

Health Science

Introduction to Health Science Technology - 7302

Credit: ½ **Grade:** 9-10

Prerequisite: *Interest in Medical Careers*

An introductory course of the health professions with an overview of the therapeutic, diagnostic, environmental, and informational systems of the industry. Focus is on career exploration and the many fields of health care. Students will develop a concept of health and wellness from the perspective of a health consumer as well as a potential professional in the health care industry. [Tech Prep articulated course]

Medical Terminology - 7301

Credit: ½ **Grade:** 9-10

Prerequisite: *None*

A course designed to develop a working knowledge of the language of medicine. Students acquire word-building skills by learning prefixes, suffixes, roots, and abbreviations. 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 fields. [Tech Prep articulated course]

Health Science Technology I - 7311

Credit: 1 **Grade:** 10-12

Prerequisites: *Recommended Biology*

A course designed to develop health-care-specific knowledge and skills in effective communications, ethical and legal responsibilities, client care, safety, first aid, and CPR. This course prepares the student for the transition to clinical or work-based experiences in health care. Lb uniform may be required. **Students earn credit for Health while enrolled in this course.** [Tech Prep articulated course]

Health Science Technology II -7312

Credit: 2 [Clinical Lab] **Grade:** 11-12

Prerequisites: *HST I and teacher approval*

This is a double blocked course designed to provide for the development of multi-occupational knowledge and skills related to a wide variety of health careers. Students will have hands-on experiences for continued knowledge and skill development through clinical rotations at health care institutions three days a week. The other two days are spent in classroom instruction learning skills and techniques of health care professionals. Uniform required. **Students will have opportunity to earn CNA certification.** [Tech Prep articulated course]

Pharmacology – 7304

Credit: ½ **Grade:** 12

Prerequisite: *Recommended HST I, Biology & Chemistry*

This course provides students with knowledge and skills in the classification and study of pharmacological agents to understand the treatment, care, and restoration of the client's health. Students will explore the practical applications of mathematics related to the disease process, dosage calculations, and interaction in therapeutic care.

Health Science Technology Independent Study – 7303

Credit: 1 **Grade:** 12

Prerequisite: *Pharmacology and teacher approval*

A project-based learning experience developed by a student or group of students and an interdisciplinary mentor team. The project provides opportunities for an in-dept study of Pharmacology and other areas of the health care industry. The student or group demonstrates the ability to utilize a variety of resources, advanced technology, and communication skills in the development and presentation of a project. This project-based course meets one of the DAP measures.

Anatomy and Physiology of Human Systems - 7305**Credit: 1****Grade: 11-12**

Prerequisite: *Completion of science graduation sequence (Biology and IPC; or Biology, Chemistry, and Physics)*

Anatomy and Physiology is an advanced course recommended for students with a strong interest in science and good study skills. In this course, students conduct laboratory investigations and fieldwork. Students will study structures and functions of the human body and body systems. Students investigate the body's maintenance of homeostasis, including biochemical and cellular aspects.

Medical Microbiology - 7306**Credit: ½****Grade: 11-12**

Prerequisite: *Completion of Biology and Chemistry*

The student will learn the major groups of disease causing microorganisms, their symptoms, treatment, prevention and impact on human populations. Clinical lab identification of similar non-pathogenic organisms will be done using standard microbiological techniques and aseptic methods.

Pathophysiology - 7307**Credit: ½****Grade: 11-12**

In this course students conduct lab investigations and fieldwork and make informed decisions using critical thinking and problem solving. Students may study disease processes and how human are affected. Emphasis is placed on prevention and treatment of diseases.

Introduction to Biotechnology - 7308**Credit: 1****Grade: 11-12**

Prerequisite: *Completion of Biology and Chemistry*

An introduction to biotechnology which includes career exploration, history, and applications of DNA/RNA technology, molecular biology, bioethics, and laboratory safe practices. The course is supplemented with laboratory exercises, demonstrations and field trips that illustrate the basic techniques of biotechnology. The course concludes with a consideration of bioethical issues relating to this powerful new technology. The course is 40% lab based and uses appropriate fieldwork science inquiry. [Tech Prep articulated course].