



## Health Science

### Principles of Health Science

**TSDS PEIMS Code: 13020200 (PRINHLSC)**

**Grade Placement: 9–10**

**Credit: 1**

**Prerequisite: None.**

The Principles of Health Science course is designed to provide an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the health care industry.

### Medical Terminology

**TSDS PEIMS Code: 13020300 (MEDTERM)**

**Grade Placement: 9–12**

**Credit: 1**

**Prerequisite: None.**

The Medical Terminology course is designed to introduce students to the structure of medical terms, including prefixes, suffixes, word roots, singular and plural forms, and medical abbreviations. The course allows students to achieve comprehension of medical vocabulary appropriate to medical procedures, human anatomy and physiology, and pathophysiology.

### Anatomy and Physiology

**TSDS PEIMS Code: 13020600 (ANATPHYS)**

**Grade Placement: 10–12**

**Credit: 1**

**Prerequisite: Biology and a second science credit.**

**Recommended Prerequisite: A course from the Health and Science Career Cluster.**

The Anatomy and Physiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology will study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

**Note:** *This course satisfies a science credit requirement for students on the Foundation High School Program.*

## Medical Microbiology

**TSDS PEIMS Code: 13020700 (MICRO)**

**Grade Placement: 10–12**

**Credit: 1**

**Prerequisites: Biology and Chemistry.**

**Recommended Prerequisites: A course from the Health Science Career Cluster.**

The Medical Microbiology course is designed to explore the microbial world, studying topics such as pathogenic and non-pathogenic microorganisms, laboratory procedures, identifying microorganisms, drug resistant organisms, and emerging diseases. Students must meet the 40% laboratory and fieldwork requirement.

**Note:** *This course satisfies a science credit requirement for students on the Foundation High School Program.*

## Pathophysiology

**TSDS PEIMS Code: 13020800 (PATHO)**

**Grade Placement: 11–12**

**Credit: 1**

**Prerequisites: Biology and Chemistry.**

**Recommended Prerequisite: A course from the Health and Science Career Cluster.**

The Pathophysiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Pathophysiology will study disease processes and how humans are affected. Emphasis is placed on prevention and treatment of disease. Students will differentiate between normal and abnormal physiology. Students should know that some questions are outside the realm of science because they deal with phenomena that are not scientifically testable.

**Note:** *This course satisfies a science credit requirement for students on the Foundation High School Program.*

## Health Informatics

**TSDS PEIMS Code: 13020960 (HLTHINF)**

**Grade Placement: 11–12**

**Credit: 1**

**Prerequisites: Business Information Management I and Medical Terminology.**

The Health Informatics course is designed to provide knowledge of one of the fastest growing areas in both academic and professional fields. The large gap between state of the art computer technologies and the state of affairs in health care information technology has generated demand for information and health professionals who can effectively design, develop, and use technologies such as electronic medical records, patient monitoring systems, and digital libraries, while managing the vast amount of data generated by these systems.

## Mathematics for Medical Professionals

**TSDS PEIMS Code: 13020970 (MTHMEDPR)**

**Grade Placement: 11–12**

**Credit: 1**

**Prerequisites: Geometry and Algebra II.**

The Mathematics for Medical Professionals course is designed to serve as the driving force behind the Texas essential knowledge and skills for mathematics, guided by the college and career readiness standards. By embedding statistics, probability, and finance, while focusing on fluency and solid understanding in medical mathematics, students will extend and apply mathematical skills necessary for health science professions. Course content consists primarily of high school level mathematics concepts and their applications to health science professions.

**Note:** *This course satisfies a math credit requirement for students on the Foundation High School Program.*

## Pharmacology

**TSDS PEIMS Code: 13020950 (PHARMC)**

**Grade Placement: 11–12**

**Credit: 1**

**Prerequisites: Biology and Chemistry.**

**Recommended Prerequisites: A course from the Health and Science Career Cluster.**

The Pharmacology course is designed to study how natural and synthetic chemical agents such as drugs affect biological systems. Knowledge of the properties of therapeutic agents is vital in providing quality health care. It is an ever-changing, growing body of information that continually demands greater amounts of time and education from health care workers.

## Health Science Theory

**TSDS PEIMS Code: 13020400 (HLTHSCI)**

**Grade Placement: 10–12**

**Credit: 1**

**Prerequisites: Biology.**

**Recommended Corequisite: Health Science Clinical.**

The Health Science Theory course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development.

## Practicum in Health Science

**TSDS PEIMS Code: 13020500 (First Time Taken) (PRACHLS1)**

**13020510 (Second Time Taken) (PRACHLS2)**

**Grade Placement: 11–12**

**Credit: 2**

**Prerequisites: Health Science Theory and Biology.**

The Practicum in Health Science course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

## Practicum in Health Science/Extended Practicum in Health Science

**TSDS PEIMS Code: 13020505 (First Time Taken) (EXPRHLS1)**

**13020515 (Second Time Taken) (EXPRHLS2)**

**Grade Placement: 11–12**

**Credit: 3**

**Prerequisites: Health Science Theory and Biology.**

**Corequisite: Practicum in Health Science.**

The Extended Practicum in Health Science course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.