# **Public Service Pathway – Medical Sciences**

Biology Grades 9-10 1.0 Credit



Chemistry
Grades 10-12
1.0 Credit

Anatomy & Physiology Grades 11-12 1.0 Credit Pre-Requisite: Biology I & Chemistry I

Pathophysiology Grades 11-12 1.0 Credit Pre-Requisite 3 Credits of Science

Medical Microbiology
Grades 11-12
1.0 Credit
Pre-Requisite:
Biology I & Chemistry I



Recommended Sequence

Required Sequence

## ANATOMY & PHYSIOLOGY

KISD #: 927118 PEIMS: 13020600

Grades: 11-12 1.0 Credit/Science Credit Option
Prerequisite: Biology I and Chemistry I

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. This course is also listed in the Science Section of the Guidance Handbook.

Advanced Grade Points: Yes

#### **ANATOMY AND PHYSIOLOGY DUAL CREDIT**

KISD #: 9271DC18 PEIMS: 13020600

Grades: 11-12 1.0 Credit/Science Credit Option
Prerequisite: Biology I and Chemistry I

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. This course is also listed in the Science section of the Catalog.

Advanced Grade Points: Yes

Dual Credit Correlation: BIOL 2401

Required Fee/Materials: Yes

### **PATHOPHYSIOLOGY**

KISD #: 928218 PEIMS: 13020800

Grades: 11-12 1.0 Credit/4<sup>th</sup> Science Credit Option

Prerequisite: Anatomy and Physiology

Students will conduct laboratory investigations/fieldwork, use scientific methods during investigations, and make informed decisions using critical thinking and problem solving. Students 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. This same course is also listed in the Science Section of the Guidance

Advanced Grade Points: Yes

#### MEDICAL MICROBIOLOGY

KISD #: 928118 PEIMS: 13020700

Grades: 11-12 1.0 Credit/4<sup>th</sup> Science Credit Option

Prerequisite: 3.0 Credits of Science

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. This same course is also listed in the Science Section of the Guidance Handbook.

Advanced Grade Points: Yes

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