

# Health Science

## Biomedical Science 1 - Principles

Prerequisite: None  
Grades: 9-12  
Credit: 1 unit  
Offered: Indian Land

You'll explore the concepts of human medicine and be introduced to research processes and bio-informatics.

Hands-on projects will let you investigate human body systems and various health conditions, including heart disease, diabetes, sickle-cell disease, hypercholesterolemia and infectious diseases.

## Biomedical Science 2 - Human Body Systems

Prerequisite: Biomedical Science 1  
Grades: 10-12  
Credit: 1 unit  
Offered: Indian Land

You'll study the body's processes, structures and interactions to learn how they work together to maintain homeostasis and good health.

Using real-world cases, you'll take the role of a biomedical professional and work with others to solve medical mysteries.

Hands-on projects will include designing experiments, investigating structures and functions of body systems, and using data acquisition software to monitor body functions, such as muscle movement, reflex and voluntary activities and respiratory operation.

You'll be ready to study in a variety of medical fields.

## Biomedical Science 3 - Medical Interventions

Prerequisite: Biomedical Science 2  
Grades: 10-12  
Credit: 1 unit  
Offered: Indian Land

You'll use student projects to investigate medical interventions that extend and improve quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation and supportive care.

## Biomedical Science 4

**- Biomedical Innovation**  
Prerequisite: Biomedical Science 3  
Grades: 10-12  
Credit: 1 unit  
Offered: Indian Land

You'll design innovative solutions for the 21st century's health challenges as you tackle topics like clinical medicine, physiology, biomedical engineering and public health.

## Health Science 1

Prerequisite: None  
Grades: 10-11  
Credit: 1 unit  
Offered: Buford, Lancaster

You'll receive basic information and broad topics to help you choose your career path and prepare for future classes in health care.

## Health Science 2

Pre-requisites: Health Science 1 or Sports Medicine and with a 75% or higher  
Grades: 11-12  
Credit: 1 unit  
Offered: Buford, Lancaster

In this intermediate course, you'll build on what you learned in Health Science 1 as you dig deeper into the health science curriculum and skill set.

## Health Science 3 - Human Structure & Function

Pre-requisites: Health Science 2 and First Aid and CPR certification and with a 75% or higher  
Grades: 11-12  
Credit: 1 unit  
Offered: Buford, Lancaster

You'll get acquainted with the human body's basic anatomy and physiology.

You'll use hands-on activities to learn how the human body is structured and the 12 body systems' function.

## Health Science Clinical Study

Prerequisites: Health Science 2 & 3 and First Aid and CPR certification (Medical Terminology) and with a 75% or higher  
Grade: 12  
Credit: 1 unit  
Offered: Buford, Lancaster

You'll make connections from the classroom to the healthcare industry through work-based learning experiences and activities.

You'll learn to perform nursing-related services for patients and residents in hospitals or long-term care facilities using what you've learned in previous required courses.

## Health Science Work-based Credit (see Co-op for details)

Prerequisite: Senior enrolled in final level of an occupational program  
Grade: 12  
Credit: 1 unit  
Offered: Buford, Indian Land, Lancaster

You'll put your Health Science courses in action as you get on-the-job training.

(See your school counselor and Page 15 sidebar for more details.)

## Medical Terminology

Prerequisites: Biology (at Lancaster) & Health Science 1 and with a 75% or higher  
Grades: 11-12  
Credit: 1 unit  
Offered: Buford, Lancaster

You'll learn medical terms including roots, prefixes and suffixes and focus on spelling, definition and pronunciation.

You'll also cover the parts of the body, the body's structure, movement, circulation, respiratory system, eyes and ears. This self-paced course meets in a computer lab using computer-based technologies.

## Sports Medicine 1

Prerequisite: Biology 1  
Grades: 10-12  
Credit: 1 unit  
Offered: Andrew Jackson, Buford, Lancaster

You'll study athletic injuries, rehabilitation techniques, basic first aid and history as they relate to the athletic training profession.

You'll begin learning to treat athletic injuries and basic operation of therapeutic modalities for an injured athlete.

Your work will include instruction, outside readings, article reviews and practical experience in managing athletic injuries.

## Sports Medicine 2

Prerequisites: Sports Medicine 1 with a 75% or higher  
Grades: 10-12  
Credit: 1 unit  
Offered: Lancaster

You'll focus on how to recognize and care for common injuries and illnesses of a physically active population.

You'll learn about specific conditions and injuries often faced during athletic activities.

You'll also examine the concepts of therapeutic modalities and exercise in the care of injuries. You'll focus on gaining a deeper understanding of the body systems and common pathologies.

Your study will also include administrative aspects of sports medicine programs.

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You'll learn to apply legal and ethical principles through real world scenarios in various sports medicine settings.

You'll explore sports medicine careers the athletic trainer encounters as he/she takes injured athletes through the pathway of recovery.

### Sports Medicine 3

Prerequisites: Sports Medicine 1 & 2 with a 75% or higher

Grade: 12

Credit: 1 unit

Offered: Lancaster

You'll focus on building your ability to apply concepts you learned in previous sports medicine courses to real-world situations and scenarios.

You'll work to understand current research and evidence-based practices affecting sports medicine

professionals and to develop policies, procedures and guidelines based on these practices.

You'll also explore detailed treatment and rehabilitation procedures for common athletic injuries.

You'll be expected to get real world experience by taking part in clinical situations—either through your school's athletic department or in an outside clinical setting.