

Health Science Course Descriptions

Principles of Health Science

TEA # 13020200

Course # 0900

Grade Placement: 9-12

Credit: 1

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.

Anatomy and Physiology

TEA # 13020600

Course # 0439

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 can satisfy a science credit requirement for students on the Foundation High School Program. Students are encouraged to meet with their Academic Counselor to ensure they are following the appropriate science course sequence and can apply this course to their science graduation requirements.

Anatomy and Physiology Honors

TEA # 13020600

Course # 0438

Grade Placement: 10-12

Credit: 1

Prerequisite: Biology and a second science credit

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

Anatomy and Physiology is course 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. This course is similar to Anatomy and Physiology; however, it incorporates higher-order thinking skills through assessment and synthesis of the anatomical knowledge combined with exposure to clinical analysis and lab work. 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 can satisfy a science credit requirement for students on the Foundation High School Program. Students are encouraged to meet with their Academic Counselor to ensure they are following the appropriate science course sequence and can apply this course to their science graduation requirements.

Health Science Theory/Health Science Clinical

TEA # 13020410

Course # 0903 & 2903

Grade Placement: 11-12

Credits: 2

Prerequisites: Biology; Principles of Health Science; and Medical Terminology

Corequisite: Health Science Theory

The Health Science Clinical 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. Districts are encouraged to offer this course in a consecutive block with Health Science Theory to allow students sufficient time to master the content of both courses.

Note: This course requires a Course Interest Form to be submitted.

Medical Microbiology

TEA # 13020700

Course # 0907

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 can satisfy a science credit requirement for students on the Foundation High School Program. Students are encouraged to meet with their Academic Counselor to ensure they are following the appropriate science course sequence and can apply this course to their science graduation requirements.

Medical Microbiology Honors

TEA # 13020700

Course # 0909

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. This course is similar to Medical Microbiology; however, it incorporates higher-order thinking skills through assessment and synthesis of the presented knowledge combined with exposure to clinical analysis and lab work. Students must meet the 40% laboratory and fieldwork requirement.

Note: This course can satisfy a science credit requirement for students on the Foundation High School Program. Students are encouraged to meet with their Academic Counselor to ensure they are following the appropriate science course sequence and can apply this course to their science graduation requirements.

Medical Terminology

TEA # 13020300

Course # 0901

Grade Placement: 9-12**Credit: 1**

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.

Practicum in Health Science

TEA # 12020510

Course # 0916 & 2916

Medical Billing and Coding Program**Grade Placement: 11 - 12****Credits: 2****Prerequisites: Biology; Principles of Health Science; and Medical Terminology; and Health Science Theory****Recommended Prerequisites: Anatomy & Physiology**

This course is designed to equip students with the knowledge, technical skills, and work habits required for an entry-level position in the medical insurance billing and coding field by offering problem-solving exercises by utilizing real-world scenarios. This course places a strong emphasis on ethics, accountability, professionalism, and the individuals' commitment to the pursuit of lifelong personal, educational and professional development, as it relates to the medical insurance billing and coding field.

Note: This course requires a Course Interest Form to be submitted.

Practicum in Health Science

TEA # 13020500

Course # 0904 & 2904

Pharmacy Technician Program**Grade Placement: 12****Credits: 2**

Prerequisite: Biology; Chemistry; Algebra II; Principles of Health Science; and Medical Terminology

This course is designed to equip students with knowledge, technical skills, and work habits required for an entry-level position in the pharmacy field or related area. This course encourages active student participation and may include group discussions and projects, laboratory work, simulations, demonstrations, field trips, guest speakers, and lectures. A strong emphasis is placed on ethics, accountability, professionalism, and the individual's commitment to pursue lifelong personal and professional development.

Note: This course requires a Course Interest Form to be submitted.

