

Medical Sciences Pathway



PUBLIC SERVICE ENDORSEMENT

Required Level 1	Level 2	Level 3	Level 4
Principles of Health Science	Medical Terminology	Anatomy & Physiology or Anatomy & Physiology Dual Credit	Pathophysiology

- OR -

Medical Microbiology

PRINCIPLES OF HEALTH SCIENCE

KISD #: 927018 **PEIMS:** 13020200
Grades: 9-10 **1.0 Credit**
Prerequisite: Biology I or Concurrent Enrollment

Are you interested in medical and associated health careers? This course provides an overview of the therapeutic, diagnostic, environmental, and informational systems of the healthcare industry. Topics include career requirements, medical history, trends in financing health care, ethical and legal responsibilities, human anatomy and physiology as related to the healthcare profession, client care, safety, first aid, and CPR. This course prepares students for the transition to clinical and/or work-based experiences available in the advanced health science courses.

Industry Certification: CPR

MEDICAL TERMINOLOGY

KISD #: 927818 **PEIMS:** 13020300
Grades: 10-11 **1.0 Credit**
Prerequisite: Principles of Health Science
Note: Principles of Health Science may be taken concurrently for students in grades 10-11

Students will develop a working knowledge of the language of medicine and 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.

ANATOMY & PHYSIOLOGY

KISD #: 927118 **PEIMS:** 13020600
Grades: 10-12 **1.0 Credit/Science Credit Option**
Prerequisite: Biology I and Chemistry I

Recommended Prerequisite: Principles of Health Science and Medical Terminology

Students will 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.

Advanced Grade Points: Yes

ANATOMY & PHYSIOLOGY DUAL CREDIT

KISD #: 9271DC18 **PEIMS:** 13020600
Grades: 10-12 **1.0 Credit/Science Credit Option**
Prerequisite: Biology I and Chemistry I

Recommended Prerequisite: Principles of Health Science and Medical Terminology

Students will conduct laboratory investigations/fieldwork, use scientific methods during investigations, and make informed decisions using critical thinking and problem solving to study the structure and function of the human body. Emphasis will be given to the study of cells and tissues and anatomical and physiological interrelationships of the integumentary, skeletal, muscular, and nervous systems. Designed primarily for students entering health careers.

Advanced Grade Points: Yes

Dual Credit Correlation: BIOL 2401

Required Fee/Materials: Yes

MEDICAL MICROBIOLOGY

KISD #: 928118

PEIMS: 13020700

Grades: 11-12

1.0 Credit/4th Science Credit Option

Prerequisite:

Biology I and Chemistry I

Recommended Prerequisite: Principles of Health Science,
Medical Terminology and/or
Anatomy & Physiology.

Students will conduct laboratory investigations/fieldwork, use scientific methods during investigations, and make informed decisions using critical thinking and problem solving. Emphasis will be placed on the exploration of the microbial world, studying topics such as pathogenic and non-pathogenic microorganisms, laboratory procedures, identifying microorganisms, drug resistant organisms, and emerging diseases.

Advanced Grade Points: Yes

PATHOPHYSIOLOGY

KISD #: 928218

PEIMS: 13020800

Grades: 11-12

1.0 Credit/4th Science Credit Option

Prerequisite:

Anatomy and Physiology

Recommended Prerequisite: Principles of Health Science and
Medical Terminology

Students will conduct laboratory and field investigations, use scientific methods during investigations, make informed decisions using critical thinking and scientific problem-solving and demonstrate professional standards as related to business and industry. Students in Pathophysiology 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.

Advanced Grade Points: Yes