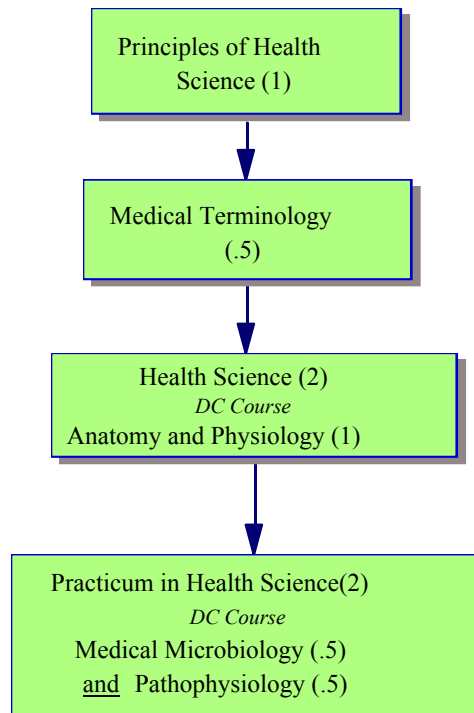




The health science industry is comprised of diagnostic, therapeutic, support services, and biotechnology research and development systems that function individually and collaboratively to provide comprehensive health care. Students following this pathway may join HOSA and participate in both HOSA and Skills USA competitions. Upon completion of the Health Science Pathway students may receive their Certified Nurse Assistant, Emergency Medical Attendant, Pharmacy Technician, and OSHA certifications. (Phlebotomy certification coming soon)

Suggested Four Year Plan

| Grade | English/ Language Arts | Math | Science | Social Studies | Suggested Courses | Sample Occupations Relating to This Career Cluster | |
|---------------------------------|------------------------------|-------------|---|---|--------------------------------------|---|---|
| | | | | | (* indicates graduation requirement) | | |
| High School Plan | 9 | English I | Algebra I | Biology | World Geography | Principles of Health Science P.E or Equivalent* Foreign Language I* | <ul style="list-style-type: none"> • Dental Assistant/Hygienist • EMT/Paramedic • Lab Technician • Phlebotomist • Registered Nurse • Athletic Trainer • Occupational Therapist • Physician (MD/DO) • Physician's Assistant • Radiologist • Speech/Language Pathologist • Veterinarian |
| | 10 | English II | Geometry | Chemistry | World History | Medical Terminology Communication Applications* Foreign Language II* Fine Art* | |
| | 11 | English III | Algebra II or Math Models | Physics | U.S. History | Health Science (DC) Anatomy & Physiology | |
| | 12 | English IV | Algebra II (If Math Models in Grade 11) or Other State Approved Math Course | Medical Microbiology and Pathophysiology | U.S. Government and Economics | Practicum in Health Science <i>(DC)</i> | Extracurricular Activities <ul style="list-style-type: none"> • HOSA • Skills USA |



Career and Technical Education: Health Science

| Course Name | Credits | Grade Levels | Prerequisites |
|--|---------|--------------|--|
| Anatomy and Physiology | 1 | 11-12 | Biology and Chemistry |
| Principles of Health Science (Health Science Technology I) | 1 | 9-11 | None |
| Health Science (Health Science Technology II) | 2 | 11-12 | Principles of Health Science (HST I), Chemistry, Teacher Approval, Own Transportation, Application |
| Practicum in Health Science (Health Science Technology III) | 2 | 12 | Health Science, Teacher Approval; Own Transportation (HST II) |
| Medical Terminology | .5 | 9-12 | None |
| Medical Microbiology | .5 | 11-12 | Biology and Chemistry |
| Pathophysiology | .5 | 11-12 | Biology and Chemistry |

Anatomy and Physiology

PEIMS: 13020600

Grade Placement: 11-12

Prerequisite: Biology and Chemistry

Credit: 1

A comprehensive study of the structures and functions of the human body. This course that will include dissections and the study of the organization of organs and organ systems. Students will utilize critical thinking skills and scientific problem solving as they conduct lab investigations. To receive science credit, students must meet a 40% laboratory and field work requirement.

Principles of Health Science (Health Science Technology I)

PEIMS: 13020200

Grade Placement: 9-12

Prerequisite: None

Credit: 1

This course is 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 the health care field. Full year completion satisfies the state required health credit. The CPR card will cost the student approximately \$4.00.

Health Science

(Health Science Technology II)

PEIMS: 13020400

Grade Placement: 11-12

Prerequisite: Health Science Technology I or Principles of Health Science

Credit: 2

(Certified Pre-LVN or Pharmacy Tech or Phlebotomy or Emergency Medical Tech)

This course is designed to continue the student's exploration in the health science field through hands on application to include problem solving, mathematical conversions and medical terminology communication. **Students will have a background check before doing clinicals. Students will be required to show proof of a physical within the last year. Student shot records must be up to date including TB Booster shot. Students will pay the fee to take the state examination test.**

Practicum in Health Science (Health Science Technology III)

PEIMS: 13020500

Grade Placement: 12

Prerequisite: Health Science Technology II, Teacher Approval; Own Transportation

Credit: 2

(Certified Pre-LVN or Pharmacy Tech or Phlebotomy or Emergency Medical Tech)

An occupationally specific course designed to provide knowledge and skills for certification or licensure in an allied health career. Students develop advanced clinical

skills necessary for employment in the health care industry or continued education in health careers. The course will be taught as an occupationally specific course with clinical training. **Students will have a background check before doing clinicals. Students will be required to show proof of a physical within the last year. Student shot records must be up to date including TB Booster shot. Students will pay the fee to take the state examination test.**

Medical Terminology

PEIMS: 13020300

Grade Placement: 9-12

Prerequisite: None

Credit: .5

Medical Terminology is 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.

Medical Microbiology

PEIMS: 13020700

Grade Placement: 11-12

Prerequisite: Biology *and* Chemistry

Credit: .5

This science elective course is designed to explore medical based microbiology. The student will discover relationships between microbes and health maintenance as well as the role of microbes in infectious diseases. To receive science credit, students must meet a 40% laboratory and field work requirement.

*** Students may fulfill their 4th science requirement by taking both Medical Microbiology and Pathophysiology.**

Pathophysiology

PEIMS: 13020800

Grade Placement: 11-12

Prerequisite: Biology *and* Chemistry

Credit: .5

In this course students conduct laboratory investigations and fieldwork, use scientific methods during investigations, and make informed decisions using critical thinking and problem solving. Students study disease processes and how humans are affected. Emphasis is placed on prevention and treatment of diseases. Students will differentiate between normal and abnormal physiology. The course must include at least 40% laboratory investigation and field work using appropriate scientific inquiry.

*** Students may fulfill their 4th science requirement by taking both Medical Microbiology and Pathophysiology.**