STC Dual Enrollment Medical Science Academy (DEMESA)

Course # 1008 & 2008

Grade Placement: 11-12

Credit: 1 per course

Prerequisite: Meet South Texas College acceptance criteria; 2-Year Commitment

This South Texas College (STC) Dual Enrollment Medical Science Academy (DEMESA) is a two year-round dual enrollment program developed for high school juniors and seniors who are seriously interested in pursuing a career in health care. The purpose of this academy is to increase the number of rural area students committed to careers and service in Medicine, Pharmacy Dentistry, Nursing, Allied Health, and others. This academy is designed to encourage area high school students into the health care professions by providing college coursework and health related opportunities that will motivate, educate, and prepare students for higher education in the field of medicine. With the support of the local health providers, the Dual Enrollment Medical Science Academy will promote and participate in efforts that will reinforce the schools' and communities' commitment to prepare students for careers in health care. Contact your school Counselor for more information on how to enroll into this program. **Note: This program has an STC application process in place.**

South Texas College Emergency Medical Technician (EMT) Program

Course # Various

Grade Placement: 12

Credits: Various

Prerequisite: Biology; Principles of Health Science; and Medical Terminology; Meet South Texas College acceptance criteria

Recommended Prerequisite: Anatomy & Physiology

This program prepares students to deliver out-of-hospital emergency care at the scene of an accident or a medical emergency. EMTs typically work at 911 ambulance companies, flight paramedics, emergency rooms, transport teams, and fire departments. Contact your school Counselor for more information on how to enroll into this program. Visit the STC EMT Program website for more information on the program requirements and specific course offerings: <https://nah.southtexascollege.edu/emt/index.html>. **Note: This program has an STC application process in place.**

South Texas College General Medical Science Pathway

Course # Various

Grade Placement: 10-12

Credits: Various

Prerequisite: Meet South Texas College acceptance criteria

This pathway enables students to take general pre-requisite coursework that is common to many medical degree programs. Students are encouraged to investigate what exact coursework comprises the bachelor's degree program they intend to pursue after high school to ensure that the pre-requisite coursework they take as part of this pathway will be applicable. Students are also encouraged to call the post-secondary college or university they intent to enroll into after high school to find out whether the courses they are planning to take as part of this track will be able to transfer into their desired degree program. Contact your school Counselor for more information on how to enroll into this pathway.

Note: This program has an STC application process in place.

South Texas College Medical Office Specialist (MOS) Program

Course # Various

Grade Placement: 11-12

Credits: Various

Prerequisite: Principles of Health Science; and Medical Terminology; Meet South Texas College acceptance criteria

This program prepares students as a health care worker with medical office administrative skills for managing the front office, medical records, and medical insurance. Medical Office Specialists perform various administrative activities such as handling

electronic medical records, documenting and filing, billing and insurance, scheduling appointments and referrals and can work in a variety of medical centers including: blood banks, cancer centers, surgical centers, hospitals, medical laboratories, medical offices, specialty clinics, and specialty hospitals. Contact your school Counselor for more information on how to enroll into this program. Visit the STC MOS Program website for more information on the program requirements and specific course offerings: <https://nah.southtexascollege.edu/mat/index.html>. **Note: This program has an STC application process in place.**

South Texas College Patient Care Technician (PCT) Program

Course # Various

Grade Placement: 12

Credits: Various

Prerequisite: Biology; Principles of Health Science; and Medical Terminology; Meet South Texas College acceptance criteria

The South Texas College Patient Care Technician (PCT) program prepares students to provide basic nursing care to adults, children, infants and the elderly. After successful completion of the Texas Department of Aging Nurse Aide Competency Examination, students will focus on acute care and specialized patient care. Entry-level skills in phlebotomy, EKG, and monitor technician are included. PCAs typically work in medical centers such as nursing homes or hospitals. Contact your school Counselor for more information on how to enroll into this program. <https://nah.southtexascollege.edu/pca/index.html>.

Note: This program has an STC application process in place.