will be eligible to test for national Certified Pharmacy Technician certification. The student must provide proof of a high school diploma to receive certification. Student tuition, computer access, and national testing fee will be required. **This course receives advanced grade points.**

**Anatomy and Physiology**

- ⇒ *Grade Placement . . . . . 11-12*
- ⇒ *Credit . . . . . 1 Unit*
- ⇒ *Prerequisite . . . . . Biology I and Chemistry I*
- ⇒ *Past Prereq . . . . . Biology I and Chemistry I*

In this course students conduct laboratory investigations/fieldwork, use scientific methods during investigations, and make informed decisions using critical thinking and problem solving. Topics will be presented through an integration of biology, chemistry, and physics. Students will study the structures and functions of the human body and body systems and will investigate the body's responses to forces, maintenance of homeostasis, electrical interactions, transport systems, and energy systems. Students will also analyze the relationship between anatomical structures and physiological functions of the human systems. This same course is also listed in the Science Section of the Guidance Handbook. **This course receives advanced grade points.**

**Career Preparation I, II**

- ⇒ *Grade Placement . . . . . 11-12*
- ⇒ *Credit . . . . . I 2-3 Units, II 2-3 Units*
- ⇒ *Prerequisite . . . . . 16 years of age and Approval Process*

A work-based learning program that combines occupationally related classroom instruction and work-based experiences. Students work in a skilled occupation relating to communications and media, construction and maintenance, electrical and electronics, industrial and manufacturing, safety and security, metal technology, automotive/transportation or other specialty areas. Safety, entrepreneurship, leadership and career opportunities are included with work ethics and job related study in the classroom. Students must provide their own transportation to their training station. This course is offered at Klein High School.