

Project Lead The Way (PLTW)

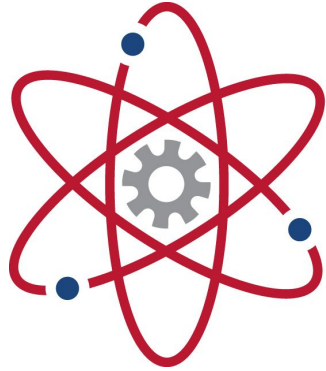
at Gaithersburg High School

Class of 2024

Decision Date - Friday, February 21st



PROJECT LEAD THE WAY (PLTW)



PROJECT LEAD THE WAY

PLTW

GAITHERSBURG HIGH SCHOOL



A Unique Learning Experience!



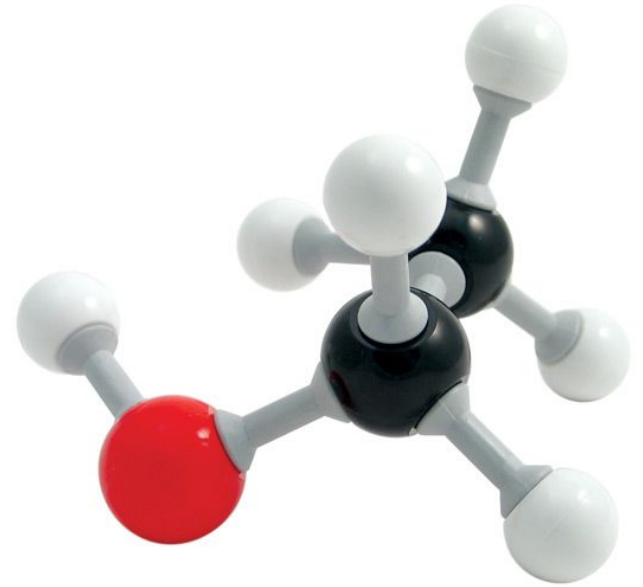
Sequence of Courses

- Principles of the Biomedical Sciences (PBS)
- Human Body Systems (HBS)
- Medical Interventions (MI)
- Biomedical Innovations (BI)

Principles of Biomedical Sciences (PBS)

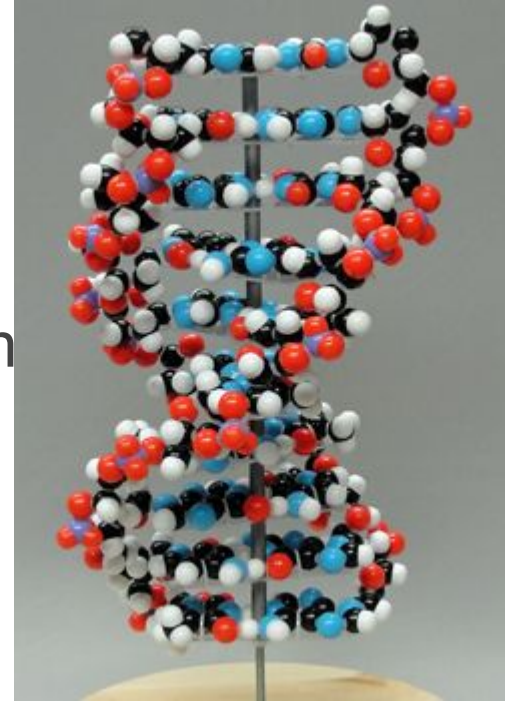
Student work involves the study of:

- Medical Investigation
- Clinical Care
- Outbreaks and Emergencies
- Innovation



PBS - Key Topics

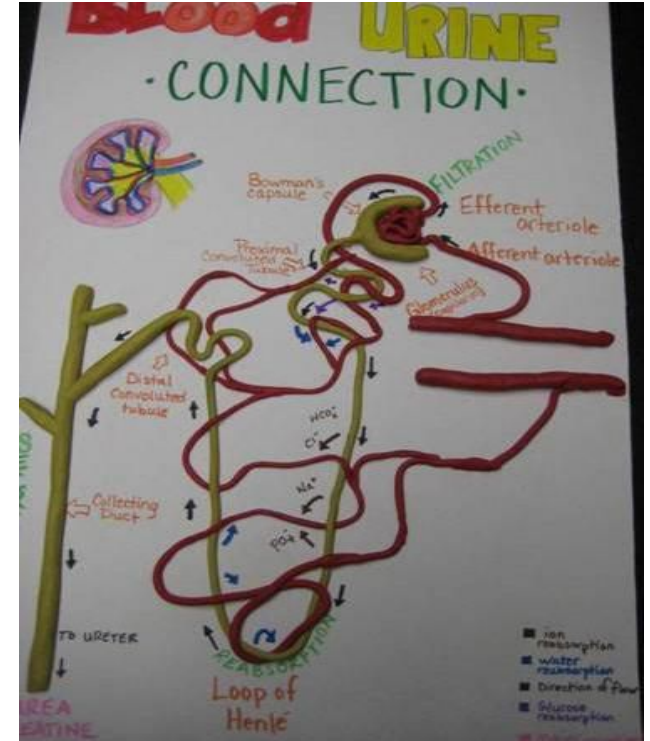
- Literary Research Skills
- Experimental Design and Investigation
- Communication Skills
- Biomolecules and Inheritance
- Bioinformatics
- Body Systems
- Causes of Infectious Diseases
- Career Exploration



Human Body Systems (HBS)

Students study basic human physiology, especially in relationship to human health.

A central theme is how the body systems work together to maintain internal balance and good health.



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HBS - Key Topics

- Students use data acquisition software to monitor body functions.
- Students will study anatomy with Clay® Manikens™ to study body structure.



