WHY APPLY?

The PLTW Biomedical Sciences (BMS) Program is a sequence of courses which follows a proven hands-on, real-world problem-solving approach to learning.

Students will explore the concepts of human medicine and will be introduced to topics such as physiology, genetics, microbiology and public health. Through activities, like dissecting a heart, students will examine the processes, structures and interactions of the human body – often playing the role of biomedical professionals. They will also explore the prevention, diagnosis and treatment of disease, working collaboratively to investigate and design innovative solutions to the health challenges of the 21st century such as fighting cancer with nanotechnology.

Throughout PLTW BMS, students will acquire strong teamwork and communication practices, and develop organizational, critical-thinking, and problem-solving skills. Along the way students investigate a variety of careers in biomedical sciences. Successful completion of the program can result in transcripted **college credit** from Stevenson University.

WANT MORE INFORMATION?

Visit the PLTW site: **www.pltw.org**

For questions regarding admission in the GHS PLTW BMS Program, contact:

Jennifer_J_Strelser@mcpsmd.org

-OR-

Christopher_W_Edmiston@mcpsmd.org

APPLICATIONS ARE AVAILABLE TO STUDENTS IN EARLY DECEMBER ARE DUE TO GHS BY EARLY JANUARY. OFFICIAL ACCEPTANCE LETTERS WILL BE MAILED HOME BY MARCH. THE INFORMATION MEETING AT GHS WILL BE IN THE SPRING PRIOR TO ATTENDING HIGH SCHOOL.

GAITHERSBURG HIGH SCHOOL PLTW BIOMEDICAL SCIENCE PROGRAM
101 Education Blvd.
Gaithersburg, MD 20877
(301) 284-4500

Are you interested in Science?

Are you academically motivated?

Do you like problem solving?

APPLY NOW

TO THE GAITHERSBURG HIGH SCHOOL PLTW BIOMEDICAL SCIENCE PROGRAM

PROJECT LEAD THE WAY
PLTW
Preparing students for the global economy

Gaithersburg High School offers a **4-year Biomedical Science Program** in conjunction with Project Lead the Way and Stevenson University.

WHAT IS PLTW BMS?

Project Lead The Way
PLTW
Biomedical Sciences

The Program consists of the following 4 courses:

1. Principles of Biomedical Science
2. Human Body Systems
3. Medical Interventions
4. Biomedical Innovations

The course sequence is rigorous and challenging and will require dedication and a commitment to scientific study inside and outside of the classroom.

FOR MORE INFORMATION ON THE GHS PROGRAM, THE LAB EXPERIENCE, AND THE COLLEGE OPPORTUNITIES VISIT:

WWW.PLTWGHS.COM

** The application and recommendation form are also available on this site**

9th grade – Principles of Biomedical Science

Students investigate various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. They determine the factors that led to the death of a fictional person, and investigate lifestyle choices and medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, medicine, and research processes. This course provides an overview of all the courses in the Biomedical Sciences program and lay the scientific **foundation for subsequent *courses*.**

10th grade – Human Body Systems

Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real world cases and often play the roles of biomedical professionals to solve medical mysteries.

11th grade – Medical Interventions

Students investigate a variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the life of a fictitious family. Students explore how to prevent and fight infection; screen and evaluate the code in human DNA; prevent, diagnose and treat cancer; and prevail when the organs of the body begin to fail. Through these scenarios, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

12th grade – Biomedical Innovations

Students design innovative solutions for the health challenges of the 21st century. They work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. They have the opportunity to work on an independent project with a mentor or advisor from a university, hospital, research institution, or the biomedical industry. Throughout the course, students are expected to present their work to an audience of science professionals.