Medical Interventions (MI)

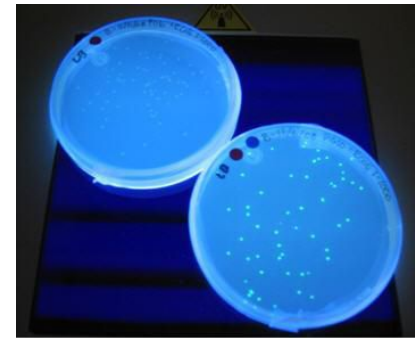
Student projects investigate interventions related to:

- diagnostics
- immunology
- surgery
- genetics
- pharmacology
- medical devices
- lifestyle choices



MI - Key Topics

- Molecular biology and genetic engineering
- Design process for pharmaceuticals and medical devices
- Medical imaging, including:
 - x-rays
 - CT and MRI scans
- Disease detection and prevention
- Rehabilitation after disease or injury
- Medical interventions of the future



Biomedical Innovations - Key Topics

Design innovative solutions to 21st century health challenges

This capstone course will allow you to apply what you have learned

- Progressively challenging problems
- Flexible design
- Opportunity to work with a mentor during an internship

Opportunities to demonstrate your abilities to local healthcare, business and research communities

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Benefits for the PLTW Program

- PLTW's programs emphasize critical thinking, creativity, innovation and **real-world** problem solving. The **hands-on** learning engages students on multiple levels, exposes them to areas of study that they may not otherwise pursue, and provides them with a foundation and proven path to post-secondary training and career success in STEM-related fields.
- PLTW alumni are 5 to 10 times more likely to pursue engineering and technology classes than other first-year college students.
- On average, PLTW alumni have a **GPA 0.21** points higher than the average GPA of all first-year college students.



Benefits for the PLTW Program (cont.)

- 79 percent of PLTW graduates completed four years of college-preparatory mathematics and 63 percent completed four years of college-preparatory science.
- 97 percent of PLTW alumni said they planned to pursue a four-year degree as opposed to 67 percent of non-PLTW students
- Students who successfully complete the program can get transcribed college credit from Stevenson University



Respond with Decision to this Website

<http://bit.ly/MCPSHSresponse20>



4 Year Mock Schedule

9 th	10 th	11 th	12 th
Hon. English 9	Hon. English 10	AP Lang. & Comp. or Honors English 11	AP Literature or Honors English 12
Math: Algebra 1, Geometry, Algebra 2 or Pre-Calculus	Math: Algebra 1, Geometry, Algebra 2, Pre-Calculus or AP Calculus.	Math: Algebra 1, Geometry, Algebra 2, Pre-Calculus or AP Calculus.	Math: Algebra 1, Geometry, Algebra 2, Pre-Calculus or AP Calculus.
Hon. US History or AP NSL	AP Us History or Honors NSL	Hon. or AP World History	Health
Hon. Biology	Hon. Chemistry	Honors Physics or an AP class	AP Biology (sp), AP Chemistry and/or AP Physics
Principles of Biomedical Science	Human Body	Medical Interventions	Biomedical Innovations
World Language	World Language	World Language	Elective
PE, Technology or Art	PE, Technology or Art	PE Technology or Art	Elective

Earn College Credit

Stevenson University – earn 4.0 credits for:

General Biology I: Cell Biology and Genetics (3.0 credits)

General Biology I Lab: Cell Biology and Genetics(1.0 credit)

BIO 222: Human Anatomy (4 credits)

Transcripted Credits: The credits can be transferred from Stevenson University to any college or university which accept credits earned through Project Lead The Way Biomedical Science Program.

How to earn the credits:

- 1) Students complete and submit an **“Intent to Apply Form”** to Stevenson University at any time during the program.
- 2) Students must:
 - **Pass all 4 courses** of the Program with a **3.0 cumulative GPA**
 - Only **one “C”** grade permitted for any the courses.
 - **Score a 420 or higher** on the end of the year exam for the **first 3 courses offered** (PBS, HBS, MI)in the program.
- 3) Students complete and submit **“Special Student Application”** at the end of the program to Stevenson University.

Bus Routes

Route: 2859 - GAITHERSBURG HS PM

<u>Seq</u>	<u>Stop Description</u>
2:37 P.M.	GAITHERSBURG HS 101 EDUCATION BLV, GAITHERSBURG, MD 20877 551 - SPED
2:37 P.M.	GAITHERSBURG HS 101 EDUCATION BLV, GAITHERSBURG, MD 20877 551 - MAGNET
1	12201 JUNIPER BLOSSOM PL 20871
2	12319 JUNIPER BLOSSOM PL 20871
3	22874 GLACIER LILY DR 20871
4	HALLIE WELLS MS
5	SKYLARK RD AND SYCAMORE FARM DR
6	9 WEBSTER HILL CT 20871
7	25029 FREDERICK RD 20871
8	23421 SLIDELL RD 20841

Route: 4870 - GAITHERSBURG HS PM

<u>Seq</u>	<u>Stop Description</u>
2:37 P.M.	GAITHERSBURG HS 101 EDUCATION BLV, GAITHERSBURG, MD 20877 551 - SPED
2:37 P.M.	GAITHERSBURG HS 101 EDUCATION BLV, GAITHERSBURG, MD 20877 551 - MAGNET
1	213 OAKTON RD 20877
2	103 BROWN ST 20880
3	WASHINGTON GROVE LN AND TOWNE CREST DR
4	17653 AMITY DR 20877
5	MINERAL SPRINGS DR AND SPICEBERRY PL
6	EMORY GROVE CENTER
7	7702 MINERAL SPRINGS DR 20877
8	29 IVY OAK CT 20877



Questions/Comments?

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www.PLTWGHS.com

